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Volume 5, Part B

Earth–Venus Trajectories, 1970

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C. R. Gates, Chief
Systems Analysis Section

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CONTENTS

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

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

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

IV. Constants xxviii

References xxix

Earth—Venus Trajectories, 1970 xxx

TABLES

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

FIGURES

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

FOREWORD

This volume is one of a set of five giving key characteristics of Earth-to-Venus trajectories during the period 1964–1970. This period is divided into five 120-day launch intervals spaced about 19.2 months apart. During each interval, trajectory characteristics are given for flight times of from 70 to 220 days in 2-day steps. Thus each volume contains 9,120 trajectories.

The applicability of these books may be extended by noting the 8-year cyclic recurrence of Earth–Venus trajectories. Thus trajectories in 1972 are very nearly identical to 1964 trajectories; 1973 trajectories are very nearly identical to 1965 trajectories, etc. Simply by updating the trajectories by 8 years, the results may be reapplied.

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

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

Companion volumes (Ref. 1) give the characteristics of Earth–Mars trajectories during the period 1964–1977.

I. INTRODUCTION

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

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

A. Heliocentric Conic Computation

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

B. Planetocentric Conic Computation

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

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

C. Differential Corrections

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

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

D. Mid-Course Guidance

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

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

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

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

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

The approach guidance phase is not conveniently treated with this kind of analysis, and is not discussed further. Here, it can be assumed that the approach maneuvers are always negligibly small.

E. Orbit Determination

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

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

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

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

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

F. Accuracy of Computations

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

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

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

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

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

II. ANALYTICAL MODEL FOR INTERPLANETARY TRAJECTORIES

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

A. Heliocentric Motion

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

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

[2] Hyperbolic heliocentric motion is not considered herein.

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

1. Determination of Planar Orientation

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

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

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

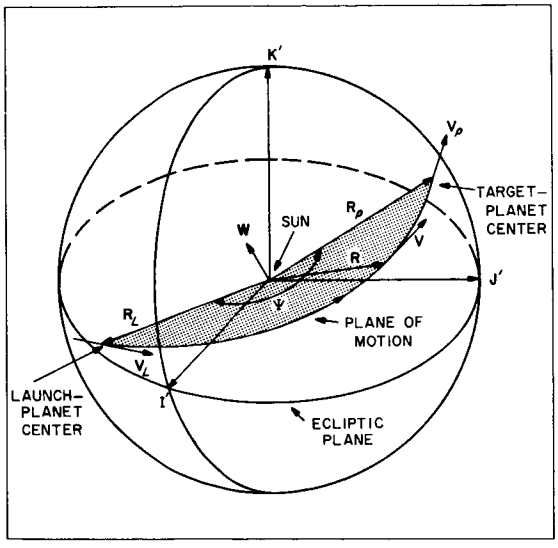

Fig. 1. Heliocentric transfer geometry

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

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

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

2. In-Plane Relations

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

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

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

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

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

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

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

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

and the path angle Γ is found from

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

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

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

3. Lambert's Theorem

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

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

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

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

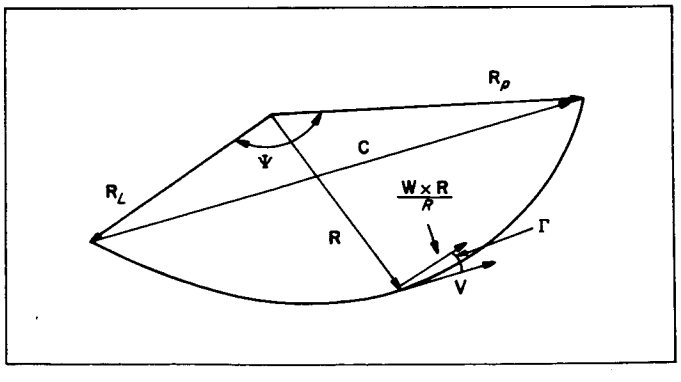

Fig. 2. In-plane transfer geometry

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

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

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

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

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

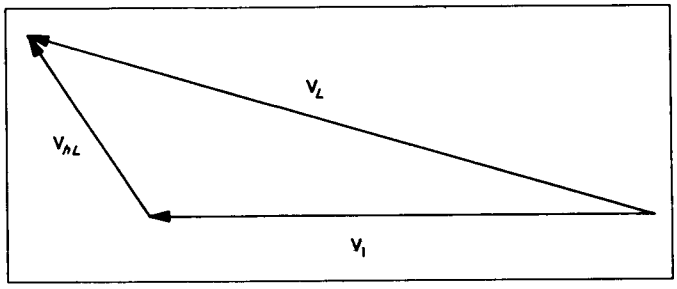

Fig. 3. Determination of the hyperbolic-excess velocity vector $\mathbf{V}_{hL}$

B. Launch Planet Escape Hyperbola

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

1. Assumptions

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

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

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

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

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

2. Size and Shape of the Escape Hyperbola

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

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

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

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

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

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

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

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

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

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

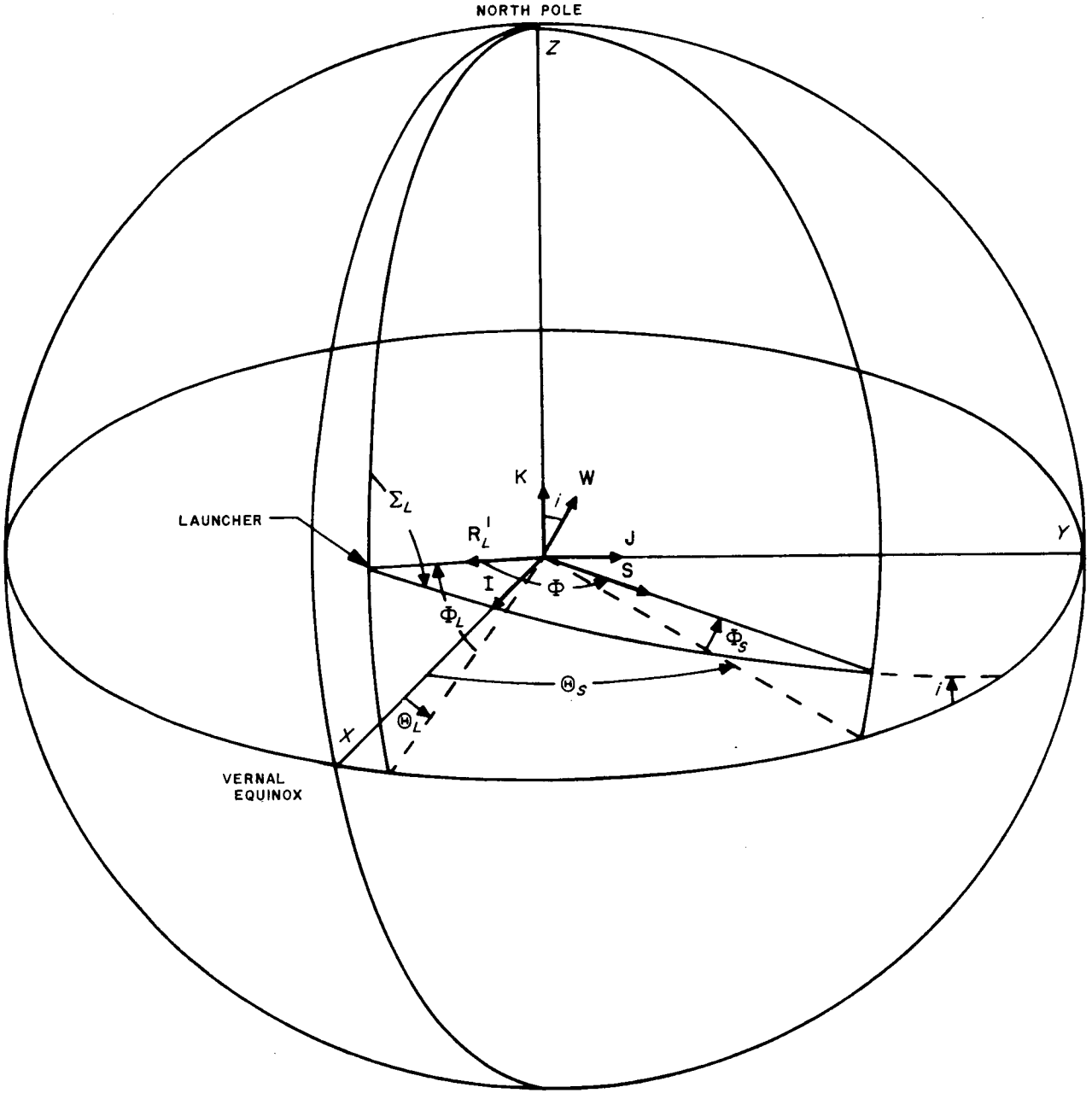

Fig. 4. Vehicle flight plane

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

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

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

C. Differential Corrections

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

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

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

where $\mathbf{K}'$ is a unit normal vector to the ecliptic plane. The remaining axis is then given by a unit vector **R**, defined by

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

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

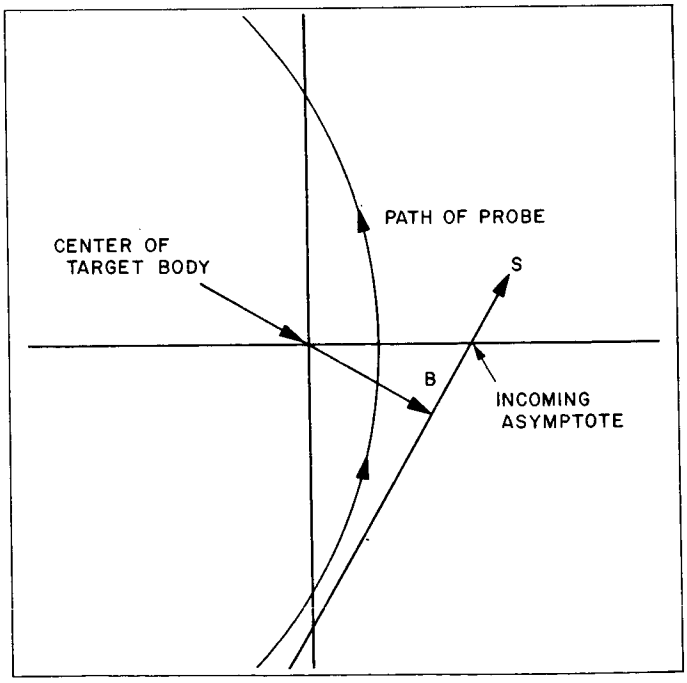

Fig. 5. Impact parameter B

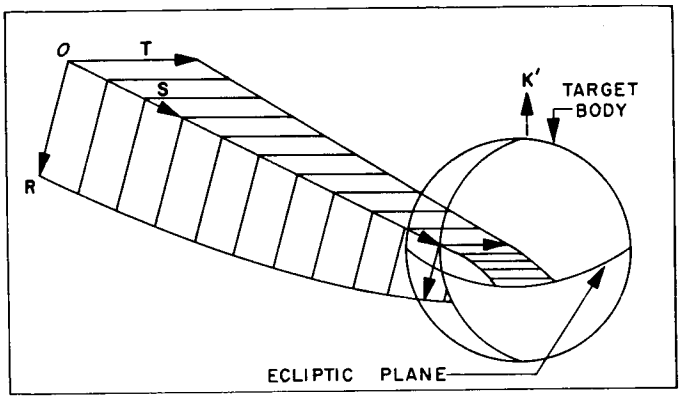

Fig. 6. The R, S, T target coordinate system

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

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

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

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

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

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

where

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

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

The semimajor axis a' is obtained from

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

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

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

The semilatus rectum p' and eccentricity e' are

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

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

The eccentric anomaly at launch E'_L is

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

The mean anomaly at launch M'_L is obtained from

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

The mean orbital rate n' is

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

The mean anomaly at the target M'_p is

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

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

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

if

$$\cos E_p \geqq 0$$

or

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

if

$$\cos E_p < 0$$

where

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

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

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

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

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

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

The heliocentric central angle Ψ' is

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

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

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

The heliocentric position vector at the target is

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

where

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

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

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

The heliocentric velocity at the target is

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

The hyperbolic-excess velocity at the target is

$$\mathbf{V}'_{hp} = \mathbf{V}'_p - \mathbf{V}_2 \tag{38}$$

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

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

The impact parameter **B** is

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

The flight time error is

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

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

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

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

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

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

from whence

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

and

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

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

The effect of solar radiation pressure acting on the probe may also be evaluated as follows: In Eq. (19) let $\Delta\mathbf{V}_{hL} = 0$, but in Eq. (20), (22), (24), (26), (36), vary GM_S by adding an increment ΔGM_S. This procedure gives rise to a varied trajectory from which the impact parameter **B** and flight time error ΔT_F may be obtained. The partials $\partial B/\partial GM_S$ and $\partial T_F/\partial GM_S$ may then be calculated. Since the acceleration caused by solar radiation pressure acts opposite to the gravitational attraction of the Sun, radiation pressure has the effect of decreasing the Sun's gravitational attraction, or decreasing GM_S. A decrease, $\Delta GM_S = -2.4\times10^6$ km³/sec² corresponds to the solar radiation pressure acting on a 300-kg spacecraft having a perfectly reflecting area of 3.6 square meters. Thus the miss, always being a positive number, is obtained by $\Delta B_{sp} = 2.4\times10^6\,\partial B/\partial GM_S$, and the corresponding flight time error is $\Delta T_{F_{sp}} = -2.4\times10^6\,\partial T_F/\partial GM_S$, which is sign sensitive.

D. Mid-Course Execution Accuracy

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

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

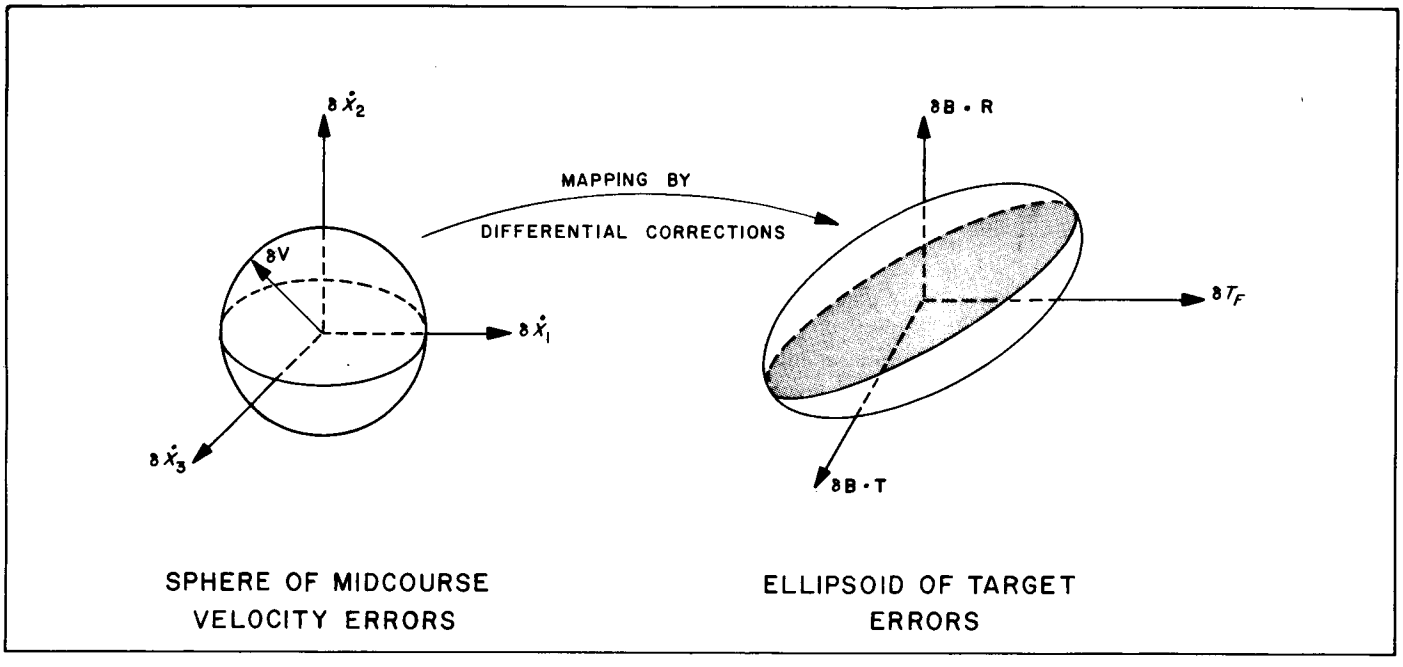

Fig. 7. The mapping of mid-course execution error

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

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

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

Then a new matrix F can be formed,

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

where

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

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

$$\delta\dot{X}_1^2 + \delta\dot{X}_2^2 + \delta\dot{X}_3^2 = \sigma_v^2 \tag{49}$$

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

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

where

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

and

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

The elements of the Λ matrix are:

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

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

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

Then the Λ matrix becomes

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

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

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

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

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

where the matrix L is given by

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

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

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

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

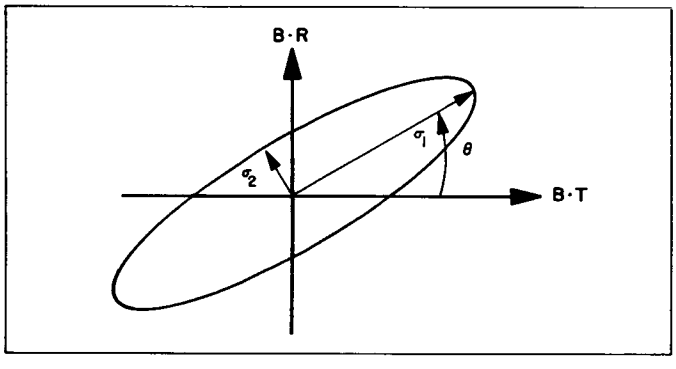

Fig. 8. Projection of three-dimensional error ellipsoid on the T-R plane

E. Orbit Determination Accuracy

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

1. Method of Describing Orbit Determination Accuracy

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

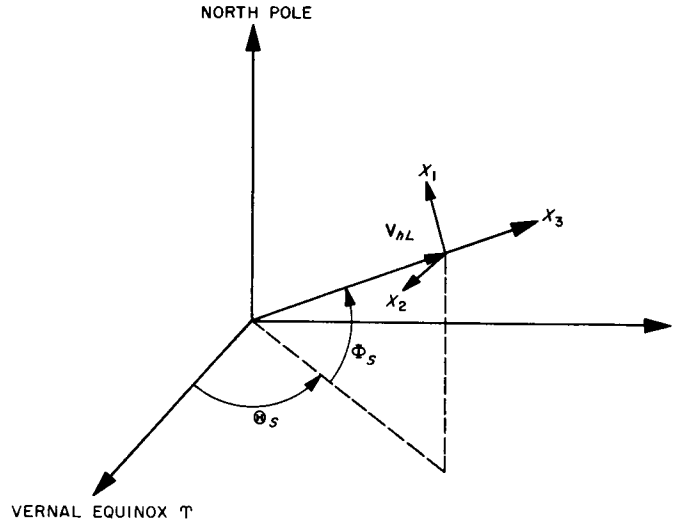

Fig. 9. Orientation of the X_i Cartesian coordinate system to describe uncertainties in the hyperbolic-excess velocity vector $\mathbf{V}_{hL}$

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

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

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

Note that

$$\Lambda_{\dot{X}} = \begin{pmatrix} \overline{\delta\dot{X}_1\delta\dot{X}_1} & \overline{\delta\dot{X}_1\delta\dot{X}_2} & \overline{\delta\dot{X}_1\delta\dot{X}_3} \\ \overline{\delta\dot{X}_2\delta\dot{X}_1} & \overline{\delta\dot{X}_2\delta\dot{X}_2} & \overline{\delta\dot{X}_2\delta\dot{X}_3} \\ \overline{\delta\dot{X}_3\delta\dot{X}_1} & \overline{\delta\dot{X}_3\delta\dot{X}_2} & \overline{\delta\dot{X}_3\delta\dot{X}_3} \end{pmatrix} \tag{60}$$

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

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

2. Accuracy of Near-Earth Tracking

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

Table 1. Trajectory parameters influencing tracking accuracy

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

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

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

The final source of tracking error is uncertainty in physical constants. The influence of GM–Earth errors is somewhat smaller than the above-mentioned errors and should be reduced to negligible contribution in the next two years. Sections IIC and IIIC describe how the uncertainty in the astronomical unit affects the target error; this error

Table 2. Tracking station parameters influencing tracking accuracy

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

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

The tracking accuracies reported here are representative of those available from tracking with the DSIF stations in South Africa, Australia, and the United States. Launch azimuths between 90 and 114 deg east of north were considered. Data accuracies of 0.02 m/sec in $\dot{R}$ and 0.05 deg in angle sampled every 10 minutes were assumed; no range measurements were assumed. Station location errors were assumed to be uncorrelated with standard deviations of 0.001 deg in latitude, 0.0005 deg in longitude, and 30 meters in radius. Each station was allowed 10 minutes to acquire the spacecraft transponder, and tracking was simulated in the first 24 hours so that at least one pass was available to each station. The transfer of transmitting assignment from one station to another (simultaneous transmission was not allowed) followed a pattern which has been found to be near-optimum.

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

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

3. Calculation of Target Errors

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

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

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

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

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

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

By postmultiplying K by

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

the F matrix is obtained.

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

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

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

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

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

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

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

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

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

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

III. EXPLANATION OF TRAJECTORY TABLES

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

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

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

A. Heliocentric Conic Group

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

HELIOCENTRIC CONIC DISTANCE

RL LAL LOL VL GAL AZL HCA SMA ECC INC V1

RP LAP LOP VP GAP AZP TAL TAP RCA APO V2

RC GL GP ZAL ZAP ETS ZAE ETE ZAC ETC CLP

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

Line 1

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Line 2

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

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

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

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

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

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

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

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

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

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

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

Line 3

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

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

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

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

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

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

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

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

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

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

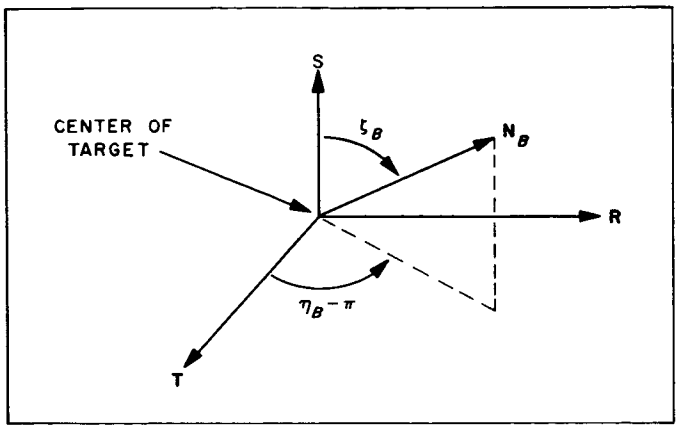

Fig. 10. Generalized geometry for aiming point angles

In this diagram, the reference coordinate system is the same target **R**, **S**, **T** system defined in Section IIC. A unit vector $\mathbf{N}_B$ (subscript B for body) is directed from the target center to another celestial body. The angular quantity ζ_B is the angle subtended at the target center between the incoming asymptote **S** and the target–celestial body line $\mathbf{N}_B$. Thus

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

since

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

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

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

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

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

ZAP, ζ_S (or ζ_p) — the Sun–target–probe angle. Actually, this angle should be symbolized ZAS, but, for historical reasons, is not. This angle is useful in that it indicates the direction of the probe's approach to the target. If $\zeta_S < \pi/2$, the probe approaches from the target planet's dark side. If $\zeta_S > \pi/2$, it approaches from the light side.

ETS, η_S — defined as above.

ZAE, ζ_E — the Earth–target–probe angle. This angle is useful in locating the Earth as the probe approaches the target.

ETE, η_E — defined as above.

ZAC, ζ_C — the Canopus–target–probe angle.

ETC, η_C — defined as above.

CLP, σ_p — the angle between the projection of the incoming asymptote **S** on the target planet's orbital plane and the target–Sun line at arrival time, defined by

$$\cos \sigma_p = -\mathbf{R}_p^1 \cdot \mathbf{S}_{pr} \qquad -\pi \leq \sigma_p \leq \pi$$

$$\sin \sigma_p = -\mathbf{S}_{pr} \cdot (\mathbf{W}_2 \times \mathbf{R}_p^1)$$

where $\mathbf{S}_{pr}$ is the projection of **S** on the target's orbital plane given by

$$\mathbf{S}_{pr} = \frac{\mathbf{S} - \mathbf{W}_2 (\mathbf{S} \cdot \mathbf{W}_2)}{|\mathbf{S} - \mathbf{W}_2 (\mathbf{S} \cdot \mathbf{W}_2)|}$$

Recall that $\mathbf{W}_2$ is the unit normal vector to the target's orbital plane. This angle is illustrated in Fig. 11.

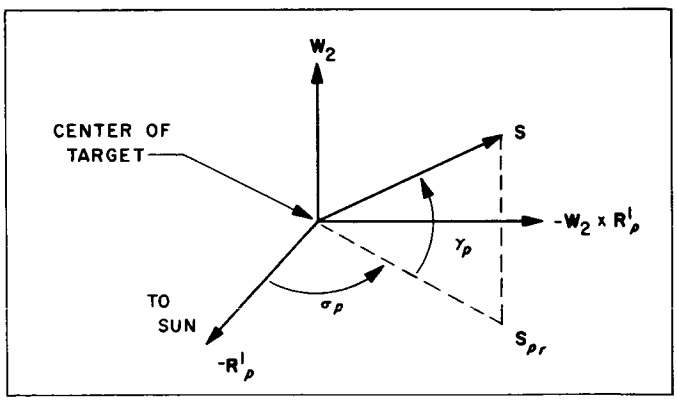

Fig. 11. Definition of σ_p and γ_p

B. Planetocentric Conic Group

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

A special case may arise when the declination of the outgoing asymptote of the escape hyperbola is greater than the launch site latitude (Cape Canaveral). In this case, owing to geometrical restrictions, it may not be possible to fire in a symmetrical band of azimuths about due east, as explained in Ref. 6. This band of restricted azimuths may eliminate part or all of the selected launch azimuths, 90, 100, and 110 deg. When this happens, only those trajectories with permissible azimuths are printed, in addition to the limiting azimuths, or the most northerly and southerly azimuths, that are possible.

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

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

t_1 the time from launch to parking-orbit injection.

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

t_2 the time of final burn.

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

v_1 the true anomaly in the hyperbolic orbit at injection.

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

ϕ_L the longitude of the launch site.

θ_L the latitude of the launch site.

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

$\Phi_1 =$ 17 deg

$t_1 =$ 500 sec

$\Phi_2 =$ 8 deg

$t_2 =$ 100 sec

$k_{\dot{\Phi}} =$ 14.689 sec/deg

$v_1 =$ 3.7 deg

$R_p =$ 6560 km

$\phi_L =$ 28.317 deg

$\theta_L =$ 279.457 deg

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

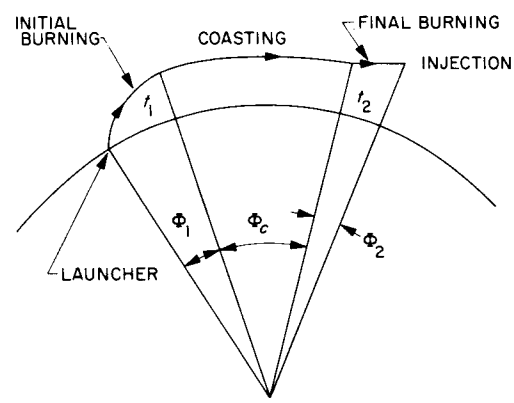

Fig. 12. Ascent trajectory profile

The print array for the PLANETOCENTRIC CONIC group is:

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

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

Line 1

C3, C_3	the *vis viva* integral (Moulton), or twice the total energy per unit mass, expressed in km²/sec² and defined by $C_3 = V^2_{hL}$.
VHL, V_{hL}	the launch hyperbolic-excess speed.
DLA, Φ_S	the declination of the outgoing asymptote of the escape hyperbola defined in Eq. (18).
RAL, Θ_S	the right ascension of the outgoing asymptote of the escape hyperbola defined in Eq. (18).
RAD, $R = \|\mathbf{R}\|$	the launch-planet-centered injection radius.
VEL, $V = \|\mathbf{V}\|$	the inertial injection speed.
PTH, Γ	the injection path angle defined by $\sin\Gamma = \frac{\mathbf{V}\cdot\mathbf{R}}{VR} \qquad -\frac{\pi}{2} \leq \Gamma \leq \frac{\pi}{2}$
VHP, V_{hp}	the hyperbolic-excess speed at the target.
DPA, Φ_{Sp}	the declination of the incoming asymptote at the target. The reference coordinate system here is vernal equinox, Earth equatorial, mean of *launch* date
RAP, Θ_{Sp}	the right ascension of the incoming asymptote at the target. Same reference coordinates as for Φ_{Sp}.
ECC, e	the eccentricity of the escape hyperbola.

Line 2

LNCH AZMTH, Σ_L	the launch azimuth measured in a plane tangent to the surface of the launch planet at the launch site, positive east of true north.
LNCH TIME, T_L	the launch time. For the range of launch azimuths given herein, launch time may cross 0 hours, or midnight. In this case, the launch date may be advanced to the following day for times after midnight, or it may be retarded to the previous day for times before midnight, whichever the reader wishes.
L-I TIME, t_{LI}	the launch-to-injection time.
INJ LAT, ϕ	the injection latitude (or declination Φ).
INJ LONG, θ	the injection longitude, measured positive east of Greenwich, $0 \leq \theta \leq 2\pi$.
INJ RT ASC, Θ	the injection right ascension.
INJ AZMTH, Σ	the injection azimuth, or angle between the projection of the velocity vector V, on the local horizontal plane and the projection of true north on this plane, measured positive east of true north.
INJ TIME, T_I	the injection time. The same comment applies to this quantity regarding launch date as applied to the launch time. However, both times must be consistent. For example, if launch time is on the previous day, injection time may fall on the launch date shown, or it may be on the following day.
PO CST TIM, t_c	the coast time in the parking orbit, in sec.
INJ 2 LAT, ϕ_2	the latitude of the start of final burn out of the parking orbit.
INJ 2 LONG, θ_2	the longitude of the start of final burn out of the parking orbit, $0 \leq \theta_2 \leq 2\pi$.

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

C. Differential Corrections Group

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

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

DIFFERENTIAL CORRECTIONS

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

The symbols are defined as follows:

Line 1

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

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

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

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

Line 2

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

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

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

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

Line 3

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

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

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

BSP, ΔB_{sp} the target miss (in km) caused by solar radiation pressure acting on a 300-kg spacecraft having an effective perfectly reflecting area of 3.6 square meters.

Line 4

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

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

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

FSP, $\Delta T_{F_{sp}}$ the flight time error (in sec) caused by solar radiation pressure acting on a 300-kg spacecraft having an effective perfectly reflecting area of 3.6 square meters.

D. Mid-Course Execution Accuracy Group

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

The print array for this group is:

MID-COURSE EXECUTION ACCURACY

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

The quantities are defined as follows:

Line 1

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

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

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

Line 2

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

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

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

Line 3

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

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

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

Line 4

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

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

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

E. Orbit Determination Accuracy Group

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

ORBIT DETERMINATION ACCURACY

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

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

Line 1

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

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

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

Line 2

CRT, ρ_{RT} the linear correlation coefficient relating errors in $\mathbf{B} \cdot \mathbf{R}$ to errors in $\mathbf{B} \cdot \mathbf{T}$, dimensionless.

CRS, ρ_{RS} the linear correlation coefficient relating errors in $\mathbf{B} \cdot \mathbf{R}$ to errors in S, dimensionless.

CST, ρ_{TS} the linear correlation coefficient relating errors in $\mathbf{B} \cdot \mathbf{T}$ to errors in S, dimensionless.

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

Line 3

LSA, $\sqrt{\varepsilon_{max}}$ the largest semiaxis of the position ellipsoid, in km. (ε_{max} is the largest eigenvalue of $\Lambda_{\mathbf{M}_1}$, in km^2.)

MSA, $\sqrt{\varepsilon_{mid}}$ the middle semiaxis of the position ellipsoid, in km. (ε_{mid} is the second-largest, or middle, eigenvalue of $\Lambda_{\mathbf{M}_1}$, in km^2.)

SSA, $\sqrt{\varepsilon_{min}}$ the smallest semiaxis of the position ellipsoid, in km. (ε_{min} is the smallest eigenvalue of $\Lambda_{\mathbf{M}_1}$, in km^2.)

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

Line 4

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

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

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

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

$$\Lambda_{\dot{\mathbf{X}}} = \begin{pmatrix} 100 \times 10^{-10} & 0 & 0 \\ 0 & 9 \times 10^{-10} & 0 \\ 0 & 0 & .09 \times 10^{-10} \end{pmatrix} \left(\frac{\text{km}}{\text{sec}}\right)^2$$

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

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

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

The correlation coefficients between T_F and $\mathbf{B} \cdot \mathbf{T}$ are those given by CST; those between T_F and $\mathbf{B} \cdot \mathbf{R}$ are given by CRS.

IV. CONSTANTS

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

Gravitational Constants

1. Sun

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

2. Earth

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

Astronomical Unit-to-Kilometer Conversion Factor

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

Earth's Rotation Rate

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

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6. Clarke, V. C., Jr., *Design of Lunar and Interplanetary Ascent Trajectories,* Technical Report No. 32-30, Rev. 1, Jet Propulsion Laboratory, Pasadena, March 15, 1962.

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Earth–Venus Trajectories, 1970

Launch date interval: August 1 to September 9, 1970

This data presentation has been photographically reproduced (enlarged 10½ times) from microfilm generated by computer magnetic tape.

LAUNCH DATE AUG 1 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 10 1970

HELIOCENTRIC CONIC DISTANCE 141.618

RL	151.84	LAL	-.00	LOL	308.34	VL	18.707	GAL	12.12	AZL	94.40	HCA	49.22	SMA	94.93	ECC	.62272	INC	4.4013	V1	29.341
RP	108.72	LAP	-3.33	LOP	357.48	VP	32.302	GAP	-37.74	AZP	92.88	TAL	172.41	TAP	221.63	RCA	35.81	APO	154.04	V2	34.857
RC	58.638	GL	-6.75	GP	-4.14	ZAL	69.67	ZAP	25.84	ETS	169.38	ZAE	149.45	ETE	170.20	ZAC	90.52	ETC	255.96	CLP	25.53

PLANETOCENTRIC CONIC

C3	142.474	VHL	11.936	DLA	-26.48	RAL	234.94	RAD	6570.5	VEL	16.242	PTH	2.85	VHP	21.775	DPA	-10.21	RAP	200.64	ECC	3.3448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 53 46	1646.63	-2.96	8.09	128.04	118.17	11 21 13	1046.6	.83	1.46
90.00	13 52 32	1060.58	15.24	334.66	136.98	114.16	14 10 12	460.6	18.37	327.39
100.00	11 45 4	1480.95	-6.36	354.05	126.18	119.27	12 9 45	880.9	-2.41	347.49
100.00	15 43 55	701.49	18.78	309.88	138.62	113.70	15 55 36	101.5	21.82	302.41
110.00	12 1 55	1428.07	-13.09	346.02	122.15	121.86	12 25 43	828.1	-8.79	339.57
110.00	17 43 33	5615.17	25.96	262.71	141.98	113.07	19 17 8	5015.2	28.85	254.72

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.3237	TRA	-1.3977	TC3	-.1105	BAU	.2131	SGT 809.7 SGR 451.9 SG3 33.0	ST	273.5	SR 444.7 SS 253.8
RDE	-.9254	RRA	-.1336	RC3	.0177	FAU	.01391	RRT -.0723 RRF .0730 RTF -.6270	CRT	-.5279	CRS -.6893 CST .9763
FDE	-.2033	FRA	.5775	FC3	-.0845	BSP	2040	SGB 927.2 R23 -.0074 R13 .6276	LSA	522.0	MSA 253.5 SSA 13.9
BDE	.9803	BRA	1.4041	BC3	.1119	FSP	-68	SG1 810.6 SG2 450.2 THA 176.66	EL1	474.5	EL2 217.6 ALF 113.12

LAUNCH DATE AUG 1 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 12 1970

HELIOCENTRIC CONIC DISTANCE 147.699

RL	151.84	LAL	-.00	LOL	308.34	VL	19.332	GAL	11.64	AZL	94.15	HCA	52.39	SMA	96.57	ECC	.59583	INC	4.1547	V1	29.341
RP	108.69	LAP	-3.29	LOP	.66	VP	32.679	GAP	-35.95	AZP	92.54	TAL	171.84	TAP	224.23	RCA	39.03	APO	154.11	V2	34.867
RC	56.732	GL	-6.96	GP	-4.28	ZAL	68.66	ZAP	24.35	ETS	168.39	ZAE	150.40	ETE	170.02	ZAC	90.73	ETC	256.02	CLP	23.99

PLANETOCENTRIC CONIC

C3	128.172	VHL	11.321	DLA	-26.91	RAL	236.00	RAD	6570.4	VEL	15.796	PTH	2.80	VHP	20.861	DPA	-11.00	RAP	202.11	ECC	3.1094

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 9 12	1589.18	-1.11	4.88	128.47	118.30	11 35 41	989.2	2.68	358.25
90.00	13 45 33	1077.95	14.75	335.70	136.35	114.45	14 3 31	478.0	17.93	328.47
100.00	11 57 4	1434.56	-4.81	351.48	126.42	119.54	12 20 59	834.6	-.84	344.94
100.00	15 40 22	707.81	18.60	310.27	138.15	113.83	15 52 10	107.8	21.67	302.81
110.00	12 10 53	1391.19	-11.76	343.99	122.22	122.33	12 34 4	791.2	-7.41	337.60
110.00	17 43 3	5611.98	26.04	262.50	141.63	112.97	19 16 35	5012.0	28.92	254.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.3160	TRA	-1.3911	TC3	-.1155	BAU	.2006	SGT 847.0 SGR 457.0 SG3 35.9	ST	285.9	SR 450.7 SS 263.3
RDE	-.8896	RRA	-.1156	RC3	.0188	FAU	.01418	RRT -.0810 RRF .0819 RTF -.6469	CRT	-.5227	CRS -.6845 CST .9765
FDE	-.2066	FRA	.5979	FC3	-.0957	BSP	2179	SGB 962.4 R23 -.0083 R13 .6475	LSA	533.5	MSA 263.4 SSA 14.1
BDE	.9441	BRA	1.3959	BC3	.1171	FSP	-75	SG1 848.1 SG2 454.9 THA 176.49	EL1	482.8	EL2 227.5 ALF 113.99

LAUNCH DATE AUG 1 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 14 1970

HELIOCENTRIC CONIC DISTANCE 153.859

RL	151.84	LAL	-.00	LOL	308.34	VL	19.915	GAL	11.16	AZL	93.93	HCA	55.56	SMA	98.20	ECC	.56977	INC	3.9281	V1	29.341
RP	108.65	LAP	-3.24	LOP	3.84	VP	33.038	GAP	-34.26	AZP	92.22	TAL	171.30	TAP	226.86	RCA	42.25	APO	154.16	V2	34.878
RC	54.887	GL	-7.16	GP	-4.43	ZAL	67.72	ZAP	22.88	ETS	167.25	ZAE	151.50	ETE	169.87	ZAC	90.92	ETC	256.09	CLP	22.47

PLANETOCENTRIC CONIC

C3	115.350	VHL	10.740	DLA	-27.32	RAL	237.00	RAD	6570.2	VEL	15.385	PTH	2.75	VHP	19.982	DPA	-11.80	RAP	203.59	ECC	2.8984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 25 25	1527.72	.87	1.45	128.85	118.30	11 50 53	927.7	4.65	354.81
90.00	13 37 17	1097.60	14.19	336.88	135.53	114.76	13 55 35	497.6	17.42	329.68
100.00	12 8 53	1387.30	-3.21	348.88	126.58	119.73	12 32 0	787.3	.77	342.35
100.00	15 36 31	713.26	18.45	310.60	137.54	113.94	15 48 24	113.3	21.53	303.16
110.00	12 19 27	1354.13	-10.40	341.98	122.19	122.75	12 42 1	754.1	-6.01	335.64
110.00	17 42 26	5607.24	26.17	262.19	141.14	112.82	19 15 53	5007.2	29.02	254.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.3088	TRA	-1.3844	TC3	-.1201	BAU	.1877	SGT 885.8 SGR 461.4 SG3 39.1	ST	299.0	SR 456.0 SS 273.0
RDE	-.8541	RRA	-.0983	RC3	.0198	FAU	.01447	RRT -.0905 RRF .0917 RTF -.6661	CRT	-.5183	CRS -.6799 CST .9769
FDE	-.2099	FRA	.6188	FC3	-.1086	BSP	2320	SGB 998.8 R23 -.0093 R13 .6668	LSA	545.1	MSA 273.1 SSA 14.3
BDE	.9083	BRA	1.3879	BC3	.1217	FSP	-84	SG1 887.2 SG2 458.8 THA 176.31	EL1	490.8	EL2 237.6 ALF 115.01

LAUNCH DATE AUG 1 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 16 1970

HELIOCENTRIC CONIC DISTANCE 160.093

RL	151.84	LAL	-.00	LOL	308.34	VL	20.459	GAL	10.68	AZL	93.72	HCA	58.74	SMA	99.83	ECC	.54457	INC	3.7181	V1	29.341
RP	108.62	LAP	-3.18	LOP	7.02	VP	33.380	GAP	-32.65	AZP	91.93	TAL	170.79	TAP	229.52	RCA	45.46	APO	154.19	V2	34.888
RC	53.110	GL	-7.35	GP	-4.59	ZAL	66.84	ZAP	21.44	ETS	165.94	ZAE	152.74	ETE	169.73	ZAC	91.09	ETC	256.18	CLP	20.96

PLANETOCENTRIC CONIC

C3	103.845	VHL	10.190	DLA	-27.70	RAL	237.93	RAD	6570.0	VEL	15.006	PTH	2.70	VHP	19.135	DPA	-12.61	RAP	205.09	ECC	2.7090

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 43 6	1460.04	3.05	357.67	129.22	118.17	12 7 27	860.0	6.80	350.99
90.00	13 27 2	1121.83	13.50	338.32	134.90	115.13	13 45 44	521.8	16.77	331.17
100.00	12 20 29	1339.21	-1.59	346.23	126.65	119.85	12 42 49	739.2	2.40	339.71
100.00	15 32 21	717.89	18.32	310.89	136.80	114.04	15 44 18	117.9	21.42	303.46
110.00	12 27 34	1316.98	-9.03	339.98	122.08	123.11	12 49 31	717.0	-4.61	333.68
110.00	17 41 45	5600.93	26.33	261.78	140.53	112.63	19 15 6	5000.9	29.16	253.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.3024	TRA	-1.3775	TC3	-.1239	BAU	.1744	SGT 926.2 SGR 465.3 SG3 42.6	ST	312.8	SR 460.7 SS 283.0
RDE	-.8189	RRA	-.0818	RC3	.0207	FAU	.01479	RRT -.1009 RRF .1025 RTF -.6847	CRT	-.5150	CRS -.6758 CST .9773
FDE	-.2132	FRA	.6401	FC3	-.1233	BSP	2467	SGB 1036.5 R23 -.0106 R13 .6854	LSA	556.9	MSA 282.6 SSA 14.5
BDE	.8730	BRA	1.3799	BC3	.1256	FSP	-93	SG1 927.8 SG2 462.1 THA 176.14	EL1	498.7	EL2 247.7 ALF 116.18

LAUNCH DATE AUG 1 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 18 1970

HELIOCENTRIC CONIC DISTANCE 166.395

RL	151.84	LAL	-.00	LOL	308.34	VL	20.966	GAL	10.20	AZL	93.52	HCA	61.91	SMA	101.43	ECC	.52027	INC	3.5215
RP	108.58	LAP	-3.11	LOP	10.21	VP	33.704	GAP	-31.11	AZP	91.66	TAL	170.30	TAP	232.22	RCA	48.66	APO	154.20
RC	51.409	GL	-7.53	GP	-4.77	ZAL	66.03	ZAP	20.02	ETS	164.43	ZAE	154.15	ETE	169.63	ZAC	91.25	ETC	256.28

V1	29.341	V2	34.900	CLP	19.47														

PLANETOCENTRIC CONIC

C3	93.512	VHL	9.670	DLA	-28.05	RAL	238.80	RAD	6569.8	VEL	14.658	PTH	2.65	VHP	18.320	DPA	-13.44	RAP	206.59

ECC	2.5390	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	12 4 15	1379.73	5.62	353.17	129.68	117.80	12 27 15	779.7	9.30	346.42							
		90.00	13 12 49	1157.11	12.47	340.40	133.16	115.63	13 32 6	557.1	15.82	333.32							
		100.00	12 31 53	1290.35	.07	343.55	126.62	119.89	12 53 24	690.3	4.05	337.02							
		100.00	15 27 52	721.73	18.22	311.12	135.93	114.12	15 39 53	121.7	21.32	303.70							
		110.00	12 35 13	1279.88	-7.64	338.00	121.86	123.42	12 56 33	679.9	-3.19	331.74							
		110.00	17 41 1	5593.00	26.54	261.25	139.79	112.38	19 14 14	4993.0	29.33	253.18							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2970	TRA	-1.3698	TC3	-.1268	BAU	.1607	SGT	967.8	SGR	468.5	SG3	46.3	ST	327.3	SR	464.8	SS	293.2
RDE	-.7841	RRA	-.0659	RC3	.0213	FAU	.01515	RRT	-.1128	RRF	.1147	RTF	-.7027	CRT	-.5134	CRS	-.6721	CST	.9781
FDE	-.2167	FRA	.6618	FC3	-.1403	BSP	2625	SGB	1075.3	R23	-.0118	R13	.7035	LSA	569.1	MSA	291.6	SSA	14.7
BDE	.8385	BRA	1.3714	BC3	.1285	FSP	-103	SG1	969.7	SG2	464.6	THA	175.94	EL1	506.7	EL2	257.6	ALF	117.56

LAUNCH DATE AUG 1 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 20 1970

HELIOCENTRIC CONIC DISTANCE 172.761

RL	151.84	LAL	-.00	LOL	308.34	VL	21.438	GAL	9.72	AZL	93.34	HCA	65.09	SMA	103.00	ECC	.49691	INC	3.3362
RP	108.55	LAP	-3.03	LOP	13.40	VP	34.012	GAP	-29.65	AZP	91.41	TAL	169.86	TAP	234.95	RCA	51.82	APO	154.19
RC	49.791	GL	-7.70	GP	-4.97	ZAL	65.28	ZAP	18.63	ETS	162.66	ZAE	155.72	ETE	169.58	ZAC	91.39	ETC	256.39

V1	29.341	V2	34.911	CLP	17.98														

PLANETOCENTRIC CONIC

C3	84.227	VHL	9.178	DLA	-28.37	RAL	239.60	RAD	6569.6	VEL	14.338	PTH	2.61	VHP	17.534	DPA	-14.28	RAP	208.11

ECC	2.3862	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		88.22	12 26 42	1293.88	9.83	349.08	130.86	116.74	12 48 16	693.9	13.34	342.16							
		91.78	12 56 45	1196.50	9.85	341.96	130.87	116.74	13 16 41	596.5	13.36	335.04							
		100.00	12 43 3	1240.83	1.75	340.84	126.49	119.85	13 3 43	640.8	5.71	334.29							
		100.00	15 23 5	724.78	18.13	311.31	134.93	114.18	15 35 10	124.8	21.25	303.90							
		110.00	12 42 21	1242.99	-6.25	336.05	121.54	123.67	13 3 4	643.0	-1.79	329.81							
		110.00	17 40 15	5583.43	26.79	260.62	138.92	112.08	19 13 19	4983.4	29.54	252.51							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2920	TRA	-1.3617	TC3	-.1286	BAU	.1469	SGT	1011.2	SGR	471.2	SG3	50.4	ST	342.5	SR	468.2	SS	303.8
RDE	-.7498	RRA	-.0508	RC3	.0216	FAU	.01556	RRT	-.1257	RRF	.1281	RTF	-.7198	CRT	-.5126	CRS	-.6689	CST	.9789
FDE	-.2203	FRA	.6842	FC3	-.1599	BSP	2783	SGB	1115.5	R23	-.0133	R13	.7206	LSA	581.8	MSA	300.1	SSA	14.9
BDE	.8047	BRA	1.3627	BC3	.1304	FSP	-113	SG1	1013.4	SG2	466.4	THA	175.75	EL1	514.8	EL2	267.5	ALF	119.10

LAUNCH DATE AUG 1 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 22 1970

HELIOCENTRIC CONIC DISTANCE 179.184

RL	151.84	LAL	-.00	LOL	308.34	VL	21.879	GAL	9.25	AZL	93.16	HCA	68.27	SMA	104.55	ECC	.47450	INC	3.1601
RP	108.51	LAP	-2.94	LOP	16.58	VP	34.304	GAP	-28.25	AZP	91.17	TAL	169.45	TAP	237.72	RCA	54.94	APO	154.16
RC	48.266	GL	-7.85	GP	-5.18	ZAL	64.61	ZAP	17.27	ETS	160.56	ZAE	157.45	ETE	169.59	ZAC	91.50	ETC	256.51

V1	29.341	V2	34.923	CLP	16.49														

PLANETOCENTRIC CONIC

C3	75.880	VHL	8.711	DLA	-28.66	RAL	240.33	RAD	6569.5	VEL	14.044	PTH	2.56	VHP	16.777	DPA	-15.14	RAP	209.64

ECC	2.2488	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		85.40	12 6 10	1345.84	10.66	353.31	130.16	116.76	12 28 36	745.8	14.17	346.37							
		94.60	13 23 5	1096.76	10.67	335.08	130.17	116.75	13 41 22	496.8	14.18	328.13							
		100.00	12 53 55	1190.85	3.44	338.09	126.26	119.71	13 13 46	590.9	7.37	331.51							
		100.00	15 18 2	726.98	18.07	311.44	133.81	114.22	15 30 9	127.0	21.19	304.04							
		110.00	12 48 56	1206.51	-4.87	334.13	121.12	123.88	13 9 2	606.5	-.39	327.91							
		110.00	17 39 30	5572.13	27.07	259.86	137.93	111.71	19 12 22	4972.1	29.77	251.71							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2879	TRA	-1.3531	TC3	-.1290	BAU	.1327	SGT	1056.0	SGR	473.3	SG3	54.9	ST	358.4	SR	471.0	SS	314.6
RDE	-.7160	RRA	-.0363	RC3	.0216	FAU	.01600	RRT	-.1401	RRF	.1431	RTF	-.7362	CRT	-.5135	CRS	-.6662	CST	.9799
FDE	-.2241	FRA	.7073	FC3	-.1826	BSP	2947	SGB	1157.2	R23	-.0150	R13	.7372	LSA	595.2	MSA	308.0	SSA	15.1
BDE	.7717	BRA	1.3536	BC3	.1308	FSP	-126	SG1	1058.5	SG2	467.4	THA	175.53	EL1	523.1	EL2	277.0	ALF	120.84

NCH DATE AUG 1 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 185.661

RL	151.84	LAL	-.00	LOL	308.34	VL	22.290	GAL	8.79	AZL	92.99	HCA	71.46	SMA	106.07	ECC	.45306	INC	2.9915
RP	108.47	LAP	-2.84	LOP	19.77	VP	34.579	GAP	-26.91	AZP	90.95	TAL	169.08	TAP	240.53	RCA	58.01	APO	154.12
RC	46.842	GL	-7.99	GP	-5.42	ZAL	64.00	ZAP	15.94	ETS	158.06	ZAE	159.35	ETE	169.69	ZAC	91.59	ETC	256.65

V1	29.341	V2	34.935	CLP	15.01														

PLANETOCENTRIC CONIC

C3	68.375	VHL	8.269	DLA	-28.91	RAL	240.99	RAD	6569.3	VEL	13.774	PTH	2.52	VHP	16.046	DPA	-16.01	RAP	211.17

ECC	2.1253	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		83.90	11 56 33	1360.92	11.50	354.85	129.35	116.71	12 19 14	760.9	14.99	347.87							
		96.10	13 37 59	1032.75	11.51	330.80	129.36	116.70	13 55 11	432.7	15.01	323.83							
		100.00	13 4 25	1140.72	5.13	335.32	125.92	119.49	13 23 25	540.7	9.02	328.70							
		100.00	15 12 48	728.18	18.04	311.52	132.57	114.25	15 24 56	128.2	21.16	304.12							
		110.00	12 54 54	1170.67	-3.51	332.25	120.58	124.02	13 14 24	570.7	.98	326.04							
		110.00	17 38 49	5559.04	27.40	258.99	136.83	111.29	19 11 28	4959.0	30.04	250.79							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2844	TRA	-1.3437	TC3	-.1277	BAU	.1183	SGT	1102.2	SGR	474.8	SG3	59.8	ST	375.1	SR	473.2	SS	325.9
RDE	-.6829	RRA	-.0224	RC3	.0210	FAU	.01650	RRT	-.1562	RRF	.1599	RTF	-.7519	CRT	-.5159	CRS	-.6641	CST	.9810
FDE	-.2281	FRA	.7311	FC3	-.2089	BSP	3117	SGB	1200.1	R23	-.0169	R13	.7530	LSA	609.3	MSA	315.1	SSA	15.3
BDE	..7398	BRA	1.3439	BC3	.1295	FSP	-139	SG1	1105.2	SG2	467.7	THA	175.31	EL1	531.9	EL2	285.9	ALF	122.78

LAUNCH DATE AUG 1 1970 FLIGHT TIME 86.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 192.185

RL	151.84	LAL	-.00	LOL	308.34	VL	22.672	GAL	8.34	AZL	92.83	HCA	74.64	SMA	107.55	ECC	.43258	INC	2.8290	V1	29.341
RP	108.44	LAP	-2.73	LOP	22.97	VP	34.840	GAP	-25.63	AZP	90.75	TAL	168.75	TAP	243.39	RCA	61.02	APO	154.07	V2	34.948
RC	45.530	GL	-8.11	GP	-5.68	ZAL	63.46	ZAP	14.65	ETS	155.04	ZAE	161.42	ETE	169.93	ZAC	91.66	ETC	256.79	CLP	13.53

PLANETOCENTRIC CONIC

C3	61.625	VHL	7.850	DLA	-29.13	RAL	241.58	RAD	6569.1	VEL	13.527	PTH	2.47	VHP	15.342	DPA	-16.90	RAP	212.71	ECC	2.0142

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.85	11 50 26	1363.20	12.34	355.45	128.43	116.60	12 13 10	763.2	15.82	348.44
97.15	13 48 47	980.56	12.36	327.39	128.44	116.59	14 5 7	380.6	15.83	320.38
100.00	13 14 24	1090.95	6.79	332.56	125.45	119.18	13 32 35	491.0	10.63	325.88
100.00	15 7 30	728.05	18.04	311.51	131.24	114.25	15 19 38	128.0	21.16	304.11
110.00	13 0 10	1135.75	-2.18	330.42	119.93	124.12	13 19 6	535.7	2.31	324.22
110.00	17 38 14	5544.05	27.77	257.97	135.61	110.79	19 10 38	4944.1	30.33	249.72

DIFFERENTIAL CORRECTIONS

TDE	.2816	TRA	-1.3337	TC3	-.1244	BAU	.1038
RDE	-.6505	RRA	-.0090	RC3	.0197	FAU	.01705
FDE	-.2324	FRA	.7560	FC3	-.2395	BSP	3292
BDE	.7088	BRA	1.3337	BC3	.1260	FSP	-154

MID-COURSE EXECUTION ACCURACY

SGT	1149.9	SGR	475.8	SG3	65.2		
RRT	-.1740	RRF	.1786	RTF	-.7669		
SGB	1244.5	R23	-.0191	R13	.7681		
SG1	1153.5	SG2	467.1	THA	175.07		

ORBIT DETERMINATION ACCURACY

ST	392.5	SR	474.8	SS	337.5
CRT	-.5197	CRS	-.6627	CST	.9823
LSA	624.4	MSA	321.3	SSA	15.5
EL1	541.2	EL2	294.2	ALF	124.89

LAUNCH DATE AUG 1 1970 FLIGHT TIME 88.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 198.753

RL	151.84	LAL	-.00	LOL	308.34	VL	23.029	GAL	7.90	AZL	92.67	HCA	77.83	SMA	108.99	ECC	.41307	INC	2.6712	V1	29.341
RP	108.40	LAP	-2.61	LOP	26.16	VP	35.085	GAP	-24.40	AZP	90.56	TAL	168.46	TAP	246.29	RCA	63.97	APO	154.00	V2	34.961
RC	44.337	GL	-8.20	GP	-5.96	ZAL	63.00	ZAP	13.42	ETS	151.37	ZAE	163.66	ETE	170.39	ZAC	91.69	ETC	256.95	CLP	12.05

PLANETOCENTRIC CONIC

C3	55.554	VHL	7.453	DLA	-29.31	RAL	242.09	RAD	6569.0	VEL	13.301	PTH	2.43	VHP	14.663	DPA	-17.80	RAP	214.25	ECC	1.9143

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.09	11 46 26	1357.37	13.19	355.45	127.40	116.42	12 9 3	757.4	16.63	348.40
97.91	13 56 55	935.71	13.20	324.51	127.41	116.41	14 12 30	335.7	16.65	317.46
100.00	13 23 38	1042.41	8.39	329.85	124.85	118.80	13 41 0	442.4	12.17	323.10
100.00	15 2 24	725.90	18.10	311.38	129.82	114.20	15 14 30	125.9	21.22	303.97
110.00	13 4 41	1102.07	-.89	328.66	119.17	124.17	13 23 3	502.1	3.60	322.46
110.00	17 37 50	5527.04	28.17	256.82	134.28	110.21	19 9 57	4927.0	30.66	248.50

DIFFERENTIAL CORRECTIONS

TDE	.2795	TRA	-1.3226	TC3	-.1185	BAU	.0890
RDE	-.6189	RRA	.0038	RC3	.0176	FAU	.01766
FDE	-.2370	FRA	.7819	FC3	-.2753	BSP	3474
BDE	.6790	BRA	1.3226	BC3	.1198	FSP	-170

MID-COURSE EXECUTION ACCURACY

SGT	1198.7	SGR	476.5	SG3	71.1		
RRT	-.1940	RRF	.1996	RTF	-.7813		
SGB	1289.9	R23	-.0214	R13	.7825		
SG1	1202.9	SG2	465.8	THA	174.81		

ORBIT DETERMINATION ACCURACY

ST	410.6	SR	475.7	SS	349.5
CRT	-.5252	CRS	-.6619	CST	.9837
LSA	640.5	MSA	326.4	SSA	15.6
EL1	551.4	EL2	301.4	ALF	127.14

LAUNCH DATE AUG 1 1970 FLIGHT TIME 90.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 205.360

RL	151.84	LAL	-.00	LOL	308.34	VL	23.361	GAL	7.48	AZL	92.52	HCA	81.02	SMA	110.38	ECC	.39451	INC	2.5171	V1	29.341
RP	108.36	LAP	-2.49	LOP	29.35	VP	35.317	GAP	-23.21	AZP	90.39	TAL	168.22	TAP	249.24	RCA	66.83	APO	153.93	V2	34.974
RC	43.276	GL	-8.26	GP	-6.28	ZAL	62.60	ZAP	12.26	ETS	146.87	ZAE	166.05	ETE	171.22	ZAC	91.68	ETC	257.12	CLP	10.56

PLANETOCENTRIC CONIC

C3	50.096	VHL	7.078	DLA	-29.45	RAL	242.53	RAD	6568.8	VEL	13.094	PTH	2.39	VHP	14.007	DPA	-18.72	RAP	215.79	ECC	1.8245

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.55	11 43 59	1345.26	14.02	354.98	126.27	116.17	12 6 24	745.3	17.43	347.88
98.45	14 2 54	896.56	14.03	322.04	126.28	116.16	14 17 50	296.6	17.44	314.93
100.00	13 31 40	996.58	9.88	327.26	124.09	118.36	13 48 16	396.6	13.59	320.44
100.00	14 57 54	720.48	18.25	311.05	128.33	114.09	15 9 54	120.5	21.35	303.62
110.00	13 8 22	1070.00	.34	326.99	118.28	124.18	13 26 12	470.0	4.82	320.78
110.00	17 37 41	5507.86	28.62	255.50	132.85	109.55	19 9 29	4907.9	31.01	247.12

DIFFERENTIAL CORRECTIONS

TDE	.2779	TRA	-1.3110	TC3	-.1098	BAU	.0742
RDE	-.5881	RRA	.0163	RC3	.0145	FAU	.01834
FDE	-.2419	FRA	.8091	FC3	-.3170	BSP	3660
BDE	.6504	BRA	1.3111	BC3	.1108	FSP	-188

MID-COURSE EXECUTION ACCURACY

SGT	1249.0	SGR	476.7	SG3	77.5		
RRT	-.2163	RRF	.2231	RTF	-.7948		
SGB	1336.9	R23	-.0243	R13	.7962		
SG1	1253.9	SG2	463.6	THA	174.53		

ORBIT DETERMINATION ACCURACY

ST	429.3	SR	476.1	SS	361.9
CRT	-.5322	CRS	-.6618	CST	.9852
LSA	657.7	MSA	330.3	SSA	15.8
EL1	562.4	EL2	307.7	ALF	129.49

LAUNCH DATE AUG 1 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 212.000

RL	151.84	LAL	-.00	LOL	308.34	VL	23.669	GAL	7.06	AZL	92.37	HCA	84.21	SMA	111.73	ECC	.37691	INC	2.3655	V1	29.341
RP	108.32	LAP	-2.35	LOP	32.55	VP	35.535	GAP	-22.08	AZP	90.24	TAL	168.02	TAP	252.24	RCA	69.62	APO	153.84	V2	34.987
RC	42.355	GL	-8.29	GP	-6.62	ZAL	62.27	ZAP	11.21	ETS	141.33	ZAE	168.58	ETE	172.68	ZAC	91.63	ETC	257.30	CLP	9.06

PLANETOCENTRIC CONIC

C3	45.189	VHL	6.722	DLA	-29.54	RAL	242.90	RAD	6568.7	VEL	12.906	PTH	2.35	VHP	13.376	DPA	-19.66	RAP	217.32	ECC	1.7437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.21	11 42 48	1327.98	14.83	354.11	125.03	115.84	12 4 56	728.0	18.19	346.95
98.79	14 7 2	862.24	14.85	319.91	125.04	115.84	14 21 24	262.2	18.20	312.75
100.00	13 37 48	955.77	11.19	324.94	123.14	117.90	13 53 44	355.8	14.84	318.05
100.00	14 54 43	709.67	18.55	310.38	126.83	113.87	15 6 32	109.7	21.62	302.93
110.00	13 11 6	1039.93	1.49	325.42	117.27	124.15	13 28 26	439.9	5.96	319.19
110.00	17 37 54	5486.32	29.10	254.01	131.32	108.79	19 9 20	4886.3	31.38	245.55

DIFFERENTIAL CORRECTIONS

TDE	.2768	TRA	-1.2986	TC3	-.0978	BAU	.0594
RDE	-.5583	RRA	.0285	RC3	.0100	FAU	.01910
FDE	-.2470	FRA	.8378	FC3	-.3659	BSP	3848
BDE	.6231	BRA	1.2989	BC3	.0983	FSP	-208

MID-COURSE EXECUTION ACCURACY

SGT	1300.5	SGR	476.8	SG3	84.7		
RRT	-.2411	RRF	.2494	RTF	-.8077		
SGB	1385.2	R23	-.0275	R13	.8092		
SG1	1306.3	SG2	460.7	THA	174.23		

ORBIT DETERMINATION ACCURACY

ST	448.7	SR	475.9	SS	374.8
CRT	-.5407	CRS	-.6625	CST	.9867
LSA	676.1	MSA	333.1	SSA	16.0
EL1	574.5	EL2	312.7	ALF	131.89

LAUNCH DATE AUG 1 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 218.670

RL	151.84	LAL	-.00	LOL	308.34	VL	23.957	GAL	6.66	AZL	92.22	HCA	87.41	SMA	113.03	ECC	.36023	INC	2.2156	V1	29.341		
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.740	GAP	-20.98	AZP	90.10	TAL	167.87	TAP	255.28	RCA	72.32	APO	153.75	V2	35.000		
RC	41.583	GL	-8.28	GP	-7.00	ZAL	62.01	ZAP	10.29	ETS	134.54	ZAE	171.23	ETE	175.46	ZAC	91.54	ETC	257.49	CLP	7.55		

PLANETOCENTRIC CONIC

C3	40.781	VHL	6.386	DLA	-29.58	RAL	243.20	RAD	6568.6	VEL	12.734	PTH	2.31	VHP	12.767	DPA	-20.62	RAP	218.84	ECC	1.6711		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.07	11 42 56	1305.46	15.61	352.83	123.69	115.45	12 4 42	705.5	18.91	345.61
98.93	14 9 15	833.02	15.63	318.13	123.70	115.44	14 23 8	233.0	18.92	310.91
100.00	13 41 5	923.15	12.22	323.07	121.95	117.49	13 56 28	323.1	15.81	316.12
100.00	14 53 47	690.57	19.07	309.21	125.34	113.46	15 5 18	90.6	22.08	301.70
110.00	13 12 49	1012.29	2.54	323.98	116.14	124.10	13 29 41	412.3	7.00	317.73
110.00	17 38 33	5462.23	29.61	252.32	129.70	107.91	19 9 35	4862.2	31.77	243.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2761	TRA	-1.2852	TC3	-.0816	BAU	.0445	SGT	1352.8	SGR	476.8	SG3	92.5	ST	468.6	SR	475.2	SS	388.0
RDE	-.5294	RRA	.0404	RC3	.0038	FAU	.01994	RRT	-.2689	RRF	.2788	RTF	-.8199	CRT	-.5509	CRS	-.6637	CST	.9884
FDE	-.2524	FRA	.8681	FC3	-.4233	BSP	4041	SGB	1434.4	R23	-.0310	R13	.8215	LSA	695.5	MSA	334.6	SSA	16.2
BDE	.5971	BRA	1.2858	BC3	.0816	FSP	-230	SG1	1359.7	SG2	457.0	THA	173.89	EL1	587.7	EL2	316.2	ALF	134.28

LAUNCH DATE AUG 1 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 225.365

RL	151.84	LAL	-.00	LOL	308.34	VL	24.224	GAL	6.28	AZL	92.07	HCA	90.61	SMA	114.29	ECC	.34448	INC	2.0662	V1	29.341		
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.932	GAP	-19.93	AZP	89.98	TAL	167.77	TAP	258.38	RCA	74.92	APO	153.65	V2	35.013		
RC	40.971	GL	-8.23	GP	-7.43	ZAL	61.82	ZAP	9.56	ETS	126.35	ZAE	173.93	ETE	181.41	ZAC	91.40	ETC	257.69	CLP	6.03		

PLANETOCENTRIC CONIC

C3	36.821	VHL	6.068	DLA	-29.56	RAL	243.42	RAD	6568.4	VEL	12.577	PTH	2.28	VHP	12.180	DPA	-21.61	RAP	220.35	ECC	1.6060		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.15	11 44 28	1277.63	16.35	351.13	122.25	114.97	12 5 45	677.6	19.58	343.85
98.85	14 9 31	809.24	16.36	316.73	122.26	114.96	14 23 0	209.2	19.59	309.45
100.00	13 40 44	901.35	12.90	321.81	120.51	117.20	13 55 45	301.4	16.45	314.81
100.00	14 55 56	660.75	19.87	307.35	123.89	112.80	15 6 56	60.8	22.79	299.77
110.00	13 13 23	987.52	3.49	322.69	114.89	124.03	13 29 51	387.5	7.93	316.42
110.00	17 39 45	5435.39	30.16	250.42	127.99	106.91	19 10 21	4835.4	32.18	241.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2759	TRA	-1.2711	TC3	-.0608	BAU	.0300	SGT	1406.1	SGR	477.0	SG3	101.1	ST	489.1	SR	473.9	SS	401.7
RDE	-.5016	RRA	.0523	RC3	-.0044	FAU	.02088	RRT	-.3001	RRF	.3118	RTF	-.8315	CRT	-.5627	CRS	-.6657	CST	.9900
FDE	-.2581	FRA	.9004	FC3	-.4908	BSP	4241	SGB	1484.8	R23	-.0351	R13	.8333	LSA	716.1	MSA	334.9	SSA	16.3
BDE	.5725	BRA	1.2722	BC3	.0609	FSP	-255	SG1	1414.2	SG2	452.5	THA	173.52	EL1	602.1	EL2	318.2	ALF	136.60

LAUNCH DATE AUG 1 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 232.081

RL	151.84	LAL	-.00	LOL	308.34	VL	24.471	GAL	5.90	AZL	91.92	HCA	93.81	SMA	115.49	ECC	.32962	INC	1.9166	V1	29.341		
RP	108.19	LAP	-1.91	LOP	42.15	VP	36.113	GAP	-18.91	AZP	89.87	TAL	167.72	TAP	261.53	RCA	77.42	APO	153.55	V2	35.027		
RC	40.525	GL	-8.11	GP	-7.90	ZAL	61.69	ZAP	9.08	ETS	116.78	ZAE	176.51	ETE	197.99	ZAC	91.20	ETC	257.90	CLP	4.49		

PLANETOCENTRIC CONIC

C3	33.267	VHL	5.768	DLA	-29.47	RAL	243.58	RAD	6568.3	VEL	12.435	PTH	2.25	VHP	11.614	DPA	-22.62	RAP	221.84	ECC	1.5475		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.48	11 47 37	1243.83	17.03	348.95	120.73	114.42	12 8 21	643.8	20.18	341.61
98.52	14 7 34	791.79	17.05	315.77	120.73	114.41	14 20 46	191.8	20.20	308.42
100.00	13 36 40	890.77	13.23	321.20	118.83	117.05	13 51 30	290.8	16.76	314.18
100.00	15 1 13	620.08	20.92	304.79	122.49	111.85	15 11 33	20.1	23.70	297.09
110.00	13 12 45	966.09	4.30	321.56	113.52	123.94	13 28 51	366.1	8.73	315.27
110.00	17 41 36	5405.56	30.73	248.29	126.19	105.76	19 11 42	4805.6	32.58	239.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2756	TRA	-1.2565	TC3	-.0348	BAU	.0169	SGT	1460.2	SGR	477.7	SG3	110.6	ST	509.9	SR	472.2	SS	415.5
RDE	-.4749	RRA	.0641	RC3	-.0151	FAU	.02191	RRT	-.3346	RRF	.3485	RTF	-.8423	CRT	-.5756	CRS	-.6680	CST	.9917
FDE	-.2638	FRA	.9350	FC3	-.5703	BSP	4442	SGB	1536.3	R23	-.0398	R13	.8444	LSA	737.5	MSA	334.0	SSA	16.5
BDE	.5491	BRA	1.2582	BC3	.0379	FSP	-283	SG1	1469.8	SG2	447.2	THA	173.11	EL1	617.5	EL2	318.9	ALF	138.80

LAUNCH DATE AUG 1 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 238.815

RL	151.84	LAL	-.00	LOL	308.34	VL	24.701	GAL	5.55	AZL	91.77	HCA	97.01	SMA	116.63	ECC	.31564	INC	1.7658	V1	29.341		
RP	108.15	LAP	-1.75	LOP	45.36	VP	36.282	GAP	-17.94	AZP	89.78	TAL	167.71	TAP	264.73	RCA	79.82	APO	153.45	V2	35.040		
RC	40.252	GL	-7.94	GP	-8.42	ZAL	61.64	ZAP	8.91	ETS	106.22	ZAE	177.84	ETE	255.69	ZAC	90.94	ETC	258.11	CLP	2.92		

PLANETOCENTRIC CONIC

C3	30.079	VHL	5.484	DLA	-29.30	RAL	243.66	RAD	6568.2	VEL	12.307	PTH	2.22	VHP	11.070	DPA	-23.67	RAP	223.30	ECC	1.4950		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.12	11 52 59	1202.34	17.64	346.17	119.12	113.78	12 13 1	602.3	20.71	338.77
97.88	14 2 52	782.60	17.66	315.37	119.13	113.77	14 15 55	182.6	20.72	307.97
100.00	13 29 29	889.63	13.27	321.13	116.96	117.03	13 44 19	289.6	16.79	314.11
100.00	15 9 3	5858.58	22.14	279.52	121.07	110.61	16 46 41	5258.6	24.75	271.69
110.00	13 10 49	948.44	4.97	320.64	112.03	123.86	13 26 37	348.4	9.39	314.33
110.00	17 44 13	5372.54	31.32	245.89	124.31	104.46	19 13 45	4772.5	32.98	237.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2754	TRA	-1.2414	TC3	-.0033	BAU	.0117	SGT	1514.8	SGR	479.2	SG3	121.2	ST	530.9	SR	470.1	SS	429.7
RDE	-.4493	RRA	.0762	RC3	-.0290	FAU	.02306	RRT	-.3729	RRF	.3893	RTF	-.8525	CRT	-.5899	CRS	-.6709	CST	.9933
FDE	-.2695	FRA	.9723	FC3	-.6638	BSP	4639	SGB	1588.8	R23	-.0452	R13	.8547	LSA	759.7	MSA	331.9	SSA	16.7
BDE	.5269	BRA	1.2437	BC3	.0292	FSP	-313	SG1	1526.2	SG2	441.3	THA	172.66	EL1	633.9	EL2	317.9	ALF	140.83

LAUNCH DATE AUG 1 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 245.561

RL	151.84	LAL	-.00	LOL	308.34	VL	24.915	GAL	5.20	AZL	91.61	HCA	100.22	SMA	117.73	ECC	.30252	INC	1.6127	V1	29.341
RP	108.11	LAP	-1.59	LOP	48.56	VP	36.440	GAP	-16.99	AZP	89.71	TAL	167.76	TAP	267.97	RCA	82.11	APO	153.34	V2	35.053
RC	40.156	GL	-7.69	GP	-9.00	ZAL	61.65	ZAP	9.10	ETS	95.40	ZAE	176.09	ETE	305.24	ZAC	90.61	ETC	258.33	CLP	1.33

PLANETOCENTRIC CONIC

C3	27.222	VHL	5.217	DLA	-29.05	RAL	243.68	RAD	6568.1	VEL	12.190	PTH	2.19	VHP	10.547	DPA	-24.76	RAP	224.73	ECC	1.4480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.21	12 1 41	1149.67	18.17	342.53	117.43	113.07	12 20 50	549.7	21.14	335.05
96.79	13 54 18	785.43	18.19	315.82	117.44	113.05	14 7 23	185.4	21.15	308.35
100.00	13 19 56	895.84	13.08	321.49	114.95	117.12	13 34 52	295.8	16.61	314.48
100.00	15 18 44	5802.53	23.44	275.86	119.60	109.10	16 55 26	5202.5	25.83	267.88
110.00	13 7 29	934.99	5.48	319.93	110.44	123.79	13 23 4	335.0	9.88	313.60
110.00	17 47 39	5336.14	31.91	243.22	122.35	102.98	19 16 36	4736.1	33.36	234.29

DIFFERENTIAL CORRECTIONS

TDE	.2751	TRA	-1.2252	TC3	.0352	BAU	.0213
RDE	-.4248	RRA	.0886	RC3	-.0467	FAU	.02434
FDE	-.2749	FRA	1.0126	FC3	-.7741	BSP	4855
BDE	.5061	BRA	1.2284	BC3	.0585	FSP	-347

MID-COURSE EXECUTION ACCURACY

SGT	1568.9	SGR	482.0	SG3	132.8		
RRT	-.4152	RRF	.4344	RTF	-.8622		
SGB	1641.3	R23	-.0512	R13	.8647		
SG1	1582.7	SG2	434.7	THA	172.13		

ORBIT DETERMINATION ACCURACY

ST	551.8	SR	467.7	SS	444.0
CRT	-.6058	CRS	-.6742	CST	.9948
LSA	782.3	MSA	328.6	SSA	16.9
EL1	650.9	EL2	315.4	ALF	142.67

LAUNCH DATE AUG 1 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 252.318

RL	151.84	LAL	-.00	LOL	308.34	VL	25.112	GAL	4.88	AZL	91.46	HCA	103.42	SMA	118.77	ECC	.29022	INC	1.4564	V1	29.341
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.588	GAP	-16.08	AZP	89.66	TAL	167.84	TAP	271.27	RCA	84.30	APO	153.24	V2	35.066
RC	40.238	GL	-7.36	GP	-9.66	ZAL	61.73	ZAP	9.66	ETS	85.16	ZAE	173.35	ETE	318.85	ZAC	90.19	ETC	258.55	CLP	-.29

PLANETOCENTRIC CONIC

C3	24.665	VHL	4.966	DLA	-28.71	RAL	243.63	RAD	6568.0	VEL	12.085	PTH	2.16	VHP	10.044	DPA	-25.90	RAP	226.13	ECC	1.4059

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.07	12 16 39	1076.40	18.60	337.33	115.68	112.26	12 34 35	476.4	21.46	329.79
94.93	13 38 58	809.90	18.62	317.81	115.69	112.25	13 52 27	209.9	21.48	310.27
100.00	13 8 33	907.90	12.70	322.19	112.85	117.29	13 23 41	307.9	16.26	315.21
100.00	15 29 44	5741.67	24.74	271.80	118.05	107.34	17 5 26	5141.7	26.88	263.66
110.00	13 2 45	926.15	5.82	319.46	108.74	123.74	13 18 11	326.2	10.21	313.13
110.00	17 52 2	5296.18	32.48	240.24	120.30	101.30	19 20 18	4696.2	33.69	231.22

DIFFERENTIAL CORRECTIONS

TDE	.2749	TRA	-1.2079	TC3	.0822	BAU	.0354
RDE	-.4014	RRA	.1016	RC3	-.0691	FAU	.02576
FDE	-.2797	FRA	1.0563	FC3	-.9042	BSP	5072
BDE	.4865	BRA	1.2122	BC3	.1074	FSP	-385

MID-COURSE EXECUTION ACCURACY

SGT	1622.2	SGR	486.8	SG3	145.6		
RRT	-.4619	RRF	.4834	RTF	-.8716		
SGB	1693.7	R23	-.0573	R13	.8744		
SG1	1638.9	SG2	427.4	THA	171.53		

ORBIT DETERMINATION ACCURACY

ST	572.5	SR	464.8	SS	458.0
CRT	-.6237	CRS	-.6774	CST	.9963
LSA	805.2	MSA	324.0	SSA	17.0
EL1	668.6	EL2	311.1	ALF	144.30

LAUNCH DATE AUG 1 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 259.081

RL	151.84	LAL	-.00	LOL	308.34	VL	25.294	GAL	4.56	AZL	91.30	HCA	106.63	SMA	119.75	ECC	.27873	INC	1.2958	V1	29.341
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.726	GAP	-15.20	AZP	89.63	TAL	167.98	TAP	274.61	RCA	86.37	APO	153.13	V2	35.079
RC	40.497	GL	-6.92	GP	-10.39	ZAL	61.87	ZAP	10.57	ETS	76.15	ZAE	170.46	ETE	323.70	ZAC	89.69	ETC	258.77	CLP	-1.95

PLANETOCENTRIC CONIC

C3	22.378	VHL	4.731	DLA	-28.25	RAL	243.53	RAD	6567.9	VEL	11.990	PTH	2.14	VHP	9.562	DPA	-27.09	RAP	227.48	ECC	1.3683

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 40 13	975.09	17.55	329.45	113.29	112.59	12 56 28	375.1	20.46	321.98
90.00	13 14 34	863.68	20.32	322.45	114.43	110.16	13 28 58	263.7	22.88	314.71
100.00	12 55 40	925.05	12.16	323.18	110.68	117.52	13 11 5	325.0	15.75	316.23
100.00	15 41 48	5677.00	25.98	267.40	116.40	105.34	17 16 25	5077.0	27.83	259.09
110.00	12 56 33	922.28	5.96	319.26	106.97	123.72	13 11 55	322.3	10.35	312.92
110.00	17 57 24	5252.53	33.01	236.95	118.17	99.42	19 24 57	4652.5	33.96	227.84

DIFFERENTIAL CORRECTIONS

TDE	.2729	TRA	-1.1917	TC3	.1350	BAU	.0498
RDE	-.3791	RRA	.1155	RC3	-.0972	FAU	.02732
FDE	-.2835	FRA	1.1043	FC3	-1.0570	BSP	5271
BDE	.4671	BRA	1.1973	BC3	.1664	FSP	-427

MID-COURSE EXECUTION ACCURACY

SGT	1676.4	SGR	494.4	SG3	159.9		
RRT	-.5111	RRF	.5363	RTF	-.8799		
SGB	1747.8	R23	-.0657	R13	.8832		
SG1	1696.6	SG2	419.9	THA	170.86		

ORBIT DETERMINATION ACCURACY

ST	592.3	SR	461.6	SS	471.9
CRT	-.6406	CRS	-.6805	CST	.9975
LSA	827.3	MSA	319.1	SSA	17.2
EL1	685.7	EL2	306.2	ALF	145.74

LAUNCH DATE AUG 1 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 265.848

RL	151.84	LAL	-.00	LOL	308.34	VL	25.463	GAL	4.27	AZL	91.13	HCA	109.85	SMA	120.68	ECC	.26801	INC	1.1295	V1	29.341
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.854	GAP	-14.35	AZP	89.62	TAL	168.15	TAP	278.00	RCA	88.34	APO	153.03	V2	35.092
RC	40.930	GL	-6.37	GP	-11.21	ZAL	62.07	ZAP	11.78	ETS	68.62	ZAE	167.58	ETE	325.67	ZAC	89.08	ETC	259.00	CLP	-3.65

PLANETOCENTRIC CONIC

C3	20.338	VHL	4.510	DLA	-27.67	RAL	243.37	RAD	6567.8	VEL	11.905	PTH	2.12	VHP	9.100	DPA	-28.35	RAP	228.77	ECC	1.3347

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 3 29	1069.84	14.98	335.22	110.24	114.31	12 21 19	469.8	18.14	327.97
90.00	13 50 4	722.90	23.34	313.24	113.53	106.51	14 2 7	122.9	25.38	305.16
100.00	12 41 30	946.96	11.47	324.44	108.48	117.79	12 57 17	347.0	15.10	317.53
100.00	15 54 44	5609.05	27.11	262.67	114.63	103.10	17 28 13	5009.0	28.64	254.20
110.00	12 48 53	923.74	5.91	319.34	105.13	123.73	13 4 17	323.7	10.30	313.00
110.00	18 3 50	5205.04	33.48	235.32	115.96	97.32	19 30 35	4605.0	34.13	224.14

DIFFERENTIAL CORRECTIONS

TDE	.2702	TRA	-1.1745	TC3	.1969	BAU	.0645
RDE	-.3578	RRA	.1304	RC3	-.1323	FAU	.02906
FDE	-.2855	FRA	1.1566	FC3	-1.2368	BSP	5465
BDE	.4483	BRA	1.1817	BC3	.2373	FSP	-473

MID-COURSE EXECUTION ACCURACY

SGT	1728.6	SGR	505.8	SG3	175.6		
RRT	-.5632	RRF	.5920	RTF	-.8877		
SGB	1801.1	R23	-.0748	R13	.8915		
SG1	1753.3	SG2	412.1	THA	170.09		

ORBIT DETERMINATION ACCURACY

ST	611.0	SR	458.0	SS	484.9
CRT	-.6590	CRS	-.6829	CST	.9984
LSA	848.4	MSA	313.3	SSA	17.5
EL1	702.3	EL2	299.7	ALF	146.96

LAUNCH DATE AUG 1 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 272.615

RL 151.84 LAL -.00 LOL 308.34 VL 25.618 GAL 3.98 AZL 90.96 HCA 113.06 SMA 121.56 ECC .25804 INC .9563 V1 29.341
RP 107.95 LAP -.88 LOP 61.41 VP 36.974 GAP -13.53 AZP 89.63 TAL 168.36 TAP 281.42 RCA 90.19 APO 152.93 V2 35.105
RC 41.530 GL -5.69 GP -12.14 ZAL 62.34 ZAP 13.27 ETS 62.54 ZAE 164.76 ETE 326.30 ZAC 88.35 ETC 259.22 CLP -5.41

PLANETOCENTRIC CONIC

C3 18.519 VHL 4.303 DLA -26.94 RAL 243.17 RAD 6567.7 VEL 11.828 PTH 2.09 VHP 8.659 DPA -29.69 RAP 229.99 ECC 1.3048

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 38 30	1127.55	13.33	338.66	107.66	115.21	11 57 18	527.5	16.62	331.52
90.00	14 13 29	620.86	25.14	306.30	112.04	103.48	14 23 50	20.9	26.75	298.00
100.00	12 26 9	973.65	10.62	325.96	106.27	118.11	12 42 22	373.7	14.30	319.10
100.00	16 8 32	5538.03	28.11	257.63	112.75	100.62	17 40 50	4938.0	29.29	249.02
110.00	12 39 46	930.86	5.64	319.71	103.25	123.77	12 55 17	330.9	10.04	313.38
110.00	18 11 23	5153.58	33.86	229.35	113.67	95.00	19 37 17	4553.6	34.18	220.12

DIFFERENTIAL CORRECTIONS
TDE .2661 TRA-1.1573 TC3 .2674 BAU .0793
RDE -.3374 RRA .1470 RC3 -.1760 FAU .03097
FDE -.2853 FRA 1.2145 FC3-1.4478 BSP 5673
BDE .4297 BRA 1.1666 BC3 .3201 FSP -525

MID-COURSE EXECUTION ACCURACY
SGT 1779.2 SGR 522.4 SG3 192.9
RRT -.6169 RRF .6493 RTF -.8951
SGB 1854.3 R23 -.0852 R13 .8995
SG1 1809.8 SG2 404.2 THA 169.19

ORBIT DETERMINATION ACCURACY
ST 628.0 SR 454.0 SS 497.2
CRT -.6780 CRS -.6847 CST .9989
LSA 867.9 MSA 306.9 SSA 17.7
EL1 717.9 EL2 291.9 ALF 147.99

LAUNCH DATE AUG 1 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 279.380

RL 151.84 LAL -.00 LOL 308.34 VL 25.761 GAL 3.72 AZL 90.77 HCA 116.28 SMA 122.39 ECC .24879 INC .7743 V1 29.341
RP 107.91 LAP -.69 LOP 64.62 VP 37.085 GAP -12.73 AZP 89.66 TAL 168.61 TAP 284.89 RCA 91.94 APO 152.83 V2 35.117
RC 42.291 GL -4.85 GP -13.19 ZAL 62.66 ZAP 15.01 ETS 57.71 ZAE 162.03 ETE 326.17 ZAC 87.48 ETC 259.43 CLP -7.21

PLANETOCENTRIC CONIC

C3 16.904 VHL 4.111 DLA -26.05 RAL 242.95 RAD 6567.7 VEL 11.760 PTH 2.08 VHP 8.238 DPA -31.12 RAP 231.12 ECC 1.2782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 15 43	1179.58	11.80	341.71	105.22	115.93	11 35 23	579.6	15.20	334.68
90.00	14 34 26	5814.46	26.47	277.62	110.30	100.44	16 11 20	5214.5	27.65	269.15
100.00	12 9 41	1005.33	9.60	327.76	104.07	118.45	12 26 26	405.3	13.32	320.95
100.00	16 23 9	5463.94	28.92	252.27	110.75	97.91	17 54 13	4863.9	29.71	243.56
110.00	12 29 13	944.01	5.14	320.40	101.35	123.84	12 44 57	344.0	9.55	314.09
110.00	18 20 6	5098.02	34.11	225.03	111.30	92.46	19 45 4	4498.0	34.07	215.79

DIFFERENTIAL CORRECTIONS
TDE .2602 TRA-1.1401 TC3 .3462 BAU .0939
RDE -.3176 RRA .1655 RC3 -.2299 FAU .03306
FDE -.2813 FRA 1.2785 FC3-1.6932 BSP 5869
BDE .4106 BRA 1.1520 BC3 .4156 FSP -583

MID-COURSE EXECUTION ACCURACY
SGT 1827.5 SGR 545.5 SG3 212.1
RRT -.6704 RRF .7064 RTF -.9018
SGB 1907.2 R23 -.0968 R13 .9071
SG1 1865.5 SG2 396.5 THA 168.14

ORBIT DETERMINATION ACCURACY
ST 642.7 SR 449.3 SS 507.9
CRT -.6975 CRS -.6847 CST .9988
LSA 884.6 MSA 300.1 SSA 18.0
EL1 731.3 EL2 282.9 ALF 148.83

LAUNCH DATE AUG 1 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 286.140

RL 151.84 LAL -.00 LOL 308.34 VL 25.893 GAL 3.47 AZL 90.58 HCA 119.50 SMA 123.16 ECC .24024 INC .5820 V1 29.341
RP 107.88 LAP -.51 LOP 67.84 VP 37.187 GAP -11.97 AZP 89.71 TAL 168.89 TAP 288.38 RCA 93.57 APO 152.74 V2 35.129
RC 43.202 GL -3.83 GP -14.39 ZAL 63.04 ZAP -16.97 ETS 53.92 ZAE 159.41 ETE 325.50 ZAC 86.46 ETC 259.63 CLP -9.09

PLANETOCENTRIC CONIC

C3 15.474 VHL 3.934 DLA -24.97 RAL 242.69 RAD 6567.6 VEL 11.699 PTH 2.06 VHP 7.839 DPA -32.66 RAP 232.16 ECC 1.2547

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 53 30	1231.72	10.23	344.74	102.89	116.55	11 14 2	631.7	13.72	337.79
90.00	14 54 39	5722.04	27.44	271.03	108.40	97.27	16 30 1	5122.0	28.16	262.43
100.00	11 52 9	1042.35	8.39	329.85	101.92	118.80	12 9 32	442.4	12.17	323.10
100.00	16 38 41	5386.63	29.51	246.60	108.65	94.99	18 8 28	4786.6	29.89	237.82
110.00	12 17 16	963.56	4.40	321.43	99.47	123.93	12 33 20	363.6	8.82	315.14
110.00	18 30 3	5038.19	34.18	220.36	108.88	89.69	19 54 1	4438.2	33.76	211.14

DIFFERENTIAL CORRECTIONS
TDE .2525 TRA-1.1228 TC3 .4338 BAU .1087
RDE -.2985 RRA .1866 RC3 -.2965 FAU .03536
FDE -.2729 FRA 1.3491 FC3-1.9783 BSP 6072
BDE .3909 BRA 1.1382 BC3 .5255 FSP -647

MID-COURSE EXECUTION ACCURACY
SGT 1872.5 SGR 577.3 SG3 233.1
RRT -.7219 RRF .7613 RTF -.9081
SGB 1959.5 R23 -.1098 R13 .9143
SG1 1920.4 SG2 389.5 THA 166.90

ORBIT DETERMINATION ACCURACY
ST 654.4 SR 444.0 SS 517.1
CRT -.7180 CRS -.6832 CST .9978
LSA 898.1 MSA 292.9 SSA 18.2
EL1 742.4 EL2 272.4 ALF 149.49

LAUNCH DATE AUG 1 1970 FLIGHT TIME 116.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 292.894

RL 151.84 LAL -.00 LOL 308.34 VL 26.013 GAL 3.23 AZL 90.38 HCA 122.72 SMA 123.88 ECC .23235 INC .3766 V1 29.341
RP 107.84 LAP -.32 LOP 71.06 VP 37.283 GAP -11.22 AZP 89.80 TAL 169.19 TAP 291.91 RCA 95.09 APO 152.66 V2 35.141
RC 44.254 GL -2.60 GP -15.76 ZAL 63.47 ZAP 19.15 ETS 50.96 ZAE 156.88 ETE 324.40 ZAC 85.25 ETC 259.82 CLP -11.03

PLANETOCENTRIC CONIC

C3 14.214 VHL 3.770 DLA -23.67 RAL 242.44 RAD 6567.6 VEL 11.645 PTH 2.04 VHP 7.461 DPA -34.34 RAP 233.07 ECC 1.2339

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 31 12	1286.63	8.55	347.89	100.69	117.10	10 52 39	686.6	12.11	341.03
90.00	15 14 53	5629.23	28.06	264.31	106.37	93.96	16 48 43	5029.2	28.32	255.65
100.00	11 33 35	1085.25	6.97	332.24	99.84	119.14	11 51 40	485.3	10.81	325.55
100.00	16 55 12	5305.84	29.84	240.62	106.47	91.85	18 23 37	4705.8	29.78	231.81
110.00	12 3 58	989.99	3.39	322.81	97.63	124.03	12 20 28	390.0	7.84	316.55
110.00	18 41 18	4973.87	34.05	215.34	106.41	86.73	20 4 12	4373.9	33.22	206.20

DIFFERENTIAL CORRECTIONS
TDE .2421 TRA-1.1058 TC3 .5287 BAU .1235
RDE -.2793 RRA .2110 RC3 -.3782 FAU .03785
FDE -.2578 FRA 1.4273 FC3-2.3054 BSP 6266
BDE .3696 BRA 1.1258 BC3 .6500 FSP -717

MID-COURSE EXECUTION ACCURACY
SGT 1913.4 SGR 619.7 SG3 256.1
RRT -.7693 RRF .8118 RTF -.9139
SGB 2011.3 R23 -.1239 R13 .9213
SG1 1974.3 SG2 383.7 THA 165.45

ORBIT DETERMINATION ACCURACY
ST 662.2 SR 437.4 SS 524.1
CRT -.7392 CRS -.6787 CST .9953
LSA 906.9 MSA 285.9 SSA 18.5
EL1 749.8 EL2 260.2 ALF 150.00

LAUNCH DATE AUG 1 1970 FLIGHT TIME 118.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 299.638

RL	151.84	LAL	-.00	LOL	308.34	VL	26.124	GAL	3.01	AZL	90.16	HCA	125.94	SMA	124.55	ECC	.22509	INC	.1556
RP	107.81	LAP	-.13	LOP	74.28	VP	37.370	GAP	-10.50	AZP	89.91	TAL	169.52	TAP	295.46	RCA	96.51	APO	152.58
RC	45.436	GL	-1.13	GP	-17.32	ZAL	63.96	ZAP	21.56	ETS	48.67	ZAE	154.45	ETE	322.93	ZAC	83.84	ETC	259.99

V1	29.341	V2	35.152	CLP	-13.05														

PLANETOCENTRIC CONIC

C3	13.112	VHL	3.621	DLA	-22.13	RAL	242.18	RAD	6567.5	VEL	11.597	PTH	2.03	VHP	7.108	DPA	-36.18	RAP	233.84
ECC	1.2158																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 8 29	1346.07	6.69	351.27	98.62	117.58	10 30 55	746.1	10.33	344.48
90.00	15 35 36	5534.55	28.31	257.40	104.25	90.50	17 7 51	4934.5	28.08	248.74
100.00	11 13 58	1134.70	5.33	334.99	97.87	119.46	11 32 53	534.7	9.21	328.36
100.00	17 12 48	5221.14	29.86	234.32	104.23	88.54	18 39 49	4621.1	29.34	225.56
110.00	11 49 20	1023.85	2.10	324.59	95.87	124.13	12 6 24	423.9	6.56	318.34
110.00	18 53 56	4904.76	33.65	209.99	103.93	83.58	20 15 41	4304.8	32.39	200.98

DIFFERENTIAL CORRECTIONS

TDE	.2290	TRA	-1.0890	TC3	.6291	BAU	.1385
RDE	-.2598	RRA	.2396	RC3	-.4779	FAU	.04053
FDE	-.2340	FRA	1.5137	FC3	-2.6762	BSP	6463
BDE	.3463	BRA	1.1150	BC3	.7900	FSP	-794

MID-COURSE EXECUTION ACCURACY

SGT	1949.1	SGR	675.4	SG3	281.0		
RRT	-.8111	RRF	.8562	RTF	-.9191		
SGB	2062.8	R23	-.1388	R13	.9281		
SG1	2027.5	SG2	379.8	THA	163.71		

ORBIT DETERMINATION ACCURACY

ST	665.5	SR	429.1	SS	529.1
CRT	-.7619	CRS	-.6710	CST	.9904
LSA	910.3	MSA	279.2	SSA	18.8
EL1	752.7	EL2	245.7	ALF	150.37

LAUNCH DATE AUG 1 1970 FLIGHT TIME 120.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 306.372

RL	151.84	LAL	-.00	LOL	308.34	VL	26.225	GAL	2.80	AZL	89.92	HCA	129.16	SMA	125.17	ECC	.21844	INC	.0816
RP	107.77	LAP	.06	LOP	77.50	VP	37.451	GAP	-9.80	AZP	90.05	TAL	169.86	TAP	299.02	RCA	97.82	APO	152.51
RC	46.738	GL	.63	GP	-19.11	ZAL	64.51	ZAP	24.21	ETS	46.91	ZAE	152.08	ETE	321.11	ZAC	82.18	ETC	260.13

V1	29.341	V2	35.163	CLP	-15.16														

PLANETOCENTRIC CONIC

C3	12.159	VHL	3.487	DLA	-20.30	RAL	241.96	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	6.779	DPA	-38.20	RAP	234.43
ECC	1.2001																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 45 7	1411.53	4.61	354.96	96.72	117.97	10 8 39	811.5	8.32	348.24
90.00	15 57 9	5436.83	28.16	250.25	102.10	86.93	17 27 46	4836.8	27.44	241.66
100.00	10 53 17	1191.55	3.42	338.13	96.06	119.71	11 13 8	591.5	7.35	331.55
100.00	17 31 40	5132.04	29.52	227.72	101.99	85.08	18 57 12	4532.0	28.53	219.06
110.00	11 33 23	1065.87	.49	326.78	94.24	124.18	11 51 9	465.9	4.98	320.56
110.00	19 8 3	4830.48	32.94	204.31	101.48	80.29	20 28 34	4230.5	31.25	195.49

DIFFERENTIAL CORRECTIONS

TDE	.2120	TRA	-1.0731	TC3	.7304	BAU	.1535
RDE	-.2390	RRA	.2736	RC3	-.5982	FAU	.04333
FDE	-.1984	FRA	1.6094	FC3	-3.0854	BSP	6639
BDE	.3195	BRA	1.1075	BC3	.9441	FSP	-875

MID-COURSE EXECUTION ACCURACY

SGT	1978.8	SGR	747.0	SG3	307.7		
RRT	-.8460	RRF	.8935	RTF	-.9238		
SGB	2115.1	R23	-.1540	R13	.9347		
SG1	2081.0	SG2	378.7	THA	161.66		

ORBIT DETERMINATION ACCURACY

ST	663.2	SR	418.4	SS	532.3
CRT	-.7862	CRS	-.6588	CST	.9818
LSA	907.1	MSA	273.7	SSA	19.1
EL1	750.0	EL2	228.6	ALF	150.63

LAUNCH DATE AUG 1 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 313.092

RL	151.84	LAL	-.00	LOL	308.34	VL	26.316	GAL	2.61	AZL	89.65	HCA	132.39	SMA	125.74	ECC	.21237	INC	.3457
RP	107.74	LAP	.26	LOP	80.73	VP	37.525	GAP	-9.12	AZP	90.23	TAL	170.21	TAP	302.60	RCA	99.03	APO	152.44
RC	48.150	GL	2.70	GP	-21.16	ZAL	65.11	ZAP	27.12	ETS	45.55	ZAE	149.73	ETE	318.93	ZAC	80.24	ETC	260.24

V1	29.341	V2	35.174	CLP	-17.38														

PLANETOCENTRIC CONIC

C3	11.349	VHL	3.369	DLA	-18.16	RAL	241.77	RAD	6567.4	VEL	11.521	PTH	2.01	VHP	6.478	DPA	-40.45	RAP	234.81
ECC	1.1868																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 56	1484.50	2.27	359.04	95.05	118.23	9 45 40	884.5	6.03	352.38
90.00	16 19 51	5335.01	27.57	242.86	99.98	83.27	17 48 46	4735.0	26.35	234.41
100.00	10 31 29	1256.85	1.21	341.72	94.46	119.87	10 52 25	656.9	5.17	335.17
100.00	17 51 59	5037.89	28.77	220.83	99.79	81.53	19 15 57	4437.9	27.30	212.33
110.00	11 16 8	1116.92	-1.46	329.44	92.79	124.16	11 34 45	516.9	3.03	323.23
110.00	19 23 49	4750.58	31.86	198.33	99.11	76.90	20 42 59	4150.6	29.73	189.76

DIFFERENTIAL CORRECTIONS

TDE	.1923	TRA	-1.0572	TC3	.8318	BAU	.1692
RDE	-.2160	RRA	.3144	RC3	-.7427	FAU	.04625
FDE	-.1489	FRA	1.7130	FC3	-3.5276	BSP	6833
BDE	.2892	BRA	1.1029	BC3	1.1151	FSP	-963

MID-COURSE EXECUTION ACCURACY

SGT	2000.4	SGR	837.8	SG3	335.9		
RRT	-.8743	RRF	.9234	RTF	-.9279		
SGB	2168.7	R23	-.1676	R13	.9414		
SG1	2135.0	SG2	381.0	THA	159.19		

ORBIT DETERMINATION ACCURACY

ST	655.4	SR	404.5	SS	535.4
CRT	-.8156	CRS	-.6444	CST	.9668
LSA	898.2	MSA	269.7	SSA	19.2
EL1	741.9	EL2	206.8	ALF	150.79

LAUNCH DATE AUG 1 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 319.799

RL	151.84	LAL	-.00	LOL	308.34	VL	26.400	GAL	2.44	AZL	89.36	HCA	135.61	SMA	126.26	ECC	.20684	INC	.6378
RP	107.71	LAP	.45	LOP	83.96	VP	37.593	GAP	-8.46	AZP	90.46	TAL	170.57	TAP	306.18	RCA	100.15	APO	152.38
RC	49.661	GL	5.15	GP	-23.53	ZAL	65.78	ZAP	30.32	ETS	44.52	ZAE	147.36	ETE	316.42	ZAC	77.98	ETC	260.31

V1	29.341	V2	35.184	CLP	-19.70														

PLANETOCENTRIC CONIC

C3	10.682	VHL	3.268	DLA	-15.64	RAL	241.65	RAD	6567.4	VEL	11.492	PTH	2.00	VHP	6.207	DPA	-42.97	RAP	234.91
ECC	1.1758																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 55 44	1566.62	-.38	3.62	93.65	118.31	9 21 50	966.6	3.41	356.99
90.00	16 44 3	5228.01	26.48	235.22	97.96	79.59	18 11 11	4628.0	24.78	226.97
100.00	10 8 28	1331.94	-1.34	345.83	93.12	119.87	10 30 40	731.9	2.64	339.31
100.00	18 14 0	4937.92	27.56	213.65	97.72	77.94	19 36 18	4337.9	25.62	205.38
110.00	10 57 33	1178.15	-3.79	332.64	91.59	124.00	11 17 12	578.1	.69	326.43
110.00	19 41 24	4664.48	30.36	192.07	96.90	73.48	20 59 8	4064.5	27.80	183.81

DIFFERENTIAL CORRECTIONS

TDE	.1685	TRA	-1.0417	TC3	.9231	BAU	.1854
RDE	-.1891	RRA	.3638	RC3	-.9128	FAU	.04912
FDE	-.0811	FRA	1.8239	FC3	-3.9808	BSP	7019
BDE	.2533	BRA	1.1034	BC3	1.2982	FSP	-1054

MID-COURSE EXECUTION ACCURACY

SGT	2011.8	SGR	951.0	SG3	364.7		
RRT	-.8957	RRF	.9463	RTF	-.9313		
SGB	2225.2	R23	-.1789	R13	.9481		
SG1	2191.1	SG2	388.2	THA	156.26		

ORBIT DETERMINATION ACCURACY

ST	641.3	SR	386.9	SS	541.2
CRT	-.8516	CRS	-.6311	CST	.9426
LSA	883.9	MSA	268.7	SSA	19.2
EL1	727.3	EL2	178.8	ALF	150.88

LAUNCH DATE AUG 1 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 326.490

RL	151.84	LAL	-.00	LOL	308.34	VL	26.475	GAL	2.28	AZL	89.03	HCA	138.84	SMA	126.74	ECC	.20184	INC	.9651	V1	29.341
RP	107.68	LAP	.64	LOP	87.19	VP	37.655	GAP	-7.82	AZP	90.73	TAL	170.92	TAP	309.76	RCA	101.16	APO	152.33	V2	35.193
RC	51.263	GL	8.04	GP	-26.26	ZAL	66.53	ZAP	33.83	ETS	43.71	ZAE	144.88	ETE	313.58	ZAC	75.34	ETC	260.31	CLP	-22.14

PLANETOCENTRIC CONIC

C3	10.163	VHL	3.188	DLA	-12.70	RAL	241.60	RAD	6567.4	VEL	11.470	PTH	1.99	VHP	5.972	DPA	-45.78	RAP	234.68	ECC	1.1672

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 17	1659.81	-3.38	8.82	92.62	118.13	8 56 57	1059.8	.40	2.19
90.00	17 10 9	5114.68	24.85	227.33	96.13	75.96	18 35 24	4514.7	22.67	219.33
100.00	9 44 5	1418.50	-4.27	350.60	92.13	119.61	10 7 43	818.5	-.29	344.06
100.00	18 38 3	4831.22	25.82	206.20	95.85	74.39	19 58 34	4231.2	23.43	198.22
110.00	10 37 34	1251.00	-6.56	336.47	90.72	123.62	10 58 25	651.0	-2.09	330.23
110.00	20 1 3	4571.49	28.38	185.55	94.93	70.09	21 17 15	3971.5	25.40	177.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1410	TRA	-1.0269	TC3	.9996	BAU	.2028	SGT	2012.5	SGR	1090.8	SG3	393.2	ST	621.9	SR	366.3	SS	555.3
RDE	-.1561	RRA	.4244	RC3	-1.1088	FAU	.05181	RRT	-.9115	RRF	.9632	RTF	-.9342	CRT	-.8983	CRS	-.6315	CST	.9061
FDE	.0089	FRA	1.9409	FC3	-4.4139	BSP	7236	SGB	2289.0	R23	-.1853	R13	.9550	LSA	868.8	MSA	272.2	SSA	18.7
BDE	.2103	BRA	1.1112	BC3	1.4929	FSP	-1146	SG1	2253.7	SG2	400.6	THA	152.78	EL1	707.8	EL2	141.4	ALF	150.84

LAUNCH DATE AUG 1 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 333.163

RL	151.84	LAL	-.00	LOL	308.34	VL	26.543	GAL	2.13	AZL	88.66	HCA	142.07	SMA	127.18	ECC	.19732	INC	1.3378	V1	29.341
RP	107.65	LAP	.82	LOP	90.42	VP	37.711	GAP	-7.20	AZP	91.06	TAL	171.27	TAP	313.34	RCA	102.09	APO	152.28	V2	35.202
RC	52.948	GL	11.41	GP	-29.40	ZAL	67.37	ZAP	37.68	ETS	43.06	ZAE	142.22	ETE	310.43	ZAC	72.28	ETC	260.25	CLP	-24.70

PLANETOCENTRIC CONIC

C3	9.804	VHL	3.131	DLA	-9.27	RAL	241.66	RAD	6567.4	VEL	11.454	PTH	1.99	VHP	5.779	DPA	-48.95	RAP	234.01	ECC	1.1613

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 1 18	1766.44	-6.78	14.82	92.04	117.56	8 30 44	1166.4	-3.04	8.14
90.00	17 38 38	4993.74	22.60	219.18	94.62	72.47	19 1 52	4393.7	19.99	211.48
100.00	9 18 6	1518.66	-7.61	356.15	91.60	119.00	9 43 25	918.7	-3.68	349.57
100.00	19 4 31	4716.75	23.49	198.49	94.30	70.97	20 23 8	4116.7	20.68	190.82
110.00	10 16 1	1337.31	-9.78	341.07	90.28	122.92	10 38 18	737.3	-5.38	334.75
110.00	20 23 6	4470.86	25.86	178.81	93.29	66.82	21 37 37	3870.9	22.50	171.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1102	TRA	-1.0118	TC3	1.0526	BAU	.2220	SGT	1998.6	SGR	1260.8	SG3	419.4	ST	598.1	SR	347.9	SS	584.4
RDE	-.1139	RRA	.4988	RC3	-1.3274	FAU	.05412	RRT	-.9226	RRF	.9752	RTF	-.9363	CRT	-.9547	CRS	-.6693	CST	.8573
FDE	.1241	FRA	2.0576	FC3	-4.7789	BSP	7468	SGB	2363.1	R23	-.1852	R13	.9622	LSA	860.6	MSA	281.7	SSA	17.5
BDE	.1584	BRA	1.1281	BC3	1.6941	FSP	-1231	SG1	2325.8	SG2	417.9	THA	148.67	EL1	686.0	EL2	90.3	ALF	150.40

LAUNCH DATE AUG 1 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 339.818

RL	151.84	LAL	-.00	LOL	308.34	VL	26.604	GAL	2.00	AZL	88.23	HCA	145.30	SMA	127.58	ECC	.19327	INC	1.7689	V1	29.341
RP	107.63	LAP	1.01	LOP	93.65	VP	37.762	GAP	-6.60	AZP	91.45	TAL	171.60	TAP	316.89	RCA	102.92	APO	152.23	V2	35.210
RC	54.707	GL	15.33	GP	-33.01	ZAL	68.33	ZAP	41.88	ETS	42.47	ZAE	139.27	ETE	307.01	ZAC	68.73	ETC	260.08	CLP	-27.40

PLANETOCENTRIC CONIC

C3	9.633	VHL	3.104	DLA	-5.31	RAL	241.85	RAD	6567.3	VEL	11.447	PTH	1.99	VHP	5.638	DPA	-52.50	RAP	232.75	ECC	1.1585

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 31 18	1889.46	-10.59	21.86	92.07	116.42	8 2 48	1289.5	-6.95	15.06
90.00	18 10 9	4863.79	19.69	210.76	93.56	69.23	19 31 12	4263.8	16.69	203.37
100.00	8 50 9	1635.13	-11.38	2.74	91.66	117.83	9 17 24	1035.1	-7.57	356.02
100.00	19 33 59	4593.35	20.53	190.52	93.20	67.78	20 50 33	3993.3	17.34	183.18
110.00	9 52 39	1439.43	-13.50	346.65	90.42	121.71	10 16 38	839.4	-9.21	340.17
110.00	20 47 58	4361.81	22.75	171.87	92.13	63.77	22 0 40	3761.8	19.04	164.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0762	TRA	-.9971	TC3	1.0676	BAU	.2431	SGT	1968.7	SGR	1465.0	SG3	440.9	ST	572.4	SR	346.9	SS	636.1
RDE	-.0578	RRA	.5912	RC3	-1.5566	FAU	.05565	RRT	-.9297	RRF	.9836	RTF	-.9375	CRT	-.9967	CRS	-.7650	CST	.8044
FDE	.2668	FRA	2.1682	FC3	-5.0012	BSP	7739	SGB	2454.0	R23	-.1779	R13	.9694	LSA	874.5	MSA	296.1	SSA	15.5
BDE	.0956	BRA	1.1591	BC3	1.8875	FSP	-1303	SG1	2414.2	SG2	440.2	THA	143.94	EL1	668.9	EL2	24.3	ALF	148.82

LAUNCH DATE AUG 1 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 346.455

RL	151.84	LAL	-.00	LOL	308.34	VL	26.659	GAL	1.88	AZL	87.72	HCA	148.52	SMA	127.93	ECC	.18966	INC	2.2767	V1	29.341
RP	107.60	LAP	1.19	LOP	96.89	VP	37.808	GAP	-6.02	AZP	91.94	TAL	171.90	TAP	320.43	RCA	103.67	APO	152.20	V2	35.218
RC	56.533	GL	19.87	GP	-37.14	ZAL	69.44	ZAP	46.46	ETS	41.86	ZAE	135.93	ETE	303.40	ZAC	64.66	ETC	259.78	CLP	-30.23

PLANETOCENTRIC CONIC

C3	9.701	VHL	3.115	DLA	-.75	RAL	242.20	RAD	6567.3	VEL	11.449	PTH	1.99	VHP	5.560	DPA	-56.47	RAP	230.70	ECC	1.1596

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 58 39	2032.69	-14.78	30.28	92.91	114.43	7 32 31	1432.7	-11.36	23.27
90.00	18 45 32	4723.30	16.07	202.05	93.12	66.37	20 4 16	4123.3	12.74	194.95
100.00	8 19 38	1771.43	-15.58	10.68	92.52	115.84	8 49 10	1171.4	-11.98	3.74
100.00	20 7 14	4459.79	16.88	182.29	92.74	64.96	21 21 34	3859.8	13.36	175.26
110.00	9 27 5	1560.32	-17.71	353.49	91.35	119.73	9 53 5	960.3	-13.62	346.76
110.00	21 16 17	4243.67	19.02	164.73	91.60	61.05	22 27 0	3643.7	15.02	157.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0251	TRA	-.9972	TC3	.9691	BAU	.2590	SGT	1931.8	SGR	1705.0	SG3	454.7	ST	552.6	SR	397.6	SS	729.0
RDE	.0249	RRA	.7132	RC3	-1.7463	FAU	.05499	RRT	-.9295	RRF	.9891	RTF	-.9357	CRT	-.9791	CRS	-.8908	CST	.7828
FDE	.4568	FRA	2.2833	FC3	-4.9073	BSP	7686	SGB	2576.7	R23	-.1665	R13	.9760	LSA	950.8	MSA	301.2	SSA	13.5
BDE	.0353	BRA	1.2260	BC3	1.9971	FSP	-1308	SG1	2531.6	SG2	479.8	THA	138.84	EL1	677.6	EL2	66.0	ALF	144.45

LAUNCH DATE AUG 1 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 353.068

RL	151.84	LAL	-.00	LOL	308.34	VL	26.707	GAL	1.78	AZL	87.11	HCA	151.75	SMA	128.25	ECC	.18646	INC	2.8877	V1	29.341
RP	107.58	LAP	1.37	LOP	100.12	VP	37.848	GAP	-5.45	AZP	92.54	TAL	172.18	TAP	323.94	RCA	104.34	APO	152.17	V2	35.225
RC	58.419	GL	25.05	GP	-41.82	ZAL	70.74	ZAP	51.40	ETS	41.12	ZAE	132.09	ETE	299.69	ZAC	60.03	ETC	259.30	CLP	-33.17

PLANETOCENTRIC CONIC

C3	10.090	VHL	3.177	DLA	4.43	RAL	242.71	RAD	6567.4	VEL	11.466	PTH	1.99	VHP	5.565	DPA	-60.84	RAP	227.45	ECC	1.1661

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 22 8	2201.47	-19.25	40.65	94.84	111.18	6 58 50	1601.5	-16.20	33.30
90.00	19 26 8	4570.17	11.69	192.94	93.55	64.02	20 42 18	3970.2	8.10	186.10
100.00	7 45 34	1932.39	-20.09	20.51	94.48	112.61	8 17 46	1332.4	-16.85	13.21
100.00	20 45 23	4314.48	12.50	173.72	93.14	62.62	21 57 18	3714.5	8.73	166.96
110.00	8 58 34	1703.88	-22.33	2.06	93.38	116.58	9 26 58	1103.9	-18.58	354.93
110.00	21 48 52	4115.75	14.65	157.40	91.89	58.76	22 57 28	3515.8	10.41	150.87

DIFFERENTIAL CORRECTIONS

TDE	-.0050	TRA	-.9748	TC3	.9072	BAU	.2872
RDE	.1279	RRA	.8546	RC3	-1.9261	FAU	.05404
FDE	.6377	FRA	2.3346	FC3	-4.6368	BSP	8250
BDE	.1279	BRA	1.2963	BC3	2.1291	FSP	-1338

MID-COURSE EXECUTION ACCURACY

SGT	1855.3	SGR	1985.1	SG3	455.9		
RRT	-.9323	RRF	.9929	RTF	-.9354		
SGB	2717.1	R23	-.1435	R13	.9828		
SG1	2671.0	SG2	498.7	THA	132.92		

ORBIT DETERMINATION ACCURACY

ST	529.4	SR	519.3	SS	824.0		
CRT	-.9024	CRS	-.9622	CST	.7520		
LSA	1063.6	MSA	312.0	SSA	10.6		
EL1	723.2	EL2	163.8	ALF	135.61		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 359.658

RL	151.84	LAL	-.00	LOL	308.34	VL	26.750	GAL	1.69	AZL	86.36	HCA	154.98	SMA	128.54	ECC	.18364	INC	3.6422	V1	29.341
RP	107.56	LAP	1.54	LOP	103.36	VP	37.885	GAP	-4.90	AZP	93.30	TAL	172.43	TAP	327.41	RCA	104.93	APO	152.14	V2	35.232
RC	60.358	GL	30.87	GP	-47.07	ZAL	72.27	ZAP	56.65	ETS	40.16	ZAE	127.66	ETE	295.97	ZAC	54.83	ETC	258.56	CLP	-36.19

PLANETOCENTRIC CONIC

C3	10.959	VHL	3.310	DLA	10.23	RAL	243.41	RAD	6567.4	VEL	11.504	PTH	2.00	VHP	5.681	DPA	-65.57	RAP	222.34	ECC	1.1804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 39 50	2403.62	-23.66	53.82	98.25	106.03	6 19 54	1803.6	-21.24	45.99
90.00	20 14 3	4401.45	6.49	183.26	95.19	62.38	21 27 24	3801.5	2.75	176.59
100.00	7 6 15	2124.91	-24.61	33.01	97.93	107.53	7 41 40	1524.9	-21.98	25.20
100.00	21 30 19	4155.39	7.37	164.70	94.71	60.95	22 39 34	3555.4	3.44	158.12
110.00	8 26 1	1875.30	-27.12	13.07	96.94	111.66	8 57 16	1275.3	-23.93	5.35
110.00	22 27 2	3977.77	9.65	149.84	93.32	57.05	23 33 20	3377.8	5.24	143.52

DIFFERENTIAL CORRECTIONS

TDE	-.0325	TRA	-.9523	TC3	.7824	BAU	.3163
RDE	.2705	RRA	1.0320	RC3	-2.0118	FAU	.05093
FDE	.8240	FRA	2.3379	FC3	-4.0233	BSP	8873
BDE	.2725	BRA	1.4043	BC3	2.1586	FSP	-1316

MID-COURSE EXECUTION ACCURACY

SGT	1754.1	SGR	2299.5	SG3	440.9		
RRT	-.9313	RRF	.9954	RTF	-.9326		
SGB	2892.1	R23	-.1185	R13	.9884		
SG1	2845.7	SG2	516.4	THA	126.80		

ORBIT DETERMINATION ACCURACY

ST	505.9	SR	719.3	SS	926.4		
CRT	-.8261	CRS	-.9891	CST	.7346		
LSA	1237.6	MSA	315.7	SSA	8.1		
EL1	845.2	EL2	242.6	ALF	123.25		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 366.223

RL	151.84	LAL	-.00	LOL	308.34	VL	26.787	GAL	1.62	AZL	85.40	HCA	158.20	SMA	128.79	ECC	.18119	INC	4.6041	V1	29.341
RP	107.54	LAP	1.71	LOP	106.60	VP	37.916	GAP	-4.36	AZP	94.28	TAL	172.64	TAP	330.84	RCA	105.45	APO	152.12	V2	35.238
RC	62.346	GL	37.27	GP	-52.88	ZAL	74.05	ZAP	62.11	ETS	38.87	ZAE	122.60	ETE	292.36	ZAC	49.09	ETC	257.47	CLP	-39.20

PLANETOCENTRIC CONIC

C3	12.597	VHL	3.549	DLA	16.59	RAL	244.32	RAD	6567.5	VEL	11.575	PTH	2.02	VHP	5.951	DPA	-70.47	RAP	213.98	ECC	1.2073

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 47 39	2653.32	-27.24	71.20	103.59	98.05	5 31 52	2053.3	-25.85	62.81
90.00	21 13 30	4210.09	.36	172.54	98.57	61.69	22 23 40	3610.1	-3.42	165.91
100.00	6 18 22	2360.78	-28.42	49.48	103.38	99.68	6 57 43	1760.8	-26.79	41.05
100.00	22 25 27	3977.89	1.41	154.89	97.99	60.14	23 31 45	3377.9	-2.58	148.37
110.00	7 47 21	2082.36	-31.47	27.59	102.64	104.08	8 22 3	1482.4	-29.22	19.11
110.00	23 12 58	3829.05	4.06	141.95	96.34	56.03	24 16 47	3229.0	-.43	135.74

DIFFERENTIAL CORRECTIONS

TDE	-.0538	TRA	-.9289	TC3	.6058	BAU	.3444
RDE	.4698	RRA	1.2557	RC3	-1.9529	FAU	.04539
FDE	.9958	FRA	2.2768	FC3	-3.1194	BSP	9578
BDE	.4729	BRA	1.5620	BC3	2.0448	FSP	-1236

MID-COURSE EXECUTION ACCURACY

SGT	1625.0	SGR	2640.2	SG3	407.1		
RRT	-.9257	RRF	.9969	RTF	-.9264		
SGB	3100.3	R23	-.0930	R13	.9926		
SG1	3054.4	SG2	531.4	THA	120.70		

ORBIT DETERMINATION ACCURACY

ST	477.6	SR	989.7	SS	1017.1		
CRT	-.7707	CRS	-.9971	CST	.7205		
LSA	1464.3	MSA	312.9	SSA	6.0		
EL1	1061.7	EL2	283.7	ALF	112.06		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 372.760

RL	151.84	LAL	-.00	LOL	308.34	VL	26.819	GAL	1.56	AZL	84.12	HCA	161.41	SMA	129.00	ECC	.17909	INC	5.8810	V1	29.341
RP	107.53	LAP	1.87	LOP	109.85	VP	37.944	GAP	-3.84	AZP	95.58	TAL	172.80	TAP	334.21	RCA	105.90	APO	152.11	V2	35.243
RC	64.375	GL	44.09	GP	-59.19	ZAL	76.09	ZAP	67.63	ETS	37.21	ZAE	116.89	ETE	288.97	ZAC	42.86	ETC	255.86	CLP	-42.00

PLANETOCENTRIC CONIC

C3	15.589	VHL	3.948	DLA	23.34	RAL	245.44	RAD	6567.6	VEL	11.704	PTH	2.06	VHP	6.446	DPA	-75.13	RAP	199.38	ECC	1.2565

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 33 42	2988.68	-28.04	95.61	110.85	85.91	4 23 30	2388.7	-28.32	86.95
90.00	22 36 19	3968.42	-7.37	158.99	104.77	62.58	23 42 28	3368.4	-10.98	152.18
100.00	5 13 15	2667.70	-29.83	72.10	110.96	87.92	5 57 42	2067.7	-29.80	63.30
100.00	23 39 27	3764.63	-5.80	143.16	103.92	60.62	24 42 12	3164.6	-9.67	136.51
110.00	6 58 12	2339.34	-34.08	47.13	110.93	92.84	7 37 11	1739.3	-33.31	37.97
110.00	0 14 55	3665.75	-2.18	133.43	101.67	55.88	1 16 1	3065.8	-6.64	127.18

DIFFERENTIAL CORRECTIONS

TDE	-.0601	TRA	-.9045	TC3	.4066	BAU	.3677
RDE	.7485	RRA	1.5429	RC3	-1.7167	FAU	.03751
FDE	1.1257	FRA	2.1446	FC3	-2.0832	BSP	10333
BDE	.7509	BRA	1.7885	BC3	1.7642	FSP	-1093

MID-COURSE EXECUTION ACCURACY

SGT	1467.8	SGR	2994.0	SG3	354.8		
RRT	-.9139	RRF	.9980	RTF	-.9152		
SGB	3334.5	R23	-.0682	R13	.9957		
SG1	3290.1	SG2	542.2	THA	114.86		

ORBIT DETERMINATION ACCURACY

ST	437.8	SR	1310.2	SS	1072.1		
CRT	-.7130	CRS	-.9993	CST	.6873		
LSA	1721.3	MSA	307.7	SSA	4.4		
EL1	1348.8	EL2	298.2	ALF	104.10		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 379.263

RL	151.84	LAL	-.00	LOL	308.34	VL	26.847	GAL	1.52	AZL	82.33	HCA	164.62	SMA	129.19	ECC	.17731	INC	7.6693	V1	29.341
RP	107.51	LAP	2.03	LOP	113.09	VP	37.968	GAP	-3.33	AZP	97.40	TAL	172.91	TAP	337.52	RCA	106.28	APO	152.09	V2	35.247
RC	66.441	GL	51.03	GP	-65.96	ZAL	78.34	ZAP	72.98	ETS	35.24	ZAE	110.54	ETE	286.00	ZAC	36.23	ETC	253.45	CLP	-44.08

PLANETOCENTRIC CONIC

C3	21.219	VHL	4.606	DLA	30.22	RAL	246.70	RAD	6567.9	VEL	11.941	PTH	2.13	VHP	7.293	DPA	-78.49	RAP	173.08	ECC	1.3492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.98	23 39 7	3837.30	-20.52	155.76	116.73	67.32	24 43 5	3237.3	-23.42	148.13
101.02	2 41 1	3263.82	-20.51	113.54	116.73	67.31	3 35 25	2663.8	-23.41	105.91
78.98	23 39 7	3837.30	-20.52	155.76	116.73	67.32	24 43 5	3237.3	-23.42	148.13
101.02	2 41 1	3263.82	-20.51	113.54	116.73	67.31	3 35 25	2663.8	-23.41	105.91
110.00	5 45 5	2687.02	-31.98	73.89	120.81	77.24	6 29 52	2087.0	-33.41	64.95
110.00	1 38 10	3462.10	-9.86	122.66	110.93	57.10	2 35 52	2862.1	-14.13	116.16

DIFFERENTIAL CORRECTIONS

TDE	-.0424	TRA	-.8821	TC3	.2212	BAU	.3773
RDE	1.1474	RRA	1.9239	RC3	-1.3116	FAU	.02776
FDE	1.1945	FRA	1.9480	FC3	-1.1328	BSP	11083
BDE	1.1481	BRA	2.1165	BC3	1.3301	FSP	-900

MID-COURSE EXECUTION ACCURACY

SGT	1287.1	SGR	3341.5	SG3	288.6		
RRT	-.8923	RRF	.9986	RTF	-.8958		
SGB	3580.8	R23	-.0442	R13	.9977		
SG1	3538.6	SG2	548.6	THA	109.45		

ORBIT DETERMINATION ACCURACY

ST	384.6	SR	1651.7	SS	1076.0
CRT	-.6169	CRS	-.9999	CST	.6074
LSA	1985.7	MSA	301.5	SSA	3.2
EL1	1669.2	EL2	299.5	ALF	98.45

LAUNCH DATE AUG 1 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 385.720

RL	151.84	LAL	-.00	LOL	308.34	VL	26.870	GAL	1.50	AZL	79.63	HCA	167.80	SMA	129.35	ECC	.17584	INC	10.3675	V1	29.341
RP	107.50	LAP	2.18	LOP	116.33	VP	37.987	GAP	-2.85	AZP	100.14	TAL	172.95	TAP	340.74	RCA	106.60	APO	152.09	V2	35.251
RC	68.539	GL	57.67	GP	-73.16	ZAL	80.74	ZAP	77.94	ETS	33.48	ZAE	103.48	ETE	283.97	ZAC	29.29	ETC	249.85	CLP	-43.87

PLANETOCENTRIC CONIC

C3	32.729	VHL	5.721	DLA	36.81	RAL	247.97	RAD	6568.3	VEL	12.414	PTH	2.24	VHP	8.743	DPA	-78.56	RAP	135.77	ECC	1.5386

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.44	22 17 58	4210.57	-21.06	184.84	127.03	59.09	23 28 9	3610.6	-24.99	177.68
114.56	4 12 18	3104.88	-21.04	101.61	127.02	59.08	5 4 3	2504.9	-24.98	94.46
65.44	22 17 58	4210.57	-21.06	184.84	127.03	59.09	23 28 9	3610.6	-24.99	177.68
114.56	4 12 18	3104.88	-21.04	101.61	127.02	59.08	5 4 3	2504.9	-24.98	94.46
65.44	22 17 58	4210.57	-21.06	184.84	127.03	59.09	23 28 9	3610.6	-24.99	177.68
114.56	4 12 18	3104.88	-21.04	101.61	127.02	59.08	5 4 3	2504.9	-24.98	94.46

DIFFERENTIAL CORRECTIONS

TDE	.0098	TRA	-.8805	TC3	.0889	BAU	.3562
RDE	1.7411	RRA	2.4615	RC3	-.8091	FAU	.01717
FDE	1.1947	FRA	1.7147	FC3	-.4542	BSP	11779
BDE	1.7412	BRA	2.6143	BC3	.8140	FSP	-682

MID-COURSE EXECUTION ACCURACY

SGT	1106.1	SGR	3657.6	SG3	216.9		
RRT	-.8573	RRF	.9989	RTF	-.8656		
SGB	3821.2	R23	-.0206	R13	.9988		
SG1	3781.3	SG2	550.9	THA	104.86		

ORBIT DETERMINATION ACCURACY

ST	330.6	SR	1973.5	SS	1026.3
CRT	-.4418	CRS	-1.0000	CST	.4475
LSA	2229.3	MSA	295.8	SSA	2.4
EL1	1979.0	EL2	295.7	ALF	94.33

LAUNCH DATE AUG 1 1970 FLIGHT TIME 146.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 392.107

RL	151.84	LAL	-.00	LOL	308.34	VL	26.889	GAL	1.50	AZL	75.08	HCA	170.94	SMA	129.48	ECC	.17467	INC	14.9160	V1	29.341
RP	107.49	LAP	2.32	LOP	119.58	VP	38.004	GAP	-2.39	AZP	104.74	TAL	172.89	TAP	343.83	RCA	106.86	APO	152.09	V2	35.254
RC	70.666	GL	63.23	GP	-80.70	ZAL	83.18	ZAP	82.26	ETS	35.06	ZAE	95.45	ETE	285.95	ZAC	22.15	ETC	245.43	CLP	-33.52

PLANETOCENTRIC CONIC

C3	60.050	VHL	7.749	DLA	42.45	RAL	248.79	RAD	6569.1	VEL	13.469	PTH	2.46	VHP	11.387	DPA	-74.57	RAP	104.77	ECC	1.9883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.95	21 41 26	4475.51	-17.53	204.46	138.60	50.70	22 56 2	3875.5	-22.48	198.18
123.05	4 55 18	3143.72	-17.52	102.23	138.58	50.70	5 47 42	2543.7	-22.46	95.96
56.95	21 41 26	4475.51	-17.53	204.46	138.60	50.70	22 56 2	3875.5	-22.48	198.18
123.05	4 55 18	3143.72	-17.52	102.23	138.58	50.70	5 47 42	2543.7	-22.46	95.96
56.95	21 41 26	4475.51	-17.53	204.46	138.60	50.70	22 56 2	3875.5	-22.48	198.18
123.05	4 55 18	3143.72	-17.52	102.23	138.58	50.70	5 47 42	2543.7	-22.46	95.96

DIFFERENTIAL CORRECTIONS

TDE	.0048	TRA	-1.0472	TC3	.0248	BAU	.2535
RDE	2.7312	RRA	3.2873	RC3	-.3148	FAU	.00646
FDE	1.1632	FRA	1.5015	FC3	-.0932	BSP	12323
BDE	2.7312	BRA	3.4501	BC3	.3158	FSP	-474

MID-COURSE EXECUTION ACCURACY

SGT	1050.0	SGR	3894.2	SG3	150.2		
RRT	-.8481	RRF	.9986	RTF	-.8660		
SGB	4033.3	R23	.0043	R13	.9993		
SG1	3996.7	SG2	542.1	THA	103.13		

ORBIT DETERMINATION ACCURACY

ST	314.8	SR	2248.2	SS	955.6
CRT	-.4295	CRS	-.9996	CST	.4548
LSA	2446.6	MSA	284.4	SSA	1.8
EL1	2252.4	EL2	283.8	ALF	93.50

LAUNCH DATE AUG 1 1970 FLIGHT TIME 148.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 398.342

RL	151.84	LAL	-.00	LOL	308.34	VL	26.904	GAL	1.53	AZL	65.91	HCA	173.96	SMA	129.58	ECC	.17383	INC	24.0874	V1	29.341
RP	107.48	LAP	2.46	LOP	122.83	VP	38.017	GAP	-1.97	AZP	113.97	TAL	172.68	TAP	346.64	RCA	107.05	APO	152.10	V2	35.256
RC	72.818	GL	66.04	GP	-84.08	ZAL	85.52	ZAP	85.69	ETS	133.12	ZAE	85.30	ETE	24.81	ZAC	15.56	ETC	322.74	CLP	43.30

PLANETOCENTRIC CONIC

C3	144.285	VHL	12.012	DLA	45.70	RAL	247.77	RAD	6570.6	VEL	16.298	PTH	2.85	VHP	16.930	DPA	-67.05	RAP	83.71	ECC	3.3746

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.50	21 19 59	4711.99	-9.65	218.49	148.24	45.11	22 38 31	4112.0	-15.24	213.04
127.50	5 8 42	3287.91	-9.64	107.91	148.22	45.11	6 3 30	2687.9	-15.22	102.46
52.50	21 19 59	4711.99	-9.65	218.49	148.24	45.11	22 38 31	4112.0	-15.24	213.04
127.50	5 8 42	3287.91	-9.64	107.91	148.22	45.11	6 3 30	2687.9	-15.22	102.46
52.50	21 19 59	4711.99	-9.65	218.49	148.24	45.11	22 38 31	4112.0	-15.24	213.04
127.50	5 8 42	3287.91	-9.64	107.91	148.22	45.11	6 3 30	2687.9	-15.22	102.46

DIFFERENTIAL CORRECTIONS

TDE	-3.7903	TRA	-3.0290	TC3	-.0545	BAU	.1375
RDE	-2.8400	RRA	-4.1316	RC3	-.0459	FAU	-.00551
FDE	1.2197	FRA	1.4313	FC3	.0331	BSP	12723
BDE	4.7362	BRA	5.1229	BC3	.0713	FSP	-313

MID-COURSE EXECUTION ACCURACY

SGT	2750.4	SGR	3131.9	SG3	98.5		
RRT	.9636	RRF	-.9954	RTF	-.9834		
SGB	4168.1	R23	-.0267	R13	-.9992		
SG1	4130.7	SG2	557.7	THA	48.85		

ORBIT DETERMINATION ACCURACY

ST	1911.5	SR	1597.4	SS	953.0
CRT	.9742	CRS	.9958	CST	.9907
LSA	2652.3	MSA	281.2	SSA	1.4
EL1	2475.4	EL2	278.6	ALF	39.75

LAUNCH DATE AUG 1 1970 FLIGHT TIME 150.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 404.068

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RL  151.84 LAL   -.00 LOL 308.34 VL  26.916 GAL   1.67 AZL  41.18 HCA 176.56 SMA 129.66 ECC .17350 INC48.8237 V1  29.341
RP  107.48 LAP   2.59 LOP 126.08 VP  38.026 GAP  -1.69 AZP 138.77 TAL 171.99 TAP 348.55 RCA 107.16 APO 152.15 V2  35.258
RC  74.992 GL   60.05 GP  -68.93 ZAL  87.54 ZAP  88.01 ETS 182.20 ZAE  68.18 ETE  73.99 ZAC  18.56 ETC 315.32 CLP  84.46
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PLANETOCENTRIC CONIC

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C3 546.292 VHL 23.373 DLA  41.20 RAL 241.10 RAD 6572.5 VEL 25.838 PTH   3.36 VHP 31.642 DPA -52.25 RAP  65.36 ECC 9.9906
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.72	21 18 19	4814.01	-1.36	219.82	149.57	48.81	22 38 33	4214.0	-6.61	214.18
121.28	4 17 8	3523.53	-1.34	121.19	149.56	48.81	5 15 52	2923.5	-6.59	115.55
58.72	21 18 19	4814.01	-1.36	219.82	149.57	48.81	22 38 33	4214.0	-6.61	214.18
121.28	4 17 8	3523.53	-1.34	121.19	149.56	48.81	5 15 52	2923.5	-6.59	115.55
58.72	21 18 19	4814.01	-1.36	219.82	149.57	48.81	22 38 33	4214.0	-6.61	214.18
121.28	4 17 8	3523.53	-1.34	121.19	149.56	48.81	5 15 52	2923.5	-6.59	115.55

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-4.0544 TRA-1.1081 TC3 -.0844 BAU 1.9442   SGT 1128.7 SGR 3884.1 SG3   69.3     ST   999.9 SR  2325.9 SS  1283.0
RDE-8.7388 RRA-9.2604 RC3 -.2525 FAU-.03472   RRT  .8404 RRF -.9997 RTF -.8337    CRT  .9579 CRS  .9999 CST  .9542
FDE 1.7538 FRA 1.9238 FC3  .0550 BSP  11964   SGB 4044.7 R23 -.0489 R13 -.9986   LSA 2825.1 MSA  272.9 SSA    1.3
BDE 9.6335 BRA 9.3265 BC3  .2662 FSP   -214   SG1 4000.9 SG2  593.8 THA  75.96   EL1 2517.7 EL2  265.2 ALF  67.35
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LAUNCH DATE AUG 1 1970 FLIGHT TIME 152.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 413.991

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RL  151.84 LAL   -.00 LOL 308.34 VL  26.925 GAL   1.05 AZL 160.08 HCA 182.88 SMA 129.72 ECC .17153 INC70.0745 V1  29.341
RP  107.48 LAP   2.71 LOP 129.32 VP  38.033 GAP   -.32 AZP  19.95 TAL 174.92 TAP 357.80 RCA 107.47 APO 151.97 V2  35.259
RC  77.186 GL  -51.43 GP   59.21 ZAL  68.74 ZAP  89.71 ETS 185.43 ZAE  62.81 ETE 291.84 ZAC 140.27 ETC 291.17 CLP  89.44
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PLANETOCENTRIC CONIC

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C31047.707 VHL 32.368 DLA -61.40 RAL 187.12 RAD 6573.0 VEL 34.191 PTH   3.51 VHP 41.051 DPA  63.22 RAP 353.59 ECC18.2426
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.94	4 21 28	2404.72	-.50	72.59	97.37	151.40	5 1 32	1804.7	6.52	69.17
147.06	14 3 18	721.23	-.48	293.79	97.40	151.40	14 15 19	121.2	6.54	290.37
32.94	4 21 28	2404.72	-.50	72.59	97.37	151.40	5 1 32	1804.7	6.52	69.17
147.06	14 3 18	721.23	-.48	293.79	97.40	151.40	14 15 19	121.2	6.54	290.37
32.94	4 21 28	2404.72	-.50	72.59	97.37	151.40	5 1 32	1804.7	6.52	69.17
147.06	14 3 18	721.23	-.48	293.79	97.40	151.40	14 15 19	121.2	6.54	290.37

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 7.4595 TRA 2.0775 TC3 -.1320 BAU 4.0805   SGT 1750.5 SGR 3402.4 SG3   67.0     ST  1340.6 SR  2938.8 SS  2408.9
RD-16.5887 RRA -.9677 RC3  .2597 FAU-.06800   RRT -.9384 RRF  .9994 RTF -.9432    CRT -.9907 CRS-1.0000 CST  .9916
FDE-3.8329 FRA -.2615 FC3  .0562 BSP  11253   SGB 3826.3 R23 -.0554 R13  .9980   LSA 4025.9 MSA  169.1 SSA    2.3
BDE18.1887 BRA 2.2918 BC3  .2913 FSP   -201   SG1 3787.5 SG2  543.4 THA 116.35   EL1 3225.9 EL2  165.9 ALF 114.39
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LAUNCH DATE AUG 1 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 419.234

```
RL  151.84 LAL   -.00 LOL 308.34 VL  26.930 GAL   1.30 AZL 123.72 HCA 185.08 SMA 129.75 ECC .17170 INC33.7235 V1  29.341
RP  107.48 LAP   2.82 LOP 132.57 VP  38.037 GAP   -.17 AZP  56.38 TAL 173.73 TAP 358.82 RCA 107.47 APO 152.03 V2  35.259
RC  79.396 GL  -64.92 GP   81.73 ZAL  87.13 ZAP  89.66 ETS 197.37 ZAE  84.62 ETE 300.27 ZAC 160.88 ETC 317.35 CLP  87.61
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PLANETOCENTRIC CONIC

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C3 272.378 VHL 16.504 DLA -71.89 RAL 164.19 RAD 6571.6 VEL 19.842 PTH   3.13 VHP 20.214 DPA  68.94 RAP 297.64 ECC 5.4827
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.68	2 22 21	2337.06	6.47	77.42	72.05	161.77	3 1 18	1737.1	14.06	75.26
159.32	12 59 30	5860.51	6.47	263.00	72.08	161.77	14 37 10	5260.5	14.06	260.84
20.68	2 22 21	2337.06	6.47	77.42	72.05	161.77	3 1 18	1737.1	14.06	75.26
159.32	12 59 30	5860.51	6.47	263.00	72.08	161.77	14 37 10	5260.5	14.06	260.84
20.68	2 22 21	2337.06	6.47	77.42	72.05	161.77	3 1 18	1737.1	14.06	75.26
159.32	12 59 30	5860.51	6.47	263.00	72.08	161.77	14 37 10	5260.5	14.06	260.84

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.1638 TRA 1.6539 TC3 -.1187 BAU  .7993   SGT 2853.7 SGR 3397.7 SG3   92.8     ST  2210.5 SR  2905.8 SS  1594.4
RDE-8.2351 RRA-1.5509 RC3  .1846 FAU-.01431   RRT -.9855 RRF  .9989 RTF -.9900    CRT -.9973 CRS-1.0000 CST  .9980
FDE-2.5824 FRA -.5133 FC3  .0455 BSP  13904   SGB 4437.1 R23 -.0376 R13  .9987   LSA 3981.8 MSA  131.9 SSA    1.8
BDE10.2864 BRA 2.2673 BC3  .2195 FSP   -292   SG1 4421.5 SG2  372.5 THA 129.95   EL1 3648.7 EL2  129.4 ALF 127.24
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LAUNCH DATE AUG 1 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 425.293

```
RL  151.84 LAL   -.00 LOL 308.34 VL  26.932 GAL   1.40 AZL 111.41 HCA 188.03 SMA 129.77 ECC .17180 INC21.4086 V1  29.341
RP  107.48 LAP   2.92 LOP 135.82 VP  38.038 GAP    .18 AZP  68.78 TAL 173.22 TAP   1.26 RCA 107.48 APO 152.06 V2  35.258
RC  81.621 GL  -66.06 GP   87.25 ZAL  85.33 ZAP  90.46 ETS 291.72 ZAE  95.30 ETE  33.06 ZAC 168.44 ETC  79.05 CLP -99.70
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PLANETOCENTRIC CONIC

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C3 115.618 VHL 10.753 DLA -74.17 RAL 163.21 RAD 6570.2 VEL 15.393 PTH   2.75 VHP 12.706 DPA  64.12 RAP 272.47 ECC 2.9028
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.06	2 13 0	2201.26	15.81	76.86	68.59	163.53	2 49 41	1601.3	23.46	74.82
161.94	13 1 1	5713.04	15.81	259.77	68.62	163.53	14 36 14	5113.0	23.47	257.72
18.06	2 13 0	2201.26	15.81	76.86	68.59	163.53	2 49 41	1601.3	23.46	74.82
161.94	13 1 1	5713.04	15.81	259.77	68.62	163.53	14 36 14	5113.0	23.47	257.72
18.06	2 13 0	2201.26	15.81	76.86	68.59	163.53	2 49 41	1601.3	23.46	74.82
161.94	13 1 1	5713.04	15.81	259.77	68.62	163.53	14 36 14	5113.0	23.47	257.72

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.2389 TRA  .9527 TC3 -.0208 BAU  .0428   SGT 3809.9 SGR 2553.0 SG3  143.1     ST  3371.0 SR  1705.6 SS  1545.6
RDE 2.9982 RRA 1.0195 RC3  .0182 FAU .00271   RRT  .9267 RRF -.9521 RTF -.9966    CRT  .9817 CRS  .9869 CST  .9996
FDE-2.5918 FRA -.4674 FC3 -.0203 BSP  14526   SGB 4586.2 R23  .0398 R13 -.9987   LSA 4071.5 MSA  290.7 SSA    1.7
BDE 6.9219 BRA 1.3954 BC3  .0277 FSP   -454   SG1 4514.2 SG2  809.9 THA  33.04   EL1 3766.7 EL2  290.4 ALF  26.59
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LAUNCH DATE AUG 1 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 431.521

RL 151.84 LAL -.00 LOL 308.34 VL 26.932 GAL 1.48 AZL 105.80 HCA 191.14 SMA 129.77 ECC .17201 INC15.7963 VI 29.341
RP 107.48 LAP 3.02 LOP 139.08 VP 38.036 GAP .58 AZP 74.49 TAL 172.83 TAP 3.98 RCA 107.45 APO 152.09 V2 35.256
RC 83.861 GL -64.13 GP 79.54 ZAL 83.55 ZAP 92.18 ETS 354.29 ZAE 102.54 ETE 94.78 ZAC 169.07 ETC 178.07 CLP-102.08

PLANETOCENTRIC CONIC

C3 66.342 VHL 8.145 DLA -74.71 RAL 171.88 RAD 6569.3 VEL 13.700 PTH 2.50 VHP 9.327 DPA 59.08 RAP 260.12 ECC 2.0918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.43	2 46 19	2079.02	23.92	75.34	74.90	163.23	3 20 58	1479.0	31.56	73.05
162.57	13 36 52	5588.30	23.93	257.61	74.93	163.23	15 10 0	4988.3	31.56	255.33
17.43	2 46 19	2079.02	23.92	75.34	74.90	163.23	3 20 58	1479.0	31.56	73.05
162.57	13 36 52	5588.30	23.93	257.61	74.93	163.23	15 10 0	4988.3	31.56	255.33
17.43	2 46 19	2079.02	23.92	75.34	74.90	163.23	3 20 58	1479.0	31.56	73.05
162.57	13 36 52	5588.30	23.93	257.61	74.93	163.23	15 10 0	4988.3	31.56	255.33

DIFFERENTIAL CORRECTIONS
TDE .7170 TRA -.3002 TC3 -.1077 BAU .2557
RDE 5.7161 RRA .7613 RC3 .2675 FAU .01514
FDE-3.1857 FRA -.3768 FC3 -.1976 BSP 14655
BDE 5.7609 BRA .8184 BC3 .2883 FSP -677

MID-COURSE EXECUTION ACCURACY
SGT 962.7 SGR 4525.9 SG3 214.0
RRT .0745 RRF -.9984 RTF -.1126
SGB 4627.1 R23 .0348 R13 -.9985
SG1 4526.4 SG2 959.9 THA 89.05

ORBIT DETERMINATION ACCURACY
ST 558.7 SR 4066.9 SS 1822.1
CRT .8281 CRS .9999 CST .8373
LSA 4480.5 MSA 311.5 SSA 2.4
EL1 4093.3 EL2 311.2 ALF 83.47

LAUNCH DATE AUG 1 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 437.793

RL 151.84 LAL -.00 LOL 308.34 VL 26.929 GAL 1.57 AZL 102.63 HCA 194.32 SMA 129.75 ECC .17240 INC12.6295 VI 29.341
RP 107.49 LAP 3.10 LOP 142.33 VP 38.032 GAP .99 AZP 77.75 TAL 172.45 TAP 6.76 RCA 107.38 APO 152.12 V2 35.254
RC 86.111 GL -61.34 GP 73.09 ZAL 81.83 ZAP 94.69 ETS 5.59 ZAE 108.26 ETE 105.93 ZAC 165.68 ETC 211.56 CLP-106.34

PLANETOCENTRIC CONIC

C3 44.991 VHL 6.708 DLA -74.25 RAL 182.93 RAD 6568.7 VEL 12.898 PTH 2.35 VHP 7.491 DPA 54.40 RAP 252.00 ECC 1.7404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.96	3 31 27	1982.33	30.06	73.04	83.52	161.72	4 4 30	1382.3	37.62	70.30
162.04	14 19 53	5493.71	30.07	255.85	83.55	161.72	15 51 26	4893.7	37.63	253.10
17.96	3 31 27	1982.33	30.06	73.04	83.52	161.72	4 4 30	1382.3	37.62	70.30
162.04	14 19 53	5493.71	30.07	255.85	83.55	161.72	15 51 26	4893.7	37.63	253.10
17.96	3 31 27	1982.33	30.06	73.04	83.52	161.72	4 4 30	1382.3	37.62	70.30
162.04	14 19 53	5493.71	30.07	255.85	83.55	161.72	15 51 26	4893.7	37.63	253.10

DIFFERENTIAL CORRECTIONS
TDE -.8723 TRA -.3076 TC3 -.3176 BAU .3697
RDE 4.9940 RRA .3282 RC3 .5262 FAU .02727
FDE-3.8776 FRA -.2325 FC3 -.5248 BSP 14674
BDE 5.0696 BRA .4499 BC3 .6146 FSP -943

MID-COURSE EXECUTION ACCURACY
SGT 1293.8 SGR 4445.5 SG3 299.3
RRT -.7788 RRF -.9988 RTF .7756
SGB 4630.0 R23 .0441 R13 -.9978
SG1 4561.9 SG2 790.9 THA 103.17

ORBIT DETERMINATION ACCURACY
ST 799.9 SR 4277.1 SS 2148.6
CRT -.9555 CRS 1.0000 CST -.9537
LSA 4847.2 MSA 234.2 SSA 3.2
EL1 4345.1 EL2 232.2 ALF 100.16

LAUNCH DATE AUG 1 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 444.074

RL 151.84 LAL -.00 LOL 308.34 VL 26.924 GAL 1.66 AZL 100.60 HCA 197.52 SMA 129.72 ECC .17295 INC10.5968 VI 29.341
RP 107.50 LAP 3.17 LOP 145.58 VP 38.026 GAP 1.40 AZP 79.88 TAL 172.04 TAP 9.55 RCA 107.28 APO 152.15 V2 35.251
RC 88.372 GL -58.33 GP 67.28 ZAL 80.14 ZAP 97.86 ETS 12.02 ZAE 113.00 ETE 112.97 ZAC 161.07 ETC 227.51 CLP-110.74

PLANETOCENTRIC CONIC

C3 33.817 VHL 5.815 DLA -73.09 RAL 193.34 RAD 6568.3 VEL 12.457 PTH 2.25 VHP 6.382 DPA 49.97 RAP 245.83 ECC 1.5565

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.30	4 15 45	1907.42	34.47	70.01	91.28	159.34	4 47 32	1307.4	41.90	66.64
160.70	14 58 38	5424.52	34.48	254.17	91.30	159.34	16 29 3	4824.5	41.91	250.80
19.30	4 15 45	1907.42	34.47	70.01	91.28	159.34	4 47 32	1307.4	41.90	66.64
160.70	14 58 38	5424.52	34.48	254.17	91.30	159.34	16 29 3	4824.5	41.91	250.80
19.30	4 15 45	1907.42	34.47	70.01	91.28	159.34	4 47 32	1307.4	41.90	66.64
160.70	14 58 38	5424.52	34.48	254.17	91.30	159.34	16 29 3	4824.5	41.91	250.80

DIFFERENTIAL CORRECTIONS
TDE-1.5943 TRA -.2110 TC3 -.5928 BAU .4329
RDE 4.1998 RRA .0558 RC3 .7520 FAU .03931
FDE-4.4301 FRA -.0328 FC3-1.0064 BSP 14690
BDE 4.4922 BRA .2183 BC3 .9576 FSP -1231

MID-COURSE EXECUTION ACCURACY
SGT 1858.4 SGR 4233.5 SG3 390.6
RRT -.9200 RRF -.9984 RTF .9217
SGB 4623.5 R23 .0527 R13 -.9970
SG1 4574.1 SG2 674.2 THA 112.51

ORBIT DETERMINATION ACCURACY
ST 1585.6 SR 4138.4 SS 2406.9
CRT -.9926 CRS 1.0000 CST -.9918
LSA 5039.7 MSA 186.2 SSA 4.2
EL1 4428.0 EL2 180.5 ALF 110.86

LAUNCH DATE AUG 1 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 450.349

RL 151.84 LAL -.00 LOL 308.34 VL 26.917 GAL 1.76 AZL 99.18 HCA 200.73 SMA 129.67 ECC .17368 INC 9.1771 VI 29.341
RP 107.51 LAP 3.24 LOP 148.83 VP 38.018 GAP 1.81 AZP 81.41 TAL 171.59 TAP 12.32 RCA 107.15 APO 152.19 V2 35.247
RC 90.641 GL -55.32 GP 61.90 ZAL 78.47 ZAP 101.51 ETS 16.69 ZAE 116.95 ETE 119.01 ZAC 156.23 ETC 236.22 CLP-115.06

PLANETOCENTRIC CONIC

C3 27.229 VHL 5.218 DLA -71.49 RAL 202.20 RAD 6568.1 VEL 12.190 PTH 2.19 VHP 5.672 DPA 45.73 RAP 240.84 ECC 1.4481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.14	4 54 55	1848.80	37.53	66.44	97.28	156.41	5 25 43	1248.8	44.78	62.36
158.86	15 30 8	5374.47	37.54	252.49	97.30	156.40	16 59 43	4774.5	44.79	248.41
21.14	4 54 55	1848.80	37.53	66.44	97.28	156.41	5 25 43	1248.8	44.78	62.36
158.86	15 30 8	5374.47	37.54	252.49	97.30	156.40	16 59 43	4774.5	44.79	248.41
21.14	4 54 55	1848.80	37.53	66.44	97.28	156.41	5 25 43	1248.8	44.78	62.36
158.86	15 30 8	5374.47	37.54	252.49	97.30	156.40	16 59 43	4774.5	44.79	248.41

DIFFERENTIAL CORRECTIONS
TDE-1.9757 TRA -.0897 TC3 -.9156 BAU .4739
RDE 3.4705 RRA -.1238 RC3 .9256 FAU .05063
FDE-4.7636 FRA .2116 FC3-1.6096 BSP 14736
BDE 3.9934 BRA .1529 BC3 1.3019 FSP -1516

MID-COURSE EXECUTION ACCURACY
SGT 2390.7 SGR 3954.4 SG3 478.8
RRT -.9580 RRF -.9978 RTF .9604
SGB 4620.9 R23 .0604 R13 -.9961
SG1 4582.8 SG2 591.6 THA 120.64

ORBIT DETERMINATION ACCURACY
ST 2171.5 SR 3812.9 SS 2565.7
CRT -.9971 CRS 1.0000 CST -.9964
LSA 5080.5 MSA 156.6 SSA 5.4
EL1 4385.5 EL2 144.8 ALF 119.63

LAUNCH DATE AUG 1 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 456.612

RL	151.84	LAL	-.00	LOL	308.34	VL	26.908	GAL	1.87	AZL	98.12	HCA	203.95	SMA	129.60	ECC	.17458	INC	8.1248	V1	29.341		
RP	107.53	LAP	3.29	LOP	152.08	VP	38.007	GAP	2.22	AZP	82.57	TAL	171.10	TAP	15.05	RCA	106.98	APO	152.23	V2	35.243		
RC	92.917	GL	-52.38	GP	56.87	ZAL	76.81	ZAP	105.47	ETS	20.28	ZAE	120.18	ETE	124.65	ZAC	151.50	ETC	241.56	CLP	-119.20		

PLANETOCENTRIC CONIC

C3	23.026	VHL	4.799	DLA	-69.66	RAL	209.53	RAD	6567.9	VEL	12.017	PTH	2.14	VHP	5.207	DPA	41.65	RAP	236.71	ECC	1.3790		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.26	5 28 41	1801.99	39.56	62.57	101.69	153.20	5 58 43	1202.0	46.59	57.75
156.74	15 54 53	5338.70	39.56	250.84	101.71	153.20	17 23 52	4738.7	46.59	246.02
23.26	5 28 41	1801.99	39.56	62.57	101.69	153.20	5 58 43	1202.0	46.59	57.75
156.74	15 54 53	5338.70	39.56	250.84	101.71	153.20	17 23 52	4738.7	46.59	246.02
23.26	5 28 41	1801.99	39.56	62.57	101.69	153.20	5 58 43	1202.0	46.59	57.75
156.74	15 54 53	5338.70	39.56	250.84	101.71	153.20	17 23 52	4738.7	46.59	246.02

DIFFERENTIAL CORRECTIONS

TDE	-2.1734	TRA	.0421	TC3	-1.2675	BAU	.5038
RDE	2.8421	RRA	-.2443	RC3	1.0354	FAU	.06036
FDE	-4.8792	FRA	.4858	FC3	-2.2693	BSP	14746
BDE	3.5779	BRA	.2479	BC3	1.6367	FSP	-1766

MID-COURSE EXECUTION ACCURACY

SGT	2869.7	SGR	3634.2	SG3	556.4		
RRT	-.9720	RRF	-.9971	RTF	.9745		
SGB	4630.7	R23	.0673	R13	-.9951		
SG1	4599.9	SG2	533.1	THA	128.11		

ORBIT DETERMINATION ACCURACY

ST	2595.7	SR	3403.0	SS	2630.8
CRT	-.9983	CRS	.9999	CST	-.9976
LSA	5021.9	MSA	139.5	SSA	6.7
EL1	4278.3	EL2	118.8	ALF	127.32

LAUNCH DATE AUG 1 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 462.859

RL	151.84	LAL	-.00	LOL	308.34	VL	26.897	GAL	1.99	AZL	97.31	HCA	207.18	SMA	129.53	ECC	.17565	INC	7.3094	V1	29.341		
RP	107.54	LAP	3.33	LOP	155.33	VP	37.994	GAP	2.63	AZP	83.49	TAL	170.57	TAP	17.75	RCA	106.78	APO	152.28	V2	35.238		
RC	95.197	GL	-49.55	GP	52.17	ZAL	75.13	ZAP	109.59	ETS	23.08	ZAE	122.72	ETE	130.05	ZAC	147.00	ETC	245.09	CLP	-123.13		

PLANETOCENTRIC CONIC

C3	20.198	VHL	4.494	DLA	-67.71	RAL	215.65	RAD	6567.8	VEL	11.899	PTH	2.11	VHP	4.904	DPA	37.74	RAP	233.29	ECC	1.3324		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.52	5 58 1	1763.78	40.81	58.60	104.91	149.93	6 27 25	1163.8	47.59	53.09
154.48	16 14 20	5313.73	40.81	249.29	104.93	149.93	17 42 54	4713.7	47.59	243.77
25.52	5 58 1	1763.78	40.81	58.60	104.91	149.93	6 27 25	1163.8	47.59	53.09
154.48	16 14 20	5313.73	40.81	249.29	104.93	149.93	17 42 54	4713.7	47.59	243.77
25.52	5 58 1	1763.78	40.81	58.60	104.91	149.93	6 27 25	1163.8	47.59	53.09
154.48	16 14 20	5313.73	40.81	249.29	104.93	149.93	17 42 54	4713.7	47.59	243.77

DIFFERENTIAL CORRECTIONS

TDE	-2.2643	TRA	.1788	TC3	-1.6343	BAU	.5301
RDE	2.3220	RRA	-.3227	RC3	1.0873	FAU	.06818
FDE	-4.8136	FRA	.7686	FC3	-2.9221	BSP	14850
BDE	3.2432	BRA	.3689	BC3	1.9630	FSP	-1976

MID-COURSE EXECUTION ACCURACY

SGT	3294.3	SGR	3300.6	SG3	618.4		
RRT	-.9779	RRF	-.9962	RTF	.9808		
SGB	4663.3	R23	.0730	R13	-.9940		
SG1	4637.4	SG2	490.3	THA	134.94		

ORBIT DETERMINATION ACCURACY

ST	2892.6	SR	2978.2	SS	2620.8
CRT	-.9989	CRS	.9999	CST	-.9980
LSA	4908.0	MSA	130.7	SSA	7.9
EL1	4150.5	EL2	98.3	ALF	134.16

LAUNCH DATE AUG 1 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 469.088

RL	151.84	LAL	-.00	LOL	308.34	VL	26.884	GAL	2.13	AZL	96.66	HCA	210.40	SMA	129.44	ECC	.17689	INC	6.6557	V1	29.341		
RP	107.56	LAP	3.36	LOP	158.58	VP	37.980	GAP	3.03	AZP	84.25	TAL	170.00	TAP	20.41	RCA	106.54	APO	152.34	V2	35.232		
RC	97.481	GL	-46.83	GP	47.81	ZAL	73.44	ZAP	113.73	ETS	25.25	ZAE	124.64	ETE	135.19	ZAC	142.80	ETC	247.56	CLP	-126.82		

PLANETOCENTRIC CONIC

C3	18.230	VHL	4.270	DLA	-65.72	RAL	220.85	RAD	6567.7	VEL	11.816	PTH	2.09	VHP	4.714	DPA	34.01	RAP	230.48	ECC	1.3000		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.85	6 23 59	1731.97	41.46	54.67	107.35	146.72	6 52 51	1132.0	47.97	48.53
152.15	16 29 52	5297.09	41.47	247.90	107.37	146.72	17 58 9	4697.1	47.98	241.77
27.85	6 23 59	1731.97	41.46	54.67	107.35	146.72	6 52 51	1132.0	47.97	48.53
152.15	16 29 52	5297.09	41.47	247.90	107.37	146.72	17 58 9	4697.1	47.98	241.77
27.85	6 23 59	1731.97	41.46	54.67	107.35	146.72	6 52 51	1132.0	47.97	48.53
152.15	16 29 52	5297.09	41.47	247.90	107.37	146.72	17 58 9	4697.1	47.98	241.77

DIFFERENTIAL CORRECTIONS

TDE	-2.2889	TRA	.3210	TC3	-1.9971	BAU	.5538
RDE	1.8977	RRA	-.3732	RC3	1.0838	FAU	.07355
FDE	-4.6032	FRA	1.0476	FC3	-3.4927	BSP	14963
BDE	2.9732	BRA	.4923	BC3	2.2723	FSP	-2122

MID-COURSE EXECUTION ACCURACY

SGT	3666.0	SGR	2970.6	SG3	662.2		
RRT	-.9803	RRF	-.9950	RTF	.9838		
SGB	4718.5	R23	.0775	R13	-.9929		
SG1	4696.2	SG2	458.1	THA	141.10		

ORBIT DETERMINATION ACCURACY

ST	3088.0	SR	2572.8	SS	2550.4
CRT	-.9992	CRS	.9998	CST	-.9980
LSA	4758.4	MSA	127.5	SSA	9.0
EL1	4018.5	EL2	80.9	ALF	140.20

LAUNCH DATE AUG 1 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 475.297

RL	151.84	LAL	-.00	LOL	308.34	VL	26.870	GAL	2.28	AZL	96.12	HCA	213.63	SMA	129.35	ECC	.17830	INC	6.1168	V1	29.341		
RP	107.58	LAP	3.38	LOP	161.83	VP	37.964	GAP	3.43	AZP	84.90	TAL	169.39	TAP	23.02	RCA	106.28	APO	152.41	V2	35.226		
RC	99.767	GL	-44.21	GP	43.81	ZAL	71.73	ZAP	117.81	ETS	26.92	ZAE	125.99	ETE	140.02	ZAC	138.95	ETC	249.35	CLP	-130.27		

PLANETOCENTRIC CONIC

C3	16.834	VHL	4.103	DLA	-63.72	RAL	225.37	RAD	6567.7	VEL	11.757	PTH	2.08	VHP	4.606	DPA	30.50	RAP	228.21	ECC	1.2770		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.19	6 47 27	1704.97	41.65	50.85	109.30	143.66	7 15 52	1105.0	47.90	44.20
149.81	16 42 29	5287.15	41.66	246.73	109.32	143.66	18 10 36	4687.1	47.90	240.08
30.19	6 47 27	1704.97	41.65	50.85	109.30	143.66	7 15 52	1105.0	47.90	44.20
149.81	16 42 29	5287.15	41.66	246.73	109.32	143.66	18 10 36	4687.1	47.90	240.08
30.19	6 47 27	1704.97	41.65	50.85	109.30	143.66	7 15 52	1105.0	47.90	44.20
149.81	16 42 29	5287.15	41.66	246.73	109.32	143.66	18 10 36	4687.1	47.90	240.08

DIFFERENTIAL CORRECTIONS

TDE	-2.2731	TRA	.4658	TC3	-2.3473	BAU	.5780
RDE	1.5580	RRA	-.4014	RC3	1.0429	FAU	.07683
FDE	-4.2972	FRA	1.3025	FC3	-3.9511	BSP	15178
BDE	2.7558	BRA	.6149	BC3	2.5685	FSP	-2219

MID-COURSE EXECUTION ACCURACY

SGT	3993.0	SGR	2658.8	SG3	688.0		
RRT	-.9810	RRF	-.9935	RTF	.9854		
SGB	4797.3	R23	.0794	R13	-.9919		
SG1	4777.8	SG2	431.3	THA	146.54		

ORBIT DETERMINATION ACCURACY

ST	3205.2	SR	2208.8	SS	2438.3
CRT	-.9994	CRS	.9995	CST	-.9979
LSA	4591.5	MSA	127.3	SSA	10.0
EL1	3892.1	EL2	64.5	ALF	145.43

LAUNCH DATE AUG 1 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 481.485

RL	151.84	LAL	-.00	LOL	308.34	VL	26.854	GAL	2.44	AZL	95.66	HCA	216.86	SMA	129.24	ECC	.17988	INC	5.6624	V1	29.341		
RP	107.60	LAP	3.39	LOP	165.07	VP	37.946	GAP	3.83	AZP	85.46	TAL	168.74	TAP	25.60	RCA	105.99	APO	152.49	V2	35.218		
RC	102.053	GL	-41.69	GP	40.15	ZAL	69.98	ZAP	121.74	ETS	28.20	ZAE	126.86	ETE	144.46	ZAC	135.45	ETC	250.69	CLP	-133.50		

PLANETOCENTRIC CONIC

C3	15.842	VHL	3.980	DLA	-61.74	RAL	229.39	RAD	6567.6	VEL	11.714	PTH	2.06	VHP	4.561	DPA	27.19	RAP	226.43	ECC	1.2607		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.54	7 9 5	1681.63	41.49	47.20	110.98	140.79	7 37 7	1081.6	47.46	40.14
147.46	16 52 53	5282.75	41.50	245.82	111.00	140.79	18 20 56	4682.8	47.47	238.76
32.54	7 9 5	1681.63	41.49	47.20	110.98	140.79	7 37 7	1081.6	47.46	40.14
147.46	16 52 53	5282.75	41.50	245.82	111.00	140.79	18 20 56	4682.8	47.47	238.76
32.54	7 9 5	1681.63	41.49	47.20	110.98	140.79	7 37 7	1081.6	47.46	40.14
147.46	16 52 53	5282.75	41.50	245.82	111.00	140.79	18 20 56	4682.8	47.47	238.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.2305	TRA	.6148	TC3	-2.6710	BAU	.6020	SGT	4280.7	SGR	2372.2	SG3	697.3	ST	3260.1	SR	1891.6
RDE	1.2873	RRA	-.4154	RC3	.9718	FAU	.07799	RRT	-.9804	RRF	-.9914	RTF	.9862	CRT	-.9996	CRS	.9992
FDE	-3.9307	FRA	1.5292	FC3	-4.2619	BSP	15438	SGB	4894.1	R23	.0790	R13	-.9909	LSA	4411.9	MSA	129.6
BDE	2.5753	BRA	.7420	BC3	2.8423	FSP	-2263	SG1	4876.9	SG2	410.4	THA	151.26	EL1	3768.8	EL2	48.5

SS	2296.9	CST	-.9976
SSA	11.0	ALF	149.88

LAUNCH DATE AUG 1 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 487.651

RL	151.84	LAL	-.00	LOL	308.34	VL	26.837	GAL	2.62	AZL	95.27	HCA	220.10	SMA	129.12	ECC	.18163	INC	5.2718	V1	29.341		
RP	107.63	LAP	3.39	LOP	168.32	VP	37.927	GAP	4.22	AZP	85.96	TAL	168.04	TAP	28.14	RCA	105.67	APO	152.58	V2	35.211		
RC	104.339	GL	-39.26	GP	36.85	ZAL	68.22	ZAP	125.48	ETS	29.17	ZAE	127.33	ETE	148.49	ZAC	132.31	ETC	251.71	CLP	-136.50		

PLANETOCENTRIC CONIC

C3	15.149	VHL	3.892	DLA	-59.78	RAL	233.02	RAD	6567.6	VEL	11.685	PTH	2.06	VHP	4.564	DPA	24.11	RAP	225.08	ECC	1.2493		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.87	7 29 21	1661.17	41.05	43.75	112.52	138.14	7 57 2	1061.2	46.76	36.38
145.13	17 1 36	5283.06	41.06	245.18	112.54	138.13	18 29 39	4683.1	46.77	237.80
34.87	7 29 21	1661.17	41.05	43.75	112.52	138.14	7 57 2	1061.2	46.76	36.38
145.13	17 1 36	5283.06	41.06	245.18	112.54	138.13	18 29 39	4683.1	46.77	237.80
34.87	7 29 21	1661.17	41.05	43.75	112.52	138.14	7 57 2	1061.2	46.76	36.38
145.13	17 1 36	5283.06	41.06	245.18	112.54	138.13	18 29 39	4683.1	46.77	237.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.1709	TRA	.7675	TC3	-2.9634	BAU	.6264	SGT	4535.8	SGR	2115.3	SG3	693.4	ST	3266.7	SR	1622.8
RDE	1.0736	RRA	-.4191	RC3	.8847	FAU	.07755	RRT	-.9788	RRF	-.9886	RTF	.9865	CRT	-.9997	CRS	.9985
FDE	-3.5383	FRA	1.7221	FC3	-4.4317	BSP	15766	SGB	5004.8	R23	.0762	R13	-.9900	LSA	4226.3	MSA	133.6
BDE	2.4219	BRA	.8744	BC3	3.0927	FSP	-2267	SG1	4989.3	SG2	394.1	THA	155.30	EL1	3647.4	EL2	32.8

SS	2139.0	CST	-.9972
SSA	11.8	ALF	153.59

LAUNCH DATE AUG 1 1970 FLIGHT TIME 178.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 493.793

RL	151.84	LAL	-.00	LOL	308.34	VL	26.819	GAL	2.81	AZL	94.93	HCA	223.33	SMA	129.00	ECC	.18356	INC	4.9304	V1	29.341		
RP	107.65	LAP	3.38	LOP	171.56	VP	37.906	GAP	4.62	AZP	86.41	TAL	167.31	TAP	30.64	RCA	105.32	APO	152.68	V2	35.202		
RC	106.624	GL	-36.92	GP	33.87	ZAL	66.42	ZAP	129.01	ETS	29.92	ZAE	127.49	ETE	152.07	ZAC	129.53	ETC	252.52	CLP	-139.29		

PLANETOCENTRIC CONIC

C3	14.689	VHL	3.833	DLA	-57.86	RAL	236.34	RAD	6567.6	VEL	11.665	PTH	2.05	VHP	4.605	DPA	21.24	RAP	224.12	ECC	1.2418		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.18	7 48 37	1642.87	40.39	40.49	114.02	135.69	8 16 0	1042.9	45.85	32.88
142.82	17 8 53	5287.59	40.40	244.83	114.03	135.68	18 37 0	4687.6	45.86	237.22
37.18	7 48 37	1642.87	40.39	40.49	114.02	135.69	8 16 0	1042.9	45.85	32.88
142.82	17 8 53	5287.59	40.40	244.83	114.03	135.68	18 37 0	4687.6	45.86	237.22
37.18	7 48 37	1642.87	40.39	40.49	114.02	135.69	8 16 0	1042.9	45.85	32.88
142.82	17 8 53	5287.59	40.40	244.83	114.03	135.68	18 37 0	4687.6	45.86	237.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.1076	TRA	.9156	TC3	-3.2403	BAU	.6556	SGT	4766.2	SGR	1889.5	SG3	679.1	ST	3244.8	SR	1404.6
RDE	.9103	RRA	-.4119	RC3	.8028	FAU	.07674	RRT	-.9765	RRF	-.9849	RTF	.9871	CRT	-.9999	CRS	.9975
FDE	-3.1630	FRA	1.8631	FC3	-4.5226	BSP	16359	SGB	5127.0	R23	.0689	R13	-.9895	LSA	4051.4	MSA	137.0
BDE	2.2958	BRA	1.0040	BC3	3.3382	FSP	-2280	SG1	5113.0	SG2	379.6	THA	158.71	EL1	3535.7	EL2	17.7

SS	1982.7	CST	-.9968
SSA	12.5	ALF	156.59

LAUNCH DATE AUG 1 1970 FLIGHT TIME 180.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 499.914

RL	151.84	LAL	-.00	LOL	308.34	VL	26.799	GAL	3.02	AZL	94.63	HCA	226.56	SMA	128.87	ECC	.18567	INC	4.6277	V1	29.341		
RP	107.68	LAP	3.36	LOP	174.80	VP	37.884	GAP	5.02	AZP	86.81	TAL	166.55	TAP	33.10	RCA	104.94	APO	152.79	V2	35.193		
RC	108.906	GL	-34.65	GP	31.20	ZAL	64.61	ZAP	132.31	ETS	30.50	ZAE	127.43	ETE	155.22	ZAC	127.07	ETC	253.17	CLP	-141.90		

PLANETOCENTRIC CONIC

C3	14.419	VHL	3.797	DLA	-55.97	RAL	239.43	RAD	6567.6	VEL	11.654	PTH	2.05	VHP	4.676	DPA	18.58	RAP	223.51	ECC	1.2373		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.47	8 7 6	1626.35	39.55	37.42	115.52	133.46	8 34 13	1026.3	44.78	29.66
140.53	17 15 2	5295.87	39.57	244.75	115.53	133.45	18 43 18	4695.9	44.79	236.98
39.47	8 7 6	1626.35	39.55	37.42	115.52	133.46	8 34 13	1026.3	44.78	29.66
140.53	17 15 2	5295.87	39.57	244.75	115.53	133.45	18 43 18	4695.9	44.79	236.98
39.47	8 7 6	1626.35	39.55	37.42	115.52	133.46	8 34 13	1026.3	44.78	29.66
140.53	17 15 2	5295.87	39.57	244.75	115.53	133.45	18 43 18	4695.9	44.79	236.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.0222	TRA	1.0840	TC3	-3.4354	BAU	.6757	SGT	4965.7	SGR	1691.1	SG3	657.2	ST	3175.6	SR	1214.7
RDE	.7745	RRA	-.4088	RC3	.6956	FAU	.07331	RRT	-.9724	RRF	-.9800	RTF	.9866	CRT	-.9999	CRS	.9954
FDE	-2.7648	FRA	2.0070	FC3	-4.4017	BSP	16564	SGB	5245.7	R23	.0649	R13	-.9884	LSA	3848.5	MSA	146.6
BDE	2.1654	BRA	1.1585	BC3	3.5051	FSP	-2193	SG1	5232.4	SG2	374.6	THA	161.58	EL1	3400.0	EL2	13.9

SS	1809.0	CST	-.9958
SSA	13.2	ALF	159.07

LAUNCH DATE AUG 1 1970 FLIGHT TIME 182.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 506.010

RL 151.84 LAL -.00 LOL 308.34 VL 26.778 GAL 3.24 AZL 94.36 HCA 229.78 SMA 128.73 ECC .18796 INC 4.3559 V1 29.341
RP 107.71 LAP 3.32 LOP 178.04 VP 37.860 GAP 5.41 AZP 87.18 TAL 165.75 TAP 35.53 RCA 104.53 APO 152.93 V2 35.184
RC 111.186 GL -32.47 GP 28.81 ZAL 62.78 ZAP 135.39 ETS 30.98 ZAE 127.20 ETE 157.96 ZAC 124.91 ETC 253.71 CLP-144.34

PLANETOCENTRIC CONIC

C3 14.310 VHL 3.783 DLA -54.11 RAL 242.32 RAD 6567.6 VEL 11.649 PTH 2.04 VHP 4.773 DPA 16.12 RAP 223.20 ECC 1.2355

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.75	8 25 2	1611.14	38.58	34.53	117.05	131.42	8 51 53	1011.1	43.59	26.66
138.25	17 20 8	5307.72	38.59	244.96	117.07	131.41	18 48 35	4707.7	43.60	237.09
41.75	8 25 2	1611.14	38.58	34.53	117.05	131.42	8 51 53	1011.1	43.59	26.66
138.25	17 20 8	5307.72	38.59	244.96	117.07	131.41	18 48 35	4707.7	43.60	237.09
41.75	8 25 2	1611.14	38.58	34.53	117.05	131.42	8 51 53	1011.1	43.59	26.66
138.25	17 20 8	5307.72	38.59	244.96	117.07	131.41	18 48 35	4707.7	43.60	237.09

DIFFERENTIAL CORRECTIONS
TDE-1.9362 TRA 1.2522 TC3-3.6001 BAU .6982
RDE .6712 RRA -.4009 RC3 .6002 FAU .06980
FDE-2.4038 FRA 2.1121 FC3-4.2231 BSP 16933
BDE 2.0493 BRA 1.3148 BC3 3.6498 FSP -2117

MID-COURSE EXECUTION ACCURACY
SGT 5146.6 SGR 1520.7 SG3 630.5
RRT -.9672 RRF -.9737 RTF .9862
SGB 5366.6 R23 .0586 R13 -.9876
SG1 5353.7 SG2 371.6 THA 163.97

ORBIT DETERMINATION ACCURACY
ST 3090.2 SR 1063.1 SS 1646.6
CRT -.9996 CRS .9920 CST -.9947
LSA 3656.0 MSA 156.5 SSA 13.7
EL1 3267.8 EL2 26.8 ALF 161.02

LAUNCH DATE AUG 1 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 512.080

RL 151.84 LAL -.00 LOL 308.34 VL 26.757 GAL 3.47 AZL 94.11 HCA 233.01 SMA 128.59 ECC .19045 INC 4.1089 V1 29.341
RP 107.74 LAP 3.28 LOP 181.28 VP 37.836 GAP 5.81 AZP 87.53 TAL 164.92 TAP 37.93 RCA 104.10 APO 153.08 V2 35.174
RC 113.462 GL -30.35 GP 26.68 ZAL 60.94 ZAP 138.26 ETS 31.39 ZAE 126.86 ETE 160.34 ZAC 123.03 ETC 254.16 CLP-146.62

PLANETOCENTRIC CONIC

C3 14.343 VHL 3.787 DLA -52.30 RAL 245.03 RAD 6567.6 VEL 11.650 PTH 2.05 VHP 4.890 DPA 13.83 RAP 223.16 ECC 1.2360

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.00	8 42 32	1596.93	37.49	31.80	118.65	129.57	9 9 9	996.9	42.31	23.88
136.00	17 24 17	5322.92	37.50	245.45	118.66	129.56	18 53 0	4722.9	42.32	237.52
44.00	8 42 32	1596.93	37.49	31.80	118.65	129.57	9 9 9	996.9	42.31	23.88
136.00	17 24 17	5322.92	37.50	245.45	118.66	129.56	18 53 0	4722.9	42.32	237.52
44.00	8 42 32	1596.93	37.49	31.80	118.65	129.57	9 9 9	996.9	42.31	23.88
136.00	17 24 17	5322.92	37.50	245.45	118.66	129.56	18 53 0	4722.9	42.32	237.52

DIFFERENTIAL CORRECTIONS
TDE-1.8469 TRA 1.4259 TC3-3.7201 BAU .7200
RDE .5915 RRA -.3919 RC3 .5120 FAU .06592
FDE-2.0749 FRA 2.1932 FC3-3.9789 BSP 17306
BDE 1.9393 BRA 1.4788 BC3 3.7551 FSP -2031

MID-COURSE EXECUTION ACCURACY
SGT 5309.4 SGR 1375.2 SG3 600.9
RRT -.9605 RRF -.9659 RTF .9858
SGB 5484.6 R23 .0517 R13 -.9868
SG1 5472.0 SG2 371.3 THA 165.96

ORBIT DETERMINATION ACCURACY
ST 2989.0 SR 941.0 SS 1494.5
CRT -.9987 CRS .9865 CST -.9932
LSA 3467.7 MSA 168.0 SSA 14.2
EL1 3133.3 EL2 45.2 ALF 162.54

LAUNCH DATE AUG 1 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 518.123

RL 151.84 LAL -.00 LOL 308.34 VL 26.734 GAL 3.73 AZL 93.88 HCA 236.24 SMA 128.44 ECC .19314 INC 3.8822 V1 29.341
RP 107.77 LAP 3.23 LOP 184.52 VP 37.810 GAP 6.21 AZP 87.84 TAL 164.06 TAP 40.29 RCA 103.63 APO 153.24 V2 35.164
RC 115.736 GL -28.31 GP 24.79 ZAL 59.10 ZAP 140.92 ETS 31.77 ZAE 126.45 ETE 162.38 ZAC 121.40 ETC 254.56 CLP-148.76

PLANETOCENTRIC CONIC

C3 14.506 VHL 3.809 DLA -50.52 RAL 247.60 RAD 6567.6 VEL 11.657 PTH 2.05 VHP 5.026 DPA 11.70 RAP 223.36 ECC 1.2387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.24	8 59 41	1583.53	36.32	29.22	120.31	127.89	9 26 5	983.5	40.95	21.27
133.76	17 27 35	5341.35	36.33	246.20	120.32	127.88	18 56 37	4741.3	40.96	238.26
46.24	8 59 41	1583.53	36.32	29.22	120.31	127.89	9 26 5	983.5	40.95	21.27
133.76	17 27 35	5341.35	36.33	246.20	120.32	127.88	18 56 37	4741.3	40.96	238.26
46.24	8 59 41	1583.53	36.32	29.22	120.31	127.89	9 26 5	983.5	40.95	21.27
133.76	17 27 35	5341.35	36.33	246.20	120.32	127.88	18 56 37	4741.3	40.96	238.26

DIFFERENTIAL CORRECTIONS
TDE-1.7549 TRA 1.6065 TC3-3.7959 BAU .7409
RDE .5303 RRA -.3833 RC3 .4326 FAU .06184
FDE-1.7787 FRA 2.2561 FC3-3.6908 BSP 17679
BDE 1.8333 BRA 1.6516 BC3 3.8204 FSP -1940

MID-COURSE EXECUTION ACCURACY
SGT 5456.8 SGR 1251.9 SG3 570.2
RRT -.9523 RRF -.9563 RTF .9852
SGB 5598.6 R23 .0449 R13 -.9860
SG1 5586.1 SG2 373.2 THA 167.62

ORBIT DETERMINATION ACCURACY
ST 2877.0 SR 842.9 SS 1354.6
CRT -.9967 CRS .9778 CST -.9914
LSA 3284.8 MSA 181.4 SSA 14.5
EL1 2997.3 EL2 65.6 ALF 163.71

LAUNCH DATE AUG 1 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 524.139

RL 151.84 LAL -.00 LOL 308.34 VL 26.711 GAL 4.00 AZL 93.67 HCA 239.46 SMA 128.28 ECC .19604 INC 3.6721 V1 29.341
RP 107.80 LAP 3.16 LOP 187.75 VP 37.784 GAP 6.62 AZP 88.13 TAL 163.17 TAP 42.63 RCA 103.13 APO 153.43 V2 35.153
RC 118.005 GL -26.34 GP 23.09 ZAL 57.27 ZAP 143.40 ETS 32.14 ZAE 126.00 ETE 164.13 ZAC 119.98 ETC 254.92 CLP-150.78

PLANETOCENTRIC CONIC

C3 14.794 VHL 3.846 DLA -48.78 RAL 250.03 RAD 6567.6 VEL 11.670 PTH 2.05 VHP 5.177 DPA 9.72 RAP 223.78 ECC 1.2435

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.46	9 16 37	1570.64	35.08	26.76	122.05	126.37	9 42 48	970.6	39.54	18.82
131.54	17 30 3	5362.98	35.09	247.23	122.06	126.36	18 59 26	4763.0	39.55	239.29
48.46	9 16 37	1570.64	35.08	26.76	122.05	126.37	9 42 48	970.6	39.54	18.82
131.54	17 30 3	5362.98	35.09	247.23	122.06	126.36	18 59 26	4763.0	39.55	239.29
48.46	9 16 37	1570.64	35.08	26.76	122.05	126.37	9 42 48	970.6	39.54	18.82
131.54	17 30 3	5362.98	35.09	247.23	122.06	126.36	18 59 26	4763.0	39.55	239.29

DIFFERENTIAL CORRECTIONS
TDE-1.6610 TRA 1.7941 TC3-3.8292 BAU .7607
RDE .4837 RRA -.3755 RC3 .3625 FAU .05770
FDE-1.5144 FRA 2.3038 FC3-3.3762 BSP 18045
BDE 1.7300 BRA 1.8330 BC3 3.8463 FSP -1847

MID-COURSE EXECUTION ACCURACY
SGT 5590.0 SGR 1147.8 SG3 539.3
RRT -.9424 RRF -.9450 RTF .9846
SGB 5706.6 R23 .0384 R13 -.9852
SG1 5694.1 SG2 376.8 THA 169.00

ORBIT DETERMINATION ACCURACY
ST 2758.6 SR 764.3 SS 1228.0
CRT -.9929 CRS .9647 CST -.9890
LSA 3108.6 MSA 196.6 SSA 14.7
EL1 2861.2 EL2 87.6 ALF 164.60

LAUNCH DATE AUG 1 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 530.126

RL	151.84	LAL	-.00	LOL	308.34	VL	26.687	GAL	4.29	AZL	93.48	HCA	242.68	SMA	128.12	ECC	.19916	INC	3.4756
RP	107.84	LAP	3.09	LOP	190.98	VP	37.756	GAP	7.03	AZP	88.40	TAL	162.25	TAP	44.93	RCA	102.61	APO	153.64
RC	120.271	GL	-24.44	GP	21.58	ZAL	55.44	ZAP	145.71	ETS	32.54	ZAE	125.53	ETE	165.64	ZAC	118.76	ETC	255.25

PLANETOCENTRIC CONIC

C3	15.205	VHL	3.899	DLA	-47.08	RAL	252.34	RAD	6567.6	VEL	11.687	PTH	2.06	VHP	5.343	DPA	7.86	RAP	224.38

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.67	9 33 24	1558.09	33.79	24.41	123.85	124.99	9 59 22	958.1	38.10	16.50
129.33	17 31 41	5387.77	33.80	248.52	123.86	124.97	19 1 29	4787.8	38.11	240.61
50.67	9 33 24	1558.09	33.79	24.41	123.85	124.99	9 59 22	958.1	38.10	16.50
129.33	17 31 41	5387.77	33.80	248.52	123.86	124.97	19 1 29	4787.8	38.11	240.61
50.67	9 33 24	1558.09	33.79	24.41	123.85	124.99	9 59 22	958.1	38.10	16.50
129.33	17 31 41	5387.77	33.80	248.52	123.86	124.97	19 1 29	4787.8	38.11	240.61

DIFFERENTIAL CORRECTIONS

TDE	-1.5658	TRA	1.9893	TC3	-3.8226	BAU	.7794
RDE	.4488	RRA	-.3688	RC3	.3017	FAU	.05357
FDE	-1.2806	FRA	2.3392	FC3	-3.0502	BSP	18399
BDE	1.6289	BRA	2.0232	BC3	3.8344	FSP	-1753

MID-COURSE EXECUTION ACCURACY

SGT	5710.3	SGR	1060.0	SG3	508.8		
RRT	-.9310	RRF	-.9320	RTF	.9840		
SGB	5807.8	R23	.0325	R13	-.9844		
SG1	5795.3	SG2	381.4	THA	170.15		

ORBIT DETERMINATION ACCURACY

ST	2638.2	SR	701.4	SS	1115.6		
CRT	-.9865	CRS	.9458	CST	-.9860		
LSA	2941.2	MSA	213.7	SSA	14.9		
EL1	2727.6	EL2	111.2	ALF	165.28		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 536.081

RL	151.84	LAL	-.00	LOL	308.34	VL	26.663	GAL	4.59	AZL	93.29	HCA	245.91	SMA	127.96	ECC	.20253	INC	3.2903
RP	107.87	LAP	3.00	LOP	194.21	VP	37.728	GAP	7.44	AZP	88.66	TAL	161.31	TAP	47.22	RCA	102.05	APO	153.88
RC	122.531	GL	-22.61	GP	20.23	ZAL	53.64	ZAP	147.86	ETS	32.98	ZAE	125.06	ETE	166.94	ZAC	117.70	ETC	255.56

PLANETOCENTRIC CONIC

C3	15.738	VHL	3.967	DLA	-45.43	RAL	254.53	RAD	6567.6	VEL	11.710	PTH	2.06	VHP	5.523	DPA	6.13	RAP	225.15

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.86	9 50 6	1545.61	32.46	22.15	125.72	123.73	10 15 52	945.6	36.63	14.27
127.14	17 32 29	5415.79	32.47	250.08	125.73	123.72	19 2 45	4815.8	36.64	242.20
52.86	9 50 6	1545.61	32.46	22.15	125.72	123.73	10 15 52	945.6	36.63	14.27
127.14	17 32 29	5415.79	32.47	250.08	125.73	123.72	19 2 45	4815.8	36.64	242.20
52.86	9 50 6	1545.61	32.46	22.15	125.72	123.73	10 15 52	945.6	36.63	14.27
127.14	17 32 29	5415.79	32.47	250.08	125.73	123.72	19 2 45	4815.8	36.64	242.20

DIFFERENTIAL CORRECTIONS

TDE	-1.4828	TRA	2.1798	TC3	-3.8119	BAU	.8038
RDE	.4263	RRA	-.3610	RC3	.2576	FAU	.05037
FDE	-1.0939	FRA	2.3496	FC3	-2.7711	BSP	19059
BDE	1.5429	BRA	2.2094	BC3	3.8206	FSP	-1699

MID-COURSE EXECUTION ACCURACY

SGT	5818.7	SGR	986.3	SG3	478.8		
RRT	-.9182	RRF	-.9174	RTF	.9838		
SGB	5901.7	R23	.0255	R13	-.9841		
SG1	5889.1	SG2	386.1	THA	171.12		

ORBIT DETERMINATION ACCURACY

ST	2531.0	SR	654.8	SS	1023.9		
CRT	-.9769	CRS	.9226	CST	-.9835		
LSA	2798.3	MSA	228.8	SSA	14.8		
EL1	2610.8	EL2	135.6	ALF	165.78		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 542.006

RL	151.84	LAL	-.00	LOL	308.34	VL	26.638	GAL	4.92	AZL	93.11	HCA	249.12	SMA	127.80	ECC	.20614	INC	3.1143
RP	107.91	LAP	2.91	LOP	197.44	VP	37.699	GAP	7.87	AZP	88.89	TAL	160.35	TAP	49.47	RCA	101.45	APO	154.14
RC	124.786	GL	-20.86	GP	19.02	ZAL	51.86	ZAP	149.88	ETS	33.48	ZAE	124.60	ETE	168.05	ZAC	116.80	ETC	255.87

PLANETOCENTRIC CONIC

C3	16.399	VHL	4.050	DLA	-43.82	RAL	256.62	RAD	6567.7	VEL	11.738	PTH	2.07	VHP	5.714	DPA	4.50	RAP	226.07

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.04	10 6 48	1533.07	31.10	19.96	127.67	122.59	10 32 21	933.1	35.15	12.13
124.96	17 32 28	5447.06	31.11	251.89	127.68	122.58	19 3 15	4847.1	35.16	244.06
55.04	10 6 48	1533.07	31.10	19.96	127.67	122.59	10 32 21	933.1	35.15	12.13
124.96	17 32 28	5447.06	31.11	251.89	127.68	122.58	19 3 15	4847.1	35.16	244.06
55.04	10 6 48	1533.07	31.10	19.96	127.67	122.59	10 32 21	933.1	35.15	12.13
124.96	17 32 28	5447.06	31.11	251.89	127.68	122.58	19 3 15	4847.1	35.16	244.06

DIFFERENTIAL CORRECTIONS

TDE	-1.3752	TRA	2.4031	TC3	-3.7085	BAU	.8143
RDE	.4056	RRA	-.3597	RC3	.2075	FAU	.04580
FDE	-.8990	FRA	2.3823	FC3	-2.4177	BSP	19127
BDE	1.4338	BRA	2.4299	BC3	3.7143	FSP	-1580

MID-COURSE EXECUTION ACCURACY

SGT	5917.5	SGR	924.7	SG3	451.2		
RRT	-.9038	RRF	-.9016	RTF	.9828		
SGB	5989.3	R23	.0221	R13	-.9830		
SG1	5976.5	SG2	391.8	THA	171.93		

ORBIT DETERMINATION ACCURACY

ST	2406.9	SR	611.7	SS	934.9		
CRT	-.9620	CRS	.8865	CST	-.9790		
LSA	2641.5	MSA	251.3	SSA	14.9		
EL1	2478.1	EL2	162.2	ALF	166.20		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 547.895

RL	151.84	LAL	-.00	LOL	308.34	VL	26.612	GAL	5.26	AZL	92.95	HCA	252.34	SMA	127.63	ECC	.21003	INC	2.9458
RP	107.95	LAP	2.81	LOP	200.66	VP	37.670	GAP	8.30	AZP	89.11	TAL	159.36	TAP	51.71	RCA	100.82	APO	154.43
RC	127.036	GL	-19.17	GP	17.94	ZAL	50.12	ZAP	151.76	ETS	34.06	ZAE	124.15	ETE	169.01	ZAC	116.02	ETC	256.17

PLANETOCENTRIC CONIC

C3	17.195	VHL	4.147	DLA	-42.26	RAL	258.61	RAD	6567.7	VEL	11.772	PTH	2.08	VHP	5.919	DPA	2.97	RAP	227.13

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.21	10 23 32	1520.28	29.72	17.82	129.67	121.55	10 48 52	920.3	33.66	10.05
122.79	17 31 36	5481.62	29.74	253.97	129.68	121.54	19 2 58	4881.6	33.67	246.19
57.21	10 23 32	1520.28	29.72	17.82	129.67	121.55	10 48 52	920.3	33.66	10.05
122.79	17 31 36	5481.62	29.74	253.97	129.68	121.54	19 2 58	4881.6	33.67	246.19
57.21	10 23 32	1520.28	29.72	17.82	129.67	121.55	10 48 52	920.3	33.66	10.05
122.79	17 31 36	5481.62	29.74	253.97	129.68	121.54	19 2 58	4881.6	33.67	246.19

DIFFERENTIAL CORRECTIONS

TDE	-1.2739	TRA	2.6292	TC3	-3.5941	BAU	.8271
RDE	.3925	RRA	-.3585	RC3	.1693	FAU	.04185
FDE	-.7370	FRA	2.4006	FC3	-2.1070	BSP	19346
BDE	1.3331	BRA	2.6536	BC3	3.5981	FSP	-1486

MID-COURSE EXECUTION ACCURACY

SGT	6006.8	SGR	872.9	SG3	424.9		
RRT	-.8886	RRF	-.8848	RTF	.9819		
SGB	6069.9	R23	.0184	R13	-.9821		
SG1	6056.9	SG2	397.1	THA	172.61		

ORBIT DETERMINATION ACCURACY

ST	2296.8	SR	578.4	SS	863.0		
CRT	-.9416	CRS	.8428	CST	-.9746		
LSA	2506.0	MSA	273.0	SSA	14.9		
EL1	2360.9	EL2	189.5	ALF	166.57		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 553.747
RL 151.84 LAL -.00 LOL 308.34 VL 26.586 GAL 5.63 AZL 92.78 HCA 255.56 SMA 127.46 ECC .21421 INC 2.7832 V1 29.341
RP 107.99 LAP 2.70 LOP 203.88 VP 37.639 GAP 8.74 AZP 89.31 TAL 158.36 TAP 53.92 RCA 100.16 APO 154.76 V2 35.093
RC 129.278 GL -17.56 GP 16.96 ZAL 48.41 ZAP 153.53 ETS 34.74 ZAE 123.72 ETE 169.83 ZAC 115.36 ETC 256.47 CLP-159.37
PLANETOCENTRIC CONIC
C3 18.133 VHL 4.258 DLA -40.75 RAL 260.51 RAD 6567.7 VEL 11.812 PTH 2.09 VHP 6.135 DPA 1.52 RAP 228.30 ECC 1.2984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.37	10 40 26	1506.89	28.34	15.71	131.74	120.60	11 5 32	906.9	32.18	7.99
120.63	17 29 49	5519.70	28.36	256.32	131.75	120.59	19 1 49	4919.7	32.19	248.60
59.37	10 40 26	1506.89	28.34	15.71	131.74	120.60	11 5 32	906.9	32.18	7.99
120.63	17 29 49	5519.70	28.36	256.32	131.75	120.59	19 1 49	4919.7	32.19	248.60
59.37	10 40 26	1506.89	28.34	15.71	131.74	120.60	11 5 32	906.9	32.18	7.99
120.63	17 29 49	5519.70	28.36	256.32	131.75	120.59	19 1 49	4919.7	32.19	248.60

DIFFERENTIAL CORRECTIONS
TDE-1.1739 TRA 2.8637 TC3-3.4605 BAU .8396
RDE .3847 RRA -.3586 RC3 .1386 FAU .03820
FDE -.5980 FRA 2.4127 FC3-1.8239 BSP 19602
BDE 1.2353 BRA 2.8861 BC3 3.4632 FSP -1402

MID-COURSE EXECUTION ACCURACY
SGT 6087.2 SGR 829.2 SG3 399.9
RRT -.8728 RRF -.8675 RTF .9812
SGB 6143.4 R23 .0150 R13 -.9814
SG1 6130.2 SG2 401.9 THA 173.19

ORBIT DETERMINATION ACCURACY
ST 2198.0 SR 551.8 SS 804.4
CRT -.9148 CRS .7911 CST -.9705
LSA 2386.6 MSA 294.5 SSA 14.8
EL1 2255.8 EL2 217.1 ALF 166.94

LAUNCH DATE AUG 1 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 559.559
RL 151.84 LAL -.00 LOL 308.34 VL 26.559 GAL 6.02 AZL 92.63 HCA 258.77 SMA 127.29 ECC .21870 INC 2.6255 V1 29.341
RP 108.03 LAP 2.58 LOP 207.10 VP 37.609 GAP 9.19 AZP 89.49 TAL 157.35 TAP 56.12 RCA 99.45 APO 155.12 V2 35.080
RC 131.513 GL -16.02 GP 16.09 ZAL 46.75 ZAP 155.20 ETS 35.54 ZAE 123.30 ETE 170.55 ZAC 114.79 ETC 256.77 CLP-160.87
PLANETOCENTRIC CONIC
C3 19.228 VHL 4.385 DLA -39.30 RAL 262.31 RAD 6567.8 VEL 11.858 PTH 2.10 VHP 6.365 DPA .15 RAP 229.57 ECC 1.3164

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.53	10 57 30	1492.78	26.96	13.61	133.86	119.74	11 22 23	892.8	30.70	5.95
118.47	17 27 8	5561.34	26.98	258.94	133.87	119.73	18 59 49	4961.3	30.71	251.28
61.53	10 57 30	1492.78	26.96	13.61	133.86	119.74	11 22 23	892.8	30.70	5.95
118.47	17 27 8	5561.34	26.98	258.94	133.87	119.73	18 59 49	4961.3	30.71	251.28
61.53	10 57 30	1492.78	26.96	13.61	133.86	119.74	11 22 23	892.8	30.70	5.95
118.47	17 27 8	5561.34	26.98	258.94	133.87	119.73	18 59 49	4961.3	30.71	251.28

DIFFERENTIAL CORRECTIONS
TDE-1.0755 TRA 3.1069 TC3-3.3111 BAU .8517
RDE .3810 RRA -.3601 RC3 .1143 FAU .03486
FDE -.4789 FRA 2.4198 FC3-1.5696 BSP 19893
BDE 1.1410 BRA 3.1277 BC3 3.3131 FSP -1328

MID-COURSE EXECUTION ACCURACY
SGT 6158.3 SGR 792.1 SG3 376.4
RRT -.8568 RRF -.8500 RTF .9806
SGB 6209.1 R23 .0119 R13 -.9807
SG1 6195.8 SG2 406.0 THA 173.68

ORBIT DETERMINATION ACCURACY
ST 2111.7 SR 530.2 SS 757.1
CRT -.8815 CRS .7332 CST -.9672
LSA 2283.4 MSA 315.2 SSA 14.7
EL1 2163.4 EL2 244.4 ALF 167.36

LAUNCH DATE AUG 1 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 565.328
RL 151.84 LAL -.00 LOL 308.34 VL 26.532 GAL 6.44 AZL 92.47 HCA 261.98 SMA 127.11 ECC .22353 INC 2.4713 V1 29.341
RP 108.07 LAP 2.45 LOP 210.31 VP 37.578 GAP 9.66 AZP 89.66 TAL 156.32 TAP 58.30 RCA 98.70 APO 155.52 V2 35.067
RC 133.740 GL -14.54 GP 15.30 ZAL 45.13 ZAP 156.77 ETS 36.47 ZAE 122.91 ETE 171.16 ZAC 114.31 ETC 257.08 CLP-162.30
PLANETOCENTRIC CONIC
C3 20.493 VHL 4.527 DLA -37.89 RAL 264.03 RAD 6567.8 VEL 11.911 PTH 2.12 VHP 6.607 DPA -1.14 RAP 230.95 ECC 1.3373

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.70	11 14 55	1477.55	25.59	11.48	136.03	118.95	11 39 32	877.5	29.24	3.88
116.30	17 23 26	5606.86	25.60	261.85	136.04	118.94	18 56 53	5006.9	29.25	254.25
63.70	11 14 55	1477.55	25.59	11.48	136.03	118.95	11 39 32	877.5	29.24	3.88
116.30	17 23 26	5606.86	25.60	261.85	136.04	118.94	18 56 53	5006.9	29.25	254.25
63.70	11 14 55	1477.55	25.59	11.48	136.03	118.95	11 39 32	877.5	29.24	3.88
116.30	17 23 26	5606.86	25.60	261.85	136.04	118.94	18 56 53	5006.9	29.25	254.25

DIFFERENTIAL CORRECTIONS
TDE -.9729 TRA 3.3654 TC3-3.1386 BAU .8603
RDE .3799 RRA -.3637 RC3 .0934 FAU .03153
FDE -.3718 FRA 2.4285 FC3-1.3320 BSP 20086
BDE 1.0444 BRA 3.3850 BC3 3.1400 FSP -1250

MID-COURSE EXECUTION ACCURACY
SGT 6222.5 SGR 760.6 SG3 354.6
RRT -.8409 RRF -.8328 RTF .9800
SGB 6268.8 R23 .0095 R13 -.9800
SG1 6255.4 SG2 409.4 THA 174.11

ORBIT DETERMINATION ACCURACY
ST 2035.9 SR 511.7 SS 719.4
CRT -.8405 CRS .6681 CST -.9645
LSA 2193.5 MSA 335.7 SSA 14.6
EL1 2081.7 EL2 271.1 ALF 167.86

LAUNCH DATE AUG 1 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 571.048
RL 151.84 LAL -.00 LOL 308.34 VL 26.505 GAL 6.88 AZL 92.32 HCA 265.19 SMA 126.94 ECC .22873 INC 2.3197 V1 29.341
RP 108.11 LAP 2.31 LOP 213.52 VP 37.546 GAP 10.14 AZP 89.81 TAL 155.28 TAP 60.47 RCA 97.90 APO 155.97 V2 35.054
RC 135.957 GL -13.14 GP 14.59 ZAL 43.57 ZAP 158.25 ETS 37.55 ZAE 122.53 ETE 171.70 ZAC 113.90 ETC 257.41 CLP-163.68
PLANETOCENTRIC CONIC
C3 21.946 VHL 4.685 DLA -36.53 RAL 265.66 RAD 6567.9 VEL 11.972 PTH 2.13 VHP 6.864 DPA -2.37 RAP 232.41 ECC 1.3612

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.89	11 32 44	1460.84	24.22	9.30	138.25	118.23	11 57 5	860.8	27.79	1.75
114.11	17 18 38	5656.53	24.23	265.07	138.26	118.21	18 52 54	5056.5	27.80	257.52
65.89	11 32 44	1460.84	24.22	9.30	138.25	118.23	11 57 5	860.8	27.79	1.75
114.11	17 18 38	5656.53	24.23	265.07	138.26	118.21	18 52 54	5056.5	27.80	257.52
65.89	11 32 44	1460.84	24.22	9.30	138.25	118.23	11 57 5	860.8	27.79	1.75
114.11	17 18 38	5656.53	24.23	265.07	138.26	118.21	18 52 54	5056.5	27.80	257.52

DIFFERENTIAL CORRECTIONS
TDE -.8710 TRA 3.6352 TC3-2.9573 BAU .8680
RDE .3814 RRA -.3686 RC3 .0768 FAU .02846
FDE -.2795 FRA 2.4349 FC3-1.1227 BSP 20305
BDE .9508 BRA 3.6538 BC3 2.9583 FSP -1181

MID-COURSE EXECUTION ACCURACY
SGT 6279.0 SGR 733.2 SG3 334.2
RRT -.8256 RRF -.8162 RTF .9794
SGB 6321.7 R23 .0073 R13 -.9795
SG1 6308.2 SG2 411.8 THA 174.47

ORBIT DETERMINATION ACCURACY
ST 1974.1 SR 495.9 SS 690.1
CRT -.7931 CRS .6007 CST -.9631
LSA 2119.8 MSA 354.2 SSA 14.4
EL1 2013.8 EL2 296.1 ALF 168.48

LAUNCH DATE AUG 1 1970 FLIGHT TIME 206.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 576.717

RL	151.84	LAL	-.00	LOL	308.34	VL	26.478	GAL	7.36	AZL	92.17	HCA	268.39	SMA	126.76	ECC	.23433	INC	2.1696
RP	108.15	LAP	2.17	LOP	216.73	VP	37.515	GAP	10.64	AZP	89.94	TAL	154.24	TAP	62.63	RCA	97.06	APO	156.46
RC	138.166	GL	-11.81	GP	13.94	ZAL	42.06	ZAP	159.65	ETS	38.81	ZAE	122.17	ETE	172.17	ZAC	113.56	ETC	257.74

PLANETOCENTRIC CONIC

C3	23.610	VHL	4.859	DLA	-35.23	RAL	267.21	RAD	6568.0	VEL	12.041	PTH	2.15	VHP	7.135	DPA	-3.53	RAP	233.94

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.11	11 51 12	1442.00	22.87	7.02	140.52	117.56	12 15 14	842.0	26.37	359.52
111.89	17 12 33	5710.92	22.88	268.63	140.53	117.55	18 47 44	5110.9	26.38	261.13
68.11	11 51 12	1442.00	22.87	7.02	140.52	117.56	12 15 14	842.0	26.37	359.52
111.89	17 12 33	5710.92	22.88	268.63	140.53	117.55	18 47 44	5110.9	26.38	261.13
68.11	11 51 12	1442.00	22.87	7.02	140.52	117.56	12 15 14	842.0	26.37	359.52
111.89	17 12 33	5710.92	22.88	268.63	140.53	117.55	18 47 44	5110.9	26.38	261.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.7684	TRA	3.9179	TC3	-2.7683	BAU	.8741	SGT	6328.0	SGR	709.1	SG3	315.1	ST	1925.1	SR	482.2	SS	667.6
RDE	.3850	RRA	-.3750	RC3	.0635	FAU	.02558	RRT	-.8108	RRF	-.8004	RTF	.9789	CRT	-.7401	CRS	.5329	CST	-.9632
FDE	-.1992	FRA	2.4406	FC3	-.9379	BSP	20519	SGB	6367.6	R23	.0055	R13	-.9790	LSA	2060.8	MSA	370.3	SSA	14.2
BDE	.8594	BRA	3.9358	BC3	2.7691	FSP	-1116	SG1	6354.2	SG2	413.3	THA	174.79	EL1	1958.8	EL2	318.7	ALF	169.21

LAUNCH DATE AUG 1 1970 FLIGHT TIME 208.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 582.327

RL	151.84	LAL	-.00	LOL	308.34	VL	26.450	GAL	7.86	AZL	92.02	HCA	271.60	SMA	126.58	ECC	.24038	INC	2.0201
RP	108.19	LAP	2.02	LOP	219.94	VP	37.483	GAP	11.16	AZP	90.06	TAL	153.19	TAP	64.78	RCA	96.15	APO	157.01
RC	140.364	GL	-10.54	GP	13.35	ZAL	40.61	ZAP	160.98	ETS	40.28	ZAE	121.82	ETE	172.58	ZAC	113.27	ETC	258.08

PLANETOCENTRIC CONIC

C3	25.511	VHL	5.051	DLA	-33.97	RAL	268.69	RAD	6568.0	VEL	12.120	PTH	2.17	VHP	7.422	DPA	-4.63	RAP	235.54

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.39	12 10 28	1420.46	21.53	4.58	142.83	116.94	12 34 9	820.5	24.97	357.14
109.61	17 5 3	5770.52	21.55	272.57	142.83	116.93	18 41 13	5170.5	24.98	265.12
70.39	12 10 28	1420.46	21.53	4.58	142.83	116.94	12 34 9	820.5	24.97	357.14
109.61	17 5 3	5770.52	21.55	272.57	142.83	116.93	18 41 13	5170.5	24.98	265.12
110.00	16 38 46	5850.69	18.87	277.31	141.31	119.05	18 16 17	5250.7	22.59	270.15
110.00	17 35 55	5676.32	24.27	266.66	144.26	114.85	19 10 32	5076.3	27.41	258.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.6655	TRA	4.2145	TC3	-2.5755	BAU	.8786	SGT	6369.8	SGR	687.6	SG3	297.2	ST	1888.7	SR	469.7	SS	650.7
RDE	.3903	RRA	-.3826	RC3	.0529	FAU	.02290	RRT	-.7969	RRF	-.7856	RTF	.9786	CRT	-.6829	CRS	.4671	CST	-.9646
FDE	-.1295	FRA	2.4460	FC3	-.7771	BSP	20746	SGB	6406.8	R23	.0040	R13	-.9786	LSA	2016.0	MSA	383.3	SSA	14.0
BDE	.7715	BRA	4.2318	BC3	2.5760	FSP	-1058	SG1	6393.4	SG2	413.8	THA	175.06	EL1	1916.6	EL2	338.1	ALF	170.05

LAUNCH DATE AUG 1 1970 FLIGHT TIME 210.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 587.873

RL	151.84	LAL	-.00	LOL	308.34	VL	26.422	GAL	8.40	AZL	91.87	HCA	274.80	SMA	126.41	ECC	.24691	INC	1.8703
RP	108.23	LAP	1.86	LOP	223.14	VP	37.451	GAP	11.70	AZP	90.16	TAL	152.14	TAP	66.93	RCA	95.20	APO	157.62
RC	142.552	GL	-9.33	GP	12.82	ZAL	39.22	ZAP	162.23	ETS	41.99	ZAE	121.49	ETE	172.93	ZAC	113.02	ETC	258.44

PLANETOCENTRIC CONIC

C3	27.680	VHL	5.261	DLA	-32.77	RAL	270.08	RAD	6568.1	VEL	12.209	PTH	2.19	VHP	7.727	DPA	-5.67	RAP	237.21

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.76	12 30 53	1395.07	20.22	1.92	145.17	116.36	12 54 8	795.1	23.59	354.51
107.24	16 55 48	5836.38	20.23	276.96	145.18	116.35	18 33 4	5236.4	23.61	269.55
72.76	12 30 53	1395.07	20.22	1.92	145.17	116.36	12 54 8	795.1	23.59	354.51
107.24	16 55 48	5836.38	20.23	276.96	145.18	116.35	18 33 4	5236.4	23.61	269.55
110.00	15 58 53	723.76	13.30	308.57	141.15	121.78	16 10 56	123.8	17.41	301.86
110.00	18 26 59	5555.67	27.48	258.76	148.66	111.18	19 59 34	4955.7	30.11	250.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5621	TRA	4.5261	TC3	-2.3806	BAU	.8811	SGT	6404.4	SGR	667.9	SG3	280.5	ST	1863.7	SR	458.2	SS	638.2
RDE	.3969	RRA	-.3915	RC3	.0441	FAU	.02037	RRT	-.7840	RRF	-.7720	RTF	.9784	CRT	-.6232	CRS	.4050	CST	-.9672
FDE	-.0689	FRA	2.4521	FC3	-.6371	BSP	20979	SGB	6439.1	R23	.0028	R13	-.9784	LSA	1983.9	MSA	393.1	SSA	13.7
BDE	.6881	BRA	4.5430	BC3	2.3810	FSP	-1004	SG1	6425.8	SG2	413.3	THA	175.31	EL1	1886.3	EL2	354.1	ALF	170.97

LAUNCH DATE AUG 1 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 593.346

RL	151.84	LAL	-.00	LOL	308.34	VL	26.394	GAL	8.97	AZL	91.72	HCA	277.99	SMA	126.23	ECC	.25397	INC	1.7191
RP	108.27	LAP	1.70	LOP	226.34	VP	37.419	GAP	12.27	AZP	90.24	TAL	151.09	TAP	69.09	RCA	94.17	APO	158.29
RC	144.730	GL	-8.19	GP	12.34	ZAL	37.89	ZAP	163.42	ETS	43.98	ZAE	121.16	ETE	173.25	ZAC	112.81	ETC	258.81

PLANETOCENTRIC CONIC

C3	30.155	VHL	5.491	DLA	-31.63	RAL	271.41	RAD	6568.2	VEL	12.310	PTH	2.22	VHP	8.051	DPA	-6.66	RAP	238.93

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.29	12 53 2	1363.94	18.93	358.87	147.55	115.82	13 15 46	763.9	22.25	351.51
104.71	16 44 13	622.27	18.95	304.02	147.55	115.81	16 54 35	22.3	22.26	296.66
75.29	12 53 2	1363.94	18.93	358.87	147.55	115.82	13 15 46	763.9	22.25	351.51
104.71	16 44 13	622.27	18.95	304.02	147.55	115.81	16 54 35	22.3	22.26	296.66
110.00	15 38 43	826.21	9.56	314.15	142.11	122.98	15 52 29	226.2	13.84	307.66
110.00	18 57 42	5496.03	28.88	254.68	152.04	109.13	20 29 19	4896.0	31.21	246.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4580	TRA	4.8539	TC3	-2.1862	BAU	.8815	SGT	6431.8	SGR	649.6	SG3	264.9	ST	1848.6	SR	447.2	SS	629.1
RDE	.4046	RRA	-.4016	RC3	.0369	FAU	.01800	RRT	-.7720	RRF	-.7595	RTF	.9782	CRT	-.5627	CRS	.3476	CST	-.9704
FDE	-.0161	FRA	2.4591	FC3	-.5167	BSP	21217	SGB	6464.6	R23	.0018	R13	-.9783	LSA	1963.0	MSA	399.4	SSA	13.5
BDE	.6111	BRA	4.8704	BC3	2.1865	FSP	-953	SG1	6451.4	SG2	411.6	THA	175.52	EL1	1866.3	EL2	366.2	ALF	171.94

LAUNCH DATE AUG 1 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 598.737

RL	151.84	LAL	-.00	LOL	308.34	VL	26.366	GAL	9.59	AZL	91.57	HCA	281.19	SMA	126.05	ECC	.26162	INC	1.5657
RP	108.31	LAP	1.54	LOP	229.54	VP	37.387	GAP	12.87	AZP	90.30	TAL	150.05	TAP	71.24	RCA	93.07	APO	159.03
RC	146.899	GL	-7.11	GP	11.90	ZAL	36.63	ZAP	164.54	ETS	46.30	ZAE	120.85	ETE	173.52	ZAC	112.63	ETC	259.19

V1	29.341	V2	34.988	CLP	-170.06														

PLANETOCENTRIC CONIC

C3	32.979	VHL	5.743	DLA	-30.53	RAL	272.66	RAD	6568.3	VEL	12.424	PTH	2.25	VHP	8.397	DPA	-7.59	RAP	240.70
ECC	1.5428																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.09	13 17 56	1323.65	17.67	355.20	149.95	115.31	13 40 0	723.6	20.93	347.88
101.91	16 29 18	707.60	17.68	309.81	149.96	115.30	16 41 6	107.6	20.94	302.48
78.09	13 17 56	1323.65	17.67	355.20	149.95	115.31	13 40 0	723.6	20.93	347.88
101.91	16 29 18	707.60	17.68	309.81	149.96	115.30	16 41 6	107.6	20.94	302.48
110.00	15 24 33	911.26	6.38	318.68	143.44	123.65	15 39 44	311.3	10.76	312.32
110.00	19 21 52	5456.02	29.74	251.89	155.13	107.68	20 52 48	4856.0	31.87	243.32

DIFFERENTIAL CORRECTIONS

TDE	-.3520	TRA	5.2003	TC3	-1.9938	BAU	.8792		
RDE	.4130	RRA	-.4127	RC3	.0308	FAU	.01575		
FDE	.0305	FRA	2.4682	FC3	-.4135	BSP	21453		
BDE	.5427	BRA	5.2167	BC3	1.9941	FSP	-907		

MID-COURSE EXECUTION ACCURACY

SGT	6453.5	SGR	632.1	SG3	250.4		
RRT	-.7611	RRF	-.7483	RTF	.9783		
SGB	6484.4	R23	.0011	R13	-.9783		
SG1	6471.5	SG2	408.8	THA	175.72		

ORBIT DETERMINATION ACCURACY

ST	1842.1	SR	436.3	SS	622.7		
CRT	-.5026	CRS	.2950	CST	-.9741		
LSA	1951.7	MSA	402.4	SSA	13.2		
EL1	1855.6	EL2	374.4	ALF	172.92		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 604.034

RL	151.84	LAL	-.00	LOL	308.34	VL	26.338	GAL	10.25	AZL	91.41	HCA	284.38	SMA	125.88	ECC	.26992	INC	1.4089
RP	108.35	LAP	1.36	LOP	232.73	VP	37.355	GAP	13.50	AZP	90.35	TAL	149.02	TAP	73.41	RCA	91.90	APO	159.85
RC	149.057	GL	-6.08	GP	11.50	ZAL	35.43	ZAP	165.59	ETS	49.00	ZAE	120.53	ETE	173.76	ZAC	112.48	ETC	259.59

V1	29.341	V2	34.975	CLP	-171.26														

PLANETOCENTRIC CONIC

C3	36.208	VHL	6.017	DLA	-29.48	RAL	273.84	RAD	6568.4	VEL	12.553	PTH	2.27	VHP	8.766	DPA	-8.46	RAP	242.50
ECC	1.5959																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.45	13 48 5	1266.11	16.43	350.32	152.38	114.82	14 9 11	666.1	19.64	343.03
98.55	16 8 35	812.28	16.44	316.99	152.39	114.81	16 22 8	212.3	19.65	309.70
100.00	15 37 53	910.62	12.62	322.35	150.45	117.33	15 53 3	310.6	16.18	315.37
100.00	17 1 29	642.99	20.34	306.24	154.18	112.39	17 12 12	43.0	23.19	298.61
110.00	15 13 38	987.03	3.50	322.66	145.00	124.02	15 30 5	387.0	7.95	316.39
110.00	19 42 13	5427.39	30.32	249.85	158.08	106.61	21 12 40	4827.4	32.29	241.20

DIFFERENTIAL CORRECTIONS

TDE	-.2437	TRA	5.5669	TC3	-1.8042	BAU	.8734		
RDE	.4220	RRA	-.4247	RC3	.0255	FAU	.01361		
FDE	.0719	FRA	2.4796	FC3	-.3253	BSP	21675		
BDE	.4873	BRA	5.5830	BC3	1.8043	FSP	-863		

MID-COURSE EXECUTION ACCURACY

SGT	6468.6	SGR	615.0	SG3	236.8		
RRT	-.7512	RRF	-.7382	RTF	.9784		
SGB	6497.8	R23	.0005	R13	-.9784		
SG1	6485.2	SG2	404.9	THA	175.90		

ORBIT DETERMINATION ACCURACY

ST	1842.5	SR	425.3	SS	618.5		
CRT	-.4439	CRS	.2473	CST	-.9778		
LSA	1948.4	MSA	402.3	SSA	12.9		
EL1	1852.6	EL2	379.0	ALF	173.89		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 609.225

RL	151.84	LAL	-.00	LOL	308.34	VL	26.310	GAL	10.96	AZL	91.25	HCA	287.57	SMA	125.70	ECC	.27896	INC	1.2477
RP	108.39	LAP	1.19	LOP	235.92	VP	37.323	GAP	14.18	AZP	90.38	TAL	148.01	TAP	75.58	RCA	90.64	APO	160.77
RC	151.205	GL	-5.11	GP	11.13	ZAL	34.31	ZAP	166.57	ETS	52.15	ZAE	120.22	ETE	173.98	ZAC	112.35	ETC	260.00

V1	29.341	V2	34.962	CLP	-172.45														

PLANETOCENTRIC CONIC

C3	39.904	VHL	6.317	DLA	-28.48	RAL	274.96	RAD	6568.5	VEL	12.699	PTH	2.31	VHP	9.162	DPA	-9.29	RAP	244.35
ECC	1.6567																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.86	14 36 20	1149.41	15.22	341.15	154.83	114.36	14 55 29	549.4	18.38	333.89
93.14	15 29 12	978.11	15.24	328.62	154.84	114.35	15 45 30	378.1	18.40	321.36
100.00	15 6 59	1049.90	8.14	330.27	151.21	118.86	15 24 29	449.9	11.93	323.53
100.00	17 41 14	5840.88	22.56	278.37	158.00	110.14	19 18 35	5240.9	25.10	270.49
110.00	15 4 46	1056.86	.84	326.31	146.72	124.17	15 22 23	456.9	5.32	320.08
110.00	19 59 56	5406.69	30.71	248.37	160.95	105.81	21 30 3	4806.7	32.57	239.65

DIFFERENTIAL CORRECTIONS

TDE	-.1321	TRA	5.9569	TC3	-1.6180	BAU	.8632		
RDE	.4314	RRA	-.4376	RC3	.0207	FAU	.01152		
FDE	.1093	FRA	2.4946	FC3	-.2499	BSP	21865		
BDE	.4512	BRA	5.9729	BC3	1.6181	FSP	-820		

MID-COURSE EXECUTION ACCURACY

SGT	6478.7	SGR	598.1	SG3	224.2		
RRT	-.7422	RRF	-.7292	RTF	.9787		
SGB	6506.3	R23	.0000	R13	-.9787		
SG1	6494.0	SG2	399.9	THA	176.07		

ORBIT DETERMINATION ACCURACY

ST	1848.9	SR	414.1	SS	616.4		
CRT	-.3876	CRS	.2041	CST	-.9813		
LSA	1951.9	MSA	399.5	SSA	12.6		
EL1	1856.2	EL2	380.2	ALF	174.82		

LAUNCH DATE AUG 1 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 614.291

RL	151.84	LAL	-.00	LOL	308.34	VL	26.283	GAL	11.72	AZL	91.08	HCA	290.76	SMA	125.53	ECC	.28881	INC	1.0808
RP	108.43	LAP	1.01	LOP	239.11	VP	37.292	GAP	14.90	AZP	90.38	TAL	147.02	TAP	77.78	RCA	89.27	APO	161.78
RC	153.343	GL	-4.19	GP	10.80	ZAL	33.25	ZAP	167.48	ETS	55.81	ZAE	119.90	ETE	174.17	ZAC	112.24	ETC	260.41

V1	29.341	V2	34.949	CLP	-173.63														

PLANETOCENTRIC CONIC

C3	44.148	VHL	6.644	DLA	-27.52	RAL	276.00	RAD	6568.7	VEL	12.865	PTH	2.34	VHP	9.588	DPA	-10.07	RAP	246.22
ECC	1.7266																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 8 4	1280.96	8.72	347.56	154.70	117.05	14 29 25	681.0	12.28	340.69
90.00	16 5 46	897.53	19.51	324.60	159.64	110.94	16 20 44	297.5	22.18	316.95
100.00	14 48 36	1149.96	4.82	335.83	152.59	119.54	15 7 46	550.0	8.71	329.22
100.00	18 7 55	5791.79	23.68	275.15	161.26	108.80	19 44 27	5191.8	26.03	267.14
110.00	14 57 21	1122.47	-1.67	329.73	148.56	124.15	15 16 4	522.5	2.82	323.52
110.00	20 15 39	5392.05	30.98	247.31	163.78	105.23	21 45 31	4792.1	32.75	238.54

DIFFERENTIAL CORRECTIONS

TDE	-.0161	TRA	6.3736	TC3	-1.4361	BAU	.8477		
RDE	.4410	RRA	-.4513	RC3	.0163	FAU	.00948		
FDE	.1435	FRA	2.5139	FC3	-.1859	BSP	22002		
BDE	.4413	BRA	6.3896	BC3	1.4362	FSP	-778		

MID-COURSE EXECUTION ACCURACY

SGT	6484.7	SGR	581.0	SG3	212.5		
RRT	-.7341	RRF	-.7212	RTF	.9791		
SGB	6510.7	R23	-.0003	R13	-.9791		
SG1	6498.7	SG2	393.7	THA	176.22		

ORBIT DETERMINATION ACCURACY

ST	1860.2	SR	402.4	SS	616.1		
CRT	-.3340	CRS	.1653	CST	-.9846		
LSA	1961.2	MSA	394.0	SSA	12.3		
EL1	1865.2	EL2	378.3	ALF	175.69		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 11 1970

HELIOCENTRIC CONIC DISTANCE 142.301

RL	151.83	LAL	-.00	LOL	309.30	VL	18.869	GAL	11.60	AZL	94.33	HCA	49.85	SMA	95.33	ECC	.61443	INC	4.3348	V1	29.345
RP	108.70	LAP	-3.31	LOP	359.07	VP	32.398	GAP	-37.17	AZP	92.80	TAL	172.50	TAP	222.35	RCA	36.76	APO	153.90	V2	34.862
RC	57.678	GL	-6.85	GP	-4.26	ZAL	69.93	ZAP	25.45	ETS	168.93	ZAE	150.27	ETE	170.12	ZAC	90.65	ETC	256.00	CLP	25.12

PLANETOCENTRIC CONIC

C3	137.209	VHL	11.714	DLA	-26.73	RAL	235.67	RAD	6570.5	VEL	16.079	PTH	2.83	VHP	21.483	DPA	-10.79	RAP	201.69	ECC	3.2581

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 59 6	1618.37	-2.05	6.51	128.67	118.25	11 26 5	1018.4	1.74	359.88
90.00	13 45 10	1074.79	14.84	335.51	137.03	114.40	14 3 4	474.8	18.01	328.27
100.00	11 48 31	1458.75	-5.62	352.82	126.70	119.41	12 12 50	858.8	-1.66	346.27
100.00	15 38 26	709.65	18.55	310.38	138.77	113.87	15 50 15	109.6	21.62	302.93
110.00	12 3 39	1411.27	-12.49	345.09	122.57	122.08	12 27 10	811.3	-8.16	338.67
110.00	17 39 47	5617.93	25.88	262.89	142.21	113.15	19 13 25	5017.9	28.78	254.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3129	TRA	-1.3735	TC3	-.1096	BAU	.2037	SGT	809.5	SGR	451.5	SG3	33.5	ST	272.8	SR	444.9	SS	251.6
RDE	-.9085	RRA	-.1243	RC3	.0178	FAU	.01403	RRT	-.0753	RRF	.0760	RTF	-.6282	CRT	-.5226	CRS	-.6860	CST	.9759
FDE	-.1992	FRA	.5723	FC3	-.0885	BSP	2046	SGB	926.9	R23	-.0076	R13	.6288	LSA	520.4	MSA	254.2	SSA	13.9
BDE	.9609	BRA	1.3791	BC3	.1111	FSP	-69	SG1	810.5	SG2	449.6	THA	176.52	EL1	474.0	EL2	218.3	ALF	112.89

LAUNCH DATE AUG 2 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 13 1970

HELIOCENTRIC CONIC DISTANCE 148.407

RL	151.83	LAL	-.00	LOL	309.30	VL	19.486	GAL	11.14	AZL	94.09	HCA	53.02	SMA	96.97	ECC	.58764	INC	4.0894	V1	29.345
RP	108.67	LAP	-3.27	LOP	2.25	VP	32.772	GAP	-35.41	AZP	92.46	TAL	171.94	TAP	224.96	RCA	39.99	APO	153.96	V2	34.872
RC	55.801	GL	-7.05	GP	-4.40	ZAL	68.94	ZAP	23.97	ETS	167.88	ZAE	151.29	ETE	169.95	ZAC	90.85	ETC	256.07	CLP	23.58

PLANETOCENTRIC CONIC

C3	123.333	VHL	11.106	DLA	-27.15	RAL	236.71	RAD	6570.3	VEL	15.642	PTH	2.78	VHP	20.576	DPA	-11.58	RAP	203.15	ECC	3.0297

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 15 3	1558.61	-.12	3.17	129.09	118.32	11 41 2	958.6	3.66	356.54
90.00	13 37 31	1093.48	14.31	336.63	136.31	114.70	13 55 44	493.5	17.52	329.43
100.00	12 0 31	1411.74	-4.04	350.22	126.92	119.64	12 24 3	811.7	-.06	343.69
100.00	15 34 44	715.58	18.39	310.75	138.23	113.99	15 46 40	115.6	21.47	303.31
110.00	12 12 28	1374.20	-11.14	343.07	122.60	122.53	12 35 22	774.2	-6.77	336.70
110.00	17 39 16	5613.92	25.99	262.63	141.80	113.03	19 12 50	5013.9	28.87	254.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3052	TRA	-1.3667	TC3	-.1144	BAU	.1912	SGT	847.0	SGR	456.5	SG3	36.5	ST	285.3	SR	450.7	SS	261.0
RDE	-.8729	RRA	-.1067	RC3	.0188	FAU	.01430	RRT	-.0841	RRF	.0851	RTF	-.6481	CRT	-.5173	CRS	-.6811	CST	.9762
FDE	-.2023	FRA	.5926	FC3	-.1004	BSP	2180	SGB	962.2	R23	-.0086	R13	.6487	LSA	531.7	MSA	264.1	SSA	14.1
BDE	.9247	BRA	1.3709	BC3	.1160	FSP	-77	SG1	848.2	SG2	454.2	THA	176.36	EL1	482.1	EL2	228.2	ALF	113.76

LAUNCH DATE AUG 2 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 15 1970

HELIOCENTRIC CONIC DISTANCE 154.589

RL	151.83	LAL	-.00	LOL	309.30	VL	20.061	GAL	10.67	AZL	93.86	HCA	56.19	SMA	98.61	ECC	.56169	INC	3.8634	V1	29.345
RP	108.64	LAP	-3.21	LOP	5.43	VP	33.128	GAP	-33.73	AZP	92.15	TAL	171.42	TAP	227.61	RCA	43.22	APO	154.00	V2	34.883
RC	53.989	GL	-7.25	GP	-4.56	ZAL	68.02	ZAP	22.50	ETS	166.68	ZAE	152.45	ETE	169.81	ZAC	91.03	ETC	256.15	CLP	22.06

PLANETOCENTRIC CONIC

C3	110.903	VHL	10.531	DLA	-27.54	RAL	237.69	RAD	6570.1	VEL	15.239	PTH	2.73	VHP	19.703	DPA	-12.38	RAP	204.64	ECC	2.8252

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 32 7	1493.72	1.97	359.56	129.48	118.25	11 57 1	893.7	5.73	352.90
90.00	13 28 14	1115.55	13.68	337.94	135.39	115.04	13 46 49	515.5	16.94	330.79
100.00	12 12 19	1363.86	-2.42	347.59	127.04	119.80	12 35 2	763.9	1.56	341.07
100.00	15 30 44	720.65	18.25	311.06	137.56	114.10	15 42 44	120.6	21.35	303.63
110.00	12 20 52	1336.99	-9.77	341.06	122.54	122.92	12 43 9	737.0	-5.36	334.74
110.00	17 38 40	5608.32	26.14	262.26	141.26	112.86	19 12 8	5008.3	29.00	254.25

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2984	TRA	-1.3594	TC3	-.1186	BAU	.1782	SGT	885.8	SGR	460.9	SG3	39.8	ST	298.4	SR	456.0	SS	270.7
RDE	-.8376	RRA	-.0899	RC3	.0197	FAU	.01461	RRT	-.0939	RRF	.0952	RTF	-.6673	CRT	-.5134	CRS	-.6766	CST	.9766
FDE	-.2055	FRA	.6132	FC3	-.1140	BSP	2324	SGB	998.5	R23	-.0097	R13	.6681	LSA	543.2	MSA	273.8	SSA	14.3
BDE	.8892	BRA	1.3624	BC3	.1202	FSP	-85	SG1	887.2	SG2	458.1	THA	176.18	EL1	490.1	EL2	238.3	ALF	114.80

LAUNCH DATE AUG 2 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 17 1970

HELIOCENTRIC CONIC DISTANCE 160.844

RL	151.83	LAL	-.00	LOL	309.30	VL	20.597	GAL	10.21	AZL	93.65	HCA	59.37	SMA	100.24	ECC	.53664	INC	3.6535	V1	29.345
RP	108.60	LAP	-3.14	LOP	8.62	VP	33.467	GAP	-32.14	AZP	91.86	TAL	170.93	TAP	230.29	RCA	46.44	APO	154.03	V2	34.894
RC	52.249	GL	-7.43	GP	-4.73	ZAL	67.17	ZAP	21.06	ETS	165.30	ZAE	153.76	ETE	169.69	ZAC	91.19	ETC	256.25	CLP	20.55

PLANETOCENTRIC CONIC

C3	99.757	VHL	9.988	DLA	-27.91	RAL	238.60	RAD	6569.9	VEL	14.869	PTH	2.68	VHP	18.863	DPA	-13.20	RAP	206.13	ECC	2.6417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 51 32	1419.79	4.34	355.42	129.90	118.01	12 15 12	819.8	8.06	348.71
90.00	13 16 5	1145.02	12.82	339.69	134.21	115.46	13 35 10	545.0	16.15	332.59
100.00	12 23 54	1315.15	-.77	344.91	127.07	119.88	12 45 49	715.2	3.21	338.39
100.00	15 26 24	724.89	18.13	311.32	136.75	114.18	15 38 29	124.9	21.24	303.91
110.00	12 28 48	1299.75	-8.38	339.06	122.38	123.26	12 50 27	699.8	-3.95	332.78
110.00	17 37 59	5601.10	26.33	261.79	140.58	112.63	19 11 20	5001.1	29.16	253.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2924	TRA	-1.3518	TC3	-.1219	BAU	.1649	SGT	926.0	SGR	464.7	SG3	43.3	ST	312.3	SR	460.7	SS	280.6
RDE	-.8027	RRA	-.0739	RC3	.0205	FAU	.01495	RRT	-.1048	RRF	.1065	RTF	-.6859	CRT	-.5107	CRS	-.6725	CST	.9772
FDE	-.2087	FRA	.6342	FC3	-.1298	BSP	2473	SGB	1036.1	R23	-.0109	R13	.6867	LSA	555.0	MSA	283.2	SSA	14.5
BDE	.8543	BRA	1.3539	BC3	.1236	FSP	-94	SG1	927.7	SG2	461.3	THA	176.00	EL1	498.1	EL2	248.3	ALF	116.01

LAUNCH DATE AUG 2 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 19 1970

HELIOCENTRIC CONIC DISTANCE 167.165

RL	151.83	LAL	-.00	LOL	309.30	VL	21.096	GAL	9.74	AZL	93.46	HCA	62.55	SMA	101.84	ECC	.51252	INC	3.4569	V1	29.345
RP	108.57	LAP	-3.07	LOP	11.80	VP	33.788	GAP	-30.62	AZP	91.60	TAL	170.46	TAP	233.01	RCA	49.64	APO	154.03	V2	34.905
RC	50.589	GL	-7.60	GP	-4.92	ZAL	66.39	ZAP	19.64	ETS	163.69	ZAE	155.24	ETE	169.61	ZAC	91.34	ETC	256.35	CLP	19.04

PLANETOCENTRIC CONIC

C3	89.756	VHL	9.474	DLA	-28.24	RAL	239.44	RAD	6569.8	VEL	14.529	PTH	2.64	VHP	18.054	DPA	-14.03	RAP	207.64	ECC	2.4772		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 19 1	1318.27	7.56	349.69	130.63	117.37	12 40 59	718.3	11.17	342.87
90.00	12 55 19	1200.54	11.18	342.93	132.48	116.19	13 15 19	600.5	14.61	335.93
100.00	12 35 15	1265.72	.91	342.20	126.99	119.88	12 56 20	665.7	4.87	335.66
100.00	15 21 46	728.32	18.03	311.53	135.82	114.25	15 33 54	128.3	21.16	304.12
110.00	12 36 13	1262.64	-6.99	337.09	122.11	123.55	12 57 16	662.6	-2.54	330.84
110.00	17 37 16	5592.21	26.56	261.20	139.78	112.35	19 10 28	4992.2	29.35	253.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2872	TRA	-1.3437	TC3	-.1243	BAU	.1512	SGT	967.7	SGR	467.9	SG3	47.1	ST	326.8	SR	464.7	SS	290.8
RDE	-.7681	RRA	-.0585	RC3	.0209	FAU	.01533	RRT	-.1170	RRF	.1190	RTF	-.7038	CRT	-.5094	CRS	-.6688	CST	.9780
FDE	-.2121	FRA	.6557	FC3	-.1479	BSP	2628	SGB	1074.9	R23	-.0123	R13	.7047	LSA	567.2	MSA	292.2	SSA	14.7
BDE	.8201	BRA	1.3450	BC3	.1260	FSP	-105	SG1	969.8	SG2	463.8	THA	175.80	EL1	506.0	EL2	258.3	ALF	117.40

LAUNCH DATE AUG 2 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 21 1970

HELIOCENTRIC CONIC DISTANCE 173.548

RL	151.83	LAL	-.00	LOL	309.30	VL	21.562	GAL	9.28	AZL	93.27	HCA	65.73	SMA	103.41	ECC	.48935	INC	3.2711	V1	29.345		
RP	108.53	LAP	-2.98	LOP	14.99	VP	34.093	GAP	-29.17	AZP	91.35	TAL	170.04	TAP	235.76	RCA	52.81	APO	154.02	V2	34.917		
RC	49.017	GL	-7.76	GP	-5.12	ZAL	65.67	ZAP	18.26	ETS	161.79	ZAE	156.88	ETE	169.59	ZAC	91.47	ETC	256.47	CLP	17.55		

PLANETOCENTRIC CONIC

C3	80.777	VHL	8.988	DLA	-28.54	RAL	240.21	RAD	6569.6	VEL	14.217	PTH	2.59	VHP	17.275	DPA	-14.87	RAP	209.16	ECC	2.3294		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.24	12 8 42	1337.87	10.18	352.48	130.92	116.81	12 31 0	737.9	13.70	345.55
93.76	13 11 47	1133.52	10.20	337.53	130.93	116.81	13 30 40	533.5	13.71	330.60
100.00	12 46 20	1215.69	2.60	339.46	126.82	119.79	13 6 36	615.7	6.55	332.89
100.00	15 16 50	730.93	17.96	311.69	134.75	114.30	15 29 1	130.9	21.09	304.29
110.00	12 43 7	1225.82	-5.60	335.14	121.74	123.78	13 3 32	625.8	-1.13	328.92
110.00	17 36 33	5581.60	26.83	260.50	138.85	112.02	19 9 34	4981.6	29.57	252.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2825	TRA	-1.3353	TC3	-.1255	BAU	.1374	SGT	1011.1	SGR	470.6	SG3	51.3	ST	342.0	SR	468.1	SS	301.3
RDE	-.7341	RRA	-.0438	RC3	.0211	FAU	.01575	RRT	-.1302	RRF	.1330	RTF	-.7210	CRT	-.5091	CRS	-.6656	CST	.9789
FDE	-.2156	FRA	.6779	FC3	-.1688	BSP	2783	SGB	1115.3	R23	-.0139	R13	.7219	LSA	579.8	MSA	300.8	SSA	14.9
BDE	.7865	BRA	1.3360	BC3	.1272	FSP	-116	SG1	1013.5	SG2	465.5	THA	175.60	EL1	514.0	EL2	268.1	ALF	118.97

LAUNCH DATE AUG 2 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 23 1970

HELIOCENTRIC CONIC DISTANCE 179.988

RL	151.83	LAL	-.00	LOL	309.30	VL	21.996	GAL	8.83	AZL	93.09	HCA	68.91	SMA	104.96	ECC	.46714	INC	3.0943	V1	29.345		
RP	108.49	LAP	-2.89	LOP	18.18	VP	34.381	GAP	-27.79	AZP	91.11	TAL	169.65	TAP	238.56	RCA	55.93	APO	153.99	V2	34.929		
RC	47.541	GL	-7.91	GP	-5.34	ZAL	65.02	ZAP	16.90	ETS	159.55	ZAE	158.69	ETE	169.65	ZAC	91.57	ETC	256.60	CLP	16.06		

PLANETOCENTRIC CONIC

C3	72.712	VHL	8.527	DLA	-28.82	RAL	240.91	RAD	6569.4	VEL	13.931	PTH	2.54	VHP	16.523	DPA	-15.73	RAP	210.68	ECC	2.1967		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.43	11 56 35	1361.73	11.02	354.66	130.16	116.79	12 19 16	761.7	14.53	347.71
95.57	13 29 30	1060.98	11.03	332.63	130.17	116.79	13 47 11	461.0	14.54	325.68
100.00	12 57 5	1165.33	4.30	336.68	126.53	119.61	13 16 31	565.3	8.21	330.08
100.00	15 11 40	732.61	17.91	311.79	133.57	114.34	15 23 53	132.6	21.05	304.40
110.00	12 49 24	1189.53	-4.23	333.24	121.26	123.95	13 9 13	589.5	.26	327.02
110.00	17 35 51	5569.21	27.15	259.67	137.80	111.62	19 8 41	4969.2	29.83	251.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2788	TRA	-1.3259	TC3	-.1249	BAU	.1231	SGT	1055.7	SGR	472.6	SG3	55.9	ST	358.0	SR	470.8	SS	312.2
RDE	-.7006	RRA	-.0298	RC3	.0207	FAU	.01622	RRT	-.1453	RRF	.1486	RTF	-.7374	CRT	-.5108	CRS	-.6631	CST	.9801
FDE	-.2194	FRA	.7007	FC3	-.1931	BSP	2951	SGB	1156.6	R23	-.0156	R13	.7385	LSA	593.2	MSA	308.5	SSA	15.1
BDE	.7541	BRA	1.3263	BC3	.1266	FSP	-128	SG1	1058.4	SG2	466.4	THA	175.38	EL1	522.4	EL2	277.4	ALF	120.75

LAUNCH DATE AUG 2 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 186.479

RL	151.83	LAL	-.00	LOL	309.30	VL	22.400	GAL	8.38	AZL	92.92	HCA	72.09	SMA	106.47	ECC	.44591	INC	2.9248	V1	29.345		
RP	108.45	LAP	-2.78	LOP	21.37	VP	34.654	GAP	-26.46	AZP	90.90	TAL	169.30	TAP	241.39	RCA	58.99	APO	153.95	V2	34.942		
RC	46.171	GL	-8.03	GP	-5.59	ZAL	64.45	ZAP	15.58	ETS	156.87	ZAE	160.67	ETE	169.82	ZAC	91.64	ETC	256.74	CLP	14.57		

PLANETOCENTRIC CONIC

C3	65.467	VHL	8.091	DLA	-29.05	RAL	241.54	RAD	6569.2	VEL	13.668	PTH	2.50	VHP	15.799	DPA	-16.61	RAP	212.22	ECC	2.0774		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.22	11 49 20	1368.29	11.87	355.58	129.29	116.71	12 12 8	768.3	15.36	348.59
96.78	13 41 46	1004.63	11.89	328.92	129.30	116.71	13 58 31	404.6	15.38	321.93
100.00	13 7 24	1115.03	5.98	333.90	126.12	119.34	13 26 0	515.0	9.85	327.24
100.00	15 6 22	733.13	17.90	311.82	132.27	114.35	15 18 35	133.1	21.04	304.43
110.00	12 55 1	1154.02	-2.87	331.38	120.66	124.08	13 14 15	554.0	1.62	325.17
110.00	17 35 15	5554.94	27.50	258.71	136.63	111.15	19 7 50	4954.9	30.12	250.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2757	TRA	-1.3162	TC3	-.1226	BAU	.1087	SGT	1101.9	SGR	474.2	SG3	60.9	ST	374.8	SR	472.9	SS	323.4
RDE	-.6678	RRA	-.0163	RC3	.0198	FAU	.01673	RRT	-.1619	RRF	.1659	RTF	-.7532	CRT	-.5138	CRS	-.6612	CST	.9813
FDE	-.2233	FRA	.7245	FC3	-.2213	BSP	3121	SGB	1199.6	R23	-.0176	R13	.7543	LSA	607.4	MSA	315.5	SSA	15.3
BDE	.7225	BRA	1.3163	BC3	.1242	FSP	-142	SG1	1105.2	SG2	466.5	THA	175.15	EL1	531.2	EL2	286.2	ALF	122.73

LAUNCH DATE AUG 2 1970 FLIGHT TIME 86.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 193.017

RL	151.83	LAL	-.00	LOL	309.30	VL	22.777	GAL	7.94	AZL	92.76	HCA	75.28	SMA	107.95	ECC	.42566	INC	2.7612
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.911	GAP	-25.19	AZP	90.70	TAL	169.00	TAP	244.28	RCA	62.00	APO	153.89
RC	44.918	GL	-8.14	GP	-5.86	ZAL	63.94	ZAP	14.31	ETS	153.63	ZAE	162.81	ETE	170.17	ZAC	91.69	ETC	256.90

V1	29.345	V2	34.954	CLP	13.08														

PLANETOCENTRIC CONIC

C3	58.957	VHL	7.678	DLA	-29.25	RAL	242.10	RAD	6569.1	VEL	13.428	PTH	2.45	VHP	15.101	DPA	-17.49	RAP	213.75

ECC	1.9703																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.35	11 44 34	1365.35	12.72	355.80	128.31	116.56	12 7 20	765.4	16.18	348.77
97.65	13 50 57	956.88	12.74	325.84	128.32	116.56	14 6 54	356.9	16.20	318.81
100.00	13 17 6	1065.47	7.63	331.14	125.59	118.99	13 34 51	465.5	11.44	324.42
100.00	15 1 7	731.99	17.93	311.75	130.88	114.33	15 13 19	132.0	21.06	304.36
110.00	12 59 55	1119.58	-1.56	329.58	119.94	124.15	13 18 34	519.6	2.93	323.37
110.00	17 34 47	5538.69	27.89	257.61	135.34	110.61	19 7 6	4938.7	30.44	249.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2732	TRA	-1.3055	TC3	-.1181	BAU	.0942	SGT	1149.4	SGR	475.3	SG3	66.5	ST	392.2	SR	474.4	SS	334.9
RDE	-.6358	RRA	-.0034	RC3	.0182	FAU	.01731	RRT	-.1803	RRF	.1854	RTF	-.7681	CRT	-.5182	CRS	-.6599	CST	.9827
FDE	-.2275	FRA	.7491	FC3	-.2542	BSP	3296	SGB	1243.8	R23	-.0199	R13	.7694	LSA	622.4	MSA	321.5	SSA	15.5
BDE	.6920	BRA	1.3055	BC3	.1195	FSP	-157	SG1	1153.2	SG2	465.9	THA	174.90	EL1	540.6	EL2	294.3	ALF	124.85

LAUNCH DATE AUG 2 1970 FLIGHT TIME 88.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 199.597

RL	151.83	LAL	-.00	LOL	309.30	VL	23.128	GAL	7.52	AZL	92.60	HCA	78.47	SMA	109.38	ECC	.40639	INC	2.6022
RP	108.38	LAP	-2.55	LOP	27.76	VP	35.154	GAP	-23.97	AZP	90.52	TAL	168.74	TAP	247.21	RCA	64.93	APO	153.83
RC	43.790	GL	-8.21	GP	-6.16	ZAL	63.51	ZAP	13.11	ETS	149.68	ZAE	165.12	ETE	170.80	ZAC	91.70	ETC	257.06

V1	29.345	V2	34.967	CLP	11.59														

PLANETOCENTRIC CONIC

C3	53.108	VHL	7.288	DLA	-29.41	RAL	242.58	RAD	6568.9	VEL	13.209	PTH	2.41	VHP	14.428	DPA	-18.40	RAP	215.28

ECC	1.8740																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.72	11 41 33	1355.54	13.57	355.51	127.22	116.34	12 4 8	755.5	17.00	348.44
98.28	13 57 49	915.30	13.58	323.20	127.22	116.34	14 13 4	315.3	17.01	316.12
100.00	13 25 49	1017.83	9.19	328.47	124.90	118.57	13 42 47	417.8	12.94	321.68
100.00	14 56 14	728.25	18.04	311.52	129.41	114.25	15 8 22	128.2	21.16	304.12
110.00	13 4 0	1086.57	-.30	327.86	119.11	124.18	13 22 6	486.6	4.19	321.65
110.00	17 34 33	5520.31	28.33	256.36	133.95	109.98	19 6 33	4920.3	30.78	248.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2713	TRA	-1.2941	TC3	-.1109	BAU	.0795	SGT	1198.2	SGR	475.9	SG3	72.5	ST	410.2	SR	475.3	SS	346.9
RDE	-.6046	RRA	.0091	RC3	.0156	FAU	.01795	RRT	-.2010	RRF	.2071	RTF	-.7824	CRT	-.5244	CRS	-.6592	CST	.9841
FDE	-.2320	FRA	.7748	FC3	-.2926	BSP	3475	SGB	1289.3	R23	-.0225	R13	.7837	LSA	638.5	MSA	326.4	SSA	15.7
BDE	.6626	BRA	1.2941	BC3	.1120	FSP	-174	SG1	1202.7	SG2	464.5	THA	174.63	EL1	550.8	EL2	301.5	ALF	127.13

LAUNCH DATE AUG 2 1970 FLIGHT TIME 90.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 206.214

RL	151.83	LAL	-.00	LOL	309.30	VL	23.454	GAL	7.10	AZL	92.45	HCA	81.66	SMA	110.77	ECC	.38808	INC	2.4467
RP	108.34	LAP	-2.42	LOP	30.95	VP	35.382	GAP	-22.80	AZP	90.36	TAL	168.52	TAP	250.18	RCA	67.78	APO	153.75
RC	42.797	GL	-8.26	GP	-6.49	ZAL	63.14	ZAP	11.98	ETS	144.83	ZAE	167.58	ETE	171.92	ZAC	91.67	ETC	257.24

V1	29.345	V2	34.980	CLP	10.09														

PLANETOCENTRIC CONIC

C3	47.855	VHL	6.918	DLA	-29.52	RAL	242.98	RAD	6568.8	VEL	13.008	PTH	2.37	VHP	13.779	DPA	-19.33	RAP	216.82

ECC	1.7876																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.29	11 39 50	1340.26	14.39	354.80	126.01	116.05	12 2 11	740.3	17.78	347.67
98.71	14 2 46	878.70	14.41	320.91	126.02	116.05	14 17 24	278.7	17.79	313.78
100.00	13 32 59	974.03	10.61	325.98	124.03	118.11	13 49 13	374.0	14.28	319.12
100.00	14 52 18	720.17	18.26	311.03	127.90	114.09	15 4 18	120.2	21.36	303.60
110.00	13 7 10	1055.36	.90	326.23	118.15	124.17	13 24 46	455.4	5.37	320.01
110.00	17 34 36	5499.64	28.80	254.93	132.46	109.26	19 6 16	4899.6	31.15	246.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2701	TRA	-1.2820	TC3	-.1004	BAU	.0647	SGT	1248.3	SGR	476.3	SG3	79.1	ST	429.0	SR	475.6	SS	359.3
RDE	-.5742	RRA	.0211	RC3	.0118	FAU	.01867	RRT	-.2240	RRF	.2315	RTF	-.7959	CRT	-.5322	CRS	-.6594	CST	.9857
FDE	-.2368	FRA	.8018	FC3	-.3377	BSP	3662	SGB	1336.1	R23	-.0255	R13	.7974	LSA	655.8	MSA	330.2	SSA	15.8
BDE	.6346	BRA	1.2822	BC3	.1011	FSP	-192	SG1	1253.6	SG2	462.2	THA	174.34	EL1	561.9	EL2	307.4	ALF	129.51

LAUNCH DATE AUG 2 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 212.864

RL	151.83	LAL	-.00	LOL	309.30	VL	23.758	GAL	6.70	AZL	92.29	HCA	84.85	SMA	112.11	ECC	.37072	INC	2.2935
RP	108.29	LAP	-2.28	LOP	34.15	VP	35.597	GAP	-21.68	AZP	90.21	TAL	168.36	TAP	253.21	RCA	70.55	APO	153.67
RC	41.950	GL	-8.27	GP	-6.85	ZAL	62.85	ZAP	10.97	ETS	138.88	ZAE	170.17	ETE	173.99	ZAC	91.60	ETC	257.43

V1	29.345	V2	34.993	CLP	8.59														

PLANETOCENTRIC CONIC

C3	43.138	VHL	6.568	DLA	-29.58	RAL	243.32	RAD	6568.6	VEL	12.826	PTH	2.33	VHP	13.153	DPA	-20.27	RAP	218.34

ECC	1.7099																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.07	11 39 25	1319.75	15.20	353.68	124.71	115.69	12 1 25	719.8	18.53	346.50
98.93	14 5 49	847.08	15.21	318.97	124.71	115.68	14 19 56	247.1	18.54	311.78
100.00	13 37 43	936.98	11.79	323.87	122.95	117.67	13 53 20	337.0	15.40	316.94
100.00	14 50 12	705.08	18.68	310.10	126.38	113.77	15 1 58	105.1	21.73	302.64
110.00	13 9 22	1026.37	2.00	324.72	117.06	124.13	13 26 28	426.4	6.47	318.48
110.00	17 35 3	5476.49	29.31	253.32	130.87	108.43	19 6 20	4876.5	31.54	244.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2693	TRA	-1.2690	TC3	-.0863	BAU	.0499	SGT	1299.4	SGR	476.5	SG3	86.5	ST	448.4	SR	475.4	SS	372.0
RDE	-.5448	RRA	.0329	RC3	.0065	FAU	.01946	RRT	-.2498	RRF	.2587	RTF	-.8088	CRT	-.5416	CRS	-.6600	CST	.9874
FDE	-.2417	FRA	.8303	FC3	-.3905	BSP	3851	SGB	1384.0	R23	-.0287	R13	.8104	LSA	674.1	MSA	332.7	SSA	16.0
BDE	.6078	BRA	1.2695	BC3	.0865	FSP	-213	SG1	1305.6	SG2	459.2	THA	174.02	EL1	574.2	EL2	312.1	ALF	131.92

LAUNCH DATE AUG 2 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 219.541

RL	151.83	LAL	-.00	LOL	309.30	VL	24.040	GAL	6.31	AZL	92.14	HCA	88.05	SMA	113.40	ECC	.35430	INC	2.1418	V1	29.345
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.799	GAP	-20.59	AZP	90.07	TAL	168.24	TAP	256.29	RCA	73.22	APO	153.57	V2	35.007
RC	41.257	GL	-8.23	GP	-7.25	ZAL	62.63	ZAP	10.11	ETS	131.62	ZAE	172.85	ETE	178.15	ZAC	91.49	ETC	257.62	CLP	7.07

PLANETOCENTRIC CONIC

C3	38.904	VHL	6.237	DLA	-29.59	RAL	243.57	RAD	6568.5	VEL	12.660	PTH	2.30	VHP	12.550	DPA	-21.24	RAP	219.86	ECC	1.6403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.05	11 40 17	1294.21	15.96	352.17	123.30	115.25	12 1 51	694.2	19.23	344.93
98.95	14 7 0	820.48	15.98	317.37	123.31	115.24	14 20 41	220.5	19.25	310.13
100.00	13 39 3	909.90	12.64	322.31	121.61	117.32	13 54 13	309.9	16.20	315.33
100.00	14 50 55	680.02	19.36	308.55	124.90	113.23	15 2 15	80.0	22.34	301.02
110.00	13 10 27	1000.05	3.01	323.34	115.85	124.07	13 27 7	400.0	7.46	317.08
110.00	17 36 0	5450.68	29.85	251.51	129.18	107.48	19 6 51	4850.7	31.95	242.93

DIFFERENTIAL CORRECTIONS

TDE	.2687	TRA	-1.2555	TC3	-.0681	BAU	.0354
RDE	-.5165	RRA	.0446	RC3	-.0006	FAU	.02033
FDE	-.2469	FRA	.8605	FC3	-.4524	BSP	4044
BDE	.5822	BRA	1.2563	BC3	.0681	FSP	-236

MID-COURSE EXECUTION ACCURACY

SGT	1351.7	SGR	476.7	SG3	94.5		
RRT	-.2785	RRF	.2892	RTF	-.8209		
SGB	1433.3	R23	-.0326	R13	.8227		
SG1	1359.0	SG2	455.4	THA	173.68		

ORBIT DETERMINATION ACCURACY

ST	468.2	SR	474.6	SS	385.1
CRT	-.5522	CRS	-.6613	CST	.9890
LSA	693.5	MSA	334.1	SSA	16.2
EL1	587.4	EL2	315.4	ALF	134.30

LAUNCH DATE AUG 2 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 226.243

RL	151.83	LAL	-.00	LOL	309.30	VL	24.302	GAL	5.93	AZL	91.99	HCA	91.25	SMA	114.64	ECC	.33881	INC	1.9905	V1	29.345
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.989	GAP	-19.55	AZP	89.96	TAL	168.17	TAP	259.42	RCA	75.80	APO	153.48	V2	35.020
RC	40.727	GL	-8.15	GP	-7.69	ZAL	62.48	ZAP	9.46	ETS	122.96	ZAE	175.52	ETE	188.36	ZAC	91.32	ETC	257.83	CLP	5.53

PLANETOCENTRIC CONIC

C3	35.106	VHL	5.925	DLA	-29.53	RAL	243.75	RAD	6568.4	VEL	12.509	PTH	2.26	VHP	11.969	DPA	-22.24	RAP	221.35	ECC	1.5777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.26	11 42 38	1263.02	16.68	350.21	121.80	114.73	12 3 41	663.0	19.88	342.90
98.74	14 6 5	799.75	16.69	316.19	121.81	114.72	14 19 25	199.8	19.89	308.88
100.00	13 36 33	894.33	13.12	321.41	120.01	117.10	13 51 27	294.3	16.65	314.39
100.00	14 54 52	643.67	20.32	306.28	123.47	112.41	15 5 36	43.7	23.18	298.65
110.00	13 10 22	976.83	3.89	322.13	114.51	123.99	13 26 39	376.8	8.33	315.85
110.00	17 37 32	5421.98	30.42	249.47	127.40	106.40	19 7 54	4822.0	32.37	240.79

DIFFERENTIAL CORRECTIONS

TDE	.2689	TRA	-1.2410	TC3	-.0443	BAU	.0213
RDE	-.4892	RRA	.0561	RC3	-.0100	FAU	.02131
FDE	-.2525	FRA	.8927	FC3	-.5256	BSP	4243
BDE	.5582	BRA	1.2422	BC3	.0455	FSP	-261

MID-COURSE EXECUTION ACCURACY

SGT	1404.5	SGR	477.3	SG3	103.4		
RRT	-.3109	RRF	.3235	RTF	-.8325		
SGB	1483.3	R23	-.0367	R13	.8345		
SG1	1413.2	SG2	450.8	THA	173.28		

ORBIT DETERMINATION ACCURACY

ST	488.7	SR	473.4	SS	398.6
CRT	-.5651	CRS	-.6635	CST	.9908
LSA	714.1	MSA	334.0	SSA	16.4
EL1	602.0	EL2	317.0	ALF	136.61

LAUNCH DATE AUG 2 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 232.965

RL	151.83	LAL	-.00	LOL	309.30	VL	24.545	GAL	5.57	AZL	91.84	HCA	94.45	SMA	115.83	ECC	.32421	INC	1.8387	V1	29.345
RP	108.17	LAP	-1.83	LOP	43.75	VP	36.166	GAP	-18.55	AZP	89.86	TAL	168.14	TAP	262.60	RCA	78.28	APO	153.38	V2	35.033
RC	40.367	GL	-8.00	GP	-8.18	ZAL	62.40	ZAP	9.09	ETS	113.04	ZAE	177.68	ETE	224.18	ZAC	91.09	ETC	258.04	CLP	3.98

PLANETOCENTRIC CONIC

C3	31.700	VHL	5.630	DLA	-29.40	RAL	243.86	RAD	6568.3	VEL	12.372	PTH	2.23	VHP	11.410	DPA	-23.26	RAP	222.83	ECC	1.5217

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.75	11 46 53	1225.08	17.33	347.71	120.21	114.12	12 7 18	625.1	20.45	340.34
98.25	14 2 43	786.24	17.35	315.50	120.21	114.11	14 15 49	186.2	20.46	308.12
100.00	13 30 35	889.21	13.28	321.11	118.20	117.03	13 45 24	289.2	16.80	314.08
100.00	15 1 42	5885.39	21.49	281.24	122.05	111.29	16 39 48	5285.4	24.19	273.49
110.00	13 9 0	957.17	4.64	321.09	113.06	123.90	13 24 57	357.2	9.06	314.80
110.00	17 39 46	5390.19	31.01	247.18	125.54	105.16	19 9 36	4790.2	32.78	238.40

DIFFERENTIAL CORRECTIONS

TDE	.2687	TRA	-1.2260	TC3	-.0154	BAU	.0114
RDE	-.4629	RRA	.0677	RC3	-.0222	FAU	.02239
FDE	-.2579	FRA	.9273	FC3	-.6116	BSP	4445
BDE	.5353	BRA	1.2278	BC3	.0270	FSP	-290

MID-COURSE EXECUTION ACCURACY

SGT	1458.0	SGR	478.3	SG3	113.2		
RRT	-.3466	RRF	.3615	RTF	-.8434		
SGB	1534.5	R23	-.0417	R13	.8456		
SG1	1468.3	SG2	445.5	THA	172.85		

ORBIT DETERMINATION ACCURACY

ST	509.3	SR	471.7	SS	412.3
CRT	-.5788	CRS	-.6660	CST	.9924
LSA	735.4	MSA	332.8	SSA	16.5
EL1	617.4	EL2	317.3	ALF	138.78

LAUNCH DATE AUG 2 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 239.702

RL	151.83	LAL	-.00	LOL	309.30	VL	24.771	GAL	5.23	AZL	91.69	HCA	97.66	SMA	116.96	ECC	.31049	INC	1.6855	V1	29.345
RP	108.13	LAP	-1.67	LOP	46.96	VP	36.332	GAP	-17.58	AZP	89.78	TAL	168.17	TAP	265.83	RCA	80.65	APO	153.28	V2	35.046
RC	40.182	GL	-7.79	GP	-8.73	ZAL	62.39	ZAP	9.05	ETS	102.38	ZAE	177.10	ETE	292.82	ZAC	90.80	ETC	258.26	CLP	2.40

PLANETOCENTRIC CONIC

C3	28.650	VHL	5.353	DLA	-29.19	RAL	243.90	RAD	6568.2	VEL	12.248	PTH	2.20	VHP	10.872	DPA	-24.33	RAP	224.28	ECC	1.4715

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.60	11 53 47	1178.04	17.91	344.50	118.53	113.44	12 13 25	578.0	20.93	337.06
97.40	13 56 7	782.55	17.93	315.49	118.54	113.43	14 9 10	182.5	20.94	308.05
100.00	13 21 56	892.28	13.19	321.29	116.22	117.07	13 36 48	292.3	16.71	314.27
100.00	15 10 40	5831.58	22.78	277.77	120.59	109.90	16 47 51	5231.6	25.28	269.86
110.00	13 6 17	941.51	5.23	320.27	111.49	123.83	13 21 59	341.5	9.64	313.95
110.00	17 42 47	5355.11	31.61	244.62	123.59	103.75	19 12 2	4755.1	33.17	235.74

DIFFERENTIAL CORRECTIONS

TDE	.2687	TRA	-1.2105	TC3	.0199	BAU	.0164
RDE	-.4378	RRA	.0796	RC3	-.0379	FAU	.02360
FDE	-.2631	FRA	.9645	FC3	-.7130	BSP	4639
BDE	.5137	BRA	1.2131	BC3	.0428	FSP	-321

MID-COURSE EXECUTION ACCURACY

SGT	1512.1	SGR	480.4	SG3	124.0		
RRT	-.3862	RRF	.4037	RTF	-.8536		
SGB	1586.5	R23	-.0472	R13	.8560		
SG1	1524.4	SG2	439.5	THA	172.37		

ORBIT DETERMINATION ACCURACY

ST	530.1	SR	469.5	SS	426.1
CRT	-.5939	CRS	-.6687	CST	.9940
LSA	757.3	MSA	330.5	SSA	16.7
EL1	633.7	EL2	316.0	ALF	140.79

LAUNCH DATE AUG 2 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 246.452

RL	151.83	LAL	-.00	LOL	309.30	VL	24.979	GAL	4.89	AZL	91.53	HCA	100.86	SMA	118.04	ECC	.29762	INC	1.5299	V1	29.345
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.488	GAP	-16.65	AZP	89.71	TAL	168.24	TAP	269.10	RCA	82.91	APO	153.18	V2	35.060
RC	40.174	GL	-7.50	GP	-9.34	ZAL	62.44	ZAP	9.37	ETS	91.75	ZAE	174.55	ETE	315.69	ZAC	90.43	ETC	258.48	CLP	.79

PLANETOCENTRIC CONIC

C3	25.921	VHL	5.091	DLA	-28.89	RAL	243.87	RAD	6568.0	VEL	12.137	PTH	2.18	VHP	10.355	DPA	-25.43	RAP	225.70	ECC	1.4266

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.02	12 5 6	1116.32	18.40	340.17	116.78	112.67	12 23 43	516.3	21.31	332.67
95.98	13 44 34	794.48	18.41	316.59	116.79	112.66	13 57 49	194.5	21.32	309.08
100.00	13 11 15	901.70	12.89	321.83	114.13	117.20	13 26 16	301.7	16.44	314.84
100.00	15 21 7	5772.37	24.10	273.86	119.06	108.24	16 57 19	5172.4	26.37	265.80
110.00	13 2 10	930.26	5.66	319.68	109.82	123.77	13 17 40	330.3	10.06	313.35
110.00	17 46 41	5316.58	32.19	241.77	121.56	102.16	19 15 18	4716.6	33.53	232.79

DIFFERENTIAL CORRECTIONS

TDE	.2679	TRA	-1.1943	TC3	.0611	BAU	.0291
RDE	-.4138	RRA	.0919	RC3	-.0578	FAU	.02493
FDE	-.2679	FRA	1.0048	FC3	-.8326	BSP	4841
BDE	.4930	BRA	1.1979	BC3	.0841	FSP	-356

MID-COURSE EXECUTION ACCURACY

SGT	1565.7	SGR	484.0	SG3	136.0		
RRT	-.4293	RRF	.4500	RTF	-.8628		
SGB	1638.8	R23	-.0541	R13	.8656		
SG1	1580.6	SG2	433.0	THA	171.82		

ORBIT DETERMINATION ACCURACY

ST	550.5	SR	467.0	SS	439.9		
CRT	-.6097	CRS	-.6716	CST	.9955		
LSA	779.3	MSA	327.2	SSA	16.9		
EL1	650.3	EL2	313.3	ALF	142.58		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 253.210

RL	151.83	LAL	-.00	LOL	309.30	VL	25.173	GAL	4.57	AZL	91.37	HCA	104.07	SMA	119.07	ECC	.28558	INC	1.3708	V1	29.345
RP	108.05	LAP	-1.33	LOP	53.37	VP	36.633	GAP	-15.74	AZP	89.67	TAL	168.36	TAP	272.43	RCA	85.07	APO	153.07	V2	35.073
RC	40.345	GL	-7.12	GP	-10.03	ZAL	62.57	ZAP	10.06	ETS	81.97	ZAE	171.69	ETE	322.79	ZAC	89.98	ETC	258.70	CLP	-.85

PLANETOCENTRIC CONIC

C3	23.481	VHL	4.846	DLA	-28.49	RAL	243.78	RAD	6568.0	VEL	12.036	PTH	2.15	VHP	9.859	DPA	-26.59	RAP	227.07	ECC	1.3864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.76	12 27 18	1019.15	18.78	333.20	114.97	111.82	12 44 17	419.1	21.58	325.63
93.24	13 21 39	843.04	18.79	320.32	114.97	111.81	13 35 42	243.0	21.59	312.75
100.00	12 58 57	916.41	12.43	322.68	111.96	117.40	13 14 13	316.4	16.01	315.72
100.00	15 32 41	5709.05	25.38	269.60	117.43	106.35	17 7 51	5109.1	27.38	261.36
110.00	12 56 36	923.79	5.91	319.34	108.05	123.73	13 12 0	323.8	10.30	313.00
110.00	17 51 32	5274.44	32.76	238.61	119.44	100.37	19 19 26	4674.4	33.84	229.54

DIFFERENTIAL CORRECTIONS

TDE	.2671	TRA	-1.1771	TC3	.1133	BAU	.0441
RDE	-.3908	RRA	.1048	RC3	-.0829	FAU	.02641
FDE	-.2719	FRA	1.0487	FC3	-.9738	BSP	5056
BDE	.4734	BRA	1.1817	BC3	.1404	FSP	-395

MID-COURSE EXECUTION ACCURACY

SGT	1618.4	SGR	489.8	SG3	149.3		
RRT	-.4769	RRF	.5003	RTF	-.8724		
SGB	1690.9	R23	-.0606	R13	.8756		
SG1	1636.4	SG2	425.8	THA	171.19		

ORBIT DETERMINATION ACCURACY

ST	570.5	SR	464.1	SS	453.4		
CRT	-.6273	CRS	-.6743	CST	.9969		
LSA	801.2	MSA	322.7	SSA	17.1		
EL1	667.3	EL2	309.0	ALF	144.17		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 259.974

RL	151.83	LAL	-.00	LOL	309.30	VL	25.351	GAL	4.27	AZL	91.21	HCA	107.28	SMA	120.04	ECC	.27434	INC	1.2070	V1	29.345
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.768	GAP	-14.87	AZP	89.64	TAL	168.52	TAP	275.80	RCA	87.11	APO	152.97	V2	35.086
RC	40.692	GL	-6.63	GP	-10.79	ZAL	62.76	ZAP	11.08	ETS	73.51	ZAE	168.80	ETE	325.61	ZAC	89.43	ETC	258.93	CLP	-2.54

PLANETOCENTRIC CONIC

C3	21.303	VHL	4.616	DLA	-27.96	RAL	243.63	RAD	6567.9	VEL	11.945	PTH	2.13	VHP	9.383	DPA	-27.80	RAP	228.40	ECC	1.3506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 14 39	1034.97	15.94	333.11	111.78	113.71	12 31 54	435.0	19.02	325.78
90.00	13 33 8	780.02	22.18	317.02	114.29	108.07	13 46 8	180.0	24.45	309.08
100.00	12 45 17	935.91	11.82	323.81	109.73	117.66	13 0 53	335.9	15.43	316.88
100.00	15 45 11	5642.35	26.58	265.00	115.69	104.21	17 19 13	5042.3	28.27	256.61
110.00	12 49 34	922.46	5.96	319.27	106.21	123.72	13 4 56	322.5	10.35	312.93
110.00	17 57 23	5228.56	33.26	235.13	117.23	98.37	19 24 32	4628.6	34.06	225.98

DIFFERENTIAL CORRECTIONS

TDE	.2651	TRA	-1.1606	TC3	.1708	BAU	.0585
RDE	-.3689	RRA	.1187	RC3	-.1144	FAU	.02804
FDE	-.2744	FRA	1.0968	FC3	-1.1396	BSP	5256
BDE	.4543	BRA	1.1666	BC3	.2055	FSP	-438

MID-COURSE EXECUTION ACCURACY

SGT	1671.5	SGR	498.7	SG3	163.9		
RRT	-.5271	RRF	.5541	RTF	-.8806		
SGB	1744.3	R23	-.0692	R13	.8842		
SG1	1693.4	SG2	418.3	THA	170.48		

ORBIT DETERMINATION ACCURACY

ST	589.7	SR	460.7	SS	466.4		
CRT	-.6449	CRS	-.6764	CST	.9980		
LSA	822.4	MSA	317.6	SSA	17.3		
EL1	684.0	EL2	303.6	ALF	145.57		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 266.740

RL	151.83	LAL	-.00	LOL	309.30	VL	25.516	GAL	3.98	AZL	91.04	HCA	110.50	SMA	120.96	ECC	.26388	INC	1.0372	V1	29.345
RP	107.97	LAP	-.97	LOP	59.80	VP	36.894	GAP	-14.03	AZP	89.64	TAL	168.72	TAP	279.22	RCA	89.04	APO	152.88	V2	35.098
RC	41.209	GL	-6.01	GP	-11.66	ZAL	63.01	ZAP	12.40	ETS	66.53	ZAE	165.94	ETE	326.68	ZAC	88.77	ETC	259.15	CLP	-4.26

PLANETOCENTRIC CONIC

C3	19.363	VHL	4.400	DLA	-27.31	RAL	243.44	RAD	6567.8	VEL	11.864	PTH	2.10	VHP	8.928	DPA	-29.09	RAP	229.66	ECC	1.3187

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 46 48	1100.97	14.10	337.08	109.04	114.81	12 5 9	501.0	17.33	329.89
90.00	13 59 24	668.43	24.34	309.56	112.95	104.93	14 10 33	68.4	26.16	301.36
100.00	12 30 25	960.08	11.05	325.19	107.49	117.95	12 46 25	360.1	14.71	318.30
100.00	15 58 29	5572.59	27.65	260.09	113.83	101.84	17 31 22	4972.6	29.00	251.55
110.00	12 41 4	926.61	5.80	319.49	104.32	123.75	12 56 31	326.6	10.19	313.15
110.00	18 4 19	5178.82	33.69	231.31	114.94	96.15	19 30 38	4578.8	34.18	222.10

DIFFERENTIAL CORRECTIONS

TDE	.2622	TRA	-1.1432	TC3	.2380	BAU	.0733
RDE	-.3480	RRA	.1338	RC3	-.1536	FAU	.02986
FDE	-.2754	FRA	1.1495	FC3	-1.3351	BSP	5464
BDE	.4358	BRA	1.1510	BC3	.2833	FSP	-487

MID-COURSE EXECUTION ACCURACY

SGT	1722.5	SGR	511.9	SG3	180.1		
RRT	-.5800	RRF	.6105	RTF	-.8884		
SGB	1797.0	R23	-.0787	R13	.8926		
SG1	1749.4	SG2	410.6	THA	169.64		

ORBIT DETERMINATION ACCURACY

ST	607.6	SR	457.0	SS	478.7		
CRT	-.6638	CRS	-.6782	CST	.9987		
LSA	842.5	MSA	311.7	SSA	17.6		
EL1	700.0	EL2	296.7	ALF	146.76		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 273.506

RL	151.83	LAL	-.00	LOL	309.30	VL	25.668	GAL	3.71	AZL	90.86	HCA	113.71	SMA	121.82	ECC	.25416	INC	.8600	V1	29.345
RP	107.93	LAP	-.79	LOP	63.01	VP	37.011	GAP	-13.22	AZP	89.65	TAL	168.96	TAP	282.68	RCA	90.86	APO	152.78	V2	35.111
RC	41.891	GL	-5.25	GP	-12.64	ZAL	63.32	ZAP	13.98	ETS	60.91	ZAE	163.17	ETE	326.83	ZAC	87.98	ETC	259.37	CLP	-6.04

PLANETOCENTRIC CONIC

C3	17.638	VHL	4.200	DLA	-26.50	RAL	243.20	RAD	6567.7	VEL	11.791	PTH	2.08	VHP	8.494	DPA	-30.46	RAP	230.85	ECC	1.2903		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 23 15	1154.31	12.55	340.23	106.51	115.59	11 42 29	554.3	15.89	333.15
90.00	14 21 5	5859.37	25.88	280.77	111.29	101.91	15 58 44	5259.4	27.26	272.38
100.00	12 14 25	989.05	10.12	326.84	105.25	118.28	12 30 54	389.0	13.83	320.00
100.00	16 12 36	5499.87	28.56	254.88	111.85	99.24	17 44 16	4899.9	29.54	246.21
110.00	12 31 8	936.56	5.42	320.01	102.40	123.80	12 46 45	336.6	9.83	313.69
110.00	18 12 22	5125.12	34.01	227.14	112.57	93.70	19 37 47	4525.1	34.15	217.90

DIFFERENTIAL CORRECTIONS

TDE	.2573	TRA	-1.1262	TC3	.3136	BAU	.0880
RDE	-.3278	RRA	.1505	RC3	-.2022	FAU	.03185
FDE	-.2729	FRA	1.2078	FC3	-1.5631	BSP	5664
BDE	.4168	BRA	1.1362	BC3	.3732	FSP	-540

MID-COURSE EXECUTION ACCURACY

SGT	1772.1	SGR	530.6	SG3	198.0		
RRT	-.6336	RRF	.6678	RTF	-.8957		
SGB	1849.8	R23	-.0895	R13	.9006		
SG1	1805.4	SG2	403.0	THA	168.69		

ORBIT DETERMINATION ACCURACY

ST	623.4	SR	452.6	SS	489.7
CRT	-.6824	CRS	-.6781	CST	.9989
LSA	860.0	MSA	305.4	SSA	17.8
EL1	714.2	EL2	288.7	ALF	147.76

LAUNCH DATE AUG 2 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 280.269

RL	151.83	LAL	-.00	LOL	309.30	VL	25.807	GAL	3.45	AZL	90.67	HCA	116.93	SMA	122.63	ECC	.24515	INC	.6737	V1	29.345		
RP	107.89	LAP	-.60	LOP	66.23	VP	37.119	GAP	-12.43	AZP	89.69	TAL	169.24	TAP	286.17	RCA	92.57	APO	152.69	V2	35.123		
RC	42.728	GL	-4.33	GP	-13.74	ZAL	63.70	ZAP	15.80	ETS	56.47	ZAE	160.50	ETE	326.39	ZAC	87.05	ETC	259.58	CLP	-7.88		

PLANETOCENTRIC CONIC

C3	16.109	VHL	4.014	DLA	-25.52	RAL	242.94	RAD	6567.6	VEL	11.726	PTH	2.07	VHP	8.080	DPA	-31.93	RAP	231.95	ECC	1.2651		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 0 50	1205.60	11.02	343.23	104.10	116.25	11 20 55	605.6	14.46	336.24
90.00	14 41 23	5766.39	27.02	274.20	109.42	98.81	16 17 29	5166.4	27.96	265.66
100.00	11 57 21	1023.10	9.02	328.76	103.04	118.62	12 14 24	423.1	12.77	321.98
100.00	16 27 33	5424.12	29.26	249.36	109.76	96.42	17 57 57	4824.1	29.84	240.60
110.00	12 19 48	952.68	4.81	320.86	100.47	123.88	12 35 40	352.7	9.23	314.55
110.00	18 21 35	5067.30	34.17	222.64	110.13	91.04	19 46 3	4467.3	33.94	213.40

DIFFERENTIAL CORRECTIONS

TDE	.2511	TRA	-1.1085	TC3	.3982	BAU	.1027
RDE	-.3084	RRA	.1694	RC3	-.2622	FAU	.03403
FDE	-.2670	FRA	1.2717	FC3	-1.8288	BSP	5859
BDE	.3977	BRA	1.1214	BC3	.4768	FSP	-600

MID-COURSE EXECUTION ACCURACY

SGT	1818.0	SGR	556.6	SG3	217.7		
RRT	-.6866	RRF	.7243	RTF	-.9024		
SGB	1901.3	R23	-.1015	R13	.9082		
SG1	1859.7	SG2	395.6	THA	167.56		

ORBIT DETERMINATION ACCURACY

ST	636.6	SR	447.5	SS	499.2
CRT	-.7024	CRS	-.6767	CST	.9983
LSA	874.8	MSA	298.6	SSA	18.1
EL1	726.4	EL2	279.2	ALF	148.56

LAUNCH DATE AUG 2 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 287.026

RL	151.83	LAL	-.00	LOL	309.30	VL	25.935	GAL	3.21	AZL	90.48	HCA	120.15	SMA	123.39	ECC	.23684	INC	.4763	V1	29.345		
RP	107.86	LAP	-.41	LOP	69.45	VP	37.220	GAP	-11.67	AZP	89.76	TAL	169.54	TAP	289.69	RCA	94.16	APO	152.61	V2	35.135		
RC	43.711	GL	-3.21	GP	-15.00	ZAL	64.13	ZAP	17.85	ETS	52.98	ZAE	157.94	ETE	325.49	ZAC	85.96	ETC	259.78	CLP	-9.78		

PLANETOCENTRIC CONIC

C3	14.760	VHL	3.842	DLA	-24.33	RAL	242.65	RAD	6567.6	VEL	11.668	PTH	2.05	VHP	7.688	DPA	-33.52	RAP	232.94	ECC	1.2429		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 38 36	1258.48	9.41	346.28	101.79	116.83	10 59 34	658.5	12.94	339.37
90.00	15 1 22	5674.10	27.81	267.57	107.41	95.57	16 35 56	5074.1	28.29	258.93
100.00	11 39 15	1062.68	7.72	330.98	100.89	118.97	11 56 57	462.7	11.53	324.26
100.00	16 43 24	5345.13	29.72	243.53	107.58	93.38	18 12 29	4745.1	29.87	234.73
110.00	12 7 5	975.37	3.95	322.05	98.57	123.98	12 23 20	375.4	8.38	315.77
110.00	18 32 3	5005.21	34.14	217.79	107.65	88.17	19 55 28	4405.2	33.51	208.60

DIFFERENTIAL CORRECTIONS

TDE	.2424	TRA	-1.0915	TC3	.4918	BAU	.1175
RDE	-.2891	RRA	.1910	RC3	-.3361	FAU	.03642
FDE	-.2554	FRA	1.3430	FC3	-2.1364	BSP	6062
BDE	.3773	BRA	1.1080	BC3	.5957	FSP	-666

MID-COURSE EXECUTION ACCURACY

SGT	1861.5	SGR	591.9	SG3	239.3		
RRT	-.7369	RRF	.7779	RTF	-.9087		
SGB	1953.3	R23	-.1148	R13	.9155		
SG1	1914.2	SG2	389.1	THA	166.23		

ORBIT DETERMINATION ACCURACY

ST	646.6	SR	441.4	SS	506.9
CRT	-.7227	CRS	-.6724	CST	.9965
LSA	885.7	MSA	291.8	SSA	18.4
EL1	735.5	EL2	268.2	ALF	149.21

LAUNCH DATE AUG 2 1970 FLIGHT TIME 116.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 293.776

RL	151.83	LAL	-.00	LOL	309.30	VL	26.053	GAL	2.98	AZL	90.27	HCA	123.37	SMA	124.09	ECC	.22918	INC	.2652	V1	29.345		
RP	107.82	LAP	-.22	LOP	72.67	VP	37.313	GAP	-10.93	AZP	89.85	TAL	169.87	TAP	293.24	RCA	95.65	APO	152.53	V2	35.146		
RC	44.829	GL	-1.88	GP	-16.44	ZAL	64.62	ZAP	20.12	ETS	50.26	ZAE	155.48	ETE	324.22	ZAC	84.67	ETC	259.96	CLP	-11.76		

PLANETOCENTRIC CONIC

C3	13.576	VHL	3.685	DLA	-22.92	RAL	242.37	RAD	6567.5	VEL	11.617	PTH	2.04	VHP	7.319	DPA	-35.25	RAP	233.80	ECC	1.2234		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 6	1314.98	7.66	349.50	99.62	117.34	10 38 1	715.0	11.27	342.68
90.00	15 21 35	5580.73	28.24	260.77	105.29	92.19	16 54 35	4980.7	28.24	252.11
100.00	11 20 7	1108.36	6.21	333.53	98.83	119.30	11 38 35	508.4	10.07	326.87
100.00	17 0 15	5262.58	29.89	237.40	105.33	90.16	18 27 57	4662.6	29.59	228.61
110.00	11 53 3	1005.12	2.82	323.61	96.73	124.08	12 9 48	405.1	7.27	317.35
110.00	18 43 48	4938.59	33.87	212.60	105.13	85.11	20 6 7	4338.6	32.83	203.52

DIFFERENTIAL CORRECTIONS

TDE	.2307	TRA	-1.0749	TC3	.5900	BAU	.1321
RDE	-.2698	RRA	.2162	RC3	-.4262	FAU	.03898
FDE	-.2361	FRA	1.4221	FC3	-2.4859	BSP	6242
BDE	.3549	BRA	1.0964	BC3	.7278	FSP	-737

MID-COURSE EXECUTION ACCURACY

SGT	1900.3	SGR	638.6	SG3	262.9		
RRT	-.7824	RRF	.8265	RTF	-.9143		
SGB	2004.8	R23	-.1294	R13	.9225		
SG1	1967.6	SG2	384.1	THA	164.67		

ORBIT DETERMINATION ACCURACY

ST	652.1	SR	433.6	SS	512.5
CRT	-.7434	CRS	-.6643	CST	.9927
LSA	891.1	MSA	285.4	SSA	18.7
EL1	740.3	EL2	255.5	ALF	149.72

LAUNCH DATE AUG 2 1970 FLIGHT TIME 118.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 300.516

RL	151.83	LAL	-.00	LOL	309.30	VL	26.160	GAL	2.77	AZL	90.04	HCA	126.59	SMA	124.74	ECC	.22215	INC	.0343	V1	29.345
RP	107.79	LAP	-.03	LOP	75.89	VP	37.398	GAP	-10.22	AZP	89.98	TAL	170.22	TAP	296.81	RCA	97.03	APO	152.46	V2	35.158
RC	46.073	GL	-.28	GP	-18.08	ZAL	65.16	ZAP	22.62	ETS	48.14	ZAE	153.10	ETE	322.59	ZAC	83.17	ETC	260.12	CLP	-13.83

PLANETOCENTRIC CONIC

C3	12.546	VHL	3.542	DLA	-21.26	RAL	242.10	RAD	6567.5	VEL	11.573	PTH	2.02	VHP	6.974	DPA	-37.15	RAP	234.50	ECC	1.2065

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 53 6	1376.66	5.72	352.99	97.60	117.78	10 16 3	776.7	9.39	346.24
90.00	15 42 25	5485.01	28.29	253.77	103.11	88.69	17 13 50	4885.0	27.81	245.14
100.00	10 59 58	1160.85	4.45	336.44	96.90	119.59	11 19 19	560.9	8.36	329.83
100.00	17 18 14	5176.05	29.73	230.98	103.05	86.78	18 44 30	4576.1	28.97	222.26
110.00	11 37 43	1042.52	1.39	325.56	95.00	124.16	11 55 6	442.5	5.86	319.33
110.00	18 56 58	4867.15	33.32	207.10	102.63	81.90	20 18 5	4267.1	31.85	198.18

DIFFERENTIAL CORRECTIONS

TDE	.2161	TRA	-1.0584	TC3	.6929	BAU	.1469
RDE	-.2496	RRA	.2458	RC3	-.5356	FAU	.04172
FDE	-.2072	FRA	1.5091	FC3	-2.8786	BSP	6430
BDE	.3302	BRA	1.0866	BC3	.8757	FSP	-815

MID-COURSE EXECUTION ACCURACY

SGT	1933.3	SGR	699.3	SG3	288.3		
RRT	-.8218	RRF	.8686	RTF	-.9193		
SGB	2055.9	R23	-.1445	R13	.9293		
SG1	2020.3	SG2	381.3	THA	162.81		

ORBIT DETERMINATION ACCURACY

ST	652.8	SR	423.8	SS	516.1		
CRT	-.7658	CRS	-.6520	CST	.9857		
LSA	890.8	MSA	279.6	SSA	19.0		
EL1	740.2	EL2	240.3	ALF	150.10		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 120.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 307.244

RL	151.83	LAL	-.00	LOL	309.30	VL	26.258	GAL	2.57	AZL	89.79	HCA	129.82	SMA	125.35	ECC	.21572	INC	.2077	V1	29.345
RP	107.76	LAP	.16	LOP	79.12	VP	37.477	GAP	-9.52	AZP	90.13	TAL	170.58	TAP	300.39	RCA	98.31	APO	152.39	V2	35.168
RC	47.431	GL	1.60	GP	-19.96	ZAL	65.76	ZAP	25.37	ETS	46.51	ZAE	150.78	ETE	320.62	ZAC	81.41	ETC	260.25	CLP	-15.98

PLANETOCENTRIC CONIC

C3	11.662	VHL	3.415	DLA	-19.29	RAL	241.85	RAD	6567.4	VEL	11.535	PTH	2.01	VHP	6.655	DPA	-39.25	RAP	235.02	ECC	1.1919

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 29 24	1444.92	3.54	356.83	95.78	118.11	9 53 29	844.9	7.27	350.14
90.00	16 4 12	5385.91	27.92	246.55	100.93	85.08	17 33 58	4785.9	26.95	238.02
100.00	10 38 46	1221.07	2.42	339.75	95.15	119.80	10 59 7	621.1	6.37	333.19
100.00	17 37 31	5084.99	29.20	224.26	100.79	83.29	19 2 16	4485.0	27.96	215.68
110.00	11 21 7	1088.32	-.36	327.95	93.42	124.18	11 39 16	488.3	4.12	321.74
110.00	19 11 38	4790.50	32.44	201.30	100.18	78.57	20 31 29	4190.5	30.52	192.60

DIFFERENTIAL CORRECTIONS

TDE	.1982	TRA	-1.0422	TC3	.7978	BAU	.1622
RDE	-.2279	RRA	.2811	RC3	-.6676	FAU	.04460
FDE	-.1656	FRA	1.6045	FC3	-3.3109	BSP	6622
BDE	.3020	BRA	1.0794	BC3	1.0403	FSP	-900

MID-COURSE EXECUTION ACCURACY

SGT	1959.5	SGR	777.0	SG3	315.4		
RRT	-.8547	RRF	.9034	RTF	-.9239		
SGB	2107.9	R23	-.1590	R13	.9361		
SG1	2073.1	SG2	381.3	THA	160.60		

ORBIT DETERMINATION ACCURACY

ST	647.9	SR	410.8	SS	518.8		
CRT	-.7914	CRS	-.6351	CST	.9736		
LSA	884.1	MSA	275.1	SSA	19.3		
EL1	734.5	EL2	221.5	ALF	150.39		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 313.959

RL	151.83	LAL	-.00	LOL	309.30	VL	26.347	GAL	2.39	AZL	89.52	HCA	133.04	SMA	125.91	ECC	.20986	INC	.4801	V1	29.345
RP	107.72	LAP	.35	LOP	82.34	VP	37.549	GAP	-8.85	AZP	90.33	TAL	170.94	TAP	303.99	RCA	99.48	APO	152.33	V2	35.179
RC	48.893	GL	3.83	GP	-22.13	ZAL	66.42	ZAP	28.38	ETS	45.24	ZAE	148.46	ETE	318.31	ZAC	79.36	ETC	260.34	CLP	-18.24

PLANETOCENTRIC CONIC

C3	10.921	VHL	3.305	DLA	-16.99	RAL	241.66	RAD	6567.4	VEL	11.503	PTH	2.00	VHP	6.365	DPA	-41.58	RAP	235.30	ECC	1.1797

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 4 49	1521.24	1.08	1.09	94.20	118.30	9 30 10	921.2	4.86	354.44
90.00	16 27 15	5282.40	27.09	239.09	98.82	81.44	17 55 17	4682.4	25.63	230.73
100.00	10 16 26	1290.13	.08	343.54	93.64	119.89	10 37 57	690.1	4.05	337.01
100.00	17 58 18	4988.74	28.23	217.27	98.61	79.74	19 21 27	4388.7	26.52	208.89
110.00	11 3 15	1143.47	-2.47	330.83	92.05	124.10	11 22 19	543.5	2.02	324.62
110.00	19 27 59	4708.16	31.16	195.22	97.86	75.19	20 46 27	4108.2	28.82	186.80

DIFFERENTIAL CORRECTIONS

TDE	.1769	TRA	-1.0267	TC3	.8980	BAU	.1780
RDE	-.2033	RRA	.3236	RC3	-.8245	FAU	.04754
FDE	-.1085	FRA	1.7082	FC3	-3.7685	BSP	6811
BDE	.2695	BRA	1.0765	BC3	1.2191	FSP	-988

MID-COURSE EXECUTION ACCURACY

SGT	1977.6	SGR	874.8	SG3	343.8		
RRT	-.8806	RRF	.9310	RTF	-.9278		
SGB	2162.5	R23	-.1720	R13	.9429		
SG1	2127.9	SG2	385.3	THA	157.96		

ORBIT DETERMINATION ACCURACY

ST	637.3	SR	394.3	SS	522.9		
CRT	-.8225	CRS	-.6163	CST	.9535		
LSA	871.9	MSA	272.8	SSA	19.4		
EL1	722.9	EL2	197.7	ALF	150.62		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 320.659

RL	151.83	LAL	-.00	LOL	309.30	VL	26.428	GAL	2.22	AZL	89.22	HCA	136.27	SMA	126.42	ECC	.20454	INC	.7823	V1	29.345
RP	107.69	LAP	.54	LOP	85.57	VP	37.615	GAP	-8.20	AZP	90.57	TAL	171.31	TAP	307.58	RCA	100.56	APO	152.27	V2	35.188
RC	50.451	GL	6.45	GP	-24.61	ZAL	67.14	ZAP	31.69	ETS	44.26	ZAE	146.10	ETE	315.67	ZAC	76.97	ETC	260.38	CLP	-20.62

PLANETOCENTRIC CONIC

C3	10.322	VHL	3.213	DLA	-14.30	RAL	241.54	RAD	6567.4	VEL	11.477	PTH	1.99	VHP	6.106	DPA	-44.19	RAP	235.28	ECC	1.1699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 11	1607.27	-1.69	5.89	92.93	118.27	9 5 59	1007.3	2.10	359.26
90.00	16 51 55	5173.44	25.75	231.40	96.85	77.80	18 18 8	4573.4	23.82	223.26
100.00	9 52 54	1369.44	-2.61	347.89	92.42	119.79	10 15 44	769.4	1.37	341.37
100.00	18 20 53	4886.52	26.78	210.03	96.59	76.19	19 42 19	4286.5	24.61	201.90
110.00	10 44 5	1209.16	-4.97	334.27	90.95	123.86	11 4 14	609.2	-.49	328.05
110.00	19 46 12	4619.56	29.45	188.89	95.72	71.80	21 3 11	4019.6	26.68	180.80

DIFFERENTIAL CORRECTIONS

TDE	.1515	TRA	-1.0118	TC3	.9865	BAU	.1946
RDE	-.1739	RRA	.3754	RC3	-1.0076	FAU	.05039
FDE	-.0312	FRA	1.8192	FC3	-4.2268	BSP	7002
BDE	.2306	BRA	1.0792	BC3	1.4101	FSP	-1078

MID-COURSE EXECUTION ACCURACY

SGT	1985.5	SGR	996.3	SG3	372.5		
RRT	-.9002	RRF	.9519	RTF	-.9311		
SGB	2221.5	R23	-.1814	R13	.9499		
SG1	2186.2	SG2	394.1	THA	154.82		

ORBIT DETERMINATION ACCURACY

ST	620.8	SR	373.5	SS	532.5		
CRT	-.8623	CRS	-.6024	CST	.9220		
LSA	856.1	MSA	274.1	SSA	19.1		
EL1	705.1	EL2	166.5	ALF	150.80		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 327.343

RL	151.83	LAL	-.00	LOL	309.30	VL	26.501	GAL	2.06	AZL	88.88	HCA	139.50	SMA	126.88	ECC	.19973	INC	1.1225	V1	29.345
RP	107.67	LAP	.73	LOP	88.80	VP	37.674	GAP	-7.57	AZP	90.85	TAL	171.67	TAP	311.17	RCA	101.54	APO	152.22	V2	35.198
RC	52.096	GL	9.51	GP	-27.47	ZAL	67.94	ZAP	35.31	ETS	43.48	ZAE	143.61	ETE	312.71	ZAC	74.19	ETC	260.37	CLP	-23.12

PLANETOCENTRIC CONIC

C3	9.872	VHL	3.142	DLA	-11.18	RAL	241.51	RAD	6567.4	VEL	11.457	PTH	1.99	VHP	5.886	DPA	-47.12	RAP	234.90	ECC	1.1625

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 16	1705.04	-4.83	11.36	92.06	117.94	8 40 41	1105.0	-1.06	4.71
90.00	17 18 37	5057.89	23.85	223.47	95.14	74.27	18 42 54	4457.9	21.47	215.61
100.00	9 27 59	1460.75	-5.68	352.93	91.59	119.40	9 52 20	860.7	-1.72	346.38
100.00	18 45 34	4777.42	24.78	202.54	94.83	72.73	20 5 12	4177.4	22.18	194.70
110.00	10 23 30	1286.90	-7.90	338.38	90.23	123.37	10 44 57	686.9	-3.46	332.11
110.00	20 6 33	4524.04	27.24	182.34	93.87	68.50	21 21 57	3924.0	24.07	174.60

DIFFERENTIAL CORRECTIONS

TDE	.1225	TRA	-.9966	TC3	1.0549	BAU	.2124
RDE	-.1372	RRA	.4387	RC3	-1.2154	FAU	.05299
FDE	.0692	FRA	1.9331	FC3	-4.6470	BSP	7224
BDE	.1840	BRA	1.0889	BC3	1.6094	FSP	-1169

MID-COURSE EXECUTION ACCURACY

SGT	1980.1	SGR	1144.9	SG3	400.2		
RRT	-.9142	RRF	.9671	RTF	-.9337		
SGB	2287.3	R23	-.1856	R13	.9570		
SG1	2250.6	SG2	408.1	THA	151.10		

ORBIT DETERMINATION ACCURACY

ST	599.3	SR	350.7	SS	553.7
CRT	-.9150	CRS	-.6131	CST	.8775
LSA	842.5	MSA	280.3	SSA	18.4
EL1	683.2	EL2	124.1	ALF	150.78

LAUNCH DATE AUG 2 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 334.009

RL	151.83	LAL	-.00	LOL	309.30	VL	26.566	GAL	1.93	AZL	88.49	HCA	142.73	SMA	127.31	ECC	.19540	INC	1.5110	V1	29.345
RP	107.64	LAP	.92	LOP	92.03	VP	37.729	GAP	-6.96	AZP	91.20	TAL	172.02	TAP	314.75	RCA	102.43	APO	152.18	V2	35.206
RC	53.818	GL	13.07	GP	-30.76	ZAL	68.84	ZAP	39.28	ETS	42.82	ZAE	140.90	ETE	309.45	ZAC	70.98	ETC	260.26	CLP	-25.75

PLANETOCENTRIC CONIC

C3	9.591	VHL	3.097	DLA	-7.57	RAL	241.60	RAD	6567.3	VEL	11.445	PTH	1.99	VHP	5.709	DPA	-50.40	RAP	234.03	ECC	1.1578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 42	1816.97	-8.36	17.69	91.70	117.15	8 13 59	1217.0	-4.65	10.97
90.00	17 47 51	4934.52	21.34	215.30	93.79	70.93	19 10 6	4334.5	18.54	207.74
100.00	9 1 24	1566.28	-9.17	358.83	91.27	118.58	9 27 31	966.3	-5.28	352.20
100.00	19 12 50	4660.44	22.20	194.81	93.45	69.45	20 30 31	4060.4	19.20	187.30
110.00	10 1 21	1378.61	-11.30	343.31	89.99	122.48	10 24 19	778.6	-6.94	336.93
110.00	20 29 23	4420.88	24.48	175.59	92.42	65.36	21 43 4	3820.9	20.95	168.22

DIFFERENTIAL CORRECTIONS

TDE	.0902	TRA	-.9821	TC3	1.0924	BAU	.2319
RDE	-.0898	RRA	.5169	RC3	-1.4416	FAU	.05507
FDE	.1958	FRA	2.0466	FC3	-4.9710	BSP	7457
BDE	.1273	BRA	1.1098	BC3	1.8088	FSP	-1249

MID-COURSE EXECUTION ACCURACY

SGT	1961.0	SGR	1325.0	SG3	425.0		
RRT	-.9238	RRF	.9779	RTF	-.9354		
SGB	2366.7	R23	-.1831	R13	.9642		
SG1	2327.8	SG2	427.5	THA	146.76		

ORBIT DETERMINATION ACCURACY

ST	575.0	SR	334.8	SS	594.6
CRT	-.9736	CRS	-.6789	CST	.8246
LSA	843.2	MSA	291.6	SSA	16.9
EL1	662.0	EL2	66.4	ALF	150.12

LAUNCH DATE AUG 2 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 340.655

RL	151.83	LAL	-.00	LOL	309.30	VL	26.625	GAL	1.80	AZL	88.04	HCA	145.95	SMA	127.69	ECC	.19153	INC	1.9618	V1	29.345
RP	107.61	LAP	1.10	LOP	95.27	VP	37.778	GAP	-6.36	AZP	91.63	TAL	172.35	TAP	318.31	RCA	103.23	APO	152.15	V2	35.214
RC	55.612	GL	17.19	GP	-34.52	ZAL	69.85	ZAP	43.61	ETS	42.18	ZAE	137.88	ETE	305.95	ZAC	67.27	ETC	260.05	CLP	-28.51

PLANETOCENTRIC CONIC

C3	9.508	VHL	3.084	DLA	-3.41	RAL	241.82	RAD	6567.3	VEL	11.441	PTH	1.98	VHP	5.588	DPA	-54.07	RAP	232.52	ECC	1.1565

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 13 0	1946.15	-12.28	25.16	92.01	115.72	7 45 26	1346.2	-8.72	18.29
90.00	18 20 20	4801.95	18.15	206.88	92.95	67.89	19 40 22	4201.9	15.00	199.63
100.00	8 32 44	1688.90	-13.07	5.84	91.60	117.12	9 0 53	1088.9	-9.33	359.04
100.00	19 43 16	4534.43	18.97	186.84	92.59	66.46	20 58 51	3934.4	15.62	179.65
110.00	9 37 20	1486.71	-15.18	349.29	90.40	121.00	10 2 6	886.7	-10.96	342.72
110.00	20 55 11	4309.39	21.14	168.66	91.49	62.49	22 7 0	3709.4	17.29	161.65

DIFFERENTIAL CORRECTIONS

TDE	.0562	TRA	-.9666	TC3	1.0925	BAU	.2540
RDE	-.0269	RRA	.6136	RC3	-1.6732	FAU	.05633
FDE	.3481	FRA	2.1496	FC3	-5.1286	BSP	7766
BDE	.0623	BRA	1.1449	BC3	1.9983	FSP	-1317

MID-COURSE EXECUTION ACCURACY

SGT	1924.2	SGR	1540.0	SG3	444.2		
RRT	-.9299	RRF	.9853	RTF	-.9364		
SGB	2464.6	R23	-.1728	R13	.9716		
SG1	2423.2	SG2	449.8	THA	141.79		

ORBIT DETERMINATION ACCURACY

ST	550.2	SR	347.6	SS	659.9
CRT	-.9975	CRS	-.8038	CST	.7743
LSA	874.9	MSA	305.4	SSA	14.7
EL1	650.5	EL2	20.6	ALF	147.74

LAUNCH DATE AUG 2 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 347.283

RL	151.83	LAL	-.00	LOL	309.30	VL	26.677	GAL	1.69	AZL	87.50	HCA	149.18	SMA	128.03	ECC	.18809	INC	2.4949	V1	29.345
RP	107.59	LAP	1.28	LOP	98.50	VP	37.821	GAP	-5.78	AZP	92.14	TAL	172.66	TAP	321.84	RCA	103.95	APO	152.11	V2	35.222
RC	57.469	GL	21.90	GP	-38.80	ZAL	71.00	ZAP	48.30	ETS	41.49	ZAE	134.44	ETE	302.29	ZAC	63.05	ETC	259.69	CLP	-31.40

PLANETOCENTRIC CONIC

C3	9.683	VHL	3.112	DLA	1.32	RAL	242.21	RAD	6567.3	VEL	11.449	PTH	1.99	VHP	5.535	DPA	-58.14	RAP	230.10	ECC	1.1594

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 39 23	2096.63	-16.54	34.15	93.20	113.31	7 14 20	1496.6	-13.25	27.02
90.00	18 57 2	4658.64	14.27	198.16	92.83	65.28	20 14 40	4058.6	10.82	191.18
100.00	8 1 21	1832.27	-17.35	14.33	92.83	114.73	8 31 53	1232.3	-13.87	7.27
100.00	20 17 46	4398.23	15.07	178.61	92.44	63.87	21 31 4	3798.2	11.43	171.71
110.00	9 11 0	1614.25	-19.50	356.64	91.69	118.65	9 37 54	1014.2	-15.53	349.78
110.00	21 24 35	4189.03	17.19	161.55	91.26	59.99	22 34 24	3589.0	13.07	154.87

DIFFERENTIAL CORRECTIONS

TDE	.0050	TRA	-.9665	TC3	.9673	BAU	.2700
RDE	.0663	RRA	.7419	RC3	-1.8480	FAU	.05509
FDE	.5475	FRA	2.2554	FC3	-4.9256	BSP	7711
BDE	.0665	BRA	1.2184	BC3	2.0859	FSP	-1308

MID-COURSE EXECUTION ACCURACY

SGT	1879.2	SGR	1790.2	SG3	454.5		
RRT	-.9285	RRF	.9903	RTF	-.9338		
SGB	2595.4	R23	-.1587	R13	.9782		
SG1	2548.7	SG2	490.1	THA	136.50		

ORBIT DETERMINATION ACCURACY

ST	534.4	SR	429.1	SS	767.8
CRT	-.9524	CRS	-.9248	CST	.7666
LSA	982.9	MSA	305.0	SSA	12.6
EL1	677.6	EL2	103.2	ALF	141.54

LAUNCH DATE AUG 2 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 353.887

RL 151.83 LAL -.00 LOL 309.30 VL 26.724 GAL 1.60 AZL 86.86 HCA 152.41 SMA 128.34 ECC .18505 INC 3.1398 V1 29.345
RP 107.57 LAP 1.45 LOP 101.74 VP 37.860 GAP -5.22 AZP 92.78 TAL 172.93 TAP 325.34 RCA 104.59 APO 152.09 V2 35.229
RC 59.382 GL 27.25 GP -43.63 ZAL 72.33 ZAP 53.33 ETS 40.62 ZAE 130.48 ETE 298.54 ZAC 58.27 ETC 259.14 CLP -34.41

PLANETOCENTRIC CONIC

C3 10.215 VHL 3.196 DLA 6.66 RAL 242.77 RAD 6567.4 VEL 11.472 PTH 1.99 VHP 5.571 DPA -62.59 RAP 226.31 ECC 1.1681

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 1 30	2274.20	-20.97	45.29	95.59	109.48	6 39 24	1674.2	-18.12	37.78
90.00	19 39 25	4502.35	9.64	189.01	93.66	63.24	20 54 27	3902.3	5.97	182.25
100.00	7 26 1	2001.60	-21.84	24.90	95.25	110.93	7 59 23	1401.6	-18.80	17.43
100.00	20 57 35	4250.17	10.46	170.04	93.23	61.84	22 8 25	3650.2	6.61	163.36
110.00	8 41 31	1765.29	-24.15	5.90	94.18	114.96	9 10 57	1165.3	-20.58	358.57
110.00	21 58 34	4059.25	12.63	154.26	91.94	57.97	23 6 13	3459.2	8.31	147.83

DIFFERENTIAL CORRECTIONS
TDE -.0226 TRA -.9428 TC3 .8864 BAU .2994
RDE .1818 RRA .8897 RC3-2.0049 FAU .05364
FDE .7303 FRA 2.2919 FC3-4.5457 BSP 8327
BDE .1832 BRA 1.2963 BC3 2.1921 FSP -1327

MID-COURSE EXECUTION ACCURACY
SGT 1793.9 SGR 2080.2 SG3 451.2
RRT -.9304 RRF .9936 RTF -.9328
SGB 2746.9 R23 -.1344 R13 .9847
SG1 2699.8 SG2 506.8 THA 130.46

ORBIT DETERMINATION ACCURACY
ST 512.4 SR 582.9 SS 869.3
CRT -.8699 CRS -.9764 CST .7436
LSA 1122.9 MSA 311.4 SSA 9.8
EL1 750.9 EL2 196.2 ALF 130.77

LAUNCH DATE AUG 2 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 360.468

RL 151.83 LAL -.00 LOL 309.30 VL 26.764 GAL 1.52 AZL 86.06 HCA 155.63 SMA 128.61 ECC .18239 INC 3.9406 V1 29.345
RP 107.55 LAP 1.62 LOP 104.98 VP 37.895 GAP -4.67 AZP 93.59 TAL 173.17 TAP 328.81 RCA 105.15 APO 152.07 V2 35.235
RC 61.346 GL 33.18 GP -49.00 ZAL 73.87 ZAP 58.63 ETS 39.50 ZAE 125.93 ETE 294.81 ZAC 52.94 ETC 258.30 CLP -37.48

PLANETOCENTRIC CONIC

C3 11.287 VHL 3.360 DLA 12.57 RAL 243.54 RAD 6567.4 VEL 11.518 PTH 2.01 VHP 5.727 DPA -67.33 RAP 220.31 ECC 1.1858

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 16 58	2487.80	-25.12	59.56	99.58	103.51	5 58 25	1887.8	-23.02	51.52
90.00	20 30 3	4329.41	4.20	179.21	95.83	61.97	21 42 12	3729.4	.42	172.57
100.00	6 44 46	2204.60	-26.13	38.44	99.30	105.06	7 21 31	1604.6	-23.81	30.41
100.00	21 44 55	4087.85	5.12	160.95	95.32	60.51	22 53 3	3487.8	1.15	154.41
110.00	8 7 36	1945.40	-28.79	17.84	98.37	109.28	8 40 2	1345.4	-25.89	9.86
110.00	22 38 34	3919.81	7.49	146.74	93.86	56.55	23 43 54	3319.8	3.04	140.48

DIFFERENTIAL CORRECTIONS
TDE -.0472 TRA -.9188 TC3 .7376 BAU .3282
RDE .3422 RRA 1.0755 RC3-2.0461 FAU .04979
FDE .9136 FRA 2.2781 FC3-3.8188 BSP 8974
BDE .3454 BRA 1.4145 BC3 2.1750 FSP -1289

MID-COURSE EXECUTION ACCURACY
SGT 1682.1 SGR 2400.5 SG3 430.8
RRT -.9276 RRF .9958 RTF -.9286
SGB 2931.2 R23 -.1092 R13 .9899
SG1 2884.1 SG2 523.1 THA 124.31

ORBIT DETERMINATION ACCURACY
ST 488.5 SR 812.5 SS 972.2
CRT -.8041 CRS -.9934 CST .7312
LSA 1321.9 MSA 310.8 SSA 7.4
EL1 912.0 EL2 258.7 ALF 118.28

LAUNCH DATE AUG 2 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 367.022

RL 151.83 LAL -.00 LOL 309.30 VL 26.800 GAL 1.45 AZL 85.03 HCA 158.85 SMA 128.85 ECC .18008 INC 4.9692 V1 29.345
RP 107.53 LAP 1.79 LOP 108.22 VP 37.925 GAP -4.14 AZP 94.64 TAL 173.37 TAP 332.22 RCA 105.64 APO 152.05 V2 35.240
RC 63.355 GL 39.62 GP -54.90 ZAL 75.62 ZAP 64.07 ETS 38.01 ZAE 120.76 ETE 291.22 ZAC 47.11 ETC 257.06 CLP -40.51

PLANETOCENTRIC CONIC

C3 13.243 VHL 3.639 DLA 18.96 RAL 244.51 RAD 6567.5 VEL 11.603 PTH 2.03 VHP 6.052 DPA -72.14 RAP 210.38 ECC 1.2180

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 20 22	2755.44	-28.00	78.58	105.54	94.43	5 6 18	2155.4	-27.09	70.03
90.00	21 34 24	4129.49	-2.24	168.05	99.96	61.76	22 43 14	3529.5	-5.99	161.38
100.00	5 53 20	2455.69	-29.31	56.39	105.40	96.15	6 34 15	1855.7	-28.15	47.78
100.00	22 44 8	3904.48	-1.08	150.87	99.32	60.13	23 49 13	3304.5	-5.05	144.33
110.00	7 26 45	2163.39	-32.66	33.61	104.82	100.71	8 2 49	1563.4	-30.84	24.87
110.00	23 27 12	3769.54	1.79	138.84	97.53	55.86	24 30 2	3169.5	-2.70	132.64

DIFFERENTIAL CORRECTIONS
TDE -.0626 TRA -.8933 TC3 .5454 BAU .3551
RDE .5648 RRA 1.3109 RC3-1.9298 FAU .04351
FDE 1.0736 FRA 2.2007 FC3-2.8446 BSP 9685
BDE .5682 BRA 1.5863 BC3 2.0054 FSP -1191

MID-COURSE EXECUTION ACCURACY
SGT 1542.4 SGR 2743.3 SG3 391.8
RRT -.9195 RRF .9972 RTF -.9202
SGB 3147.1 R23 -.0839 R13 .9937
SG1 3101.1 SG2 536.4 THA 118.26

ORBIT DETERMINATION ACCURACY
ST 457.1 SR 1105.0 SS 1054.7
CRT -.7528 CRS -.9983 CST .7133
LSA 1564.8 MSA 306.0 SSA 5.5
EL1 1161.0 EL2 286.4 ALF 108.46

LAUNCH DATE AUG 2 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 373.547

RL 151.83 LAL -.00 LOL 309.30 VL 26.830 GAL 1.40 AZL 83.65 HCA 162.06 SMA 129.05 ECC .17811 INC 6.3477 V1 29.345
RP 107.52 LAP 1.95 LOP 111.47 VP 37.951 GAP -3.63 AZP 96.04 TAL 173.51 TAP 335.58 RCA 106.06 APO 152.04 V2 35.245
RC 65.403 GL 46.37 GP -61.26 ZAL 77.59 ZAP 69.50 ETS 36.13 ZAE 114.96 ETE 287.86 ZAC 40.83 ETC 255.24 CLP -43.25

PLANETOCENTRIC CONIC

C3 16.786 VHL 4.097 DLA 25.64 RAL 245.68 RAD 6567.7 VEL 11.755 PTH 2.07 VHP 6.624 DPA -76.45 RAP 192.83 ECC 1.2763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 51 53	3140.05	-26.83	106.51	112.89	80.59	3 44 13	2540.1	-27.86	97.99
90.00	23 12 16	3850.76	-10.99	152.25	107.53	63.74	24 16 26	3250.8	-14.43	145.26
100.00	4 38 36	2796.04	-29.13	81.57	113.27	82.98	5 25 12	2196.0	-29.80	72.83
100.00	0 12 10	3670.01	-8.92	137.88	106.44	61.35	1 13 20	3070.0	-12.68	131.10
110.00	6 33 17	2437.22	-34.15	54.77	113.72	88.32	7 13 54	1837.2	-34.00	45.53
110.00	0 33 58	3601.59	-4.63	130.07	103.81	56.09	1 34 0	3001.6	-9.05	123.77

DIFFERENTIAL CORRECTIONS
TDE -.0583 TRA -.8646 TC3 .3441 BAU .3754
RDE .8750 RRA 1.6135 RC3-1.6369 FAU .03506
FDE 1.1837 FRA 2.0542 FC3-1.8082 BSP 10443
BDE .8769 BRA 1.8306 BC3 1.6727 FSP -1035

MID-COURSE EXECUTION ACCURACY
SGT 1372.9 SGR 3092.0 SG3 335.6
RRT -.9033 RRF .9981 RTF -.9050
SGB 3383.1 R23 -.0595 R13 .9964
SG1 3338.9 SG2 545.3 THA 112.49

ORBIT DETERMINATION ACCURACY
ST 410.6 SR 1436.2 SS 1094.3
CRT -.6821 CRS -.9996 CST .6623
LSA 1827.1 MSA 300.3 SSA 4.1
EL1 1464.4 EL2 294.5 ALF 101.51

LAUNCH DATE AUG 2 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 380.035

RL	151.83	LAL	-.00	LOL	309.30	VL	26.856	GAL	1.37	AZL	81.70	HCA	165.26	SMA	129.22	ECC	.17646	INC	8.3037	V1	29.345
RP	107.51	LAP	2.11	LOP	114.71	VP	37.973	GAP	-3.13	AZP	98.03	TAL	173.60	TAP	338.87	RCA	106.42	APO	152.03	V2	35.249
RC	67.486	GL	53.12	GP	-68.04	ZAL	79.72	ZAP	74.69	ETS	33.98	ZAE	108.53	ETE	284.96	ZAC	34.21	ETC	252.53	CLP	-45.06

PLANETOCENTRIC CONIC

C3	23.495	VHL	4.847	DLA	32.32	RAL	247.00	RAD	6568.0	VEL	12.036	PTH	2.15	VHP	7.589	DPA	-78.94	RAP	162.59	ECC	1.3867		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.74	22 59 24	3978.39	-21.16	166.70	119.29	64.99	24 5 43	3378.4	-24.35	159.16
106.26	3 15 12	3172.14	-21.14	106.93	119.29	64.97	4 8 4	2572.1	-24.34	99.39
73.74	22 59 24	3978.39	-21.16	166.70	119.29	64.99	24 5 43	3378.4	-24.35	159.16
106.26	3 15 12	3172.14	-21.14	106.93	119.29	64.97	4 8 4	2572.1	-24.34	99.39
110.00	5 4 1	2836.08	-29.23	84.62	122.86	71.44	5 51 17	2236.1	-31.48	76.14
110.00	2 13 42	3362.45	-13.49	117.22	114.96	58.29	3 9 44	2762.4	-17.59	110.51

DIFFERENTIAL CORRECTIONS

TDE	-.0231	TRA	-.8374	TC3	.1716	BAU	.3796
RDE	1.3186	RRA	2.0208	RC3	-1.1963	FAU	.02510
FDE	1.2284	FRA	1.8527	FC3	-.9250	BSP	11192
BDE	1.3188	BRA	2.1874	BC3	1.2085	FSP	-837

MID-COURSE EXECUTION ACCURACY

SGT	1183.3	SGR	3429.7	SG3	268.1		
RRT	-.8737	RRF	.9986	RTF	-.8780		
SGB	3628.1	R23	-.0360	R13	.9981		
SG1	3586.1	SG2	550.6	THA	107.19		

ORBIT DETERMINATION ACCURACY

ST	352.5	SR	1774.7	SS	1080.1		
CRT	-.5445	CRS	-1.0000	CST	.5389		
LSA	2086.5	MSA	294.8	SSA	3.0		
EL1	1785.3	EL2	293.9	ALF	96.34		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 386.474

RL	151.83	LAL	-.00	LOL	309.30	VL	26.878	GAL	1.35	AZL	78.69	HCA	168.44	SMA	129.37	ECC	.17511	INC	11.3105	V1	29.345		
RP	107.50	LAP	2.25	LOP	117.96	VP	37.992	GAP	-2.65	AZP	101.09	TAL	173.62	TAP	342.05	RCA	106.72	APO	152.03	V2	35.253		
RC	69.600	GL	59.40	GP	-75.24	ZAL	81.94	ZAP	79.40	ETS	32.27	ZAE	101.39	ETE	283.22	ZAC	27.31	ETC	248.47	CLP	-43.78		

PLANETOCENTRIC CONIC

C3	37.484	VHL	6.122	DLA	38.55	RAL	248.25	RAD	6568.5	VEL	12.604	PTH	2.29	VHP	9.247	DPA	-77.77	RAP	126.12	ECC	1.6169		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.66	22 1 3	4285.84	-20.68	190.74	129.99	56.71	23 12 29	3685.8	-24.91	183.79
117.34	4 23 32	3098.09	-20.67	100.80	129.98	56.70	5 15 10	2498.1	-24.90	93.85
62.66	22 1 3	4285.84	-20.68	190.74	129.99	56.71	23 12 29	3685.8	-24.91	183.79
117.34	4 23 32	3098.09	-20.67	100.80	129.98	56.70	5 15 10	2498.1	-24.90	93.85
62.66	22 1 3	4285.84	-20.68	190.74	129.99	56.71	23 12 29	3685.8	-24.91	183.79
117.34	4 23 32	3098.09	-20.67	100.80	129.98	56.70	5 15 10	2498.1	-24.90	93.85

DIFFERENTIAL CORRECTIONS

TDE	.0548	TRA	-.8319	TC3	.0612	BAU	.3461
RDE	1.9865	RRA	2.6053	RC3	-.6879	FAU	.01460
FDE	1.2094	FRA	1.6262	FC3	-.3371	BSP	11907
BDE	1.9873	BRA	2.7349	BC3	.6906	FSP	-625

MID-COURSE EXECUTION ACCURACY

SGT	999.7	SGR	3726.4	SG3	197.8		
RRT	-.8246	RRF	.9989	RTF	-.8349		
SGB	3858.2	R23	-.0127	R13	.9990		
SG1	3818.5	SG2	551.9	THA	102.74		

ORBIT DETERMINATION ACCURACY

ST	303.0	SR	2081.2	SS	1017.5		
CRT	-.2919	CRS	-.9999	CST	.3015		
LSA	2318.4	MSA	289.6	SSA	2.3		
EL1	2083.2	EL2	289.6	ALF	92.48		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 146.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 392.831

RL	151.83	LAL	-.00	LOL	309.30	VL	26.895	GAL	1.36	AZL	73.47	HCA	171.56	SMA	129.49	ECC	.17406	INC	16.5273	V1	29.345		
RP	107.49	LAP	2.39	LOP	121.20	VP	38.006	GAP	-2.20	AZP	106.36	TAL	173.53	TAP	345.09	RCA	106.95	APO	152.03	V2	35.255		
RC	71.740	GL	64.37	GP	-82.63	ZAL	84.16	ZAP	83.40	ETS	36.21	ZAE	93.15	ETE	287.73	ZAC	20.25	ETC	244.63	CLP	-26.45		

PLANETOCENTRIC CONIC

C3	71.975	VHL	8.484	DLA	43.62	RAL	248.87	RAD	6569.4	VEL	13.904	PTH	2.54	VHP	12.320	DPA	-72.91	RAP	99.09	ECC	2.1845		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.32	21 31 12	4536.79	-16.00	208.56	141.37	48.86	22 46 49	3936.8	-21.16	202.52
124.68	4 58 22	3169.18	-15.99	103.15	141.36	48.85	5 51 11	2569.2	-21.15	97.11
55.32	21 31 12	4536.79	-16.00	208.56	141.37	48.86	22 46 49	3936.8	-21.16	202.52
124.68	4 58 22	3169.18	-15.99	103.15	141.36	48.85	5 51 11	2569.2	-21.15	97.11
55.32	21 31 12	4536.79	-16.00	208.56	141.37	48.86	22 46 49	3936.8	-21.16	202.52
124.68	4 58 22	3169.18	-15.99	103.15	141.36	48.85	5 51 11	2569.2	-21.15	97.11

DIFFERENTIAL CORRECTIONS

TDE	-.0059	TRA	-1.0899	TC3	.0176	BAU	.2098
RDE	3.1347	RRA	3.5169	RC3	-.2173	FAU	.00406
FDE	1.1781	FRA	1.4401	FC3	-.0488	BSP	12485
BDE	3.1347	BRA	3.6819	BC3	.2180	FSP	-431

MID-COURSE EXECUTION ACCURACY

SGT	1017.3	SGR	3922.1	SG3	135.1		
RRT	-.8410	RRF	.9984	RTF	-.8624		
SGB	4051.8	R23	.0122	R13	.9992		
SG1	4016.0	SG2	537.4	THA	102.53		

ORBIT DETERMINATION ACCURACY

ST	305.1	SR	2334.7	SS	949.4		
CRT	-.4334	CRS	-.9994	CST	.4635		
LSA	2523.7	MSA	275.5	SSA	1.8		
EL1	2338.5	EL2	274.5	ALF	93.29		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 148.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 399.000

RL	151.83	LAL	-.00	LOL	309.30	VL	26.909	GAL	1.41	AZL	62.44	HCA	174.54	SMA	129.58	ECC	.17334	INC	27.5600	V1	29.345		
RP	107.48	LAP	2.53	LOP	124.45	VP	38.018	GAP	-1.80	AZP	117.45	TAL	173.24	TAP	347.78	RCA	107.12	APO	152.05	V2	35.257		
RC	73.903	GL	65.90	GP	-82.32	ZAL	86.27	ZAP	86.49	ETS	167.89	ZAE	82.27	ETE	60.26	ZAC	14.36	ETC	348.56	CLP	62.70		

PLANETOCENTRIC CONIC

C3	185.908	VHL	13.635	DLA	45.72	RAL	247.19	RAD	6571.0	VEL	17.528	PTH	2.97	VHP	19.011	DPA	-64.46	RAP	79.94	ECC	4.0596		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.48	21 13 38	4755.95	-7.55	220.46	149.78	44.77	22 32 54	4155.9	-13.18	215.10
127.52	5 2 32	3331.42	-7.53	109.83	149.77	44.77	5 58 3	2731.4	-13.16	104.47
52.48	21 13 38	4755.95	-7.55	220.46	149.78	44.77	22 32 54	4155.9	-13.18	215.10
127.52	5 2 32	3331.42	-7.53	109.83	149.77	44.77	5 58 3	2731.4	-13.16	104.47
52.48	21 13 38	4755.95	-7.55	220.46	149.78	44.77	22 32 54	4155.9	-13.18	215.10
127.52	5 2 32	3331.42	-7.53	109.83	149.77	44.77	5 58 3	2731.4	-13.16	104.47

DIFFERENTIAL CORRECTIONS

TDE	-2.7697	TRA	-1.2087	TC3	-.0566	BAU	.3204
RDE	-4.8382	RRA	-5.5552	RC3	-.1158	FAU	-.00909
FDE	1.2918	FRA	1.4480	FC3	.0423	BSP	12646
BDE	5.5749	BRA	5.6852	BC3	.1289	FSP	-283

MID-COURSE EXECUTION ACCURACY

SGT	1381.2	SGR	3925.8	SG3	89.3		
RRT	.8940	RRF	-.9994	RTF	-.8995		
SGB	4161.7	R23	-.0326	R13	-.9990		
SG1	4119.6	SG2	589.8	THA	72.16		

ORBIT DETERMINATION ACCURACY

ST	1184.2	SR	2267.1	SS	989.7		
CRT	.9630	CRS	1.0000	CST	.9655		
LSA	2727.3	MSA	288.1	SSA	1.5		
EL1	2541.8	EL2	284.7	ALF	62.93		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 150.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 404.461

RL	151.83	LAL	-.00	LOL	309.30	VL	26.919	GAL	1.60	AZL	31.09	HCA	176.91	SMA	129.65	ECC	.17320	INC	58.9134	V1	29.345
RP	107.48	LAP	2.65	LOP	127.70	VP	38.026	GAP	-1.59	AZP	148.88	TAL	172.31	TAP	349.22	RCA	107.20	APO	152.11	V2	35.258
RC	76.087	GL	56.11	GP	-63.11	ZAL	87.98	ZAP	88.40	ETS	182.87	ZAE	62.28	ETE	74.70	ZAC	22.61	ETC	305.40	CLP	86.47

PLANETOCENTRIC CONIC

C3	770.713	VHL	27.762	DLA	37.62	RAL	238.96	RAD	6572.8	VEL	29.866	PTH	3.45	VHP	37.277	DPA	-46.65	RAP	62.01	ECC	13.6840

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.12	21 31 15	4764.50	-.31	214.80	148.58	52.38	22 50 40	4164.5	-5.18	208.86
115.88	3 39 16	3618.70	-.29	128.31	148.57	52.38	4 39 35	3018.7	-5.16	122.37
64.12	21 31 15	4764.50	-.31	214.80	148.58	52.38	22 50 40	4164.5	-5.18	208.86
115.88	3 39 16	3618.70	-.29	128.31	148.57	52.38	4 39 35	3018.7	-5.16	122.37
64.12	21 31 15	4764.50	-.31	214.80	148.58	52.38	22 50 40	4164.5	-5.18	208.86
115.88	3 39 16	3618.70	-.29	128.31	148.57	52.38	4 39 35	3018.7	-5.16	122.37

DIFFERENTIAL CORRECTIONS

TDE	-4.7501	TRA	-1.2073	TC3	-.0906	BAU	2.8353
RDE	-9.9480	RR	-10.5138	RC3	-.2598	FAU	-.04900
FDE	1.9777	FRA	2.1758	FC3	.0550	BSP	11713
BDE	11.0239	BRA	10.5829	BC3	.2752	FSP	-207

MID-COURSE EXECUTION ACCURACY

SGT	1145.9	SGR	3715.2	SG3	65.9		
RRT	.8457	RRF	-.9998	RTF	-.8380		
SGB	3887.9	R23	-.0552	R13	-.9983		
SG1	3842.7	SG2	591.2	THA	75.02		

ORBIT DETERMINATION ACCURACY

ST	985.0	SR	2211.9	SS	1424.5		
CRT	.9597	CRS	.9999	CST	.9557		
LSA	2796.8	MSA	264.5	SSA	1.2		
EL1	2408.0	EL2	254.2	ALF	66.58		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 414.364

RL	151.83	LAL	-.00	LOL	309.30	VL	26.927	GAL	.99	AZL	149.20	HCA	183.22	SMA	129.70	ECC	.17140	INC	59.1959	V1	29.345
RP	107.48	LAP	2.77	LOP	130.95	VP	38.032	GAP	-.23	AZP	30.84	TAL	175.21	TAP	358.43	RCA	107.47	APO	151.93	V2	35.259
RC	78.289	GL	-56.04	GP	65.38	ZAL	88.58	ZAP	89.75	ETS	186.65	ZAE	68.70	ETE	291.37	ZAC	145.95	ETC	294.30	CLP	89.41

PLANETOCENTRIC CONIC

C3	777.243	VHL	27.879	DLA	-65.40	RAL	181.63	RAD	6572.8	VEL	29.976	PTH	3.45	VHP	35.161	DPA	67.18	RAP	342.14	ECC	13.7914

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.22	3 44 27	2408.21	.41	74.92	91.43	155.40	4 24 36	1808.2	7.68	71.99
151.78	13 48 37	687.90	.42	290.67	91.45	155.40	14 0 5	87.9	7.69	287.74
28.22	3 44 27	2408.21	.41	74.92	91.43	155.40	4 24 36	1808.2	7.68	71.99
151.78	13 48 37	687.90	.42	290.67	91.45	155.40	14 0 5	87.9	7.69	287.74
28.22	3 44 27	2408.21	.41	74.92	91.43	155.40	4 24 36	1808.2	7.68	71.99
151.78	13 48 37	687.90	.42	290.67	91.45	155.40	14 0 5	87.9	7.69	287.74

DIFFERENTIAL CORRECTIONS

TDE	7.0196	TRA	1.9561	TC3	-.1315	BAU	3.0439
RD	-15.2830	RRA	-1.5889	RC3	.2618	FAU	-.04986
FDE	-3.5114	FRA	-.3940	FC3	.0555	BSP	11818
BDE	16.8180	BRA	2.5201	BC3	.2929	FSP	-208

MID-COURSE EXECUTION ACCURACY

SGT	1884.4	SGR	3551.2	SG3	69.9		
RRT	-.9502	RRF	.9994	RTF	-.9550		
SGB	4020.2	R23	-.0502	R13	.9983		
SG1	3986.0	SG2	523.3	THA	117.27		

ORBIT DETERMINATION ACCURACY

ST	1471.6	SR	3150.0	SS	2199.6		
CRT	-.9924	CRS	-1.0000	CST	.9931		
LSA	4110.8	MSA	167.0	SSA	2.1		
EL1	3472.9	EL2	164.3	ALF	114.93		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 419.888

RL	151.83	LAL	-.00	LOL	309.30	VL	26.931	GAL	1.19	AZL	120.43	HCA	185.68	SMA	129.73	ECC	.17153	INC	30.4315	V1	29.345
RP	107.48	LAP	2.87	LOP	134.20	VP	38.034	GAP	-.01	AZP	59.69	TAL	174.25	TAP	359.93	RCA	107.48	APO	151.98	V2	35.258
RC	80.507	GL	-65.63	GP	84.23	ZAL	87.00	ZAP	89.94	ETS	201.24	ZAE	87.05	ETE	303.28	ZAC	162.75	ETC	324.84	CLP	89.39

PLANETOCENTRIC CONIC

C3	224.156	VHL	14.972	DLA	-72.73	RAL	162.87	RAD	6571.3	VEL	18.587	PTH	3.05	VHP	18.240	DPA	68.49	RAP	290.75	ECC	4.6890

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.70	2 11 8	2312.82	8.22	77.58	70.29	162.55	2 49 41	1712.8	15.84	75.51
160.30	12 52 20	5831.74	8.23	262.16	70.31	162.55	14 29 32	5231.7	15.85	260.09
19.70	2 11 8	2312.82	8.22	77.58	70.29	162.55	2 49 41	1712.8	15.84	75.51
160.30	12 52 20	5831.74	8.23	262.16	70.31	162.55	14 29 32	5231.7	15.85	260.09
19.70	2 11 8	2312.82	8.22	77.58	70.29	162.55	2 49 41	1712.8	15.84	75.51
160.30	12 52 20	5831.74	8.23	262.16	70.31	162.55	14 29 32	5231.7	15.85	260.09

DIFFERENTIAL CORRECTIONS

TDE	6.1840	TRA	1.6145	TC3	-.1059	BAU	.5502
RDE	-6.8018	RRA	-1.3402	RC3	.1500	FAU	-.00979
FDE	-2.4663	FRA	-.5099	FC3	.0378	BSP	14166
BDE	9.1927	BRA	2.0983	BC3	.1836	FSP	-317

MID-COURSE EXECUTION ACCURACY

SGT	3167.7	SGR	3156.4	SG3	99.9		
RRT	-.9901	RRF	.9988	RTF	-.9937		
SGB	4471.9	R23	-.0363	R13	.9987		
SG1	4460.8	SG2	314.9	THA	135.10		

ORBIT DETERMINATION ACCURACY

ST	2447.6	SR	2654.1	SS	1519.6		
CRT	-.9981	CRS	-1.0000	CST	.9986		
LSA	3915.5	MSA	113.6	SSA	1.9		
EL1	3608.7	EL2	110.5	ALF	132.68		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 425.990

RL	151.83	LAL	-.00	LOL	309.30	VL	26.932	GAL	1.29	AZL	110.10	HCA	188.67	SMA	129.74	ECC	.17166	INC	20.1032	V1	29.345
RP	107.48	LAP	2.97	LOP	137.45	VP	38.034	GAP	.36	AZP	70.11	TAL	173.77	TAP	2.44	RCA	107.47	APO	152.01	V2	35.257
RC	82.739	GL	-65.88	GP	85.73	ZAL	85.30	ZAP	91.01	ETS	321.92	ZAE	96.68	ETE	62.61	ZAC	168.77	ETC	115.06	CLP	-103.73

PLANETOCENTRIC CONIC

C3	102.813	VHL	10.140	DLA	-74.46	RAL	164.33	RAD	6570.0	VEL	14.972	PTH	2.70	VHP	11.942	DPA	63.39	RAP	269.44	ECC	2.6920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.72	2 12 51	2177.63	17.42	76.74	69.31	163.69	2 49 9	1577.6	25.08	74.68
162.28	13 2 14	5688.06	17.43	259.30	69.34	163.69	14 37 2	5088.1	25.09	257.25
17.72	2 12 51	2177.63	17.42	76.74	69.31	163.69	2 49 9	1577.6	25.08	74.68
162.28	13 2 14	5688.06	17.43	259.30	69.34	163.69	14 37 2	5088.1	25.09	257.25
17.72	2 12 51	2177.63	17.42	76.74	69.31	163.69	2 49 9	1577.6	25.08	74.68
162.28	13 2 14	5688.06	17.43	259.30	69.34	163.69	14 37 2	5088.1	25.09	257.25

DIFFERENTIAL CORRECTIONS

TDE	4.5681	TRA	.3500	TC3	-.0120	BAU	.0754
RDE	4.6706	RRA	1.2327	RC3	.0536	FAU	.00519
FDE	-2.6167	FRA	-.4546	FC3	-.0437	BSP	14381
BDE	6.5332	BRA	1.2814	BC3	.0549	FSP	-480

MID-COURSE EXECUTION ACCURACY

SGT	2684.9	SGR	3706.3	SG3	152.5		
RRT	.8772	RRF	-.9794	RTF	-.9546		
SGB	4576.6	R23	.0344	R13	-.9988		
SG1	4448.8	SG2	1073.8	THA	55.25		

ORBIT DETERMINATION ACCURACY

ST	2590.8	SR	2752.1	SS	1554.2		
CRT	.9797	CRS	.9955	CST	.9943		
LSA	4069.0	MSA	380.0	SSA	1.8		
EL1	3760.5	EL2	380.0	ALF	46.76		

LAUNCH DATE AUG 2 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 432.223

RL	151.83	LAL	-.00	LOL	309.30	VL	26.931	GAL	1.37	AZL	105.13	HCA	191.80	SMA	129.73	ECC	.17194	INC	15.1267
RP	107.49	LAP	3.06	LOP	140.70	VP	38.031	GAP	.76	AZP	75.18	TAL	173.37	TAP	5.17	RCA	107.42	APO	152.04
RC	84.985	GL	-63.75	GP	78.38	ZAL	83.62	ZAP	92.96	ETS	359.17	ZAE	103.51	ETE	99.18	ZAC	168.48	ETC	186.59

V1	29.345	V2	35.255	CLP	-104.86														

PLANETOCENTRIC CONIC

C3	61.367	VHL	7.834	DLA	-74.77	RAL	173.63	RAD	6569.1	VEL	13.518	PTH	2.47	VHP	8.964	DPA	58.40	RAP	258.26
ECC	2.0099																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.36	2 49 12	2060.40	25.15	75.07	76.27	163.14	3 23 32	1460.4	32.78	72.74
162.64	13 40 4	5569.38	25.16	257.28	76.30	163.13	15 12 53	4969.4	32.79	254.94
17.36	2 49 12	2060.40	25.15	75.07	76.27	163.14	3 23 32	1460.4	32.78	72.74
162.64	13 40 4	5569.38	25.16	257.28	76.30	163.13	15 12 53	4969.4	32.79	254.94
17.36	2 49 12	2060.40	25.15	75.07	76.27	163.14	3 23 32	1460.4	32.78	72.74
162.64	13 40 4	5569.38	25.16	257.28	76.30	163.13	15 12 53	4969.4	32.79	254.94

DIFFERENTIAL CORRECTIONS

TDE	.1145	TRA	-.3475	TC3	-.1505	BAU	.2857												
RDE	5.5544	RRA	.6757	RC3	.3140	FAU	.01732												
FDE	-3.2346	FRA	-.3609	FC3	-.2443	BSP	14534												
BDE	5.5556	BRA	.7598	BC3	.3482	FSP	-707												

MID-COURSE EXECUTION ACCURACY

SGT	999.6	SGR	4504.2	SG3	224.5						
RRT	-.3547	RRF	-.9988	RTF	.3329						
SGB	4613.8	R23	.0398	R13	-.9982						
SG1	4518.8	SG2	931.6	THA	94.70						

ORBIT DETERMINATION ACCURACY

ST	302.2	SR	4101.6	SS	1847.0						
CRT	.1422	CRS	.9999	CST	.1534						
LSA	4498.5	MSA	299.7	SSA	2.5						
EL1	4101.8	EL2	299.2	ALF	89.40						

LAUNCH DATE AUG 2 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 438.492

RL	151.83	LAL	-.00	LOL	309.30	VL	26.927	GAL	1.46	AZL	102.23	HCA	194.98	SMA	129.70	ECC	.17239	INC	12.2262
RP	107.50	LAP	3.14	LOP	143.95	VP	38.026	GAP	1.17	AZP	78.18	TAL	172.96	TAP	7.94	RCA	107.34	APO	152.06
RC	87.241	GL	-60.92	GP	72.09	ZAL	81.97	ZAP	95.66	ETS	8.49	ZAE	108.98	ETE	108.52	ZAC	164.83	ETC	215.17

V1	29.345	V2	35.253	CLP	-108.72														

PLANETOCENTRIC CONIC

C3	42.547	VHL	6.523	DLA	-74.18	RAL	184.63	RAD	6568.6	VEL	12.803	PTH	2.33	VHP	7.299	DPA	53.76	RAP	250.64
ECC	1.7002																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.04	3 34 30	1968.08	30.96	72.66	84.83	161.46	4 7 18	1368.1	38.51	69.84
161.96	14 22 32	5479.83	30.97	255.55	84.85	161.46	15 53 52	4879.8	38.51	252.73
18.04	3 34 30	1968.08	30.96	72.66	84.83	161.46	4 7 18	1368.1	38.51	69.84
161.96	14 22 32	5479.83	30.97	255.55	84.85	161.46	15 53 52	4879.8	38.51	252.73
18.04	3 34 30	1968.08	30.96	72.66	84.83	161.46	4 7 18	1368.1	38.51	69.84
161.96	14 22 32	5479.83	30.97	255.55	84.85	161.46	15 53 52	4879.8	38.51	252.73

DIFFERENTIAL CORRECTIONS

TDE	-1.1647	TRA	-.3112	TC3	-.3808	BAU	.3900												
RDE	4.7892	RRA	.2874	RC3	.5702	FAU	.02945												
FDE	-3.9017	FRA	-.2157	FC3	-.5992	BSP	14677												
BDE	4.9287	BRA	.4236	BC3	.6856	FSP	-977												

MID-COURSE EXECUTION ACCURACY

SGT	1516.0	SGR	4371.2	SG3	309.6						
RRT	-.8453	RRF	-.9987	RTF	.8451						
SGB	4626.6	R23	.0495	R13	-.9974						
SG1	4561.0	SG2	776.4	THA	106.84						

ORBIT DETERMINATION ACCURACY

ST	1066.4	SR	4216.0	SS	2165.3						
CRT	-.9759	CRS	1.0000	CST	-.9747						
LSA	4852.7	MSA	228.7	SSA	3.4						
EL1	4342.9	EL2	226.1	ALF	103.90						

LAUNCH DATE AUG 2 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 444.767

RL	151.83	LAL	-.00	LOL	309.30	VL	26.921	GAL	1.56	AZL	100.33	HCA	198.18	SMA	129.66	ECC	.17301	INC	10.3258
RP	107.51	LAP	3.21	LOP	147.20	VP	38.019	GAP	1.57	AZP	80.18	TAL	172.53	TAP	10.71	RCA	107.23	APO	152.10
RC	89.506	GL	-57.91	GP	66.37	ZAL	80.33	ZAP	98.97	ETS	14.25	ZAE	113.53	ETE	115.07	ZAC	160.20	ETC	229.31

V1	29.345	V2	35.249	CLP	-112.88														

PLANETOCENTRIC CONIC

C3	32.413	VHL	5.693	DLA	-72.94	RAL	194.81	RAD	6568.3	VEL	12.401	PTH	2.24	VHP	6.277	DPA	49.34	RAP	244.77
ECC	1.5334																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.47	4 18 1	1896.36	35.12	69.55	92.33	158.98	4 49 38	1296.4	42.53	66.08
160.53	15 0 13	5414.20	35.13	253.88	92.35	158.98	16 30 27	4814.2	42.54	250.42
19.47	4 18 1	1896.36	35.12	69.55	92.33	158.98	4 49 38	1296.4	42.53	66.08
160.53	15 0 13	5414.20	35.13	253.88	92.35	158.98	16 30 27	4814.2	42.54	250.42
19.47	4 18 1	1896.36	35.12	69.55	92.33	158.98	4 49 38	1296.4	42.53	66.08
160.53	15 0 13	5414.20	35.13	253.88	92.35	158.98	16 30 27	4814.2	42.54	250.42

DIFFERENTIAL CORRECTIONS

TDE	-1.7722	TRA	-.2035	TC3	-.6709	BAU	.4473												
RDE	4.0112	RRA	.0360	RC3	.7846	FAU	.04116												
FDE	-4.4080	FRA	-.0143	FC3	-1.0993	BSP	14677												
BDE	4.3853	BRA	.2066	BC3	1.0323	FSP	-1255												

MID-COURSE EXECUTION ACCURACY

SGT	2062.0	SGR	4136.3	SG3	398.3						
RRT	-.9343	RRF	-.9982	RTF	.9366						
SGB	4621.8	R23	.0579	R13	-.9966						
SG1	4573.7	SG2	664.8	THA	115.55						

ORBIT DETERMINATION ACCURACY

ST	1795.9	SR	4037.1	SS	2406.0						
CRT	-.9942	CRS	1.0000	CST	-.9936						
LSA	5027.8	MSA	183.6	SSA	4.4						
EL1	4415.0	EL2	176.8	ALF	113.90						

LAUNCH DATE AUG 2 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 451.034

RL	151.83	LAL	-.00	LOL	309.30	VL	26.912	GAL	1.66	AZL	98.98	HCA	201.39	SMA	129.61	ECC	.17379	INC	8.9797
RP	107.52	LAP	3.26	LOP	150.45	VP	38.009	GAP	1.98	AZP	81.63	TAL	172.06	TAP	13.45	RCA	107.08	APO	152.13
RC	91.778	GL	-54.92	GP	61.06	ZAL	78.70	ZAP	102.70	ETS	18.52	ZAE	117.31	ETE	120.85	ZAC	155.42	ETC	237.26

V1	29.345	V2	35.245	CLP	-117.02														

PLANETOCENTRIC CONIC

C3	26.329	VHL	5.131	DLA	-71.31	RAL	203.45	RAD	6568.1	VEL	12.153	PTH	2.18	VHP	5.618	DPA	45.10	RAP	240.02
ECC	1.4333																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.35	4 56 26	1839.92	38.00	65.94	98.11	156.00	5 27 6	1239.9	45.22	61.74
158.65	15 30 46	5366.65	38.01	252.21	98.13	156.00	17 0 12	4766.7	45.23	248.01
21.35	4 56 26	1839.92	38.00	65.94	98.11	156.00	5 27 6	1239.9	45.22	61.74
158.65	15 30 46	5366.65	38.01	252.21	98.13	156.00	17 0 12	4766.7	45.23	248.01
21.35	4 56 26	1839.92	38.00	65.94	98.11	156.00	5 27 6	1239.9	45.22	61.74
158.65	15 30 46	5366.65	38.01	252.21	98.13	156.00	17 0 12	4766.7	45.23	248.01

DIFFERENTIAL CORRECTIONS

TDE	-2.0915	TRA	-.0788	TC3	-1.0066	BAU	.4867												
RDE	3.3089	RRA	-.1295	RC3	.9478	FAU	.05211												
FDE	-4.6970	FRA	.2263	FC3	-1.7135	BSP	14736												
BDE	3.9144	BRA	.1516	BC3	1.3826	FSP	-1529												

MID-COURSE EXECUTION ACCURACY

SGT	2568.4	SGR	3847.2	SG3	482.8						
RRT	-.9624	RRF	-.9976	RTF	.9650						
SGB	4625.7	R23	.0653	R13	-.9956						
SG1	4588.6	SG2	584.8	THA	123.33						

ORBIT DETERMINATION ACCURACY

ST	2337.0	SR	3697.4	SS	2548.6						
CRT	-.9974	CRS	1.0000	CST	-.9968						
LSA	5059.9	MSA	155.8	SSA	5.6						
EL1	4371.7	EL2	142.3	ALF	122.27						

LAUNCH DATE AUG 2 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 457.288

RL	151.83	LAL	-.00	LOL	309.30	VL	26.902	GAL	1.78	AZL	97.97	HCA	204.61	SMA	129.54	ECC	.17475	INC	7.9717	V1	29.345		
RP	107.53	LAP	3.31	LOP	153.70	VP	37.998	GAP	2.38	AZP	82.74	TAL	171.55	TAP	16.16	RCA	106.90	APO	152.17	V2	35.240		
RC	94.056	GL	-51.99	GP	56.09	ZAL	77.05	ZAP	106.70	ETS	21.82	ZAE	120.40	ETE	126.32	ZAC	150.75	ETC	242.22	CLP	-121.00		

PLANETOCENTRIC CONIC

C3	22.399	VHL	4.733	DLA	-69.45	RAL	210.64	RAD	6567.9	VEL	11.991	PTH	2.14	VHP	5.185	DPA	41.02	RAP	236.09	ECC	1.3686		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.49	5 29 41	1794.61	39.90	62.04	102.36	152.78	5 59 36	1194.6	46.90	57.12
156.51	15 54 52	5332.65	39.91	250.56	102.38	152.77	17 23 44	4732.7	46.91	245.63
23.49	5 29 41	1794.61	39.90	62.04	102.36	152.78	5 59 36	1194.6	46.90	57.12
156.51	15 54 52	5332.65	39.91	250.56	102.38	152.77	17 23 44	4732.7	46.91	245.63
23.49	5 29 41	1794.61	39.90	62.04	102.36	152.78	5 59 36	1194.6	46.90	57.12
156.51	15 54 52	5332.65	39.91	250.56	102.38	152.77	17 23 44	4732.7	46.91	245.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2502	TRA	.0543	TC3	-1.3684	BAU	.5159	SGT	3022.2	SGR	3524.6	SG3	555.7	ST	2725.0	SR	3287.4	SS	2600.1
RDE	2.7075	RRA	-.2421	RC3	1.0467	FAU	.06134	RRT	-.9734	RRF	-.9968	RTF	.9761	CRT	-.9984	CRS	.9999	CST	-.9977
FDE	-4.7750	FRA	.4950	FC3	-2.3707	BSP	14769	SGB	4642.9	R23	.0719	R13	-.9945	LSA	4997.4	MSA	140.2	SSA	6.9
BDE	3.5205	BRA	.2481	BC3	1.7228	FSP	-1764	SG1	4612.6	SG2	529.0	THA	130.49	EL1	4268.4	EL2	117.3	ALF	129.65

LAUNCH DATE AUG 2 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 463.526

RL	151.83	LAL	-.00	LOL	309.30	VL	26.890	GAL	1.91	AZL	97.18	HCA	207.84	SMA	129.46	ECC	.17587	INC	7.1846	V1	29.345		
RP	107.55	LAP	3.35	LOP	156.95	VP	37.984	GAP	2.79	AZP	83.64	TAL	170.99	TAP	18.83	RCA	106.69	APO	152.22	V2	35.235		
RC	96.339	GL	-49.17	GP	51.45	ZAL	75.39	ZAP	110.82	ETS	24.39	ZAE	122.82	ETE	131.55	ZAC	146.32	ETC	245.54	CLP	-124.78		

PLANETOCENTRIC CONIC

C3	19.734	VHL	4.442	DLA	-67.50	RAL	216.67	RAD	6567.8	VEL	11.879	PTH	2.11	VHP	4.904	DPA	37.11	RAP	232.84	ECC	1.3248		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.77	5 58 43	1757.47	41.05	58.06	105.50	149.50	6 28 0	1157.5	47.80	52.44
154.23	16 13 56	5308.96	41.06	249.02	105.52	149.49	17 42 25	4709.0	47.81	243.40
25.77	5 58 43	1757.47	41.05	58.06	105.50	149.50	6 28 0	1157.5	47.80	52.44
154.23	16 13 56	5308.96	41.06	249.02	105.52	149.49	17 42 25	4709.0	47.81	243.40
25.77	5 58 43	1757.47	41.05	58.06	105.50	149.50	6 28 0	1157.5	47.80	52.44
154.23	16 13 56	5308.96	41.06	249.02	105.52	149.49	17 42 25	4709.0	47.81	243.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3144	TRA	.1916	TC3	-1.7420	BAU	.5421	SGT	3423.9	SGR	3193.8	SG3	612.9	ST	2991.8	SR	2869.9	SS	2579.1
RDE	2.2112	RRA	-.3153	RC3	1.0899	FAU	.06864	RRT	-.9783	RRF	-.9958	RTF	.9813	CRT	-.9989	CRS	.9999	CST	-.9980
FDE	-4.6804	FRA	.7692	FC3	-3.0114	BSP	14908	SGB	4682.2	R23	.0770	R13	-.9935	LSA	4880.7	MSA	131.9	SSA	8.0
BDE	3.2010	BRA	.3689	BC3	2.0549	FSP	-1961	SG1	4656.9	SG2	486.3	THA	137.04	EL1	4144.6	EL2	96.9	ALF	136.19

LAUNCH DATE AUG 2 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 469.745

RL	151.83	LAL	-.00	LOL	309.30	VL	26.877	GAL	2.05	AZL	96.55	HCA	211.07	SMA	129.36	ECC	.17716	INC	6.5496	V1	29.345		
RP	107.57	LAP	3.37	LOP	160.20	VP	37.969	GAP	3.19	AZP	84.38	TAL	170.40	TAP	21.47	RCA	106.45	APO	152.28	V2	35.229		
RC	98.624	GL	-46.45	GP	47.16	ZAL	73.69	ZAP	114.94	ETS	26.38	ZAE	124.63	ETE	136.52	ZAC	142.21	ETC	247.88	CLP	-128.33		

PLANETOCENTRIC CONIC

C3	17.869	VHL	4.227	DLA	-65.49	RAL	221.83	RAD	6567.7	VEL	11.800	PTH	2.09	VHP	4.730	DPA	33.40	RAP	230.20	ECC	1.2941		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.11	6 24 33	1726.40	41.63	54.12	107.91	146.29	6 53 20	1126.4	48.11	47.90
151.89	16 29 14	5293.34	41.64	247.65	107.93	146.29	17 57 28	4693.3	48.12	241.42
28.11	6 24 33	1726.40	41.63	54.12	107.91	146.29	6 53 20	1126.4	48.11	47.90
151.89	16 29 14	5293.34	41.64	247.65	107.93	146.29	17 57 28	4693.3	48.12	241.42
28.11	6 24 33	1726.40	41.63	54.12	107.91	146.29	6 53 20	1126.4	48.11	47.90
151.89	16 29 14	5293.34	41.64	247.65	107.93	146.29	17 57 28	4693.3	48.12	241.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3186	TRA	.3351	TC3	-2.1063	BAU	.5651	SGT	3774.5	SGR	2869.0	SG3	651.9	ST	3160.2	SR	2473.0	SS	2497.7
RDE	1.8053	RRA	-.3639	RC3	1.0769	FAU	.07337	RRT	-.9801	RRF	-.9946	RTF	.9838	CRT	-.9992	CRS	.9997	CST	-.9980
FDE	-4.4457	FRA	1.0416	FC3	-3.5545	BSP	14991	SGB	4741.0	R23	.0811	R13	-.9923	LSA	4724.9	MSA	129.5	SSA	9.1
BDE	2.9386	BRA	.4947	BC3	2.3656	FSP	-2085	SG1	4719.1	SG2	455.1	THA	142.91	EL1	4012.0	EL2	79.9	ALF	141.96

LAUNCH DATE AUG 2 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 475.944

RL	151.83	LAL	-.00	LOL	309.30	VL	26.862	GAL	2.21	AZL	96.02	HCA	214.30	SMA	129.26	ECC	.17862	INC	6.0235	V1	29.345		
RP	107.59	LAP	3.39	LOP	163.45	VP	37.952	GAP	3.58	AZP	85.02	TAL	169.76	TAP	24.06	RCA	106.17	APO	152.35	V2	35.222		
RC	100.910	GL	-43.83	GP	43.22	ZAL	71.97	ZAP	118.97	ETS	27.90	ZAE	125.90	ETE	141.18	ZAC	138.44	ETC	249.59	CLP	-131.66		

PLANETOCENTRIC CONIC

C3	16.544	VHL	4.067	DLA	-63.49	RAL	226.33	RAD	6567.7	VEL	11.744	PTH	2.07	VHP	4.634	DPA	29.89	RAP	228.09	ECC	1.2723		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.47	6 48 1	1699.92	41.77	50.30	109.86	143.24	7 16 20	1099.9	47.97	43.58
149.53	16 41 44	5284.22	41.78	246.51	109.88	143.23	18 9 49	4684.2	47.98	239.77
30.47	6 48 1	1699.92	41.77	50.30	109.86	143.24	7 16 20	1099.9	47.97	43.58
149.53	16 41 44	5284.22	41.78	246.51	109.88	143.23	18 9 49	4684.2	47.98	239.77
30.47	6 48 1	1699.92	41.77	50.30	109.86	143.24	7 16 20	1099.9	47.97	43.58
149.53	16 41 44	5284.22	41.78	246.51	109.88	143.23	18 9 49	4684.2	47.98	239.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2893	TRA	.4797	TC3	-2.4590	BAU	.5899	SGT	4085.6	SGR	2567.3	SG3	674.2	ST	3257.2	SR	2122.9	SS	2381.3
RDE	1.4839	RRA	-.3902	RC3	1.0324	FAU	.07627	RRT	-.9805	RRF	-.9929	RTF	.9852	CRT	-.9994	CRS	.9995	CST	-.9978
FDE	-4.1324	FRA	1.2857	FC3	-3.9911	BSP	15242	SGB	4825.3	R23	.0821	R13	-.9913	LSA	4557.4	MSA	129.3	SSA	10.1
BDE	2.7282	BRA	.6184	BC3	2.6669	FSP	-2173	SG1	4806.2	SG2	428.5	THA	148.08	EL1	3887.4	EL2	63.3	ALF	146.91

LAUNCH DATE AUG 2 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 482.123

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RL  151.83 LAL   -.00 LOL 309.30 VL  26.845 GAL   2.37 AZL  95.58 HCA 217.53 SMA 129.15 ECC .18025 INC 5.5780 V1  29.345
RP  107.61 LAP   3.39 LOP 166.69 VP  37.933 GAP   3.98 AZP  85.57 TAL 169.09 TAP  26.61 RCA 105.87 APO 152.43 V2  35.215
RC 103.196 GL  -41.30 GP   39.63 ZAL  70.21 ZAP 122.84 ETS  29.07 ZAE 126.71 ETE 145.46 ZAC 135.02 ETC 250.87 CLP-134.77
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PLANETOCENTRIC CONIC

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C3  15.602 VHL  3.950 DLA -61.49 RAL 230.35 RAD 6567.6 VEL 11.704 PTH   2.06 VHP  4.597 DPA  26.61 RAP 226.45 ECC 1.2568
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.83	7 9 43	1676.94	41.56	46.65	111.56	140.37	7 37 40	1076.9	47.49	39.52
147.17	16 52 5	5280.56	41.57	245.62	111.57	140.37	18 20 6	4680.6	47.49	238.49
32.83	7 9 43	1676.94	41.56	46.65	111.56	140.37	7 37 40	1076.9	47.49	39.52
147.17	16 52 5	5280.56	41.57	245.62	111.57	140.37	18 20 6	4680.6	47.49	238.49
32.83	7 9 43	1676.94	41.56	46.65	111.56	140.37	7 37 40	1076.9	47.49	39.52
147.17	16 52 5	5280.56	41.57	245.62	111.57	140.37	18 20 6	4680.6	47.49	238.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2356 TRA  .6286 TC3-2.7831 BAU  .6140   SGT 4358.9 SGR 2290.6 SG3  680.8      ST  3293.8 SR  1818.0 SS  2236.1
RDE 1.2273 RRA -.4034 RC3  .9595 FAU .07713   RRT -.9797 RRF -.9906 RTF  .9859      CRT -.9996 CRS  .9991 CST -.9975
FDE-3.7637 FRA 1.5025 FC3-4.2797 BSP  15527   SGB 4924.1 R23  .0810 R13 -.9903     LSA 4374.6 MSA  131.7 SSA   11.1
BDE 2.5504 BRA  .7469 BC3 2.9438 FSP  -2211   SG1 4907.2 SG2  407.9 THA 152.55     EL1 3761.9 EL2   47.4 ALF 151.11
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LAUNCH DATE AUG 2 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 488.279

```
RL  151.83 LAL   -.00 LOL 309.30 VL  26.827 GAL   2.56 AZL  95.19 HCA 220.76 SMA 129.03 ECC .18204 INC 5.1936 V1  29.345
RP  107.64 LAP   3.39 LOP 169.94 VP  37.913 GAP   4.37 AZP  86.06 TAL 168.37 TAP  29.13 RCA 105.54 APO 152.52 V2  35.207
RC 105.482 GL  -38.86 GP   36.39 ZAL  68.42 ZAP 126.52 ETS  29.95 ZAE 127.14 ETE 149.33 ZAC 131.97 ETC 251.86 CLP-137.66
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PLANETOCENTRIC CONIC

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C3  14.949 VHL  3.866 DLA -59.52 RAL 233.99 RAD 6567.6 VEL 11.676 PTH   2.05 VHP  4.607 DPA  23.55 RAP 225.24 ECC 1.2460
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.18	7 30 6	1656.71	41.07	43.20	113.12	137.72	7 57 42	1056.7	46.74	35.76
144.82	17 0 46	5281.54	41.08	245.01	113.14	137.71	18 28 47	4681.5	46.75	237.57
35.18	7 30 6	1656.71	41.07	43.20	113.12	137.72	7 57 42	1056.7	46.74	35.76
144.82	17 0 46	5281.54	41.08	245.01	113.14	137.71	18 28 47	4681.5	46.75	237.57
35.18	7 30 6	1656.71	41.07	43.20	113.12	137.72	7 57 42	1056.7	46.74	35.76
144.82	17 0 46	5281.54	41.08	245.01	113.14	137.71	18 28 47	4681.5	46.75	237.57

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1672 TRA  .7815 TC3-3.0731 BAU  .6384   SGT 4601.6 SGR 2043.6 SG3  675.0      ST  3284.6 SR  1560.5 SS  2076.4
RDE 1.0250 RRA -.4071 RC3  .8714 FAU .07644   RRT -.9779 RRF -.9876 RTF  .9862      CRT -.9997 CRS  .9984 CST -.9970
FDE-3.3749 FRA 1.6874 FC3-4.4270 BSP  15858   SGB 5035.0 R23  .0774 R13 -.9894     LSA 4185.3 MSA  135.8 SSA   11.9
BDE 2.3973 BRA  .8812 BC3 3.1943 FSP  -2209   SG1 5019.7 SG2  392.1 THA 156.37     EL1 3636.3 EL2   31.6 ALF 154.59
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LAUNCH DATE AUG 2 1970 FLIGHT TIME 178.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 494.412

```
RL  151.83 LAL   -.00 LOL 309.30 VL  26.808 GAL   2.75 AZL  94.86 HCA 223.99 SMA 128.90 ECC .18401 INC 4.8566 V1  29.345
RP  107.66 LAP   3.37 LOP 173.18 VP  37.892 GAP   4.77 AZP  86.50 TAL 167.62 TAP  31.61 RCA 105.18 APO 152.62 V2  35.198
RC 107.765 GL  -36.51 GP   33.48 ZAL  66.61 ZAP 129.97 ETS  30.64 ZAE 127.28 ETE 152.76 ZAC 129.26 ETC 252.65 CLP-140.37
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PLANETOCENTRIC CONIC

```
C3  14.520 VHL  3.810 DLA -57.58 RAL 237.33 RAD 6567.6 VEL 11.658 PTH   2.05 VHP  4.653 DPA  20.70 RAP 224.40 ECC 1.2390
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.51	7 49 31	1638.55	40.37	39.93	114.65	135.28	8 16 49	1038.6	45.79	32.27
142.49	17 8 1	5286.74	40.38	244.69	114.66	135.27	18 36 8	4686.7	45.80	237.03
37.51	7 49 31	1638.55	40.37	39.93	114.65	135.28	8 16 49	1038.6	45.79	32.27
142.49	17 8 1	5286.74	40.38	244.69	114.66	135.27	18 36 8	4686.7	45.80	237.03
37.51	7 49 31	1638.55	40.37	39.93	114.65	135.28	8 16 49	1038.6	45.79	32.27
142.49	17 8 1	5286.74	40.38	244.69	114.66	135.27	18 36 8	4686.7	45.80	237.03

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0962 TRA  .9304 TC3-3.3449 BAU  .6671   SGT 4821.1 SGR 1827.3 SG3  659.8      ST  3248.5 SR  1351.8 SS  1919.2
RDE  .8705 RRA -.4010 RC3  .7883 FAU .07538   RRT -.9753 RRF -.9836 RTF  .9866      CRT -.9999 CRS  .9971 CST -.9965
FDE-3.0054 FRA 1.8237 FC3-4.4946 BSP  16435   SGB 5155.8 R23  .0697 R13 -.9889     LSA 4005.5 MSA  139.5 SSA   12.7
BDE 2.2697 BRA 1.0131 BC3 3.4366 FSP  -2215   SG1 5141.9 SG2  378.4 THA 159.60     EL1 3518.5 EL2   16.8 ALF 157.41
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LAUNCH DATE AUG 2 1970 FLIGHT TIME 180.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 500.523

```
RL  151.83 LAL   -.00 LOL 309.30 VL  26.788 GAL   2.96 AZL  94.56 HCA 227.22 SMA 128.77 ECC .18617 INC 4.5570 V1  29.345
RP  107.69 LAP   3.34 LOP 176.42 VP  37.869 GAP   5.16 AZP  86.90 TAL 166.83 TAP  34.05 RCA 104.79 APO 152.74 V2  35.189
RC 110.046 GL  -34.23 GP   30.86 ZAL  64.77 ZAP 133.20 ETS  31.17 ZAE 127.21 ETE 155.78 ZAC 126.87 ETC 253.28 CLP-142.89
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PLANETOCENTRIC CONIC

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C3  14.276 VHL  3.778 DLA -55.68 RAL 240.44 RAD 6567.6 VEL 11.647 PTH   2.04 VHP  4.729 DPA  18.06 RAP 223.89 ECC 1.2349
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.83	8 8 11	1622.07	39.49	36.85	116.18	133.05	8 35 13	1022.1	44.68	29.04
140.17	17 14 7	5295.70	39.51	244.66	116.19	133.04	18 42 23	4695.7	44.69	236.85
39.83	8 8 11	1622.07	39.49	36.85	116.18	133.05	8 35 13	1022.1	44.68	29.04
140.17	17 14 7	5295.70	39.51	244.66	116.19	133.04	18 42 23	4695.7	44.69	236.85
39.83	8 8 11	1622.07	39.49	36.85	116.18	133.05	8 35 13	1022.1	44.68	29.04
140.17	17 14 7	5295.70	39.51	244.66	116.19	133.04	18 42 23	4695.7	44.69	236.85

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0051 TRA 1.0989 TC3-3.5359 BAU  .6873   SGT 5011.9 SGR 1638.0 SG3  637.8      ST  3168.2 SR  1171.3 SS  1747.5
RDE  .7427 RRA -.3984 RC3  .6831 FAU .07195   RRT -.9709 RRF -.9783 RTF  .9861      CRT -.9999 CRS  .9948 CST -.9954
FDE-2.6194 FRA 1.9617 FC3-4.3637 BSP  16654   SGB 5272.7 R23  .0651 R13 -.9878     LSA 3800.1 MSA  149.2 SSA   13.3
BDE 2.1382 BRA 1.1689 BC3 3.6013 FSP  -2131   SG1 5259.5 SG2  373.9 THA 162.30     EL1 3377.8 EL2   14.7 ALF 159.71
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LAUNCH DATE AUG 2 1970 FLIGHT TIME 182.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 506.608

RL	151.83	LAL	-.00	LOL	309.30	VL	26.767	GAL	3.19	AZL	94.29	HCA	230.44	SMA	128.62	ECC	.18850	INC	4.2873	V1	29.345
RP	107.72	LAP	3.30	LOP	179.66	VP	37.845	GAP	5.56	AZP	87.27	TAL	166.01	TAP	36.46	RCA	104.38	APO	152.87	V2	35.179
RC	112.324	GL	-32.03	GP	28.53	ZAL	62.91	ZAP	136.21	ETS	31.62	ZAE	126.99	ETE	158.41	ZAC	124.78	ETC	253.81	CLP	-145.25

PLANETOCENTRIC CONIC

C3	14.189	VHL	3.767	DLA	-53.80	RAL	243.34	RAD	6567.6	VEL	11.644	PTH	2.04	VHP	4.829	DPA	15.62	RAP	223.68	ECC	1.2335

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.13	8 26 19	1606.82	38.48	33.94	117.76	131.02	8 53 5	1006.8	43.45	26.05
137.87	17 19 10	5308.26	38.49	244.91	117.77	131.01	18 47 38	4708.3	43.46	237.01
42.13	8 26 19	1606.82	38.48	33.94	117.76	131.02	8 53 5	1006.8	43.45	26.05
137.87	17 19 10	5308.26	38.49	244.91	117.77	131.01	18 47 38	4708.3	43.46	237.01
42.13	8 26 19	1606.82	38.48	33.94	117.76	131.02	8 53 5	1006.8	43.45	26.05
137.87	17 19 10	5308.26	38.49	244.91	117.77	131.01	18 47 38	4708.3	43.46	237.01

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.9137	TRA	1.2685	TC3	-3.6930	BAU	.7094	SGT	5185.3	SGR	1476.0	SG3	611.6	ST	3072.6	SR	1027.4	SS	1587.6
RDE	.6454	RRA	-.3918	RC3	.5889	FAU	.06840	RRT	-.9653	RRF	-.9717	RTF	.9857	CRT	-.9996	CRS	.9910	CST	-.9942
FDE	-2.2704	FRA	2.0650	FC3	-4.1736	BSP	17008	SGB	5391.3	R23	.0585	R13	-.9870	LSA	3604.3	MSA	159.4	SSA	13.9
BDE	2.0196	BRA	1.3276	BC3	3.7397	FSP	-2055	SG1	5378.5	SG2	371.4	THA	164.56	EL1	3239.7	EL2	28.6	ALF	161.52

LAUNCH DATE AUG 2 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 512.668

RL	151.83	LAL	-.00	LOL	309.30	VL	26.745	GAL	3.43	AZL	94.04	HCA	233.67	SMA	128.48	ECC	.19103	INC	4.0417	V1	29.345
RP	107.75	LAP	3.26	LOP	182.90	VP	37.820	GAP	5.95	AZP	87.60	TAL	165.16	TAP	38.83	RCA	103.93	APO	153.02	V2	35.169
RC	114.599	GL	-29.91	GP	26.45	ZAL	61.05	ZAP	139.01	ETS	32.01	ZAE	126.66	ETE	160.69	ZAC	122.95	ETC	254.26	CLP	-147.47

PLANETOCENTRIC CONIC

C3	14.243	VHL	3.774	DLA	-51.97	RAL	246.08	RAD	6567.6	VEL	11.646	PTH	2.04	VHP	4.949	DPA	13.35	RAP	223.72	ECC	1.2344

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.42	8 43 59	1592.59	37.36	31.20	119.39	129.18	9 10 32	992.6	42.13	23.26
135.58	17 23 17	5324.17	37.38	245.45	119.40	129.17	18 52 1	4724.2	42.14	237.50
44.42	8 43 59	1592.59	37.36	31.20	119.39	129.18	9 10 32	992.6	42.13	23.26
135.58	17 23 17	5324.17	37.38	245.45	119.40	129.17	18 52 1	4724.2	42.14	237.50
44.42	8 43 59	1592.59	37.36	31.20	119.39	129.18	9 10 32	992.6	42.13	23.26
135.58	17 23 17	5324.17	37.38	245.45	119.40	129.17	18 52 1	4724.2	42.14	237.50

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.8200	TRA	1.4434	TC3	-3.8057	BAU	.7310	SGT	5342.0	SGR	1337.9	SG3	582.9	ST	2963.2	SR	911.6	SS	1438.6
RDE	.5706	RRA	-.3841	RC3	.5025	FAU	.06456	RRT	-.9583	RRF	-.9634	RTF	.9852	CRT	-.9985	CRS	.9848	CST	-.9925
FDE	-1.9537	FRA	2.1451	FC3	-3.9239	BSP	17376	SGB	5507.0	R23	.0514	R13	-.9862	LSA	3413.4	MSA	171.3	SSA	14.3
BDE	1.9073	BRA	1.4936	BC3	3.8388	FSP	-1971	SG1	5494.4	SG2	371.5	THA	166.44	EL1	3099.9	EL2	47.4	ALF	162.92

LAUNCH DATE AUG 2 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 518.702

RL	151.83	LAL	-.00	LOL	309.30	VL	26.722	GAL	3.69	AZL	93.82	HCA	236.89	SMA	128.32	ECC	.19377	INC	3.8158	V1	29.345
RP	107.79	LAP	3.20	LOP	186.14	VP	37.793	GAP	6.35	AZP	87.91	TAL	164.28	TAP	41.18	RCA	103.46	APO	153.19	V2	35.158
RC	116.871	GL	-27.85	GP	24.59	ZAL	59.18	ZAP	141.62	ETS	32.37	ZAE	126.27	ETE	162.65	ZAC	121.37	ETC	254.66	CLP	-149.55

PLANETOCENTRIC CONIC

C3	14.427	VHL	3.798	DLA	-50.17	RAL	248.66	RAD	6567.6	VEL	11.654	PTH	2.05	VHP	5.087	DPA	11.24	RAP	224.00	ECC	1.2374

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.68	9 1 23	1579.00	36.16	28.60	121.09	127.50	9 27 42	979.0	40.75	20.64
133.32	17 26 28	5343.43	36.17	246.26	121.10	127.49	18 55 32	4743.4	40.76	238.30
46.68	9 1 23	1579.00	36.16	28.60	121.09	127.50	9 27 42	979.0	40.75	20.64
133.32	17 26 28	5343.43	36.17	246.26	121.10	127.49	18 55 32	4743.4	40.76	238.30
46.68	9 1 23	1579.00	36.16	28.60	121.09	127.50	9 27 42	979.0	40.75	20.64
133.32	17 26 28	5343.43	36.17	246.26	121.10	127.49	18 55 32	4743.4	40.76	238.30

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.7241	TRA	1.6249	TC3	-3.8740	BAU	.7517	SGT	5483.5	SGR	1220.6	SG3	553.1	ST	2844.2	SR	818.7	SS	1302.1
RDE	.5132	RRA	-.3765	RC3	.4252	FAU	.06056	RRT	-.9498	RRF	-.9534	RTF	.9847	CRT	-.9962	CRS	.9750	CST	-.9904
FDE	-1.6691	FRA	2.2068	FC3	-3.6342	BSP	17744	SGB	5617.7	R23	.0442	R13	-.9854	LSA	3228.1	MSA	185.1	SSA	14.6
BDE	1.7988	BRA	1.6679	BC3	3.8972	FSP	-1883	SG1	5605.3	SG2	373.6	THA	168.01	EL1	2958.9	EL2	68.3	ALF	163.99

LAUNCH DATE AUG 2 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 524.707

RL	151.83	LAL	-.00	LOL	309.30	VL	26.698	GAL	3.97	AZL	93.61	HCA	240.12	SMA	128.17	ECC	.19671	INC	3.6060	V1	29.345
RP	107.82	LAP	3.13	LOP	189.37	VP	37.766	GAP	6.76	AZP	88.20	TAL	163.37	TAP	43.49	RCA	102.96	APO	153.38	V2	35.147
RC	119.138	GL	-25.87	GP	22.93	ZAL	57.32	ZAP	144.04	ETS	32.75	ZAE	125.84	ETE	164.34	ZAC	119.99	ETC	255.02	CLP	-151.51

PLANETOCENTRIC CONIC

C3	14.735	VHL	3.839	DLA	-48.41	RAL	251.10	RAD	6567.6	VEL	11.667	PTH	2.05	VHP	5.240	DPA	9.27	RAP	224.49	ECC	1.2425

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.93	9 18 32	1565.92	34.89	26.12	122.85	125.98	9 44 38	965.9	39.31	18.17
131.07	17 28 49	5365.91	34.90	247.35	122.87	125.97	18 58 15	4765.9	39.32	239.40
48.93	9 18 32	1565.92	34.89	26.12	122.85	125.98	9 44 38	965.9	39.31	18.17
131.07	17 28 49	5365.91	34.90	247.35	122.87	125.97	18 58 15	4765.9	39.32	239.40
48.93	9 18 32	1565.92	34.89	26.12	122.85	125.98	9 44 38	965.9	39.31	18.17
131.07	17 28 49	5365.91	34.90	247.35	122.87	125.97	18 58 15	4765.9	39.32	239.40

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.6267	TRA	1.8138	TC3	-3.8985	BAU	.7712	SGT	5611.8	SGR	1121.7	SG3	523.2	ST	2720.5	SR	744.4	SS	1179.6
RDE	.4698	RRA	-.3698	RC3	.3567	FAU	.05648	RRT	-.9395	RRF	-.9417	RTF	.9840	CRT	-.9920	CRS	.9603	CST	-.9877
FDE	-1.4161	FRA	2.2550	FC3	-3.3184	BSP	18100	SGB	5722.8	R23	.0377	R13	-.9846	LSA	3050.6	MSA	200.8	SSA	14.8
BDE	1.6932	BRA	1.8512	BC3	3.9148	FSP	-1792	SG1	5710.3	SG2	377.5	THA	169.32	EL1	2819.1	EL2	90.9	ALF	164.80

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LAUNCH DATE  AUG  2 1970                          FLIGHT TIME 190.00                          ARRIVAL DATE  FEB  8 1971

 HELIOCENTRIC CONIC                                DISTANCE 530.683
  RL  151.83 LAL   -.00 LOL 309.30 VL  26.674 GAL   4.26 AZL  93.41 HCA 243.34 SMA 128.01 ECC .19989 INC 3.4096 V1  29.345
  RP  107.86 LAP   3.05 LOP 192.60 VP  37.738 GAP   7.17 AZP  88.47 TAL 162.44 TAP  45.78 RCA 102.42 APO 153.59 V2  35.136
  RC 121.402 GL  -23.97 GP   21.45 ZAL  55.47 ZAP 146.30 ETS  33.15 ZAE 125.40 ETE 165.79 ZAC 118.81 ETC 255.36 CLP-153.36
 PLANETOCENTRIC CONIC
  C3  15.166 VHL  3.894 DLA -46.70 RAL 253.42 RAD 6567.6 VEL 11.685 PTH   2.06 VHP  5.408 DPA   7.44 RAP 225.15 ECC 1.2496
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     51.17     9 35 34   1553.05      33.57     23.75     124.70      124.61   10  1 27     953.1      37.84      15.83
    128.83    17 30 18   5391.66      33.58    248.71     124.71      124.59   19  0  9    4791.7      37.85     240.79
     51.17     9 35 34   1553.05      33.57     23.75     124.70      124.61   10  1 27     953.1      37.84      15.83
    128.83    17 30 18   5391.66      33.58    248.71     124.71      124.59   19  0  9    4791.7      37.85     240.79
     51.17     9 35 34   1553.05      33.57     23.75     124.70      124.61   10  1 27     953.1      37.84      15.83
    128.83    17 30 18   5391.66      33.58    248.71     124.71      124.59   19  0  9    4791.7      37.85     240.79
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.5281 TRA 2.0107 TC3-3.8826 BAU  .7895      SGT 5727.7 SGR 1038.4 SG3  493.9            ST  2595.7 SR   684.9 SS  1071.3
  RDE  .4374 RRA -.3642 RC3  .2975 FAU .05244      RRT -.9277 RRF -.9282 RTF  .9834            CRT -.9848 CRS  .9393 CST -.9844
  FDE-1.1923 FRA 2.2915 FC3-2.9937 BSP  18442      SGB 5821.1 R23  .0316 R13 -.9838            LSA 2882.1 MSA  218.4 SSA   15.0
  BDE 1.5895 BRA 2.0434 BC3 3.8940 FSP  -1702      SG1 5808.5 SG2  382.2 THA 170.41            EL1 2682.1 EL2  115.2 ALF 165.41

LAUNCH DATE  AUG  2 1970                          FLIGHT TIME 192.00                          ARRIVAL DATE  FEB 10 1971

 HELIOCENTRIC CONIC                                DISTANCE 536.627
  RL  151.83 LAL   -.00 LOL 309.30 VL  26.648 GAL   4.57 AZL  93.22 HCA 246.56 SMA 127.84 ECC .20330 INC 3.2240 V1  29.345
  RP  107.89 LAP   2.96 LOP 195.83 VP  37.710 GAP   7.58 AZP  88.72 TAL 161.48 TAP  48.04 RCA 101.85 APO 153.83 V2  35.124
  RC 123.660 GL  -22.13 GP   20.13 ZAL  53.65 ZAP 148.41 ETS  33.61 ZAE 124.95 ETE 167.04 ZAC 117.78 ETC 255.67 CLP-155.12
 PLANETOCENTRIC CONIC
  C3  15.721 VHL  3.965 DLA -45.03 RAL 255.62 RAD 6567.6 VEL 11.709 PTH   2.06 VHP  5.588 DPA   5.72 RAP 225.98 ECC 1.2587
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     53.39     9 52 32   1540.18      32.22     21.46     126.60      123.35   10 18 12     940.2      36.35      13.58
    126.61    17 30 54   5420.73      32.23    250.34     126.61      123.34   19  1 15    4820.7      36.36     242.46
     53.39     9 52 32   1540.18      32.22     21.46     126.60      123.35   10 18 12     940.2      36.35      13.58
    126.61    17 30 54   5420.73      32.23    250.34     126.61      123.34   19  1 15    4820.7      36.36     242.46
     53.39     9 52 32   1540.18      32.22     21.46     126.60      123.35   10 18 12     940.2      36.35      13.58
    126.61    17 30 54   5420.73      32.23    250.34     126.61      123.34   19  1 15    4820.7      36.36     242.46
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.4404 TRA 2.2042 TC3-3.8594 BAU  .8129      SGT 5832.2 SGR  968.3 SG3  465.1            ST  2483.9 SR   640.4 SS   982.5
  RDE  .4163 RRA -.3578 RC3  .2536 FAU .04922      RRT -.9146 RRF -.9133 RTF  .9832            CRT -.9742 CRS  .9132 CST -.9815
  FDE-1.0114 FRA 2.3053 FC3-2.7104 BSP  19066      SGB 5912.1 R23  .0248 R13 -.9835            LSA 2736.7 MSA  234.5 SSA   14.9
  BDE 1.4994 BRA 2.2331 BC3 3.8677 FSP  -1647      SG1 5899.4 SG2  387.0 THA 171.33            EL1 2561.3 EL2  140.3 ALF 165.86

LAUNCH DATE  AUG  2 1970                          FLIGHT TIME 194.00                          ARRIVAL DATE  FEB 12 1971

 HELIOCENTRIC CONIC                                DISTANCE 542.541
  RL  151.83 LAL   -.00 LOL 309.30 VL  26.623 GAL   4.91 AZL  93.05 HCA 249.78 SMA 127.67 ECC .20696 INC 3.0474 V1  29.345
  RP  107.93 LAP   2.86 LOP 199.05 VP  37.680 GAP   8.00 AZP  88.95 TAL 160.50 TAP  50.28 RCA 101.25 APO 154.10 V2  35.112
  RC 125.912 GL  -20.37 GP   18.94 ZAL  51.85 ZAP 150.38 ETS  34.13 ZAE 124.51 ETE 168.11 ZAC 116.91 ETC 255.99 CLP-156.79
 PLANETOCENTRIC CONIC
  C3  16.405 VHL  4.050 DLA -43.41 RAL 257.72 RAD 6567.7 VEL 11.738 PTH   2.07 VHP  5.782 DPA   4.10 RAP 226.95 ECC 1.2700
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     55.60    10  9 30   1527.18      30.84     19.24     128.58      122.22   10 34 57     927.2      34.84      11.40
    124.40    17 30 40   5453.12      30.85    252.24     128.59      122.21   19  1 33    4853.1      34.85     244.41
     55.60    10  9 30   1527.18      30.84     19.24     128.58      122.22   10 34 57     927.2      34.84      11.40
    124.40    17 30 40   5453.12      30.85    252.24     128.59      122.21   19  1 33    4853.1      34.85     244.41
     55.60    10  9 30   1527.18      30.84     19.24     128.58      122.22   10 34 57     927.2      34.84      11.40
    124.40    17 30 40   5453.12      30.85    252.24     128.59      122.21   19  1 33    4853.1      34.85     244.41
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.3309 TRA 2.4287 TC3-3.7485 BAU  .8234      SGT 5927.5 SGR  909.8 SG3  438.6            ST  2359.3 SR   599.7 SS   898.6
  RDE  .3974 RRA -.3572 RC3  .2051 FAU .04477      RRT -.9000 RRF -.8972 RTF  .9821            CRT -.9577 CRS  .8736 CST -.9765
  FDE -.8261 FRA 2.3387 FC3-2.3629 BSP  19139      SGB 5997.0 R23  .0214 R13 -.9823            LSA 2582.0 MSA  257.5 SSA   15.0
  BDE 1.3890 BRA 2.4549 BC3 3.7542 FSP  -1534      SG1 5984.1 SG2  392.8 THA 172.10            EL1 2428.5 EL2  167.6 ALF 166.25

LAUNCH DATE  AUG  2 1970                          FLIGHT TIME 196.00                          ARRIVAL DATE  FEB 14 1971

 HELIOCENTRIC CONIC                                DISTANCE 548.419
  RL  151.83 LAL   -.00 LOL 309.30 VL  26.597 GAL   5.26 AZL  92.88 HCA 252.99 SMA 127.50 ECC .21091 INC 2.8781 V1  29.345
  RP  107.97 LAP   2.75 LOP 202.27 VP  37.650 GAP   8.43 AZP  89.16 TAL 159.50 TAP  52.50 RCA 100.61 APO 154.39 V2  35.099
  RC 128.158 GL  -18.69 GP   17.88 ZAL  50.09 ZAP 152.22 ETS  34.73 ZAE 124.08 ETE 169.04 ZAC 116.15 ETC 256.29 CLP-158.38
 PLANETOCENTRIC CONIC
  C3  17.225 VHL  4.150 DLA -41.84 RAL 259.72 RAD 6567.7 VEL 11.773 PTH   2.08 VHP  5.987 DPA   2.58 RAP 228.04 ECC 1.2835
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     57.80    10 26 32   1513.81      29.44     17.06     130.62      121.19   10 51 45     913.8      33.34       9.28
    122.20    17 29 33   5488.91      29.46    254.41     130.63      121.18   19  1  2    4888.9      33.35     246.64
     57.80    10 26 32   1513.81      29.44     17.06     130.62      121.19   10 51 45     913.8      33.34       9.28
    122.20    17 29 33   5488.91      29.46    254.41     130.63      121.18   19  1  2    4888.9      33.35     246.64
     57.80    10 26 32   1513.81      29.44     17.06     130.62      121.19   10 51 45     913.8      33.34       9.28
    122.20    17 29 33   5488.91      29.46    254.41     130.63      121.18   19  1  2    4888.9      33.35     246.64
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.2276 TRA 2.6563 TC3-3.6268 BAU  .8361      SGT 6013.7 SGR  860.5 SG3  413.3            ST  2249.6 SR   568.3 SS   831.4
  RDE  .3858 RRA -.3569 RC3  .1682 FAU .04095      RRT -.8847 RRF -.8802 RTF  .9813            CRT -.9354 CRS  .8262 CST -.9718
  FDE -.6723 FRA 2.3583 FC3-2.0582 BSP  19367      SGB 6074.9 R23  .0176 R13 -.9815            LSA 2448.8 MSA  279.5 SSA   15.0
  BDE 1.2867 BRA 2.6801 BC3 3.6307 FSP  -1445      SG1 6061.9 SG2  397.9 THA 172.75            EL1 2312.0 EL2  195.6 ALF 166.61
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LAUNCH DATE AUG 2 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 554.259

RL 151.83 LAL -.00 LOL 309.30 VL 26.570 GAL 5.63 AZL 92.71 HCA 256.21 SMA 127.33 ECC .21514 INC 2.7146 V1 29.345
RP 108.01 LAP 2.64 LOP 205.49 VP 37.620 GAP 8.88 AZP 89.35 TAL 158.49 TAP 54.69 RCA 99.94 APO 154.72 V2 35.086
RC 130.397 GL -17.07 GP 16.93 ZAL 48.37 ZAP 153.96 ETS 35.44 ZAE 123.67 ETE 169.84 ZAC 115.51 ETC 256.60 CLP-159.91

PLANETOCENTRIC CONIC

C3 18.192 VHL 4.265 DLA -40.32 RAL 261.61 RAD 6567.7 VEL 11.814 PTH 2.09 VHP 6.206 DPA 1.15 RAP 229.26 ECC 1.2994

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.00	10 43 44	1499.76	28.05	14.90	132.72	120.25	11 8 43	899.8	31.84	7.18
120.00	17 27 30	5528.32	28.06	256.86	132.72	120.24	18 59 38	4928.3	31.85	249.14
60.00	10 43 44	1499.76	28.05	14.90	132.72	120.25	11 8 43	899.8	31.84	7.18
120.00	17 27 30	5528.32	28.06	256.86	132.72	120.24	18 59 38	4928.3	31.85	249.14
60.00	10 43 44	1499.76	28.05	14.90	132.72	120.25	11 8 43	899.8	31.84	7.18
120.00	17 27 30	5528.32	28.06	256.86	132.72	120.24	18 59 38	4928.3	31.85	249.14

DIFFERENTIAL CORRECTIONS
TDE-1.1248 TRA 2.8927 TC3-3.4852 BAU .8483
RDE .3789 RRA -.3578 RC3 .1384 FAU .03740
FDE -.5393 FRA 2.3722 FC3-1.7798 BSP 19619
BDE 1.1869 BRA 2.9147 BC3 3.4880 FSP -1365

MID-COURSE EXECUTION ACCURACY
SGT 6091.0 SGR 818.8 SG3 389.3
RRT -.8689 RRF -.8628 RTF .9806
SGB 6145.8 R23 .0142 R13 -.9808
SG1 6132.6 SG2 402.6 THA 173.31

ORBIT DETERMINATION ACCURACY
ST 2151.6 SR 543.0 SS 776.8
CRT -.9061 CRS .7703 CST -.9675
LSA 2331.6 MSA 301.4 SSA 14.9
EL1 2207.7 EL2 223.8 ALF 166.98

LAUNCH DATE AUG 2 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 560.057

RL 151.83 LAL -.00 LOL 309.30 VL 26.543 GAL 6.03 AZL 92.56 HCA 259.42 SMA 127.16 ECC .21970 INC 2.5556 V1 29.345
RP 108.05 LAP 2.51 LOP 208.71 VP 37.589 GAP 9.33 AZP 89.53 TAL 157.46 TAP 56.88 RCA 99.22 APO 155.09 V2 35.074
RC 132.627 GL -15.53 GP 16.06 ZAL 46.70 ZAP 155.59 ETS 36.27 ZAE 123.27 ETE 170.53 ZAC 114.96 ETC 256.92 CLP-161.37

PLANETOCENTRIC CONIC

C3 19.316 VHL 4.395 DLA -38.86 RAL 263.42 RAD 6567.8 VEL 11.862 PTH 2.10 VHP 6.437 DPA -.21 RAP 230.57 ECC 1.3179

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.20	11 1 10	1484.78	26.65	12.74	134.87	119.39	11 25 55	884.8	30.35	5.08
117.80	17 24 27	5571.50	26.67	259.59	134.87	119.38	18 57 18	4971.5	30.36	251.93
62.20	11 1 10	1484.78	26.65	12.74	134.87	119.39	11 25 55	884.8	30.35	5.08
117.80	17 24 27	5571.50	26.67	259.59	134.87	119.38	18 57 18	4971.5	30.36	251.93
62.20	11 1 10	1484.78	26.65	12.74	134.87	119.39	11 25 55	884.8	30.35	5.08
117.80	17 24 27	5571.50	26.67	259.59	134.87	119.38	18 57 18	4971.5	30.36	251.93

DIFFERENTIAL CORRECTIONS
TDE-1.0364 TRA 3.1255 TC3-3.3544 BAU .8668
RDE .3779 RRA -.3583 RC3 .1186 FAU .03469
FDE -.4379 FRA 2.3704 FC3-1.5549 BSP 20205
BDE 1.1032 BRA 3.1459 BC3 3.3565 FSP -1318

MID-COURSE EXECUTION ACCURACY
SGT 6156.0 SGR 783.2 SG3 366.0
RRT -.8528 RRF -.8453 RTF .9804
SGB 6205.6 R23 .0105 R13 -.9805
SG1 6192.3 SG2 406.6 THA 173.78

ORBIT DETERMINATION ACCURACY
ST 2073.0 SR 524.5 SS 734.6
CRT -.8722 CRS .7153 CST -.9654
LSA 2238.2 MSA 319.6 SSA 14.6
EL1 2123.6 EL2 250.4 ALF 167.38

LAUNCH DATE AUG 2 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 565.814

RL 151.83 LAL -.00 LOL 309.30 VL 26.516 GAL 6.46 AZL 92.40 HCA 262.63 SMA 126.98 ECC .22459 INC 2.4001 V1 29.345
RP 108.09 LAP 2.38 LOP 211.92 VP 37.557 GAP 9.80 AZP 89.69 TAL 156.41 TAP 59.04 RCA 98.46 APO 155.50 V2 35.061
RC 134.850 GL -14.06 GP 15.29 ZAL 45.07 ZAP 157.13 ETS 37.24 ZAE 122.89 ETE 171.13 ZAC 114.49 ETC 257.24 CLP-162.78

PLANETOCENTRIC CONIC

C3 20.615 VHL 4.540 DLA -37.44 RAL 265.14 RAD 6567.8 VEL 11.916 PTH 2.12 VHP 6.681 DPA -1.49 RAP 231.98 ECC 1.3393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.41	11 19 0	1468.52	25.26	10.55	137.07	118.60	11 43 28	868.5	28.87	2.94
115.59	17 20 20	5618.74	25.28	262.63	137.08	118.59	18 53 59	5018.7	28.89	255.03
64.41	11 19 0	1468.52	25.26	10.55	137.07	118.60	11 43 28	868.5	28.87	2.94
115.59	17 20 20	5618.74	25.28	262.63	137.08	118.59	18 53 59	5018.7	28.89	255.03
64.41	11 19 0	1468.52	25.26	10.55	137.07	118.60	11 43 28	868.5	28.87	2.94
115.59	17 20 20	5618.74	25.28	262.63	137.08	118.59	18 53 59	5018.7	28.89	255.03

DIFFERENTIAL CORRECTIONS
TDE -.9187 TRA 3.3992 TC3-3.1488 BAU .8682
RDE .3755 RRA -.3643 RC3 .0941 FAU .03086
FDE -.3233 FRA 2.3923 FC3-1.2958 BSP 20088
BDE .9924 BRA 3.4186 BC3 3.1503 FSP -1218

MID-COURSE EXECUTION ACCURACY
SGT 6221.5 SGR 753.0 SG3 345.7
RRT -.8371 RRF -.8282 RTF .9794
SGB 6266.9 R23 .0088 R13 -.9795
SG1 6253.5 SG2 409.9 THA 174.19

ORBIT DETERMINATION ACCURACY
ST 1994.5 SR 504.6 SS 699.5
CRT -.8256 CRS .6402 CST -.9617
LSA 2145.8 MSA 342.9 SSA 14.6
EL1 2038.4 EL2 278.6 ALF 167.97

LAUNCH DATE AUG 2 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 571.521

RL 151.83 LAL -.00 LOL 309.30 VL 26.488 GAL 6.91 AZL 92.25 HCA 265.83 SMA 126.80 ECC .22987 INC 2.2470 V1 29.345
RP 108.13 LAP 2.24 LOP 215.13 VP 37.525 GAP 10.28 AZP 89.84 TAL 155.36 TAP 61.20 RCA 97.66 APO 155.95 V2 35.047
RC 137.063 GL -12.67 GP 14.59 ZAL 43.50 ZAP 158.58 ETS 38.37 ZAE 122.53 ETE 171.66 ZAC 114.09 ETC 257.58 CLP-164.14

PLANETOCENTRIC CONIC

C3 22.107 VHL 4.702 DLA -36.08 RAL 266.77 RAD 6567.9 VEL 11.979 PTH 2.13 VHP 6.939 DPA -2.70 RAP 233.47 ECC 1.3638

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.64	11 37 19	1450.51	23.89	8.28	139.32	117.88	12 1 29	850.5	27.42	.73
113.36	17 15 3	5670.39	23.90	265.99	139.33	117.87	18 49 33	5070.4	27.43	258.44
66.64	11 37 19	1450.51	23.89	8.28	139.32	117.88	12 1 29	850.5	27.42	.73
113.36	17 15 3	5670.39	23.90	265.99	139.33	117.87	18 49 33	5070.4	27.43	258.44
66.64	11 37 19	1450.51	23.89	8.28	139.32	117.88	12 1 29	850.5	27.42	.73
113.36	17 15 3	5670.39	23.90	265.99	139.33	117.87	18 49 33	5070.4	27.43	258.44

DIFFERENTIAL CORRECTIONS
TDE -.8142 TRA 3.6713 TC3-2.9619 BAU .8757
RDE .3775 RRA -.3699 RC3 .0779 FAU .02786
FDE -.2350 FRA 2.4006 FC3-1.0911 BSP 20305
BDE .8974 BRA 3.6899 BC3 2.9629 FSP -1152

MID-COURSE EXECUTION ACCURACY
SGT 6275.7 SGR 726.6 SG3 326.0
RRT -.8218 RRF -.8117 RTF .9789
SGB 6317.7 R23 .0067 R13 -.9789
SG1 6304.2 SG2 412.1 THA 174.54

ORBIT DETERMINATION ACCURACY
ST 1936.3 SR 489.5 SS 673.5
CRT -.7749 CRS .5701 CST -.9608
LSA 2076.5 MSA 361.1 SSA 14.4
EL1 1974.0 EL2 303.5 ALF 168.64

LAUNCH DATE AUG 2 1970 FLIGHT TIME 206.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 577.175

RL 151.83 LAL -.00 LOL 309.30 VL 26.461 GAL 7.39 AZL 92.10 HCA 269.04 SMA 126.62 ECC .23555 INC 2.0952 VI 29.345
RP 108.17 LAP 2.09 LOP 218.34 VP 37.494 GAP 10.78 AZP 89.96 TAL 154.31 TAP 63.34 RCA 96.80 APO 156.45 V2 35.034
RC 139.266 GL -11.34 GP 13.95 ZAL 41.99 ZAP 159.95 ETS 39.68 ZAE 122.18 ETE 172.11 ZAC 113.75 ETC 257.92 CLP-165.46

PLANETOCENTRIC CONIC

C3 25.814 VHL 4.880 DLA -34.77 RAL 268.32 RAO 6568.0 VEL 12.090 PTH 2.15 VHP 7.212 DPA -3.85 RAP 235.03 ECC 1.3919

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.92	11 56 19	1430.13	22.53	5.89	141.61	117.22	12 20 9	830.1	25.99	358.39
111.08	17 8 24	5726.99	22.54	269.71	141.62	117.20	18 43 51	5127.0	26.00	262.21
68.92	11 56 19	1430.13	22.53	5.89	141.61	117.22	12 20 9	830.1	25.99	358.39
111.08	17 8 24	5726.99	22.54	269.71	141.62	117.20	18 43 51	5127.0	26.00	262.21
68.92	11 56 19	1430.13	22.53	5.89	141.61	117.22	12 20 9	830.1	25.99	358.39
111.08	17 8 24	5726.99	22.54	269.71	141.62	117.20	18 43 51	5127.0	26.00	262.21

DIFFERENTIAL CORRECTIONS
TDE -.7092 TRA 3.9567 TC3-2.7677 BAU .8814
RDE .3815 RRA -.3768 RC3 .0647 FAU .02504
FDE -.1584 FRA 2.4083 FC3 -.9102 BSP 20519
BDE .8053 BRA 3.9746 BC3 2.7685 FSP -1090

MID-COURSE EXECUTION ACCURACY
SGT 6322.6 SGR 703.3 SG3 307.6
RRT -.8072 RRF -.7961 RTF .9784
SGB 6361.6 R23 .0050 R13 -.9785
SG1 6348.2 SG2 413.5 THA 174.85

ORBIT DETERMINATION ACCURACY
ST 1891.7 SR 476.2 SS 654.1
CRT -.7188 CRS .5006 CST -.9615
LSA 2022.7 MSA 376.5 SSA 14.2
EL1 1923.3 EL2 325.7 ALF 169.44

LAUNCH DATE AUG 2 1970 FLIGHT TIME 208.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 582.770

RL 151.83 LAL -.00 LOL 309.30 VL 26.433 GAL 7.90 AZL 91.94 HCA 272.24 SMA 126.45 ECC .24168 INC 1.9437 VI 29.345
RP 108.21 LAP 1.94 LOP 221.54 VP 37.461 GAP 11.30 AZP 90.08 TAL 153.24 TAP 65.48 RCA 95.89 APO 157.01 V2 35.021
RC 141.459 GL -10.08 GP 13.38 ZAL 40.54 ZAP 161.25 ETS 41.22 ZAE 121.85 ETE 172.51 ZAC 113.46 ETC 258.28 CLP-166.74

PLANETOCENTRIC CONIC

C3 25.764 VHL 5.076 DLA -33.52 RAL 269.79 RAO 6568.0 VEL 12.130 PTH 2.17 VHP 7.502 DPA -4.94 RAP 236.66 ECC 1.4240

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.27	12 16 17	1406.54	21.19	3.32	143.94	116.60	12 39 44	806.5	24.59	355.87
108.73	17 0 11	5789.31	21.21	273.85	143.95	116.59	18 36 40	5189.3	24.60	266.40
71.27	12 16 17	1406.54	21.19	3.32	143.94	116.60	12 39 44	806.5	24.59	355.87
108.73	17 0 11	5789.31	21.21	273.85	143.95	116.59	18 36 40	5189.3	24.60	266.40
110.00	16 16 53	633.89	16.46	303.52	141.23	120.39	16 27 27	33.9	20.37	296.58
110.00	17 58 46	5609.95	26.10	262.37	146.41	112.91	19 32 16	5010.0	28.96	254.36

DIFFERENTIAL CORRECTIONS
TDE -.6037 TRA 4.2562 TC3-2.5700 BAU .8854
RDE .3871 RRA -.3850 RC3 .0540 FAU .02240
FDE -.0917 FRA 2.4159 FC3 -.7526 BSP 20741
BDE .7172 BRA 4.2756 BC3 2.5706 FSP -1033

MID-COURSE EXECUTION ACCURACY
SGT 6362.4 SGR 682.3 SG3 290.4
RRT -.7934 RRF -.7815 RTF .9781
SGB 6398.9 R23 .0035 R13 -.9781
SG1 6385.5 SG2 413.8 THA 175.12

ORBIT DETERMINATION ACCURACY
ST 1859.9 SR 464.0 SS 639.8
CRT -.6583 CRS .4339 CST -.9635
LSA 1963.1 MSA 388.7 SSA 14.0
EL1 1885.7 EL2 344.5 ALF 170.35

LAUNCH DATE AUG 2 1970 FLIGHT TIME 210.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 588.299

RL 151.83 LAL -.00 LOL 309.30 VL 26.405 GAL 8.45 AZL 91.79 HCA 275.44 SMA 126.27 ECC .24830 INC 1.7918 VI 29.345
RP 108.25 LAP 1.78 LOP 224.74 VP 37.429 GAP 11.85 AZP 90.17 TAL 152.18 TAP 67.62 RCA 94.92 APO 157.62 V2 35.008
RC 143.643 GL -8.88 GP 12.85 ZAL 39.15 ZAP 162.48 ETS 43.00 ZAE 121.55 ETE 172.66 ZAC 113.21 ETC 258.64 CLP-167.99

PLANETOCENTRIC CONIC

C3 27.989 VHL 5.290 DLA -32.32 RAL 271.19 RAO 6568.1 VEL 12.221 PTH 2.20 VHP 7.810 DPA -5.96 RAP 238.35 ECC 1.4606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.73	12 37 40	1378.23	19.88	.45	146.31	116.02	13 0 38	778.2	23.21	353.04
106.27	16 49 56	5858.75	19.89	278.49	146.32	116.01	18 27 35	5258.7	23.22	271.09
73.73	12 37 40	1378.23	19.88	.45	146.31	116.02	13 0 38	778.2	23.21	353.04
106.27	16 49 56	5858.75	19.89	278.49	146.32	116.01	18 27 35	5258.7	23.22	271.09
110.00	15 48 17	761.45	11.94	310.64	141.72	122.27	16 0 59	161.5	16.11	304.02
110.00	18 38 29	5523.52	28.25	256.58	150.21	110.09	20 10 32	4923.5	30.72	248.25

DIFFERENTIAL CORRECTIONS
TDE -.4976 TRA 4.5706 TC3-2.3718 BAU .8877
RDE .3939 RRA -.3943 RC3 .0454 FAU .01993
FDE -.0337 FRA 2.4236 FC3 -.6165 BSP 20971
BDE .6346 BRA 4.5878 BC3 2.3722 FSP -981

MID-COURSE EXECUTION ACCURACY
SGT 6395.1 SGR 663.0 SG3 274.2
RRT -.7806 RRF -.7680 RTF .9779
SGB 6429.3 R23 .0023 R13 -.9779
SG1 6416.1 SG2 413.0 THA 175.35

ORBIT DETERMINATION ACCURACY
ST 1839.5 SR 452.7 SS 629.3
CRT -.5960 CRS .3714 CST -.9666
LSA 1956.2 MSA 397.4 SSA 13.7
EL1 1860.0 EL2 359.5 ALF 171.33

LAUNCH DATE AUG 2 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 593.753

RL 151.83 LAL -.00 LOL 309.30 VL 26.376 GAL 9.03 AZL 91.64 HCA 278.64 SMA 126.09 ECC .25547 INC 1.6383 VI 29.345
RP 108.29 LAP 1.62 LOP 227.94 VP 37.397 GAP 12.42 AZP 90.25 TAL 151.13 TAP 69.76 RCA 93.88 APO 158.30 V2 34.995
RC 145.816 GL -7.75 GP 12.38 ZAL 37.82 ZAP 163.64 ETS 45.06 ZAE 121.21 ETE 173.17 ZAC 113.00 ETC 259.02 CLP-169.22

PLANETOCENTRIC CONIC

C3 30.528 VHL 5.525 DLA -31.17 RAL 272.51 RAO 6568.2 VEL 12.325 PTH 2.22 VHP 8.137 DPA -6.93 RAP 240.09 ECC 1.5024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.39	13 1 9	1342.88	18.59	357.11	148.71	115.48	13 23 32	742.9	21.86	349.74
103.61	16 36 59	649.51	18.60	305.91	148.72	115.47	16 47 48	49.5	21.88	298.54
76.39	13 1 9	1342.88	18.59	357.11	148.71	115.48	13 23 32	742.9	21.86	349.74
103.61	16 36 59	649.51	18.60	305.91	148.72	115.47	16 47 48	49.5	21.88	298.54
110.00	15 30 48	856.42	8.44	315.76	142.85	123.25	15 45 4	256.4	12.75	309.33
110.00	19 6 31	5472.00	29.41	253.01	153.48	108.27	20 37 43	4872.0	31.62	244.50

DIFFERENTIAL CORRECTIONS
TDE -.3905 TRA 4.9020 TC3-2.1742 BAU .8875
RDE .4017 RRA -.4047 RC3 .0381 FAU .01759
FDE .0170 FRA 2.4330 FC3 -.4990 BSP 21202
BDE .5603 BRA 4.9187 BC3 2.1745 FSP -933

MID-COURSE EXECUTION ACCURACY
SGT 6421.2 SGR 644.9 SG3 259.2
RRT -.7688 RRF -.7558 RTF .9778
SGB 6453.5 R23 .0014 R13 -.9779
SG1 6440.4 SG2 411.1 THA 175.57

ORBIT DETERMINATION ACCURACY
ST 1829.2 SR 441.8 SS 622.1
CRT -.5334 CRS .3142 CST -.9704
LSA 1940.6 MSA 402.6 SSA 13.5
EL1 1844.9 EL2 370.5 ALF 172.35

LAUNCH DATE AUG 2 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 599.124

RL	151.83	LAL	-.00	LOL	309.30	VL	26.348	GAL	9.65	AZL	91.48	HCA	281.83	SMA	125.91	ECC	.26323	INC	1.4823
RP	108.33	LAP	1.45	LOP	231.13	VP	37.365	GAP	13.02	AZP	90.30	TAL	150.08	TAP	71.91	RCA	92.77	APO	159.06
RC	147.979	GL	-6.67	GP	11.94	ZAL	36.56	ZAP	164.74	ETS	47.47	ZAE	120.90	ETE	173.44	ZAC	112.83	ETC	259.42

V1	29.345	V2	34.982	CLP	-170.43														

PLANETOCENTRIC CONIC

C3	33.427	VHL	5.782	DLA	-30.07	RAL	273.75	RAD	6568.3	VEL	12.442	PTH	2.25	VHP	8.486	DPA	-7.85	RAP	241.88
ECC	1.5501																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.42	13 28 15	1295.62	17.33	352.94	151.14	114.97	13 49 50	695.6	20.55	345.62
100.58	16 19 50	742.42	17.34	312.24	151.15	114.97	16 32 13	142.4	20.56	304.91
79.42	13 28 15	1295.62	17.33	352.94	151.14	114.97	13 49 50	695.6	20.55	345.62
100.58	16 19 50	742.42	17.34	312.24	151.15	114.97	16 32 13	142.4	20.56	304.91
110.00	15 17 59	937.88	5.37	320.08	144.30	123.81	15 33 36	337.9	9.78	313.76
110.00	19 29 17	5436.20	30.14	250.48	156.49	106.94	20 59 53	4836.2	32.16	241.85

DIFFERENTIAL CORRECTIONS

TDE	-.2818	TRA	5.2517	TC3	-1.9791	BAU	.8846
RDE	.4103	RRA	-.4161	RC3	.0319	FAU	.01539
FDE	.0616	FRA	2.4438	FC3	-.3985	BSP	21438
BDE	.4978	BRA	5.2681	BC3	1.9794	FSP	-888

MID-COURSE EXECUTION ACCURACY

SGT	6440.8	SGR	627.5	SG3	245.1		
RRT	-.7580	RRF	-.7447	RTF	.9779		
SGB	6471.3	R23	.0007	R13	-.9779		
SG1	6458.4	SG2	408.2	THA	175.76		

ORBIT DETERMINATION ACCURACY

ST	1827.0	SR	431.0	SS	617.3
CRT	-.4718	CRS	.2624	CST	-.9743
LSA	1934.2	MSA	404.4	SSA	13.2
EL1	1838.8	EL2	377.6	ALF	173.37

LAUNCH DATE AUG 2 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 604.399

RL	151.83	LAL	-.00	LOL	309.30	VL	26.320	GAL	10.33	AZL	91.32	HCA	285.02	SMA	125.74	ECC	.27167	INC	1.3228
RP	108.37	LAP	1.28	LOP	234.33	VP	37.333	GAP	13.66	AZP	90.34	TAL	149.04	TAP	74.06	RCA	91.58	APO	159.89
RC	150.132	GL	-5.66	GP	11.55	ZAL	35.37	ZAP	165.77	ETS	50.27	ZAE	120.59	ETE	173.68	ZAC	112.67	ETC	259.82

V1	29.345	V2	34.969	CLP	-171.62														

PLANETOCENTRIC CONIC

C3	36.742	VHL	6.061	DLA	-29.03	RAL	274.93	RAD	6568.4	VEL	12.574	PTH	2.28	VHP	8.859	DPA	-8.71	RAP	243.71
ECC	1.6047																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.33	14 3 23	1221.91	16.09	346.89	153.59	114.49	14 23 45	621.9	19.26	339.60
96.67	15 54 5	863.87	16.11	320.64	153.60	114.48	16 8 29	263.9	19.28	313.35
100.00	15 19 47	974.09	10.60	325.99	150.81	118.11	15 36 1	374.1	14.28	319.13
100.00	17 20 22	5874.97	21.75	280.58	156.10	111.03	18 58 17	5275.0	24.41	272.79
110.00	15 7 54	1011.50	2.57	323.94	145.94	124.10	15 24 45	411.5	7.03	317.69
110.00	19 48 44	5410.33	30.64	248.63	159.41	105.95	21 18 55	4810.3	32.52	239.92

DIFFERENTIAL CORRECTIONS

TDE	-.1702	TRA	5.6225	TC3	-1.7872	BAU	.8780
RDE	.4194	RRA	-.4283	RC3	.0264	FAU	.01326
FDE	.1016	FRA	2.4575	FC3	-.3124	BSP	21655
BDE	.4526	BRA	5.6388	BC3	1.7874	FSP	-845

MID-COURSE EXECUTION ACCURACY

SGT	6454.8	SGR	610.4	SG3	232.0		
RRT	-.7481	RRF	-.7347	RTF	.9781		
SGB	6483.6	R23	.0001	R13	-.9781		
SG1	6471.0	SG2	404.0	THA	175.94		

ORBIT DETERMINATION ACCURACY

ST	1831.7	SR	420.1	SS	614.5
CRT	-.4122	CRS	.2155	CST	-.9782
LSA	1935.6	MSA	403.1	SSA	12.9
EL1	1840.2	EL2	380.9	ALF	174.36

LAUNCH DATE AUG 2 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 609.564

RL	151.83	LAL	-.00	LOL	309.30	VL	26.292	GAL	11.05	AZL	91.16	HCA	288.21	SMA	125.56	ECC	.28085	INC	1.1584
RP	108.41	LAP	1.10	LOP	237.51	VP	37.301	GAP	14.34	AZP	90.36	TAL	148.02	TAP	76.23	RCA	90.30	APO	160.82
RC	152.275	GL	-4.70	GP	11.18	ZAL	34.24	ZAP	166.72	ETS	53.52	ZAE	120.29	ETE	173.89	ZAC	112.54	ETC	260.24

V1	29.345	V2	34.956	CLP	-172.80														

PLANETOCENTRIC CONIC

C3	40.539	VHL	6.367	DLA	-28.03	RAL	276.03	RAD	6568.6	VEL	12.724	PTH	2.31	VHP	9.260	DPA	-9.52	RAP	245.56
ECC	1.6672																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 27 52	1182.30	11.72	341.87	154.54	115.96	14 47 34	582.3	15.12	334.84
90.00	15 38 25	953.19	18.11	328.09	157.49	112.14	15 54 18	353.2	20.96	320.58
100.00	14 56 7	1090.91	6.79	332.56	151.93	119.18	15 14 18	490.9	10.63	325.88
100.00	17 52 50	5807.85	23.32	276.21	159.60	109.25	19 29 38	5207.9	25.73	268.24
110.00	14 59 38	1079.87	-.04	327.51	147.72	124.18	15 17 38	479.9	4.44	321.29
110.00	20 5 49	5391.66	30.98	247.28	162.27	105.22	21 35 41	4791.7	32.76	238.51

DIFFERENTIAL CORRECTIONS

TDE	-.0553	TRA	6.0168	TC3	-1.5996	BAU	.8670
RDE	.4288	RRA	-.4414	RC3	.0214	FAU	.01121
FDE	.1376	FRA	2.4743	FC3	-.2393	BSP	21840
BDE	.4324	BRA	6.0329	BC3	1.5998	FSP	-804

MID-COURSE EXECUTION ACCURACY

SGT	6463.5	SGR	593.4	SG3	219.8		
RRT	-.7391	RRF	-.7258	RTF	.9784		
SGB	6490.7	R23	-.0002	R13	-.9784		
SG1	6478.5	SG2	398.8	THA	176.10		

ORBIT DETERMINATION ACCURACY

ST	1841.9	SR	408.8	SS	613.5
CRT	-.3554	CRS	.1734	CST	-.9819
LSA	1943.4	MSA	399.1	SSA	12.6
EL1	1847.9	EL2	380.9	ALF	175.29

LAUNCH DATE AUG 2 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 614.602

RL	151.83	LAL	-.00	LOL	309.30	VL	26.264	GAL	11.83	AZL	90.99	HCA	291.40	SMA	125.39	ECC	.29086	INC	.9882
RP	108.45	LAP	.92	LOP	240.70	VP	37.270	GAP	15.07	AZP	90.36	TAL	147.03	TAP	78.43	RCA	88.92	APO	161.86
RC	154.408	GL	-3.79	GP	10.85	ZAL	33.19	ZAP	167.60	ETS	57.31	ZAE	119.97	ETE	174.08	ZAC	112.42	ETC	260.66

V1	29.345	V2	34.943	CLP	-173.97														

PLANETOCENTRIC CONIC

C3	44.902	VHL	6.701	DLA	-27.08	RAL	277.07	RAD	6568.7	VEL	12.894	PTH	2.35	VHP	9.691	DPA	-10.28	RAP	247.45
ECC	1.7390																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 53 57	1332.98	7.10	350.53	155.33	117.48	14 16 10	733.0	10.73	343.72
90.00	16 20 34	854.02	20.54	321.83	161.39	109.93	16 34 48	254.0	23.07	314.07
100.00	14 40 9	1183.70	3.68	337.69	153.46	119.69	14 59 53	583.7	7.61	331.11
100.00	18 17 3	5766.57	24.22	273.48	162.76	108.08	19 53 10	5166.6	26.46	265.39
110.00	14 52 40	1144.42	-2.51	330.88	149.61	124.10	15 11 44	544.4	1.98	324.67
110.00	20 21 2	5378.62	31.21	246.34	165.08	104.70	21 50 40	4778.6	32.91	237.53

DIFFERENTIAL CORRECTIONS

TDE	.0646	TRA	6.4384	TC3	-1.4164	BAU	.8503
RDE	.4385	RRA	-.4551	RC3	.0168	FAU	.00918
FDE	.1709	FRA	2.4957	FC3	-.1769	BSP	21965
BDE	.4432	BRA	6.4544	BC3	1.4165	FSP	-763

MID-COURSE EXECUTION ACCURACY

SGT	6468.1	SGR	576.2	SG3	208.5		
RRT	-.7309	RRF	-.7178	RTF	.9789		
SGB	6493.8	R23	-.0005	R13	-.9789		
SG1	6481.9	SG2	392.4	THA	176.26		

ORBIT DETERMINATION ACCURACY

ST	1856.6	SR	397.2	SS	614.4
CRT	-.3018	CRS	.1355	CST	-.9852
LSA	1956.5	MSA	392.7	SSA	12.3
EL1	1860.7	EL2	377.8	ALF	176.15

LAUNCH DATE AUG 3 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 12 1970

HELIOCENTRIC CONIC DISTANCE 142.991

RL	151.81	LAL	-.00	LOL	310.26	VL	19.031	GAL	11.08	AZL	94.27	HCA	50.48	SMA	95.73	ECC	.60610	INC	4.2668	V1	29.349
RP	108.69	LAP	-3.29	LOP	.66	VP	32.494	GAP	-36.60	AZP	92.72	TAL	172.59	TAP	223.07	RCA	37.71	APO	153.76	V2	34.867
RC	56.732	GL	-6.94	GP	-4.37	ZAL	70.21	ZAP	25.07	ETS	168.46	ZAE	151.12	ETE	170.04	ZAC	90.78	ETC	256.05	CLP	24.71

PLANETOCENTRIC CONIC

C3	132.071	VHL	11.492	DLA	-26.98	RAL	236.39	RAD	6870.4	VEL	15.919	PTH	2.81	VHP	21.191	DPA	-11.37	RAP	202.73	ECC	3.1736

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 4 39	1589.06	-1.11	4.87	129.29	118.30	11 31 8	989.1	2.68	358.24
90.00	13 37 27	1089.63	14.42	336.40	137.04	114.64	13 55 37	489.6	17.63	329.19
100.00	11 51 56	1436.34	-4.87	351.58	127.21	119.53	12 15 52	836.3	-.90	345.04
100.00	15 32 52	717.57	18.33	310.87	138.88	114.03	15 44 49	117.6	21.42	303.44
110.00	12 5 16	1394.47	-11.88	344.17	122.97	122.29	12 28 30	794.5	-7.53	337.78
110.00	17 36 1	5620.25	25.82	263.04	142.41	113.22	19 9 41	5020.2	28.73	255.07

DIFFERENTIAL CORRECTIONS

TDE	.3025	TRA	-1.3494	TC3	-.1087	BAU	.1944
RDE	-.8917	RRA	-.1153	RC3	.0178	FAU	.01415
FDE	-.1951	FRA	.5670	FC3	-.0928	BSP	2048
BDE	.9416	BRA	1.3543	BC3	.1101	FSP	-70

MID-COURSE EXECUTION ACCURACY

SGT	809.3	SGR	451.1	SG3	34.1		
RRT	-.0782	RRF	.0790	RTF	-.6293		
SGB	926.5	R23	-.0079	R13	.6300		
SG1	810.4	SG2	449.1	THA	176.40		

ORBIT DETERMINATION ACCURACY

ST	272.2	SR	445.0	SS	249.4
CRT	-.5174	CRS	-.6828	CST	.9755
LSA	518.8	MSA	254.8	SSA	13.9
EL1	473.5	EL2	218.9	ALF	112.66

LAUNCH DATE AUG 3 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 14 1970

HELIOCENTRIC CONIC DISTANCE 149.120

RL	151.81	LAL	-.00	LOL	310.26	VL	19.639	GAL	10.64	AZL	94.02	HCA	53.65	SMA	97.39	ECC	.57942	INC	4.0225	V1	29.349
RP	108.65	LAP	-3.24	LOP	3.84	VP	32.865	GAP	-34.86	AZP	92.39	TAL	172.06	TAP	225.71	RCA	40.96	APO	153.81	V2	34.878
RC	54.887	GL	-7.14	GP	-4.52	ZAL	69.25	ZAP	23.58	ETS	167.35	ZAE	152.20	ETE	169.89	ZAC	90.96	ETC	256.13	CLP	23.17

PLANETOCENTRIC CONIC

C3	118.614	VHL	10.891	DLA	-27.38	RAL	237.41	RAD	6570.2	VEL	15.490	PTH	2.76	VHP	20.291	DPA	-12.16	RAP	204.20	ECC	2.9521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 21 17	1526.44	.92	1.38	129.70	118.30	11 46 43	926.4	4.69	354.74
90.00	13 28 57	1110.14	13.83	337.62	136.22	114.96	13 47 28	510.1	17.09	330.46
100.00	12 3 54	1388.70	-3.26	348.95	127.39	119.73	12 27 3	788.7	.72	342.43
100.00	15 29 1	723.11	18.18	311.21	138.28	114.15	15 41 4	123.1	21.29	303.79
110.00	12 13 56	1357.23	-10.52	342.15	122.96	122.71	12 36 33	757.2	-6.13	335.80
110.00	17 35 29	5615.39	25.95	262.73	141.94	113.07	19 9 4	5015.4	28.84	254.74

DIFFERENTIAL CORRECTIONS

TDE	.2951	TRA	-1.3421	TC3	-.1131	BAU	.1819
RDE	-.8563	RRA	-.0982	RC3	.0188	FAU	.01444
FDE	-.1981	FRA	.5870	FC3	-.1054	BSP	2182
BDE	.9057	BRA	1.3456	BC3	.1147	FSP	-78

MID-COURSE EXECUTION ACCURACY

SGT	846.8	SGR	456.0	SG3	37.1		
RRT	-.0873	RRF	.0884	RTF	-.6492		
SGB	961.8	R23	-.0089	R13	.6499		
SG1	848.1	SG2	453.6	THA	176.23		

ORBIT DETERMINATION ACCURACY

ST	284.7	SR	450.8	SS	258.8
CRT	-.5125	CRS	-.6778	CST	.9759
LSA	530.1	MSA	264.7	SSA	14.1
EL1	481.6	EL2	228.9	ALF	113.56

LAUNCH DATE AUG 3 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 16 1970

HELIOCENTRIC CONIC DISTANCE 155.324

RL	151.81	LAL	-.00	LOL	310.26	VL	20.206	GAL	10.19	AZL	93.80	HCA	56.82	SMA	99.03	ECC	.55361	INC	3.7972	V1	29.349
RP	108.62	LAP	-3.18	LOP	7.02	VP	33.219	GAP	-33.21	AZP	92.08	TAL	171.55	TAP	228.38	RCA	44.20	APO	153.85	V2	34.888
RC	53.110	GL	-7.33	GP	-4.69	ZAL	68.35	ZAP	22.12	ETS	166.08	ZAE	153.42	ETE	169.76	ZAC	91.14	ETC	256.22	CLP	21.64

PLANETOCENTRIC CONIC

C3	106.569	VHL	10.323	DLA	-27.76	RAL	238.36	RAD	6570.0	VEL	15.097	PTH	2.71	VHP	19.425	DPA	-12.97	RAP	205.68	ECC	2.7539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 39 35	1456.87	3.16	357.50	130.12	118.16	12 3 52	856.9	6.90	350.81
90.00	13 18 16	1135.87	13.09	339.15	135.16	115.34	13 37 11	535.9	16.40	332.03
100.00	12 15 41	1340.19	-1.62	346.29	127.47	119.85	12 38 1	740.2	2.36	339.77
100.00	15 24 51	727.78	18.05	311.49	137.54	114.24	15 36 59	127.8	21.17	304.09
110.00	12 22 8	1319.89	-9.14	340.14	122.86	123.08	12 44 8	719.9	-4.72	333.84
110.00	17 34 53	5608.89	26.12	262.30	141.33	112.87	19 8 22	5008.9	28.99	254.29

DIFFERENTIAL CORRECTIONS

TDE	.2885	TRA	-1.3345	TC3	-.1169	BAU	.1689
RDE	-.8212	RRA	-.0819	RC3	.0196	FAU	.01476
FDE	-.2011	FRA	.6074	FC3	-.1199	BSP	2323
BDE	.8704	BRA	1.3370	BC3	.1185	FSP	-87

MID-COURSE EXECUTION ACCURACY

SGT	885.7	SGR	460.4	SG3	40.4		
RRT	-.0974	RRF	.0989	RTF	-.6685		
SGB	998.2	R23	-.0101	R13	.6693		
SG1	887.2	SG2	457.4	THA	176.05		

ORBIT DETERMINATION ACCURACY

ST	297.9	SR	456.0	SS	268.4
CRT	-.5088	CRS	-.6733	CST	.9764
LSA	541.5	MSA	274.5	SSA	14.3
EL1	489.5	EL2	238.9	ALF	114.61

LAUNCH DATE AUG 3 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 18 1970

HELIOCENTRIC CONIC DISTANCE 161.599

RL	151.81	LAL	-.00	LOL	310.26	VL	20.735	GAL	9.74	AZL	93.59	HCA	60.00	SMA	100.65	ECC	.52872	INC	3.5875	V1	29.349
RP	108.58	LAP	-3.11	LOP	10.21	VP	33.554	GAP	-31.63	AZP	91.80	TAL	171.08	TAP	231.08	RCA	47.44	APO	153.87	V2	34.900
RC	51.409	GL	-7.51	GP	-4.87	ZAL	67.52	ZAP	20.68	ETS	164.61	ZAE	154.81	ETE	169.66	ZAC	91.29	ETC	256.32	CLP	20.12

PLANETOCENTRIC CONIC

C3	95.778	VHL	9.787	DLA	-28.11	RAL	239.24	RAD	6569.9	VEL	14.735	PTH	2.67	VHP	18.591	DPA	-13.78	RAP	207.18	ECC	2.5763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 2 10	1371.96	5.87	352.73	130.66	117.75	12 25 2	772.0	9.54	345.97
90.00	13 2 44	1175.32	11.93	341.46	133.75	115.87	13 22 20	575.3	15.31	334.42
100.00	12 27 13	1290.89	.05	343.58	127.45	119.89	12 48 44	690.9	4.03	337.05
100.00	15 20 22	731.62	17.94	311.73	136.67	114.32	15 32 34	131.6	21.07	304.33
110.00	12 29 51	1282.60	-7.74	338.15	122.64	123.40	12 51 14	682.6	-3.30	331.88
110.00	17 34 13	5600.71	26.34	261.76	140.60	112.62	19 7 34	5000.7	29.17	253.72

DIFFERENTIAL CORRECTIONS

TDE	.2828	TRA	-1.3263	TC3	-.1197	BAU	.1554
RDE	-.7864	RRA	-.0663	RC3	.0202	FAU	.01511
FDE	-.2043	FRA	.6282	FC3	-.1366	BSP	2475
BDE	.8357	BRA	1.3280	BC3	.1214	FSP	-96

MID-COURSE EXECUTION ACCURACY

SGT	925.9	SGR	464.2	SG3	44.0		
RRT	-.1087	RRF	.1106	RTF	-.6871		
SGB	1035.7	R23	-.0114	R13	.6880		
SG1	927.7	SG2	460.5	THA	175.86		

ORBIT DETERMINATION ACCURACY

ST	311.8	SR	460.6	SS	278.3
CRT	-.5066	CRS	-.6693	CST	.9771
LSA	553.2	MSA	283.9	SSA	14.5
EL1	497.4	EL2	248.9	ALF	115.84

LAUNCH DATE AUG 3 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 20 1970

HELIOCENTRIC CONIC DISTANCE 167.939
RL 151.81 LAL -.00 LOL 310.26 VL 21.227 GAL 9.29 AZL 93.39 HCA 63.18 SMA 102.25 ECC .50477 INC 3.3907 V1 29.349
RP 108.55 LAP -3.03 LOP 13.40 VP 33.873 GAP -30.13 AZP 91.53 TAL 170.64 TAP 233.81 RCA 50.64 APO 153.87 V2 34.911
RC 49.791 GL -7.67 GP -5.06 ZAL 66.77 ZAP 19.27 ETS 162.90 ZAE 156.36 ETE 169.61 ZAC 91.42 ETC 256.43 CLP 18.62
PLANETOCENTRIC CONIC
C3 86.103 VHL 9.279 DLA -28.42 RAL 240.06 RAD 6569.7 VEL 14.403 PTH 2.62 VHP 17.789 DPA -14.62 RAP 208.68 ECC 2.4170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.42	12 13 59	1320.51	9.70	350.96	131.64	116.85	12 36 0	720.5	13.22	344.05
92.58	12 57 25	1179.78	9.71	340.67	131.65	116.84	13 17 5	579.8	13.24	333.76
100.00	12 38 31	1240.90	1.75	340.84	127.33	119.85	12 59 12	640.9	5.71	334.29
100.00	15 15 35	734.62	17.86	311.91	135.66	114.38	15 27 49	134.6	21.00	304.52
110.00	12 37 3	1245.51	-6.35	336.18	122.33	123.66	12 57 48	645.5	-1.88	329.94
110.00	17 33 32	5590.81	26.60	261.11	139.73	112.31	19 6 43	4990.8	29.38	253.03

DIFFERENTIAL CORRECTIONS
TDE .2778 TRA-1.3178 TC3 -.1215 BAU .1418
RDE -.7521 RRA -.0515 RC3 .0205 FAU .01551
FDE -.2075 FRA .6495 FC3 -.1560 BSP 2628
BDE .8018 BRA 1.3188 BC3 .1232 FSP -106

MID-COURSE EXECUTION ACCURACY
SGT 967.6 SGR 467.4 SG3 48.0
RRT -.1212 RRF .1235 RTF -.7050
SGB 1074.6 R23 -.0128 R13 .7059
SG1 969.8 SG2 462.9 THA 175.66

ORBIT DETERMINATION ACCURACY
ST 326.4 SR 464.6 SS 288.4
CRT -.5056 CRS -.6656 CST .9780
LSA 565.3 MSA 292.9 SSA 14.7
EL1 505.3 EL2 258.9 ALF 117.26

LAUNCH DATE AUG 3 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 22 1970

HELIOCENTRIC CONIC DISTANCE 174.340
RL 151.81 LAL -.00 LOL 310.26 VL 21.686 GAL 8.85 AZL 93.20 HCA 66.36 SMA 103.83 ECC .48180 INC 3.2045 V1 29.349
RP 108.51 LAP -2.94 LOP 16.58 VP 34.174 GAP -28.70 AZP 91.29 TAL 170.23 TAP 236.59 RCA 53.80 APO 153.85 V2 34.923
RC 48.266 GL -7.82 GP -5.27 ZAL 66.08 ZAP 17.89 ETS 160.89 ZAE 158.08 ETE 169.63 ZAC 91.54 ETC 256.56 CLP 17.12
PLANETOCENTRIC CONIC
C3 77.424 VHL 8.799 DLA -28.71 RAL 240.80 RAD 6569.5 VEL 14.099 PTH 2.57 VHP 17.016 DPA -15.46 RAP 210.20 ECC 2.2742

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.06	11 57 22	1359.68	10.53	354.26	130.94	116.86	12 20 2	759.7	14.06	347.33
94.94	13 19 58	1092.25	10.55	334.68	130.94	116.86	13 38 10	492.2	14.07	327.75
100.00	12 49 30	1190.42	3.45	338.07	127.10	119.71	13 9 21	590.4	7.38	331.48
100.00	15 10 31	736.74	17.80	312.04	134.53	114.42	15 22 48	136.7	20.94	304.66
110.00	12 43 39	1208.83	-4.96	334.25	121.90	123.86	13 3 48	608.8	-.48	328.03
110.00	17 32 51	5579.13	26.90	260.33	138.74	111.94	19 5 51	4979.1	29.63	252.21

DIFFERENTIAL CORRECTIONS
TDE .2735 TRA-1.3087 TC3 -.1218 BAU .1279
RDE -.7184 RRA -.0372 RC3 .0204 FAU .01595
FDE -.2110 FRA .6715 FC3 -.1783 BSP 2785
BDE .7687 BRA 1.3093 BC3 .1235 FSP -118

MID-COURSE EXECUTION ACCURACY
SGT 1010.8 SGR 470.0 SG3 52.3
RRT -.1350 RRF .1380 RTF -.7222
SGB 1114.7 R23 -.0145 R13 .7232
SG1 1013.3 SG2 464.5 THA 175.45

ORBIT DETERMINATION ACCURACY
ST 341.6 SR 467.9 SS 298.9
CRT -.5061 CRS -.6625 CST .9790
LSA 577.9 MSA 301.3 SSA 14.9
EL1 513.3 EL2 268.6 ALF 118.86

LAUNCH DATE AUG 3 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 180.795
RL 151.81 LAL -.00 LOL 310.26 VL 22.113 GAL 8.41 AZL 93.03 HCA 69.54 SMA 105.37 ECC .45980 INC 3.0271 V1 29.349
RP 108.47 LAP -2.84 LOP 19.77 VP 34.459 GAP -27.33 AZP 91.06 TAL 169.87 TAP 239.41 RCA 56.92 APO 153.82 V2 34.935
RC 46.842 GL -7.96 GP -5.51 ZAL 65.47 ZAP 16.54 ETS 158.49 ZAE 159.96 ETE 169.74 ZAC 91.62 ETC 256.70 CLP 15.62
PLANETOCENTRIC CONIC
C3 69.636 VHL 8.345 DLA -28.96 RAL 241.47 RAD 6569.3 VEL 13.820 PTH 2.52 VHP 16.271 DPA -16.32 RAP 211.72 ECC 2.1460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.65	11 48 37	1371.75	11.38	355.59	130.12	116.81	12 11 29	771.8	14.89	348.62
96.35	13 34 4	1030.59	11.40	330.59	130.13	116.80	13 51 15	430.6	14.91	323.62
100.00	13 0 7	1139.76	5.16	335.27	126.76	119.48	13 19 7	539.8	9.05	328.64
100.00	15 5 15	737.81	17.77	312.11	133.28	114.44	15 17 33	137.8	20.92	304.73
110.00	12 49 37	1172.79	-3.59	332.36	121.35	124.02	13 9 10	572.8	.90	326.15
110.00	17 32 14	5565.59	27.24	259.43	137.62	111.50	19 5 0	4965.6	29.91	251.25

DIFFERENTIAL CORRECTIONS
TDE .2701 TRA-1.2990 TC3 -.1204 BAU .1136
RDE -.6853 RRA -.0237 RC3 .0198 FAU .01644
FDE -.2147 FRA .6941 FC3 -.2044 BSP 2955
BDE .7366 BRA 1.2992 BC3 .1220 FSP -131

MID-COURSE EXECUTION ACCURACY
SGT 1055.4 SGR 472.0 SG3 57.0
RRT -.1505 RRF .1541 RTF -.7387
SGB 1156.2 R23 -.0163 R13 .7398
SG1 1058.4 SG2 465.4 THA 175.22

ORBIT DETERMINATION ACCURACY
ST 357.7 SR 470.6 SS 309.7
CRT -.5084 CRS -.6601 CST .9803
LSA 591.3 MSA 309.0 SSA 15.1
EL1 521.7 EL2 277.8 ALF 120.68

LAUNCH DATE AUG 3 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 187.301
RL 151.81 LAL -.00 LOL 310.26 VL 22.511 GAL 7.97 AZL 92.86 HCA 72.73 SMA 106.88 ECC .43880 INC 2.8567 V1 29.349
RP 108.44 LAP -2.73 LOP 22.97 VP 34.729 GAP -26.01 AZP 90.85 TAL 169.55 TAP 242.28 RCA 59.98 APO 153.78 V2 34.948
RC 45.530 GL -8.07 GP -5.77 ZAL 64.92 ZAP 15.23 ETS 155.61 ZAE 162.02 ETE 169.99 ZAC 91.68 ETC 256.85 CLP 14.13
PLANETOCENTRIC CONIC
C3 62.646 VHL 7.915 DLA -29.18 RAL 242.07 RAD 6569.2 VEL 13.565 PTH 2.48 VHP 15.553 DPA -17.20 RAP 213.25 ECC 2.0310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.66	11 43 0	1372.18	12.24	356.06	129.19	116.69	12 5 52	772.2	15.73	349.06
97.34	13 44 27	979.55	12.26	327.27	129.19	116.69	14 0 46	379.5	15.74	320.26
100.00	13 10 12	1089.46	6.84	332.48	126.28	119.17	13 28 21	489.5	10.67	325.79
100.00	14 59 56	737.49	17.78	312.09	131.92	114.44	15 12 13	137.5	20.93	304.71
110.00	12 54 53	1137.68	-2.25	330.52	120.69	124.12	13 13 51	537.7	2.24	324.32
110.00	17 31 44	5550.09	27.62	258.38	136.38	110.99	19 4 14	4950.1	30.22	250.15

DIFFERENTIAL CORRECTIONS
TDE .2672 TRA-1.2888 TC3 -.1170 BAU .0992
RDE -.6529 RRA -.0106 RC3 .0185 FAU .01698
FDE -.2185 FRA .7176 FC3 -.2347 BSP 3122
BDE .7054 BRA 1.2889 BC3 .1185 FSP -145

MID-COURSE EXECUTION ACCURACY
SGT 1101.6 SGR 473.6 SG3 62.1
RRT -.1676 RRF .1721 RTF -.7544
SGB 1199.1 R23 -.0185 R13 .7556
SG1 1105.1 SG2 465.4 THA 174.99

ORBIT DETERMINATION ACCURACY
ST 374.5 SR 472.6 SS 320.8
CRT -.5118 CRS -.6582 CST .9816
LSA 605.4 MSA 315.8 SSA 15.3
EL1 530.5 EL2 286.6 ALF 122.67

LAUNCH DATE AUG 3 1970 FLIGHT TIME 86.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 193.852

RL	151.81	LAL	-.00	LOL	310.26	VL	22.882	GAL	7.55	AZL	92.69	HCA	75.92	SMA	108.35	ECC	.41878	INC	2.6921	V1	29.349
RP	108.40	LAP	-2.61	LOP	26.16	VP	34.983	GAP	-24.76	AZP	90.66	TAL	169.21	TAP	245.18	RCA	62.97	APO	153.72	V2	34.961
RC	44.337	GL	-8.16	GP	-6.05	ZAL	64.45	ZAP	13.98	ETS	152.13	ZAE	164.24	ETE	170.48	ZAC	91.71	ETC	257.01	CLP	12.63

PLANETOCENTRIC CONIC

C3	56.372	VHL	7.508	DLA	-29.35	RAL	242.59	RAD	6569.0	VEL	13.332	PTH	2.44	VHP	14.861	DPA	-18.09	RAP	214.78	ECC	1.9277

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.93	11 39 18	1364.97	13.10	355.97	128.14	116.51	12 2 3	765.0	16.55	348.92
98.07	13 52 17	935.30	13.11	324.44	128.14	116.50	14 7 52	335.3	16.57	317.39
100.00	13 19 29	1040.43	8.45	329.74	125.66	118.78	13 36 49	440.4	12.23	322.99
100.00	14 54 48	735.07	17.84	311.94	130.48	114.39	15 7 3	135.1	20.99	304.55
110.00	12 59 22	1103.81	-.96	328.76	119.90	124.17	13 17 45	503.8	3.53	322.55
110.00	17 31 24	5532.50	28.04	257.19	135.03	110.40	19 3 37	4932.5	30.56	248.89

DIFFERENTIAL CORRECTIONS

TDE	.2652	TRA	-1.2777	TC3	-.1111	BAU	.0846
RDE	-.6212	RRA	.0019	RC3	.0164	FAU	.01759
FDE	-.2227	FRA	.7420	FC3	-.2701	BSP	3297
BDE	.6755	BRA	1.2777	BC3	-.1123	FSP	-160

MID-COURSE EXECUTION ACCURACY

SGT	1149.0	SGR	474.7	SG3	67.8		
RRT	-.1868	RRF	.1923	RTF	-.7694		
SGB	1243.2	R23	-.0208	R13	.7707		
SG1	1153.0	SG2	464.7	THA	174.73		

ORBIT DETERMINATION ACCURACY

ST	391.9	SR	474.0	SS	332.3
CRT	-.5173	CRS	-.6571	CST	.9831
LSA	620.6	MSA	321.6	SSA	15.5
EL1	540.0	EL2	294.4	ALF	124.85

LAUNCH DATE AUG 3 1970 FLIGHT TIME 88.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 200.444

RL	151.81	LAL	-.00	LOL	310.26	VL	23.226	GAL	7.13	AZL	92.53	HCA	79.11	SMA	109.77	ECC	.39975	INC	2.5318	V1	29.349
RP	108.36	LAP	-2.49	LOP	29.35	VP	35.222	GAP	-23.55	AZP	90.48	TAL	169.03	TAP	248.14	RCA	65.89	APO	153.65	V2	34.974
RC	43.276	GL	-8.22	GP	-6.36	ZAL	64.05	ZAP	12.80	ETS	147.87	ZAE	166.62	ETE	171.34	ZAC	91.70	ETC	257.18	CLP	11.13

PLANETOCENTRIC CONIC

C3	50.742	VHL	7.123	DLA	-29.49	RAL	243.03	RAD	6568.9	VEL	13.119	PTH	2.40	VHP	14.194	DPA	-19.00	RAP	216.32	ECC	1.8351

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.42	11 37 4	1351.80	13.94	355.42	126.98	116.25	11 59 36	751.8	17.35	348.33
98.58	13 58 4	896.39	13.96	321.99	126.98	116.24	14 13 0	296.4	17.37	314.89
100.00	13 27 31	994.23	9.96	327.13	124.88	118.33	13 44 5	394.2	13.67	320.31
100.00	14 50 18	729.20	18.01	311.58	128.97	114.27	15 2 27	129.2	21.13	304.18
110.00	13 2 58	1071.56	.28	327.07	118.99	124.18	13 20 50	471.6	4.76	320.86
110.00	17 31 20	5512.67	28.51	255.83	133.58	109.72	19 3 13	4912.7	30.92	247.47

DIFFERENTIAL CORRECTIONS

TDE	.2636	TRA	-1.2659	TC3	-.1024	BAU	.0700
RDE	-.5904	RRA	.0139	RC3	.0133	FAU	.01825
FDE	-.2270	FRA	.7675	FC3	-.3114	BSP	3477
BDE	.6465	BRA	1.2660	BC3	.1033	FSP	-177

MID-COURSE EXECUTION ACCURACY

SGT	1197.7	SGR	475.4	SG3	74.0		
RRT	-.2081	RRF	.2148	RTF	-.7836		
SGB	1288.6	R23	-.0236	R13	.7850		
SG1	1202.5	SG2	463.2	THA	174.45		

ORBIT DETERMINATION ACCURACY

ST	410.0	SR	474.9	SS	344.2
CRT	-.5240	CRS	-.6566	CST	.9846
LSA	636.6	MSA	326.4	SSA	15.7
EL1	550.3	EL2	301.4	ALF	127.14

LAUNCH DATE AUG 3 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 207.071

RL	151.81	LAL	-.00	LOL	310.26	VL	23.547	GAL	6.73	AZL	92.37	HCA	82.30	SMA	111.15	ECC	.38169	INC	2.3749	V1	29.349
RP	108.32	LAP	-2.35	LOP	32.55	VP	35.447	GAP	-22.39	AZP	90.32	TAL	168.85	TAP	251.15	RCA	68.73	APO	153.58	V2	34.987
RC	42.355	GL	-8.24	GP	-6.70	ZAL	63.72	ZAP	11.71	ETS	142.66	ZAE	169.14	ETE	172.90	ZAC	91.65	ETC	257.36	CLP	9.62

PLANETOCENTRIC CONIC

C3	45.689	VHL	6.759	DLA	-29.57	RAL	243.40	RAD	6568.7	VEL	12.925	PTH	2.36	VHP	13.551	DPA	-19.93	RAP	217.84	ECC	1.7519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.11	11 36 8	1333.26	14.76	354.47	125.71	115.91	11 58 21	733.3	18.13	347.32
98.89	14 1 56	862.48	14.78	319.89	125.71	115.91	14 16 18	262.5	18.14	312.74
100.00	13 33 31	953.37	11.27	324.81	123.89	117.87	13 49 25	353.4	14.91	317.91
100.00	14 47 13	717.60	18.33	310.87	127.44	114.03	14 59 11	117.6	21.42	303.44
110.00	13 5 37	1041.33	1.43	325.50	117.95	124.16	13 22 59	441.3	5.90	319.27
110.00	17 31 37	5490.45	29.01	254.30	132.02	108.95	19 3 7	4890.4	31.31	245.85

DIFFERENTIAL CORRECTIONS

TDE	.2627	TRA	-1.2531	TC3	-.0901	BAU	.0553
RDE	-.5605	RRA	.0256	RC3	.0088	FAU	.01900
FDE	-.2317	FRA	.7943	FC3	-.3600	BSP	3663
BDE	.6190	BRA	1.2533	BC3	.0905	FSP	-197

MID-COURSE EXECUTION ACCURACY

SGT	1247.3	SGR	475.9	SG3	80.8		
RRT	-.2320	RRF	.2401	RTF	-.7971		
SGB	1335.0	R23	-.0266	R13	.7986		
SG1	1253.0	SG2	460.8	THA	174.15		

ORBIT DETERMINATION ACCURACY

ST	428.7	SR	475.2	SS	356.5
CRT	-.5328	CRS	-.6569	CST	.9863
LSA	653.9	MSA	329.9	SSA	15.9
EL1	561.6	EL2	307.0	ALF	129.53

LAUNCH DATE AUG 3 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 213.730

RL	151.81	LAL	-.00	LOL	310.26	VL	23.846	GAL	6.34	AZL	92.22	HCA	85.50	SMA	112.48	ECC	.36459	INC	2.2201	V1	29.349
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.659	GAP	-21.28	AZP	90.17	TAL	168.71	TAP	254.21	RCA	71.47	APO	153.49	V2	35.000
RC	41.583	GL	-8.23	GP	-7.08	ZAL	63.47	ZAP	10.74	ETS	136.27	ZAE	171.78	ETE	175.90	ZAC	91.56	ETC	257.56	CLP	8.11

PLANETOCENTRIC CONIC

C3	41.157	VHL	6.415	DLA	-29.60	RAL	243.69	RAD	6568.6	VEL	12.748	PTH	2.32	VHP	12.932	DPA	-20.88	RAP	219.36	ECC	1.6773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.99	11 36 24	1309.80	15.55	353.12	124.33	115.51	11 58 13	709.8	18.86	345.91
99.01	14 3 58	833.33	15.57	318.13	124.34	115.50	14 17 52	233.3	18.88	310.92
100.00	13 36 31	921.19	12.28	322.96	122.65	117.47	13 51 52	321.2	15.87	316.00
100.00	14 46 33	697.17	18.89	309.61	125.93	113.60	14 58 10	97.2	21.92	302.13
110.00	13 7 13	1013.53	2.49	324.05	116.78	124.10	13 24 7	413.5	6.95	317.80
110.00	17 32 19	5465.63	29.54	252.56	130.36	108.04	19 3 25	4865.6	31.72	244.03

DIFFERENTIAL CORRECTIONS

TDE	.2622	TRA	-1.2400	TC3	-.0738	BAU	.0406
RDE	-.5316	RRA	.0371	RC3	.0027	FAU	.01982
FDE	-.2366	FRA	.8227	FC3	-.4170	BSP	3849
BDE	.5927	BRA	1.2405	BC3	.0739	FSP	-218

MID-COURSE EXECUTION ACCURACY

SGT	1298.5	SGR	476.3	SG3	88.3		
RRT	-.2587	RRF	.2684	RTF	-.8100		
SGB	1383.1	R23	-.0301	R13	.8117		
SG1	1305.1	SG2	457.7	THA	173.82		

ORBIT DETERMINATION ACCURACY

ST	448.1	SR	474.9	SS	369.2
CRT	-.5428	CRS	-.6578	CST	.9880
LSA	672.3	MSA	332.2	SSA	16.0
EL1	573.9	EL2	311.4	ALF	131.95

LAUNCH DATE AUG 3 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 220.415

RL	151.81	LAL	-.00	LOL	310.26	VL	24.123	GAL	5.96	AZL	92.07	HCA	88.69	SMA	113.76	ECC	.34843	INC	2.0666	V1	29.349
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.858	GAP	-20.21	AZP	90.05	TAL	168.62	TAP	257.31	RCA	74.12	APO	153.40	V2	35.013
RC	40.971	GL	-8.17	GP	-7.50	ZAL	63.29	ZAP	9.96	ETS	128.54	ZAE	174.46	ETE	182.58	ZAC	91.42	ETC	257.76	CLP	6.57

PLANETOCENTRIC CONIC

C3	37.094	VHL	6.091	DLA	-29.57	RAL	243.90	RAD	6568.4	VEL	12.588	PTH	2.28	VHP	12.335	DPA	-21.86	RAP	220.87	ECC	1.6105		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
81.10		11 38 2		1281.00		16.30		351.36		122.86		115.02		11 59 23		681.0		19.54		344.08			
98.90		14 4 2		809.62		16.32		316.74		122.86		115.01		14 17 31		209.6		19.55		309.46			
100.00		13 35 41		900.30		12.94		321.75		121.15		117.18		13 50 41		300.3		16.48		314.75			
100.00		14 49 4		665.54		19.74		307.65		124.46		112.91		15 0 9		65.5		22.68		300.08			
110.00		13 7 40		988.63		3.44		322.74		115.49		124.03		13 24 8		388.6		7.89		316.48			
110.00		17 33 35		5438.02		30.11		250.61		128.61		107.01		19 4 13		4838.0		32.14		241.99			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2622	TRA	-1.2258	TC3	-.0527	BAU	.0263	SGT	1350.2	SGR	476.8	SG3	96.6	ST	468.0	SR	474.1	SS	382.1
RDE	-.5037	RRA	.0484	RC3	-.0055	FAU	.02074	RRT	-.2887	RRF	.3001	RTF	-.8222	CRT	-.5548	CRS	-.6593	CST	.9898
FDE	-.2417	FRA	.8527	FC3	-.4841	BSP	4048	SGB	1431.9	R23	-.0340	R13	.8241	LSA	691.8	MSA	333.2	SSA	16.2
BDE	.5678	BRA	1.2268	BC3	.0530	FSP	-242	SG1	1358.0	SG2	453.8	THA	173.44	EL1	587.4	EL2	314.3	ALF	134.33

LAUNCH DATE AUG 3 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 227.123

RL	151.81	LAL	-.00	LOL	310.26	VL	24.380	GAL	5.60	AZL	91.91	HCA	91.89	SMA	114.99	ECC	.33319	INC	1.9134	V1	29.349		
RP	108.19	LAP	-1.91	LOP	42.15	VP	36.044	GAP	-19.18	AZP	89.94	TAL	168.58	TAP	260.47	RCA	76.68	APO	153.31	V2	35.027		
RC	40.525	GL	-8.05	GP	-7.96	ZAL	63.18	ZAP	9.40	ETS	119.44	ZAE	176.97	ETE	202.74	ZAC	91.23	ETC	257.97	CLP	5.03		

PLANETOCENTRIC CONIC

C3	33.454	VHL	5.784	DLA	-29.48	RAL	244.04	RAD	6568.3	VEL	12.443	PTH	2.25	VHP	11.760	DPA	-22.87	RAP	222.35	ECC	1.5506		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
81.45		11 41 20		1246.11		17.00		349.11		121.29		114.45		12 2 6		646.1		20.15		341.77			
98.55		14 1 50		792.33		17.01		315.79		121.29		114.44		14 15 2		192.3		20.17		308.45			
100.00		13 31 7		890.70		13.23		321.19		119.41		117.05		13 45 57		290.7		16.76		314.17			
100.00		14 54 44		622.98		20.85		304.97		123.03		111.92		15 5 7		23.0		23.64		297.29			
110.00		13 6 52		967.07		4.26		321.61		114.07		123.95		13 22 59		367.1		8.69		315.33			
110.00		17 35 28		5407.41		30.70		248.42		126.76		105.84		19 5 35		4807.4		32.56		239.70			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2617	TRA	-1.2111	TC3	-.0268	BAU	.0140	SGT	1402.6	SGR	477.6	SG3	105.7	ST	488.0	SR	472.8	SS	395.3
RDE	-.4768	RRA	.0597	RC3	-.0162	FAU	.02176	RRT	-.3216	RRF	.3354	RTF	-.8335	CRT	-.5673	CRS	-.6610	CST	.9915
FDE	-.2467	FRA	.8848	FC3	-.5631	BSP	4240	SGB	1481.7	R23	-.0387	R13	.8356	LSA	711.8	MSA	333.1	SSA	16.4
BDE	.5439	BRA	1.2126	BC3	.0313	FSP	-268	SG1	1412.0	SG2	449.2	THA	173.04	EL1	601.6	EL2	315.8	ALF	136.60

LAUNCH DATE AUG 3 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 233.849

RL	151.81	LAL	-.00	LOL	310.26	VL	24.618	GAL	5.24	AZL	91.76	HCA	95.10	SMA	116.17	ECC	.31886	INC	1.7595	V1	29.349		
RP	108.15	LAP	-1.75	LOP	45.36	VP	36.219	GAP	-18.18	AZP	89.84	TAL	168.59	TAP	263.69	RCA	79.13	APO	153.21	V2	35.040		
RC	40.252	GL	-7.87	GP	-8.47	ZAL	63.14	ZAP	9.15	ETS	109.25	ZAE	177.83	ETE	270.00	ZAC	90.97	ETC	258.18	CLP	3.45		

PLANETOCENTRIC CONIC

C3	30.195	VHL	5.495	DLA	-29.31	RAL	244.10	RAD	6568.2	VEL	12.311	PTH	2.22	VHP	11.207	DPA	-23.90	RAP	223.82	ECC	1.4969		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
82.12		11 46 49		1203.53		17.62		346.25		119.63		113.80		12 6 53		603.5		20.69		338.84			
97.88		13 56 51		783.34		17.63		315.42		119.63		113.79		14 9 54		183.3		20.70		308.01			
100.00		13 23 29		890.30		13.25		321.17		117.47		117.04		13 38 19		290.3		16.77		314.15			
100.00		15 2 52		5859.85		22.11		279.60		121.58		110.64		16 40 32		5259.8		24.72		271.78			
110.00		13 4 45		949.30		4.94		320.68		112.53		123.87		13 20 34		349.3		9.35		314.37			
110.00		17 38 5		5373.61		31.30		245.97		124.83		104.50		19 7 39		4773.6		32.97		237.15			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2620	TRA	-1.1960	TC3	.0058	BAU	.0124	SGT	1456.0	SGR	479.1	SG3	115.8	ST	508.6	SR	471.1	SS	408.7
RDE	-.4511	RRA	.0711	RC3	-.0301	FAU	.02290	RRT	-.3587	RRF	.3748	RTF	-.8444	CRT	-.5820	CRS	-.6635	CST	.9932
FDE	-.2518	FRA	.9193	FC3	-.6565	BSP	4440	SGB	1532.8	R23	-.0438	R13	.8467	LSA	733.0	MSA	331.7	SSA	16.6
BDE	.5217	BRA	1.1981	BC3	.0307	FSP	-297	SG1	1467.2	SG2	443.8	THA	172.59	EL1	617.2	EL2	315.7	ALF	138.76

LAUNCH DATE AUG 3 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 240.591

RL	151.81	LAL	-.00	LOL	310.26	VL	24.839	GAL	4.91	AZL	91.60	HCA	98.30	SMA	117.29	ECC	.30540	INC	1.6039	V1	29.349		
RP	108.11	LAP	-1.59	LOP	48.56	VP	36.382	GAP	-17.22	AZP	89.77	TAL	168.64	TAP	266.95	RCA	81.47	APO	153.11	V2	35.053		
RC	40.156	GL	-7.62	GP	-9.05	ZAL	63.18	ZAP	9.23	ETS	98.58	ZAE	175.72	ETE	310.38	ZAC	90.64	ETC	258.40	CLP	1.86		

PLANETOCENTRIC CONIC

C3	27.279	VHL	5.223	DLA	-29.05	RAL	244.10	RAD	6568.1	VEL	12.192	PTH	2.19	VHP	10.676	DPA	-24.98	RAP	225.26	ECC	1.4489		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
83.23		11 55 41		1149.59		18.16		342.51		117.89		113.07		12 14 50		549.6		21.12		335.04			
96.77		13 47 56		786.54		18.17		315.90		117.89		113.06		14 1 2		186.5		21.14		308.42			
100.00		13 13 35		896.92		13.04		321.56		115.40		117.14		13 28 31		296.9		16.58		314.55			
100.00		15 12 43		5802.49		23.44		275.86		120.07		109.10		16 49 25		5202.5		25.83		267.87			
110.00		13 1 14		935.74		5.45		319.97		110.88		123.80		13 16 50		335.7		9.86		313.64			
110.00		17 41 32		5336.43		31.90		243.24		122.81		102.99		19 10 29		4736.4		33.36		234.32			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2616	TRA	-1.1800	TC3	.0448	BAU	.0239	SGT	1509.0	SGR	481.8	SG3	127.0	ST	528.8	SR	468.9	SS	422.1
RDE	-.4265	RRA	.0827	RC3	-.0478	FAU	.02415	RRT	-.3993	RRF	.4182	RTF	-.8546	CRT	-.5972	CRS	-.6659	CST	.9947
FDE	-.2565	FRA	.9565	FC3	-.7663	BSP	4636	SGB	1584.1	R23	-.0497	R13	.8572	LSA	754.3	MSA	329.3	SSA	16.8
BDE	.5003	BRA	1.1829	BC3	.0655	FSP	-329	SG1	1522.3	SG2	437.8	THA	172.08	EL1	633.1	EL2	314.1	ALF	140.71

LAUNCH DATE AUG 3 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 247.343

RL	151.81	LAL	-.00	LOL	310.26	VL	25.044	GAL	4.58	AZL	91.45	HCA	101.51	SMA	118.36	ECC	.29279	INC	1.4457	V1	29.349
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.535	GAP	-16.30	AZP	89.71	TAL	168.75	TAP	270.26	RCA	83.70	APO	153.01	V2	35.066
RC	40.238	GL	-7.28	GP	-9.69	ZAL	63.28	ZAP	9.69	ETS	88.25	ZAE	172.92	ETE	321.26	ZAC	90.24	ETC	258.63	CLP	.23

PLANETOCENTRIC CONIC

C3	24.673	VHL	4.967	DLA	-28.70	RAL	244.02	RAD	6568.0	VEL	12.085	PTH	2.16	VHP	10.165	DPA	-26.10	RAP	226.66	ECC	1.4061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.15	12 10 58	1074.46	18.60	337.18	116.07	112.26	12 28 53	474.5	21.45	329.64
94.85	13 32 2	812.01	18.61	317.96	116.08	112.24	13 45 34	212.0	21.46	310.43
100.00	13 1 54	909.14	12.66	322.26	113.23	117.31	13 17 3	309.1	16.22	315.28
100.00	15 23 48	5740.60	24.76	271.73	118.46	107.31	16 59 28	5140.6	26.89	263.58
110.00	12 56 18	926.77	5.79	319.50	109.13	123.75	13 11 45	326.8	10.19	313.16
110.00	17 45 53	5295.75	32.48	240,21	120.70	101.28	19 14 9	4695.7	33.70	231.19

DIFFERENTIAL CORRECTIONS

TDE	.2623	TRA	-1.1591	TC3	.0933	BAU	.0385
RDE	-.4029	RRA	.0949	RC3	-.0702	FAU	.02554
FDE	-.2607	FRA	.9968	FC3	-.8963	BSP	4873
BDE	.4808	BRA	1.1630	BC3	.1167	FSP	-365

MID-COURSE EXECUTION ACCURACY

SGT	1556.6	SGR	486.2	SG3	139.4		
RRT	-.4455	RRF	.4659	RTF	-.8648		
SGB	1630.8	R23	-.0543	R13	.8678		
SG1	1572.9	SG2	430.8	THA	171.43		

ORBIT DETERMINATION ACCURACY

ST	548.3	SR	466.3	SS	435.4
CRT	-.6169	CRS	-.6685	CST	.9965
LSA	775.8	MSA	324.8	SSA	16.9
EL1	649.7	EL2	309.7	ALF	142.39

LAUNCH DATE AUG 3 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 254.103

RL	151.81	LAL	-.00	LOL	310.26	VL	25.233	GAL	4.27	AZL	91.28	HCA	104.72	SMA	119.37	ECC	.28101	INC	1.2837	V1	29.349
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.677	GAP	-15.41	AZP	89.67	TAL	168.90	TAP	273.62	RCA	85.83	APO	152.92	V2	35.079
RC	40.497	GL	-6.85	GP	-10.41	ZAL	63.45	ZAP	10.50	ETS	78.96	ZAE	170.02	ETE	325.28	ZAC	89.74	ETC	258.85	CLP	-1.43

PLANETOCENTRIC CONIC

C3	22.348	VHL	4.727	DLA	-28.23	RAL	243.88	RAD	6567.9	VEL	11.989	PTH	2.14	VHP	9.675	DPA	-27.28	RAP	228.01	ECC	1.3678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 31 34	981.97	17.37	329.87	113.54	112.72	12 47 56	382.0	20.30	322.42
90.00	13 10 21	856.15	20.49	321.97	114.83	109.98	13 24 37	256.2	23.03	314.21
100.00	12 48 46	926.26	12.12	323.25	111.00	117.53	13 4 13	326.3	15.72	316.30
100.00	15 35 50	5675.14	26.01	267.27	116.74	105.28	17 10 25	5075.1	27.85	258.96
110.00	12 49 53	922.75	5.94	319.28	107.30	123.72	13 5 16	322.8	10.34	312.94
110.00	17 51 12	5251.41	33.02	236.87	118.50	99.37	19 18 44	4651.4	33.97	227.75

DIFFERENTIAL CORRECTIONS

TDE	.2600	TRA	-1.1464	TC3	.1465	BAU	.0527
RDE	-.3804	RRA	.1077	RC3	-.0983	FAU	.02709
FDE	-.2637	FRA	1.0407	FC3	-1.0493	BSP	5051
BDE	.4608	BRA	1.1515	BC3	.1764	FSP	-406

MID-COURSE EXECUTION ACCURACY

SGT	1614.1	SGR	493.1	SG3	153.0		
RRT	-.4923	RRF	.5173	RTF	-.8731		
SGB	1687.8	R23	-.0638	R13	.8766		
SG1	1633.6	SG2	424.1	THA	170.82		

ORBIT DETERMINATION ACCURACY

ST	568.4	SR	463.2	SS	448.2
CRT	-.6317	CRS	-.6705	CST	.9975
LSA	797.0	MSA	321.1	SSA	17.2
EL1	666.2	EL2	306.4	ALF	144.04

LAUNCH DATE AUG 3 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 260.867

RL	151.81	LAL	-.00	LOL	310.26	VL	25.408	GAL	3.98	AZL	91.12	HCA	107.93	SMA	120.33	ECC	.27003	INC	1.1166	V1	29.349
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.810	GAP	-14.54	AZP	89.66	TAL	169.09	TAP	277.02	RCA	87.84	APO	152.82	V2	35.092
RC	40.930	GL	-6.30	GP	-11.21	ZAL	63.69	ZAP	11.64	ETS	71.06	ZAE	167.14	ETE	326.90	ZAC	89.14	ETC	259.08	CLP	-3.14

PLANETOCENTRIC CONIC

C3	20.277	VHL	4.503	DLA	-27.64	RAL	243.69	RAD	6567.8	VEL	11.902	PTH	2.11	VHP	9.206	DPA	-28.52	RAP	229.31	ECC	1.3337

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 55 54	1072.38	14.91	335.37	110.48	114.36	12 13 47	472.4	18.07	328.12
90.00	13 44 29	718.93	23.41	312.97	113.82	106.40	13 56 28	118.9	25.44	304.89
100.00	12 34 23	948.00	11.44	324.50	108.73	117.81	12 50 11	348.0	15.07	317.59
100.00	15 48 41	5606.58	27.15	262.50	114.90	103.01	17 22 8	5006.6	28.67	254.02
110.00	12 42 1	924.03	5.90	319.35	105.40	123.73	12 57 25	324.0	10.29	313.01
110.00	17 57 33	5203.32	33.50	233.19	116.21	97.25	19 24 16	4603.3	34.14	224.01

DIFFERENTIAL CORRECTIONS

TDE	.2577	TRA	-1.1297	TC3	.2095	BAU	.0673
RDE	-.3589	RRA	.1217	RC3	-.1335	FAU	.02880
FDE	-.2652	FRA	1.0891	FC3	-1.2296	BSP	5249
BDE	.4418	BRA	1.1362	BC3	.2484	FSP	-450

MID-COURSE EXECUTION ACCURACY

SGT	1666.1	SGR	503.6	SG3	168.1		
RRT	-.5435	RRF	.5721	RTF	-.8814		
SGB	1740.6	R23	-.0727	R13	.8854		
SG1	1690.0	SG2	416.7	THA	170.06		

ORBIT DETERMINATION ACCURACY

ST	586.9	SR	459.7	SS	460.5
CRT	-.6496	CRS	-.6719	CST	.9984
LSA	817.2	MSA	316.0	SSA	17.4
EL1	682.2	EL2	300.7	ALF	145.40

LAUNCH DATE AUG 3 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 267.633

RL	151.81	LAL	-.00	LOL	310.26	VL	25.569	GAL	3.70	AZL	90.94	HCA	111.15	SMA	121.23	ECC	.25982	INC	.9433	V1	29.349
RP	107.95	LAP	-.88	LOP	61.41	VP	36.933	GAP	-13.71	AZP	89.66	TAL	169.32	TAP	280.47	RCA	89.73	APO	152.73	V2	35.105
RC	41.530	GL	-5.62	GP	-12.12	ZAL	64.00	ZAP	13.06	ETS	64.59	ZAE	164.33	ETE	327.37	ZAC	88.43	ETC	259.30	CLP	-4.89

PLANETOCENTRIC CONIC

C3	18.434	VHL	4.294	DLA	-26.91	RAL	243.45	RAD	6567.7	VEL	11.824	PTH	2.09	VHP	8.758	DPA	-29.83	RAP	230.55	ECC	1.3034

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 30 57	1129.15	13.29	338.75	107.84	115.24	11 49 46	529.2	16.58	331.62
90.00	14 7 32	617.10	25.20	306.04	112.25	103.37	14 17 49	17.1	26.79	297.74
100.00	12 18 51	974.40	10.59	326.01	106.46	118.12	12 35 6	374.4	14.27	319.15
100.00	16 2 19	5535.13	28.14	257.42	112.94	100.51	17 34 34	4935.1	29.31	248.81
110.00	12 32 42	930.92	5.64	319.71	103.45	123.77	12 48 13	330.9	10.03	313.38
110.00	18 4 57	5151.36	33.87	229.18	113.85	94.90	19 30 49	4551.4	34.18	219.95

DIFFERENTIAL CORRECTIONS

TDE	.2541	TRA	-1.1126	TC3	.2816	BAU	.0820
RDE	-.3383	RRA	.1369	RC3	-.1772	FAU	.03069
FDE	-.2643	FRA	1.1421	FC3	-1.4411	BSP	5445
BDE	.4231	BRA	1.1210	BC3	.3327	FSP	-500

MID-COURSE EXECUTION ACCURACY

SGT	1716.3	SGR	518.6	SG3	184.8		
RRT	-.5966	RRF	.6289	RTF	-.8891		
SGB	1792.9	R23	-.0827	R13	.8937		
SG1	1745.6	SG2	409.2	THA	169.18		

ORBIT DETERMINATION ACCURACY

ST	603.7	SR	455.6	SS	471.8
CRT	-.6681	CRS	-.6721	CST	.9988
LSA	835.6	MSA	310.2	SSA	17.7
EL1	697.1	EL2	293.6	ALF	146.56

LAUNCH DATE AUG 3 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 274.397

RL	151.81	LAL	-.00	LOL	310.26	VL	25.717	GAL	3.44	AZL	90.76	MCA	114.36	SMA	122.08	ECC	.25035	INC	.7622	V1	29.349
RP	107.91	LAP	-.69	LOP	64.62	VP	37.048	GAP	-12.91	AZP	89.69	TAL	169.59	TAP	283.95	RCA	91.52	APO	152.64	V2	35.117
RC	42.291	GL	-4.78	GP	-13.15	ZAL	64.36	ZAP	14.73	ETS	59.41	ZAE	161.62	ETE	327.16	ZAC	87.59	ETC	259.52	CLP	-6.70

PLANETOCENTRIC CONIC

C3	16.800	VHL	4.099	DLA	-26.01	RAL	243.18	RAD	6567.7	VEL	11.755	PTH	2.07	VHP	8.330	DPA	-31.24	RAP	231.70	ECC	1.2765

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 8 6	1180.45	11.78	341.76	105.34	115.94	11 27 47	580.5	15.17	334.73
90.00	14 28 10	5810.75	26.52	277.35	110.43	100.31	16 5 1	5210.8	27.67	268.88
100.00	12 2 14	1005.66	9.59	327.78	104.19	118.45	12 19 0	405.7	13.31	320.97
100.00	16 16 44	5460.78	28.95	252.04	110.87	97.79	17 47 45	4860.8	29.73	243.32
110.00	12 21 57	943.77	5.15	320.39	101.49	123.84	12 37 41	343.8	9.56	314.08
110.00	18 13 30	5095.43	34.11	224.83	111.40	92.34	19 38 25	4495.4	34.06	215.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2489	TRA	-1.0951	TC3	.3633	BAU	.0967	SGT	1763.8	SGR	539.8	SG3	203.3	ST	618.3	SR	450.9	SS	481.6
RDE	-.3184	RRA	.1539	RC3	-.2313	FAU	.03276	RRT	-.6502	RRF	.6861	RTF	-.8964	CRT	-.6873	CRS	-.6706	CST	.9986
FDE	-.2602	FRA	1.2005	FC3	-1.6881	BSP	5649	SGB	1844.6	R23	-.0938	R13	.9017	LSA	851.4	MSA	303.9	SSA	18.0
BDE	.4041	BRA	1.1058	BC3	.4307	FSP	-556	SG1	1800.3	SG2	401.8	THA	168.15	EL1	710.1	EL2	285.2	ALF	147.52

LAUNCH DATE AUG 3 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 281.158

RL	151.81	LAL	-.00	LOL	310.26	VL	25.853	GAL	3.19	AZL	90.57	MCA	117.58	SMA	122.87	ECC	.24159	INC	.5713	V1	29.349
RP	107.88	LAP	-.51	LOP	67.84	VP	37.154	GAP	-12.13	AZP	89.74	TAL	169.89	TAP	287.47	RCA	93.19	APO	152.56	V2	35.129
RC	43.202	GL	-3.77	GP	-14.31	ZAL	64.79	ZAP	16.63	ETS	55.32	ZAE	159.01	ETE	326.47	ZAC	86.59	ETC	259.72	CLP	-8.56

PLANETOCENTRIC CONIC

C3	15.356	VHL	3.919	DLA	-24.94	RAL	242.88	RAD	6567.6	VEL	11.694	PTH	2.06	VHP	7.924	DPA	-32.75	RAP	232.76	ECC	1.2527

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 45 49	1231.85	10.23	344.74	102.95	116.55	11 6 21	631.9	13.71	337.80
90.00	14 48 3	5718.47	27.47	270.77	108.44	97.15	16 23 22	5118.5	28.18	262.17
100.00	11 44 35	1042.15	8.40	329.83	101.98	118.79	12 1 57	442.1	12.18	323.08
100.00	16 31 59	5383.41	29.53	246.36	108.69	94.86	18 1 42	4783.4	29.89	237.58
110.00	12 9 50	962.92	4.42	321.40	99.54	123.93	12 25 53	362.9	8.85	315.10
110.00	18 23 13	5039.39	34.18	220.14	108.90	89.56	19 47 8	4435.4	33.74	210.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2419	TRA	-1.0780	TC3	.4533	BAU	.1114	SGT	1808.9	SGR	568.8	SG3	223.5	ST	629.8	SR	445.2	SS	489.8
RDE	-.2990	RRA	.1732	RC3	-.2978	FAU	.03503	RRT	-.7023	RRF	.7418	RTF	-.9030	CRT	-.7066	CRS	-.6663	CST	.9974
FDE	-.2513	FRA	1.2654	FC3	-1.9749	BSP	5842	SGB	1898.3	R23	-.1064	R13	.9094	LSA	863.7	MSA	297.5	SSA	18.3
BDE	.3843	BRA	1.0918	BC3	.5424	FSP	-617	SG1	1854.7	SG2	394.9	THA	166.94	EL1	720.4	EL2	275.4	ALF	148.31

LAUNCH DATE AUG 3 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 287.912

RL	151.81	LAL	-.00	LOL	310.26	VL	25.978	GAL	2.95	AZL	90.37	MCA	120.80	SMA	123.61	ECC	.23352	INC	.3688	V1	29.349
RP	107.84	LAP	-.32	LOP	71.06	VP	37.252	GAP	-11.37	AZP	89.81	TAL	170.22	TAP	291.02	RCA	94.75	APO	152.48	V2	35.141
RC	44.254	GL	-2.55	GP	-15.64	ZAL	65.28	ZAP	18.76	ETS	52.31	ZAE	156.51	ETE	325.38	ZAC	85.43	ETC	259.92	CLP	-10.50

PLANETOCENTRIC CONIC

C3	14.086	VHL	3.753	DLA	-23.65	RAL	242.56	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	7.541	DPA	-34.38	RAP	233.70	ECC	1.2318

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 23 29	1285.91	8.57	347.85	100.68	117.09	10 44 55	685.9	12.13	340.98
90.00	15 7 54	5625.97	28.08	264.07	106.33	93.84	16 41 40	5026.0	28.31	255.41
100.00	11 25 55	1084.35	7.00	332.19	99.83	119.13	11 44 0	484.4	10.84	325.50
100.00	16 48 8	5302.76	29.85	240.39	106.43	91.73	18 16 31	4702.8	29.77	231.59
110.00	11 56 23	988.81	3.44	322.75	97.63	124.03	12 12 52	388.8	7.88	316.48
110.00	18 34 10	4971.06	34.03	215.13	106.36	86.60	19 57 1	4371.1	33.19	205.99

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2317	TRA	-1.0610	TC3	.5514	BAU	.1260	SGT	1850.2	SGR	607.8	SG3	245.7	ST	637.8	SR	438.1	SS	496.0
RDE	-.2797	RRA	.1954	RC3	-.3795	FAU	.03750	RRT	-.7511	RRF	.7939	RTF	-.9091	CRT	-.7265	CRS	-.6587	CST	.9944
FDE	-.2362	FRA	1.3371	FC3	-2.3049	BSP	6039	SGB	1947.5	R23	-.1201	R13	.9167	LSA	871.5	MSA	291.2	SSA	18.6
BDE	.3632	BRA	1.0789	BC3	.6693	FSP	-685	SG1	1908.2	SG2	389.0	THA	165.52	EL1	727.3	EL2	263.9	ALF	148.94

LAUNCH DATE AUG 3 1970 FLIGHT TIME 116.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 294.657

RL	151.81	LAL	-.00	LOL	310.26	VL	26.092	GAL	2.73	AZL	90.15	MCA	124.02	SMA	124.30	ECC	.22610	INC	.1518	V1	29.349
RP	107.81	LAP	-.13	LOP	74.28	VP	37.342	GAP	-10.64	AZP	89.91	TAL	170.57	TAP	294.59	RCA	96.20	APO	152.41	V2	35.152
RC	45.436	GL	-1.10	GP	-17.15	ZAL	65.82	ZAP	21.12	ETS	49.59	ZAE	154.11	ETE	323.95	ZAC	84.06	ETC	260.09	CLP	-12.52

PLANETOCENTRIC CONIC

C3	12.976	VHL	3.602	DLA	-22.12	RAL	242.25	RAD	6567.5	VEL	11.591	PTH	2.03	VHP	7.180	DPA	-36.17	RAP	234.50	ECC	1.2136

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 0 45	1344.31	6.74	351.17	98.54	117.57	10 23 10	744.3	10.38	344.38
90.00	15 28 9	5531.83	28.31	257.20	104.14	90.40	17 0 21	4931.8	28.07	248.54
100.00	11 6 16	1132.89	5.39	334.89	97.80	119.45	11 25 9	532.9	9.27	328.25
100.00	17 5 20	5218.48	29.86	234.13	104.12	88.44	18 32 18	4618.5	29.32	225.36
110.00	11 41 39	1021.95	2.17	324.49	95.81	124.12	11 58 41	421.9	6.64	318.24
110.00	18 46 26	4902.19	33.63	209.79	103.81	83.47	20 8 8	4302.2	32.36	200.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2191	TRA	-1.0440	TC3	.6555	BAU	.1408	SGT	1886.0	SGR	659.0	SG3	269.8	ST	640.9	SR	429.0	SS	500.0
RDE	-.2600	RRA	.2212	RC3	-.4790	FAU	.04017	RRT	-.7948	RRF	.8404	RTF	-.9147	CRT	-.7474	CRS	-.6466	CST	.9889
FDE	-.2127	FRA	1.4159	FC3	-2.6798	BSP	6236	SGB	1997.9	R23	-.1347	R13	.9238	LSA	873.6	MSA	285.3	SSA	18.9
BDE	.3400	BRA	1.0672	BC3	.8119	FSP	-759	SG1	1960.5	SG2	384.8	THA	163.84	EL1	729.5	EL2	250.4	ALF	149.44

LAUNCH DATE AUG 3 1970 FLIGHT TIME 118.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 301.393

RL	151.81	LAL	-.00	LOL	310.26	VL	26.197	GAL	2.53	AZL	89.92	HCA	127.25	SMA	124.94	ECC	.21929	INC	.0785	V1	29.349		
RP	107.77	LAP	.06	LOP	77.50	VP	37.426	GAP	-9.94	AZP	90.05	TAL	170.93	TAP	298.18	RCA	97.54	APO	152.34	V2	35.163		
RC	46.738	GL	.61	GP	-18.88	ZAL	66.41	ZAP	23.71	ETS	47.64	ZAE	151.79	ETE	322.17	ZAC	82.46	ETC	260.24	CLP	-14.63		

PLANETOCENTRIC CONIC

C3	12.017	VHL	3.467	DLA	-20.32	RAL	241.96	RAD	6567.5	VEL	11.550	PTH	2.02	VHP	6.844	DPA	-38.14	RAP	235.14	ECC	1.1978		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 37 27	1408.45	4.71	354.78	96.58	117.96	10 0 55	808.5	8.41	348.06
90.00	15 49 9	5434.96	28.16	250.12	101.92	86.86	17 19 44	4835.0	27.42	241.53
100.00	10 45 35	1188.53	3.52	337.96	95.93	119.70	11 5 24	588.5	7.45	331.38
100.00	17 23 41	5130.12	29.51	227.58	101.81	85.01	18 49 11	4530.1	28.51	218.92
110.00	11 25 40	1062.95	.61	326.63	94.11	124.18	11 43 23	463.0	5.09	320.41
110.00	19 0 6	4828.46	32.91	204.15	101.29	80.20	20 20 35	4228.5	31.21	195.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2033	TRA	-1.0280	TC3	.7606	BAU	.1555	SGT	1916.7	SGR	725.1	SG3	295.7	ST	639.2	SR	417.3	SS	502.9
RDE	-.2391	RRA	.2520	RC3	-.5989	FAU	.04296	RRT	-.8320	RRF	.8801	RTF	-.9195	CRT	-.7701	CRS	-.6292	CST	.9791
FDE	-.1784	FRA	1.5038	FC3	-3.0949	BSP	6414	SGB	2049.3	R23	-.1498	R13	.9307	LSA	869.8	MSA	280.5	SSA	19.2
BDE	.3139	BRA	1.0585	BC3	.9681	FSP	-838	SG1	2013.2	SG2	383.0	THA	161.85	EL1	726.6	EL2	234.2	ALF	149.86

LAUNCH DATE AUG 3 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 308.115

RL	151.81	LAL	-.00	LOL	310.26	VL	26.292	GAL	2.34	AZL	89.66	HCA	130.47	SMA	125.53	ECC	.21308	INC	.3356	V1	29.349		
RP	107.74	LAP	.26	LOP	80.73	VP	37.502	GAP	-9.25	AZP	90.22	TAL	171.31	TAP	301.78	RCA	98.78	APO	152.28	V2	35.174		
RC	48.150	GL	2.64	GP	-20.85	ZAL	67.07	ZAP	26.56	ETS	46.11	ZAE	149.51	ETE	320.07	ZAC	80.60	ETC	260.36	CLP	-16.83		

PLANETOCENTRIC CONIC

C3	11.202	VHL	3.347	DLA	-18.21	RAL	241.71	RAD	6567.4	VEL	11.515	PTH	2.01	VHP	6.535	DPA	-40.31	RAP	235.57	ECC	1.1844		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 23	1479.71	2.42	358.77	94.84	118.22	9 38 3	879.7	6.18	352.11
90.00	16 11 12	5334.40	27.57	242.82	99.73	83.25	17 40 6	4734.4	26.34	234.37
100.00	10 23 53	1252.23	1.36	341.46	94.25	119.86	10 44 45	652.2	5.33	334.92
100.00	17 43 23	5037.11	28.77	220.77	99.55	81.50	19 7 21	4437.1	27.29	212.28
110.00	11 8 26	1112.62	-1.29	329.22	92.59	124.16	11 26 59	512.6	3.20	323.01
110.00	19 15 19	4749.48	31.84	198.24	98.87	76.86	20 34 29	4149.5	29.71	189.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1838	TRA	-1.0124	TC3	.8662	BAU	.1709	SGT	1940.1	SGR	809.2	SG3	323.3	ST	631.6	SR	401.8	SS	505.8
RDE	-.2161	RRA	.2887	RC3	-.7428	FAU	.04590	RRT	-.8625	RRF	.9126	RTF	-.9239	CRT	-.7963	CRS	-.6065	CST	.9625
FDE	-.1299	FRA	1.5998	FC3	-3.5470	BSP	6597	SGB	2102.1	R23	-.1639	R13	.9376	LSA	859.5	MSA	277.4	SSA	19.4
BDE	.2837	BRA	1.0528	BC3	1.1411	FSP	-924	SG1	2066.6	SG2	384.5	THA	159.47	EL1	717.3	EL2	214.0	ALF	150.22

LAUNCH DATE AUG 3 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 314.824

RL	151.81	LAL	-.00	LOL	310.26	VL	26.378	GAL	2.16	AZL	89.38	HCA	133.70	SMA	126.07	ECC	.20743	INC	.6168	V1	29.349		
RP	107.71	LAP	.45	LOP	83.96	VP	37.572	GAP	-8.59	AZP	90.43	TAL	171.69	TAP	305.39	RCA	99.92	APO	152.22	V2	35.184		
RC	49.661	GL	5.02	GP	-23.13	ZAL	67.78	ZAP	29.68	ETS	44.93	ZAE	147.22	ETE	317.63	ZAC	78.43	ETC	260.43	CLP	-19.14		

PLANETOCENTRIC CONIC

C3	10.528	VHL	3.245	DLA	-15.75	RAL	241.52	RAD	6567.4	VEL	11.485	PTH	2.00	VHP	6.255	DPA	-42.74	RAP	235.74	ECC	1.1733		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 25	1559.56	-.15	3.23	93.37	118.32	9 14 25	959.6	3.63	356.59
90.00	16 34 38	5229.16	26.50	235.31	97.65	79.63	18 1 47	4629.2	24.80	227.05
100.00	10 1 4	1325.17	-1.11	345.46	92.84	119.87	10 23 9	725.2	2.87	338.94
100.00	18 4 40	4938.78	27.57	213.71	97.41	77.97	19 26 59	4338.8	25.64	205.44
110.00	10 49 59	1171.94	-3.56	332.31	91.31	124.02	11 9 31	571.9	.93	326.11
110.00	19 32 15	4664.77	30.37	192.09	96.60	73.49	20 50 0	4064.8	27.81	183.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1605	TRA	-.9971	TC3	.9630	BAU	.1867	SGT	1953.8	SGR	914.2	SG3	351.7	ST	617.9	SR	381.8	SS	512.1
RDE	-.1894	RRA	.3331	RC3	-.9121	FAU	.04882	RRT	-.8861	RRF	.9379	RTF	-.9277	CRT	-.8295	CRS	-.5831	CST	.9358
FDE	-.0638	FRA	1.7034	FC3	-4.0145	BSP	6778	SGB	2157.1	R23	-.1757	R13	.9445	LSA	844.2	MSA	277.1	SSA	19.4
BDE	.2482	BRA	1.0513	BC3	1.3263	FSP	-1012	SG1	2121.5	SG2	390.2	THA	156.64	EL1	701.7	EL2	187.8	ALF	150.54

LAUNCH DATE AUG 3 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 321.517

RL	151.81	LAL	-.00	LOL	310.26	VL	26.456	GAL	2.00	AZL	89.07	HCA	136.93	SMA	126.57	ECC	.20232	INC	.9300	V1	29.349		
RP	107.68	LAP	.64	LOP	87.19	VP	37.636	GAP	-7.94	AZP	90.68	TAL	172.07	TAP	308.99	RCA	100.96	APO	152.17	V2	35.193		
RC	51.263	GL	7.80	GP	-25.73	ZAL	68.56	ZAP	33.10	ETS	44.00	ZAE	144.86	ETE	314.86	ZAC	75.91	ETC	260.45	CLP	-21.57		

PLANETOCENTRIC CONIC

C3	9.997	VHL	3.162	DLA	-12.90	RAL	241.41	RAD	6567.4	VEL	11.462	PTH	1.99	VHP	6.010	DPA	-45.44	RAP	235.60	ECC	1.1645		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 22	1649.70	-3.06	8.26	92.25	118.16	8 49 51	1049.7	.73	1.63
90.00	16 59 48	5118.22	24.90	227.57	95.77	76.07	18 25 6	4518.2	22.74	219.57
100.00	9 37 2	1408.81	-3.94	350.06	91.76	119.66	10 0 30	808.8	.04	343.53
100.00	18 27 49	4834.35	25.88	206.41	95.48	74.49	19 48 23	4234.4	23.50	198.42
110.00	10 30 14	1242.17	-6.22	336.01	90.35	123.68	10 50 56	642.2	-1.75	329.77
110.00	19 51 6	4573.75	28.43	185.71	94.57	70.17	21 7 20	3973.8	25.47	177.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1343	TRA	-.9820	TC3	1.0469	BAU	.2037	SGT	1957.0	SGR	1044.1	SG3	380.1	ST	599.6	SR	358.3	SS	527.2
RDE	-.1573	RRA	.3871	RC3	-1.1079	FAU	.05165	RRT	-.9039	RRF	.9568	RTF	-.9308	CRT	-.8754	CRS	-.5735	CST	.8961
FDE	.0222	FRA	1.8126	FC3	-4.4726	BSP	6985	SGB	2218.1	R23	-.1832	R13	.9517	LSA	828.6	MSA	280.8	SSA	19.0
BDE	.2069	BRA	1.0555	BC3	1.5243	FSP	-1103	SG1	2181.6	SG2	400.5	THA	153.28	EL1	681.7	EL2	152.3	ALF	150.79

LAUNCH DATE AUG 3 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 328.194

RL	151.81	LAL	-.00	LOL	310.26	VL	26.526	GAL	1.85	AZL	88.72	HCA	140.15	SMA	127.02	ECC	.19770	INC	1.2835
RP	107.65	LAP	.82	LOP	90.42	VP	37.694	GAP	-7.32	AZP	90.99	TAL	172.44	TAP	312.59	RCA	101.91	APO	152.13
RC	52.948	GL	11.04	GP	-28.73	ZAL	69.41	ZAP	36.85	ETS	43.23	ZAE	142.35	ETE	311.79	ZAC	72.99	ETC	260.40

V1	29.349	V2	35.202	CLP	-24.13														

PLANETOCENTRIC CONIC

C3	9.620	VHL	3.102	DLA	-9.59	RAL	241.40	RAD	6567.3	VEL	11.446	PTH	1.99	VHP	5.804	DPA	-48.48	RAP	235.05
ECC	1.1583																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 54 56	1752.19	-6.33	14.02	91.56	117,66	8 24 9	1152.2	-2.58	7.35
90.00	17 27 8	5000.49	22.74	219.63	94.18	72.66	18 50 28	4400.5	20.15	211.91
100.00	9 11 34	1504.98	-7.15	355.39	91.11	119.10	9 36 39	905.0	-3.22	348.81
100.00	18 53 11	4722.93	23.63	198.90	93.86	71.14	20 11 54	4122.9	20.84	191.21
110.00	10 9 5	1324.87	-9.32	340.41	89.79	123.04	10 31 10	724.9	-4.90	334.10
110.00	20 12 9	4475.81	25.99	179.14	92.87	66.98	21 26 45	3875.8	22.65	171.58

DIFFERENTIAL CORRECTIONS

TDE	.1044	TRA	-.9667	TC3	1.1059	BAU	.2221
RDE	-.1167	RRA	.4533	RC3	-1.3268	FAU	.05414
FDE	.1327	FRA	1.9237	FC3	-4.8722	BSP	7218
BDE	.1566	BRA	1.0677	BC3	1.7272	FSP	-1191

MID-COURSE EXECUTION ACCURACY

SGT	1946.3	SGR	1202.1	SG3	406.9		
RRT	-.9165	RRF	.9706	RTF	-.9331		
SGB	2287.6	R23	-.1850	R13	.9590		
SG1	2249.4	SG2	416.1	THA	149.32		

ORBIT DETERMINATION ACCURACY

ST	576.9	SR	334.7	SS	557.8		
CRT	-.9349	CRS	-.6039	CST	.8447		
LSA	819.7	MSA	289.4	SSA	18.0		
EL1	658.8	EL2	104.0	ALF	150.72		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 334.852

RL	151.81	LAL	-.00	LOL	310.26	VL	26.590	GAL	1.72	AZL	88.31	HCA	143.38	SMA	127.43	ECC	.19356	INC	1.6885
RP	107.63	LAP	1.01	LOP	93.65	VP	37.746	GAP	-6.71	AZP	91.36	TAL	172.79	TAP	316.17	RCA	102.76	APO	152.09
RC	54.707	GL	14.79	GP	-32.16	ZAL	70.35	ZAP	40.94	ETS	42.54	ZAE	139.59	ETE	308.43	ZAC	69.63	ETC	260.26

V1	29.349	V2	35.210	CLP	-26.83														

PLANETOCENTRIC CONIC

C3	9.417	VHL	3.069	DLA	-5.80	RAL	241.51	RAD	6567.3	VEL	11.437	PTH	1.98	VHP	5.645	DPA	-51.87	RAP	233.97
ECC	1.1550																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 25 47	1869.57	-9.98	20.71	91.43	116.64	7 56 57	1269.6	-6.33	13.94
90.00	17 57 11	4874.75	19.96	211.46	93.02	69.48	19 18 26	4274.7	16.99	204.04
100.00	8 44 23	1616.02	-10.77	1.65	91.01	118.05	9 11 19	1016.0	-6.94	354.96
100.00	19 21 16	4603.53	20.79	191.17	92.67	68.02	20 38 0	4003.5	17.63	183.80
110.00	9 46 21	1422.03	-12.88	345.68	89.77	121.94	10 10 3	822.0	-8.56	339.24
110.00	20 35 48	4370.29	23.01	172.40	91.61	63.99	21 48 38	3770.3	19.32	165.20

DIFFERENTIAL CORRECTIONS

TDE	.0714	TRA	-.9521	TC3	1.1278	BAU	.2422
RDE	-.0636	RRA	.5352	RC3	-1.5588	FAU	.05598
FDE	.2698	FRA	2.0325	FC3	-5.1464	BSP	7462
BDE	.0956	BRA	1.0923	BC3	1.9241	FSP	-1267

MID-COURSE EXECUTION ACCURACY

SGT	1920.9	SGR	1392.3	SG3	430.1		
RRT	-.9247	RRF	.9802	RTF	-.9344		
SGB	2572.4	R23	-.1799	R13	.9664		
SG1	2351.9	SG2	436.7	THA	144.75		

ORBIT DETERMINATION ACCURACY

ST	552.8	SR	325.2	SS	611.6		
CRT	-.9901	CRS	-.7057	CST	.7910		
LSA	833.2	MSA	301.4	SSA	16.3		
EL1	640.1	EL2	39.5	ALF	149.65		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 341.490

RL	151.81	LAL	-.00	LOL	310.26	VL	26.646	GAL	1.61	AZL	87.84	HCA	146.61	SMA	127.80	ECC	.18987	INC	2.1600
RP	107.60	LAP	1.19	LOP	96.89	VP	37.793	GAP	-6.12	AZP	91.80	TAL	173.12	TAP	319.73	RCA	103.53	APO	152.06
RC	56.533	GL	19.09	GP	-36.07	ZAL	71.40	ZAP	45.38	ETS	41.84	ZAE	136.49	ETE	304.85	ZAC	65.77	ETC	260.01

V1	29.349	V2	35.218	CLP	-29.66														

PLANETOCENTRIC CONIC

C3	9.426	VHL	3.070	DLA	-1.46	RAL	241.77	RAD	6567.3	VEL	11.437	PTH	1.98	VHP	5.545	DPA	-55.65	RAP	232.17
ECC	1.1551																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 20	2005.08	-14.00	28.63	92.04	114.87	7 27 45	1405.1	-10.53	21.67
90.00	18 30 43	4739.64	16.52	203.04	92.44	66.67	19 49 43	4139.6	13.22	195.92
100.00	8 15 0	1744.88	-14.79	9.11	91.65	116.28	8 44 5	1144.9	-11.14	2.22
100.00	19 52 45	4475.07	17.32	183.21	92.07	65.25	21 7 20	3875.1	13.83	176.15
110.00	9 21 41	1536.13	-16.89	352.09	90.48	120.17	9 47 17	936.1	-12.75	345.42
110.00	21 2 33	4256.59	19.45	165.50	90.94	61.32	22 13 29	3656.6	15.47	158.64

DIFFERENTIAL CORRECTIONS

TDE	.0364	TRA	-.9367	TC3	1.1039	BAU	.2646
RDE	.0077	RRA	.6368	RC3	-1.7857	FAU	.05679
FDE	.4334	FRA	2.1287	FC3	-5.2162	BSP	7771
BDE	.0372	BRA	1.1327	BC3	2.0993	FSP	-1324

MID-COURSE EXECUTION ACCURACY

SGT	1876.7	SGR	1617.3	SG3	446.5		
RRT	-.9294	RRF	.9868	RTF	-.9347		
SGB	2477.4	R23	-.1673	R13	.9737		
SG1	2434.3	SG2	460.0	THA	139.56		

ORBIT DETERMINATION ACCURACY

ST	529.4	SR	358.4	SS	691.7		
CRT	-.9844	CRS	-.8500	CST	.7489		
LSA	888.6	MSA	312.0	SSA	13.9		
EL1	637.2	EL2	52.4	ALF	146.06		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 348.109

RL	151.81	LAL	-.00	LOL	310.26	VL	26.696	GAL	1.50	AZL	87.28	HCA	149.84	SMA	128.13	ECC	.18659	INC	2.7202
RP	107.58	LAP	1.37	LOP	100.12	VP	37.835	GAP	-5.55	AZP	92.35	TAL	173.42	TAP	323.26	RCA	104.22	APO	152.03
RC	58.419	GL	23.98	GP	-40.50	ZAL	72.59	ZAP	50.17	ETS	41.05	ZAE	132.94	ETE	301.13	ZAC	61.39	ETC	259.58

V1	29.349	V2	35.225	CLP	-32.62														

PLANETOCENTRIC CONIC

C3	9.716	VHL	3.117	DLA	3.44	RAL	242.21	RAD	6567.4	VEL	11.450	PTH	1.99	VHP	5.518	DPA	-59.82	RAP	229.33
ECC	1.1599																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 19 42	2163.01	-18.28	38.24	93.63	112.01	6 55 45	1563.0	-15.14	30.98
90.00	19 8 49	4593.61	12.38	194.31	92.66	64.33	20 25 23	3993.6	8.83	187.44
100.00	7 42 39	1895.46	-19.11	18.20	93.26	113.44	8 14 15	1295.5	-15.77	11.00
100.00	20 28 34	4336.39	13.18	174.99	92.25	62.93	21 40 50	3736.4	9.45	168.19
110.00	8 54 35	1670.32	-21.30	.00	92.15	117.39	9 22 25	1070.3	-17.46	352.98
110.00	21 33 7	4134.29	15.30	158.44	91.04	59.05	22 42 1	3534.3	11.09	151.87

DIFFERENTIAL CORRECTIONS

TDE	-.0146	TRA	-.9364	TC3	.9553	BAU	.2811
RDE	.1126	RRA	.7717	RC3	-1.9421	FAU	.05503
FDE	.6410	FRA	2.2247	FC3	-4.9031	BSP	7747
BDE	.1135	BRA	1.2134	BC3	2.1643	FSP	-1304

MID-COURSE EXECUTION ACCURACY

SGT	1824.5	SGR	1878.3	SG3	453.2		
RRT	-.9270	RRF	.9912	RTF	-.9316		
SGB	2618.6	R23	-.1502	R13	.9804		
SG1	2570.4	SG2	499.9	THA	134.10		

ORBIT DETERMINATION ACCURACY

ST	518.3	SR	475.3	SS	812.9		
CRT	-.9204	CRS	-.9515	CST	.7570		
LSA	1030.5	MSA	305.4	SSA	11.7		
EL1	689.2	EL2	139.7	ALF	137.69		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 354.704

RL	151.81	LAL	-.00	LOL	310.26	VL	26.740	GAL	1.41	AZL	86.60	HCA	153.07	SMA	128.42	ECC	.18371	INC	3.4009	V1	29.349
RP	107.56	LAP	1.54	LOP	103.36	VP	37.872	GAP	-4.99	AZP	93.03	TAL	173.69	TAP	326.76	RCA	104.83	APO	152.01	V2	35.232
RC	60.358	GL	29.45	GP	-45.46	ZAL	73.93	ZAP	55.27	ETS	40.04	ZAE	128.86	ETE	297.36	ZAC	56.47	ETC	258.94	CLP	-35.69

PLANETOCENTRIC CONIC

C3	10.402	VHL	3.225	DLA	8.91	RAL	242.83	RAD	6567.4	VEL	11.480	PTH	2.00	VHP	5.587	DPA	-64.33	RAP	224.91	ECC	1.1712

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 40 16	2349.76	-22.60	50.23	96.51	107.53	6 19 26	1749.8	-19.99	42.53
90.00	19 53 12	4434.11	7.52	185.12	93.92	62.62	21 7 7	3834.1	3.79	178.42
100.00	7 5 57	2073.40	-23.51	29.58	96.18	109.01	7 40 31	1473.4	-20.70	21.91
100.00	21 10 12	4185.69	8.36	166.40	93.47	61.20	22 19 58	3585.7	4.46	159.79
110.00	8 24 5	1828.89	-25.92	10.00	95.16	113.11	8 54 34	1228.9	-22.56	2.45
110.00	22 8 34	4002.97	10.58	151.20	92.13	57.30	23 15 17	3403.0	6.19	144.85

DIFFERENTIAL CORRECTIONS

TDE	-.0395	TRA	-.9108	TC3	.8492	BAU	.3107
RDE	.2420	RRA	.9261	RC3	-2.0660	FAU	.05291
FDE	.8240	FRA	2.2455	FC3	-4.4030	BSP	8390
BDE	.2452	BRA	1.2989	BC3	2.2338	FSP	-1309

MID-COURSE EXECUTION ACCURACY

SGT	1728.4	SGR	2175.7	SG3	444.9		
RRT	-.9274	RRF	.9942	RTF	-.9294		
SGB	2778.7	R23	-.1252	R13	.9865		
SG1	2730.5	SG2	515.2	THA	127.97		

ORBIT DETERMINATION ACCURACY

ST	496.6	SR	660.3	SS	918.1
CRT	-.8426	CRS	-.9857	CST	.7404
LSA	1196.2	MSA	307.7	SSA	9.0
EL1	795.8	EL2	221.9	ALF	125.54

LAUNCH DATE AUG 3 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 361.274

RL	151.81	LAL	-.00	LOL	310.26	VL	26.779	GAL	1.34	AZL	85.75	HCA	156.29	SMA	128.68	ECC	.18120	INC	4.2519	V1	29.349
RP	107.54	LAP	1.71	LOP	106.60	VP	37.905	GAP	-4.45	AZP	93.89	TAL	173.92	TAP	330.21	RCA	105.36	APO	151.99	V2	35.238
RC	62.346	GL	35.47	GP	-50.94	ZAL	75.45	ZAP	60.59	ETS	38.73	ZAE	124.19	ETE	293.63	ZAC	51.04	ETC	257.99	CLP	-38.81

PLANETOCENTRIC CONIC

C3	11.700	VHL	3.421	DLA	14.89	RAL	243.65	RAD	6567.4	VEL	11.536	PTH	2.01	VHP	5.786	DPA	-69.05	RAP	217.86	ECC	1.1926

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 53 4	2575.89	-26.38	65.70	101.09	100.68	5 36 0	1975.9	-24.64	57.46
90.00	20 47 1	4256.28	1.85	175.12	96.67	61.74	21 57 57	3656.3	-1.94	168.49
100.00	6 22 28	2287.61	-27.47	44.25	100.84	102.28	7 0 35	1687.6	-25.50	36.00
100.00	22 0 18	4019.79	2.83	157.20	96.13	60.23	23 7 18	3419.8	-1.16	150.67
110.00	7 48 40	2017.87	-30.31	22.93	100.01	106.62	8 22 18	1417.9	-27.74	14.68
110.00	22 50 35	3862.30	5.32	143.70	94.58	56.18	23 54 57	3262.3	-.84	137.48

DIFFERENTIAL CORRECTIONS

TDE	-.0594	TRA	-.8849	TC3	.6849	BAU	.3399
RDE	.4209	RRA	1.1206	RC3	-2.0625	FAU	.04845
FDE	1.0000	FRA	2.2150	FC3	-3.5850	BSP	9068
BDE	.4250	BRA	1.4278	BC3	2.1733	FSP	-1256

MID-COURSE EXECUTION ACCURACY

SGT	1606.7	SGR	2502.0	SG3	419.4		
RRT	-.9229	RRF	.9962	RTF	-.9237		
SGB	2973.5	R23	-.0998	R13	.9912		
SG1	2926.0	SG2	529.1	THA	121.82		

ORBIT DETERMINATION ACCURACY

ST	471.0	SR	915.6	SS	1017.0
CRT	-.7858	CRS	-.9961	CST	.7282
LSA	1414.8	MSA	304.5	SSA	6.8
EL1	994.0	EL2	268.3	ALF	113.85

LAUNCH DATE AUG 3 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 367.817

RL	151.81	LAL	-.00	LOL	310.26	VL	26.813	GAL	1.28	AZL	84.65	HCA	159.51	SMA	128.90	ECC	.17904	INC	5.3532	V1	29.349
RP	107.53	LAP	1.87	LOP	109.85	VP	37.933	GAP	-3.92	AZP	95.02	TAL	174.10	TAP	333.61	RCA	105.82	APO	151.98	V2	35.243
RC	64.375	GL	41.91	GP	-56.91	ZAL	77.15	ZAP	66.00	ETS	37.03	ZAE	118.92	ETE	290.05	ZAC	45.13	ETC	256.60	CLP	-41.85

PLANETOCENTRIC CONIC

C3	14.017	VHL	3.744	DLA	21.27	RAL	244.70	RAD	6567.6	VEL	11.636	PTH	2.04	VHP	6.169	DPA	-73.70	RAP	206.02	ECC	1.2307

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 50 40	2865.58	-28.31	86.62	107.57	90.41	4 38 26	2265.6	-27.96	77.97
90.00	21 57 44	4044.15	-4.97	163.27	101.66	62.09	23 5 8	3444.1	-8.67	156.54
100.00	5 26 30	2556.56	-29.81	63.84	107.53	92.26	6 9 7	1956.6	-29.18	55.10
100.00	23 4 35	3828.40	-3.66	146.69	100.93	60.31	24 8 23	3228.4	-7.58	140.10
110.00	7 5 16	2247.55	-33.54	40.02	107.18	97.01	7 42 44	1647.6	-32.21	31.04
110.00	23 42 18	3710.17	-.48	135.75	98.95	55.82	24 44 8	3110.2	-4.96	129.53

DIFFERENTIAL CORRECTIONS

TDE	-.0668	TRA	-.8554	TC3	.4821	BAU	.3653
RDE	.6683	RRA	1.3669	RC3	-1.8887	FAU	.04150
FDE	1.1450	FRA	2.1207	FC3	-2.5631	BSP	9811
BDE	.6717	BRA	1.6125	BC3	1.9493	FSP	-1144

MID-COURSE EXECUTION ACCURACY

SGT	1454.1	SGR	2843.4	SG3	375.4		
RRT	-.9115	RRF	.9974	RTF	-.9123		
SGB	3193.6	R23	-.0748	R13	.9946		
SG1	3147.6	SG2	540.4	THA	115.81		

ORBIT DETERMINATION ACCURACY

ST	433.8	SR	1225.3	SS	1087.8
CRT	-.7314	CRS	-.9990	CST	.7003
LSA	1668.4	MSA	298.7	SSA	5.1
EL1	1268.0	EL2	285.9	ALF	105.31

LAUNCH DATE AUG 3 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 374.330

RL	151.81	LAL	-.00	LOL	310.26	VL	26.841	GAL	1.24	AZL	83.16	HCA	162.72	SMA	129.10	ECC	.17720	INC	6.8442	V1	29.349
RP	107.51	LAP	2.03	LOP	113.09	VP	37.958	GAP	-3.41	AZP	96.54	TAL	174.23	TAP	336.95	RCA	106.22	APO	151.97	V2	35.247
RC	66.441	GL	48.56	GP	-63.30	ZAL	79.02	ZAP	71.31	ETS	34.93	ZAE	113.04	ETE	286.72	ZAC	38.83	ETC	254.55	CLP	-44.50

PLANETOCENTRIC CONIC

C3	18.200	VHL	4.266	DLA	27.84	RAL	245.93	RAD	6567.7	VEL	11.814	PTH	2.09	VHP	6.825	DPA	-77.53	RAP	185.09	ECC	1.2995

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 46 53	3365.25	-23.37	122.08	114.09	73.54	2 42 59	2765.2	-25.41	114.00
90.00	0 15 18	3663.05	-16.38	141.10	111.40	66.57	1 16 21	3063.1	-19.41	133.73
100.00	3 55 18	2951.28	-27.32	92.75	115.23	77.37	4 44 30	2351.3	-28.79	84.25
100.00	0 49 34	3552.25	-12.69	131.16	109.59	62.71	1 48 46	2952.3	-16.25	124.18
110.00	6 6 8	2541.83	-33.64	62.90	116.46	83.54	6 48 30	1941.8	-34.17	53.69
110.00	0 55 14	3534.46	-7.16	126.53	106.30	56.49	1 54 8	2934.5	-11.52	120.14

DIFFERENTIAL CORRECTIONS

TDE	-.0489	TRA	-.8227	TC3	.2847	BAU	.3826
RDE	1.0118	RRA	1.6880	RC3	-1.5465	FAU	.03261
FDE	1.2329	FRA	1.9647	FC3	-1.5514	BSP	10569
BDE	1.0130	BRA	1.8778	BC3	1.5725	FSP	-977

MID-COURSE EXECUTION ACCURACY

SGT	1274.6	SGR	3187.5	SG3	316.3		
RRT	-.8893	RRF	.9982	RTF	-.8914		
SGB	3432.9	R23	-.0511	R13	.9970		
SG1	3388.8	SG2	548.2	THA	110.13		

ORBIT DETERMINATION ACCURACY

ST	380.6	SR	1561.9	SS	1110.2
CRT	-.6356	CRS	-.9998	CST	.6205
LSA	1931.5	MSA	293.6	SSA	3.8
EL1	1581.2	EL2	290.3	ALF	99.11

LAUNCH DATE AUG 3 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 380.803

RL	151.81	LAL	-.00	LOL	310.26	VL	26.865	GAL	1.21	AZL	81.01	HCA	165.91	SMA	129.26	ECC	.17567	INC	8.9895	V1	29.349
RP	107.50	LAP	2.18	LOP	116.33	VP	37.978	GAP	-2.92	AZP	98.72	TAL	174.30	TAP	340.21	RCA	106.55	APO	151.97	V2	35.251
RC	68.539	GL	55.08	GP	-70.09	ZAL	81.00	ZAP	76.31	ETS	32.61	ZAE	106.55	ETE	283.89	ZAC	32.22	ETC	251.48	CLP	-45.96

PLANETOCENTRIC CONIC

C3	26.198	VHL	5.118	DLA	34.28	RAL	247.28	RAD	6568.1	VEL	12.148	PTH	2.18	VHP	7.923	DPA	-79.00	RAP	151.79	ECC	1.4312

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.82	22 31 57	4081.12	-21.52	174.83	121.95	62.65	23 39 58	3481.1	-25.01	167.41
110.18	3 37 4	3122.99	-21.51	103.32	121.95	62.64	4 29 7	2523.0	-25.00	95.90
69.82	22 31 57	4081.12	-21.52	174.83	121.95	62.65	23 39 58	3481.1	-25.01	167.41
110.18	3 37 4	3122.99	-21.51	103.32	121.95	62.64	4 29 7	2523.0	-25.00	95.90
69.82	22 31 57	4081.12	-21.52	174.83	121.95	62.65	23 39 58	3481.1	-25.01	167.41
110.18	3 37 4	3122.99	-21.51	103.32	121.95	62.64	4 29 7	2523.0	-25.00	95.90

DIFFERENTIAL CORRECTIONS

TDE	.0092	TRA	-.7874	TC3	.1285	BAU	.3805
RDE	1.5033	RRA	2.1228	RC3	-1.0787	FAU	.02253
FDE	1.2533	FRA	1.7599	FC3	-.7445	BSP	11350
BDE	1.5033	BRA	2.2641	BC3	1.0863	FSP	-779

MID-COURSE EXECUTION ACCURACY

SGT	1074.9	SGR	3510.2	SG3	247.9		
RRT	-.8470	RRF	.9987	RTF	-.8525		
SGB	3671.0	R23	-.0281	R13	.9984		
SG1	3629.2	SG2	552.7	THA	104.89		

ORBIT DETERMINATION ACCURACY

ST	320.2	SR	1891.4	SS	1078.1
CRT	-.4276	CRS	-1.0000	CST	.4255
LSA	2181.4	MSA	289.0	SSA	2.8
EL1	1896.4	EL2	288.7	ALF	94.24

LAUNCH DATE AUG 3 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 387.222

RL	151.81	LAL	-.00	LOL	310.26	VL	26.885	GAL	1.20	AZL	77.65	HCA	169.08	SMA	129.39	ECC	.17444	INC	12.3544	V1	29.349
RP	107.49	LAP	2.32	LOP	119.58	VP	37.995	GAP	-2.45	AZP	102.14	TAL	174.28	TAP	343.36	RCA	106.82	APO	151.97	V2	35.254
RC	70.666	GL	60.97	GP	-77.28	ZAL	83.03	ZAP	80.76	ETS	31.06	ZAE	99.31	ETE	282.52	ZAC	25.36	ETC	246.90	CLP	-43.15

PLANETOCENTRIC CONIC

C3	43.266	VHL	6.578	DLA	40.13	RAL	248.50	RAD	6568.6	VEL	12.831	PTH	2.34	VHP	9.818	DPA	-76.69	RAP	117.88	ECC	1.7120

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.28	21 46 56	4353.94	-20.00	195.96	132.93	54.45	22 59 29	3753.9	-24.50	189.22
119.72	4 31 48	3102.42	-19.99	100.66	132.92	54.45	5 23 30	2502.4	-24.49	93.94
60.28	21 46 56	4353.94	-20.00	195.96	132.93	54.45	22 59 29	3753.9	-24.50	189.22
119.72	4 31 48	3102.42	-19.99	100.66	132.92	54.45	5 23 30	2502.4	-24.49	93.94
60.28	21 46 56	4353.94	-20.00	195.96	132.93	54.45	22 59 29	3753.9	-24.50	189.22
119.72	4 31 48	3102.42	-19.99	100.66	132.92	54.45	5 23 30	2502.4	-24.49	93.94

DIFFERENTIAL CORRECTIONS

TDE	.1165	TRA	-.7784	TC3	.0378	BAU	.3298
RDE	2.2607	RRA	2.7665	RC3	-.5689	FAU	.01205
FDE	1.2222	FRA	1.5469	FC3	-.2411	BSP	11946
BDE	2.2637	BRA	2.8739	BC3	.5701	FSP	-568

MID-COURSE EXECUTION ACCURACY

SGT	894.0	SGR	3791.0	SG3	180.0		
RRT	-.7767	RRF	.9988	RTF	-.7896		
SGB	3895.0	R23	-.0049	R13	.9991		
SG1	3855.5	SG2	553.7	THA	100.60		

ORBIT DETERMINATION ACCURACY

ST	284.8	SR	2184.6	SS	1008.3
CRT	-.0832	CRS	-.9999	CST	.0964
LSA	2406.2	MSA	284.0	SSA	2.1
EL1	2184.7	EL2	283.8	ALF	90.63

LAUNCH DATE AUG 3 1970 FLIGHT TIME 146.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 393.545

RL	151.81	LAL	-.00	LOL	310.26	VL	26.901	GAL	1.22	AZL	71.62	HCA	172.18	SMA	129.50	ECC	.17350	INC	18.3806	V1	29.349
RP	107.48	LAP	2.46	LOP	122.83	VP	38.009	GAP	-2.01	AZP	108.22	TAL	174.15	TAP	346.33	RCA	107.03	APO	151.97	V2	35.256
RC	72.818	GL	65.25	GP	-84.29	ZAL	85.04	ZAP	84.44	ETS	40.12	ZAE	90.80	ETE	292.29	ZAC	18.41	ETC	245.80	CLP	-13.40

PLANETOCENTRIC CONIC

C3	87.206	VHL	9.338	DLA	44.56	RAL	248.88	RAD	6569.7	VEL	14.441	PTH	2.62	VHP	13.407	DPA	-71.10	RAP	94.28	ECC	2.4352

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.03	21 22 17	4594.10	-14.26	212.13	143.94	47.32	22 38 51	3994.1	-19.60	206.32
125.97	4 59 30	3199.93	-14.25	104.31	143.92	47.32	5 52 50	2599.9	-19.58	98.50
54.03	21 22 17	4594.10	-14.26	212.13	143.94	47.32	22 38 51	3994.1	-19.60	206.32
125.97	4 59 30	3199.93	-14.25	104.31	143.92	47.32	5 52 50	2599.9	-19.58	98.50
54.03	21 22 17	4594.10	-14.26	212.13	143.94	47.32	22 38 51	3994.1	-19.60	206.32
125.97	4 59 30	3199.93	-14.25	104.31	143.92	47.32	5 52 50	2599.9	-19.58	98.50

DIFFERENTIAL CORRECTIONS

TDE	-.1338	TRA	-1.2477	TC3	.0101	BAU	.1450
RDE	3.6104	RRA	3.7663	RC3	-.1240	FAU	.00144
FDE	1.2026	FRA	1.3975	FC3	-.0143	BSP	12309
BDE	3.6129	BRA	3.9676	BC3	.1244	FSP	-382

MID-COURSE EXECUTION ACCURACY

SGT	1077.7	SGR	3934.4	SG3	122.0		
RRT	-.8657	RRF	.9980	RTF	-.8899		
SGB	4079.3	R23	.0205	R13	.9991		
SG1	4045.5	SG2	524.6	THA	103.57		

ORBIT DETERMINATION ACCURACY

ST	332.6	SR	2419.4	SS	951.6
CRT	-.6156	CRS	-.9992	CST	.6475
LSA	2607.8	MSA	262.7	SSA	1.7
EL1	2428.2	EL2	261.2	ALF	94.89

LAUNCH DATE AUG 3 1970 FLIGHT TIME 148.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 399.628

RL	151.81	LAL	-.00	LOL	310.26	VL	26.914	GAL	1.30	AZL	58.19	HCA	175.08	SMA	129.59	ECC	.17290	INC	31.8052	V1	29.349
RP	107.48	LAP	2.59	LOP	126.08	VP	38.019	GAP	-1.64	AZP	121.71	TAL	173.78	TAP	348.86	RCA	107.18	APO	151.99	V2	35.258
RC	74.992	GL	65.26	GP	-79.66	ZAL	86.91	ZAP	87.17	ETS	178.39	ZAE	78.94	ETE	71.40	ZAC	13.72	ETC	347.39	CLP	74.03

PLANETOCENTRIC CONIC

C3	243.816	VHL	15.615	DLA	45.25	RAL	246.39	RAD	6571.4	VEL	19.108	PTH	3.08	VHP	21.551	DPA	-61.53	RAP	76.47	ECC	5.0126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.11	21 8 50	4790.38	-5.54	221.63	150.89	45.02	22 28 41	4190.4	-11.16	216.29
126.89	4 53 5	3377.85	-5.53	112.13	150.87	45.02	5 49 23	2777.9	-11.15	106.79
53.11	21 8 50	4790.38	-5.54	221.63	150.89	45.02	22 28 41	4190.4	-11.16	216.29
126.89	4 53 5	3377.85	-5.53	112.13	150.87	45.02	5 49 23	2777.9	-11.15	106.79
53.11	21 8 50	4790.38	-5.54	221.63	150.89	45.02	22 28 41	4190.4	-11.16	216.29
126.89	4 53 5	3377.85	-5.53	112.13	150.87	45.02	5 49 23	2777.9	-11.15	106.79

DIFFERENTIAL CORRECTIONS

TDE	-2.6668	TRA	-.7492	TC3	-.0589	BAU	.5838
RDE	-6.0172	RRA	-6.3362	RC3	-.1692	FAU	-.01357
FDE	1.3917	FRA	1.4990	FC3	.0482	BSP	12295
BDE	6.5817	BRA	6.3803	BC3	.1791	FSP	-253

MID-COURSE EXECUTION ACCURACY

SGT	1069.5	SGR	4007.4	SG3	81.7		
RRT	.8276	RRF	-.9996	RTF	-.8233		
SGB	4147.7	R23	-.0392	R13	-.9988		
SG1	4106.1	SG2	585.9	THA	77.28		

ORBIT DETERMINATION ACCURACY

ST	985.6	SR	2420.1	SS	1046.3
CRT	.9546	CRS	1.0000	CST	.9520
LSA	2801.0	MSA	277.8	SSA	1.4
EL1	2598.7	EL2	273.5	ALF	68.51

LAUNCH DATE AUG 3 1970 FLIGHT TIME 150.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 404.719

RL 151.81 LAL -.00 LOL 310.26 VL 26.923 GAL 1.56 AZL 18.96 HCA 177.14 SMA 129.65 ECC .17299 INC71.0350 V1 29.349
RP 107.48 LAP 2.71 LOP 129.32 VP 38.026 GAP -1.52 AZP 161.02 TAL 172.51 TAP 349.65 RCA 107.22 APO 152.08 V2 35.259
RC 77.186 GL 50.98 GP -56.35 ZAL 88.31 ZAP 88.68 ETS 183.03 ZAE 55.54 ETE 74.51 ZAC 28.08 ETC 297.85 CLP 87.63

PLANETOCENTRIC CONIC

C3 1073.168 VHL 32.759 DLA 32.83 RAL 236.73 RAD 6573.0 VEL 34.561 PTH 3.51 VHP 43.682 DPA -40.11 RAP 58.99 ECC 18.6616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.64	22 7 23	4633.36	.33	203.99	147.27	57.17	23 24 36	4033.4	-4.00	197.68
107.36	2 37 29	3782.71	.35	140.81	147.26	57.17	3 40 32	3182.7	-3.98	134.50
72.64	22 7 23	4633.36	.33	203.99	147.27	57.17	23 24 36	4033.4	-4.00	197.68
107.36	2 37 29	3782.71	.35	140.81	147.26	57.17	3 40 32	3182.7	-3.98	134.50
110.00	4 6 30	3508.83	-8.12	125.17	152.78	56.68	5 4 59	2908.8	-12.45	118.74
110.00	1 41 29	3955.23	8.81	148.63	141.75	56.84	2 47 24	3355.2	4.39	142.33

DIFFERENTIAL CORRECTIONS
TDE-5.4940 TRA-1.3667 TC3 -.0978 BAU 3.9396
RD-10.6503 RR-11.6358 RC3 -.2566 FAU-.06858
FDE 2.1855 FRA 2.4915 FC3 .0553 BSP 9882
BDE11.9838 BRA11.7157 BC3 .2746 FSP -180

MID-COURSE EXECUTION ACCURACY
SGT 1189.6 SGR 3487.3 SG3 63.9
RRT .8573 RRF -.9998 RTF -.8497
SGB 3684.7 R23 -.0629 R13 -.9979
SG1 3637.6 SG2 587.2 THA 73.25

ORBIT DETERMINATION ACCURACY
ST 964.9 SR 2000.1 SS 1558.1
CRT .9601 CRS .9999 CST .9559
LSA 2700.4 MSA 258.7 SSA 1.1
EL1 2207.1 EL2 244.4 ALF 64.82

LAUNCH DATE AUG 3 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 414.836

RL 151.81 LAL -.00 LOL 310.26 VL 26.928 GAL .91 AZL 140.61 HCA 183.65 SMA 129.69 ECC .17127 INC50.6133 V1 29.349
RP 107.48 LAP 2.82 LOP 132.57 VP 38.030 GAP -.11 AZP 39.44 TAL 175.59 TAP 359.24 RCA 107.48 APO 151.90 V2 35.259
RC 79.396 GL -59.45 GP 70.45 ZAL 88.44 ZAP 89.85 ETS 188.05 ZAE 73.59 ETE 291.46 ZAC 150.52 ETC 297.89 CLP 89.55

PLANETOCENTRIC CONIC

C3 583.861 VHL 24.163 DLA -68.26 RAL 176.50 RAD 6572.5 VEL 26.555 PTH 3.38 VHP 30.303 DPA 69.55 RAP 329.82 ECC10.6089

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.88	3 12 33	2400.70	1.58	76.39	85.85	158.25	3 52 34	1800.7	9.01	73.82
155.12	13 31 43	658.67	1.59	288.48	85.87	158.25	13 42 42	58.7	9.02	285.90
24.88	3 12 33	2400.70	1.58	76.39	85.85	158.25	3 52 34	1800.7	9.01	73.82
155.12	13 31 43	658.67	1.59	288.48	85.87	158.25	13 42 42	58.7	9.02	285.90
24.88	3 12 33	2400.70	1.58	76.39	85.85	158.25	3 52 34	1800.7	9.01	73.82
155.12	13 31 43	658.67	1.59	288.48	85.87	158.25	13 42 42	58.7	9.02	285.90

DIFFERENTIAL CORRECTIONS
TDE 6.4770 TRA 1.8343 TC3 -.1288 BAU 2.2155
RD-13.4826 RRA-1.8687 RC3 .2529 FAU-.03644
FDE-3.1784 FRA -.4636 FC3 .0540 BSP 12651
BDE14.9576 BRA 2.6185 BC3 .2838 FSP -226

MID-COURSE EXECUTION ACCURACY
SGT 2031.1 SGR 3625.8 SG3 73.5
RRT -.9608 RRF .9994 RTF -.9653
SGB 4155.9 R23 -.0473 R13 .9984
SG1 4126.4 SG2 494.6 THA 118.74

ORBIT DETERMINATION ACCURACY
ST 1575.8 SR 3217.3 SS 1987.1
CRT -.9935 CRS-1.0000 CST .9942
LSA 4093.4 MSA 163.1 SSA 1.9
EL1 3578.9 EL2 160.7 ALF 116.01

LAUNCH DATE AUG 3 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 420.550

RL 151.81 LAL -.00 LOL 310.26 VL 26.931 GAL 1.08 AZL 117.75 HCA 186.29 SMA 129.71 ECC .17138 INC27.7530 V1 29.349
RP 107.48 LAP 2.92 LOP 135.82 VP 38.031 GAP .16 AZP 62.39 TAL 174.78 TAP 1.07 RCA 107.48 APO 151.94 V2 35.258
RC 81.621 GL -66.06 GP 86.40 ZAL 86.91 ZAP 90.29 ETS 206.40 ZAE 89.16 ETE 307.65 ZAC 164.24 ETC 334.00 CLP 94.63

PLANETOCENTRIC CONIC

C3 188.224 VHL 13.719 DLA -73.39 RAL 162.19 RAD 6571.0 VEL 17.594 PTH 2.97 VHP 16.635 DPA 67.87 RAP 284.98 ECC 4.0977

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.95	2 2 56	2287.88	9.98	77.64	69.17	163.12	2 41 4	1687.9	17.63	75.62
161.05	12 47 15	5803.46	9.99	261.45	69.20	163.12	14 23 59	5203.5	17.63	259.44
18.95	2 2 56	2287.88	9.98	77.64	69.17	163.12	2 41 4	1687.9	17.63	75.62
161.05	12 47 15	5803.46	9.99	261.45	69.20	163.12	14 23 59	5203.5	17.63	259.44
18.95	2 2 56	2287.88	9.98	77.64	69.17	163.12	2 41 4	1687.9	17.63	75.62
161.05	12 47 15	5803.46	9.99	261.45	69.20	163.12	14 23 59	5203.5	17.63	259.44

DIFFERENTIAL CORRECTIONS
TDE 6.3383 TRA 1.5875 TC3 -.0917 BAU .3702
RDE-5.3556 RRA-1.0800 RC3 .1150 FAU-.00621
FDE-2.3839 FRA -.4995 FC3 .0286 BSP 13924
BDE 8.2980 BRA 1.9200 BC3 .1471 FSP -334

MID-COURSE EXECUTION ACCURACY
SGT 3528.0 SGR 2755.1 SG3 106.9
RRT -.9936 RRF .9985 RTF -.9962
SGB 4476.3 R23 -.0341 R13 .9986
SG1 4469.6 SG2 245.9 THA 142.06

ORBIT DETERMINATION ACCURACY
ST 2736.9 SR 2286.2 SS 1465.1
CRT -.9988 CRS-1.0000 CST .9992
LSA 3854.3 MSA 89.5 SSA 2.1
EL1 3565.1 EL2 85.1 ALF 140.13

LAUNCH DATE AUG 3 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 426.686

RL 151.81 LAL -.00 LOL 310.26 VL 26.931 GAL 1.17 AZL 108.97 HCA 189.32 SMA 129.71 ECC .17157 INC18.9658 V1 29.349
RP 107.48 LAP 3.02 LOP 139.08 VP 38.030 GAP .53 AZP 71.27 TAL 174.31 TAP 3.63 RCA 107.45 APO 151.96 V2 35.256
RC 83.861 GL -65.64 GP 84.29 ZAL 85.31 ZAP 91.62 ETS 340.33 ZAE 97.96 ETE 80.41 ZAC 168.89 ETC 139.18 CLP-106.53

PLANETOCENTRIC CONIC

C3 92.281 VHL 9.606 DLA -74.69 RAL 165.63 RAD 6569.8 VEL 14.616 PTH 2.65 VHP 11.285 DPA 62.65 RAP 266.70 ECC 2.5187

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.45	2 13 34	2154.86	18.96	76.57	70.22	163.79	2 49 29	1554.9	26.63	74.50
162.55	13 4 2	5664.22	18.97	258.87	70.25	163.79	14 38 26	5064.2	26.63	256.80
17.45	2 13 34	2154.86	18.96	76.57	70.22	163.79	2 49 29	1554.9	26.63	74.50
162.55	13 4 2	5664.22	18.97	258.87	70.25	163.79	14 38 26	5064.2	26.63	256.80
17.45	2 13 34	2154.86	18.96	76.57	70.22	163.79	2 49 29	1554.9	26.63	74.50
162.55	13 4 2	5664.22	18.97	258.87	70.25	163.79	14 38 26	5064.2	26.63	256.80

DIFFERENTIAL CORRECTIONS
TDE 2.9263 TRA -.0461 TC3 -.0282 BAU .1314
RDE 5.4753 RRA 1.1872 RC3 .1027 FAU .00767
FDE-2.6516 FRA -.4449 FC3 -.0720 BSP 14382
BDE 6.2083 BRA 1.1881 BC3 .1065 FSP -512

MID-COURSE EXECUTION ACCURACY
SGT 1749.3 SGR 4230.4 SG3 162.3
RRT .7311 RRF -.9923 RTF -.8057
SGB 4577.8 R23 .0345 R13 -.9987
SG1 4433.9 SG2 1138.8 THA 71.95

ORBIT DETERMINATION ACCURACY
ST 1745.6 SR 3363.4 SS 1569.8
CRT .9665 CRS .9986 CST .9788
LSA 4082.2 MSA 399.7 SSA 2.0
EL1 3768.2 EL2 399.7 ALF 63.03

LAUNCH DATE AUG 3 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 432.923

RL	151.81	LAL	-.00	LOL	310.26	VL	26.929	GAL	1.26	AZL	104.52	HCA	192.46	SMA	129.69	ECC	.17191	INC	14.5179	VI	29.349
RP	107.49	LAP	3.10	LOP	142.33	VP	38.026	GAP	.93	AZP	75.81	TAL	173.89	TAP	6.35	RCA	107.39	APO	151.98	V2	35.254
RC	86.111	GL	63.35	GP	77.24	ZAL	83.72	ZAP	93.79	ETS	3.33	ZAE	104.42	ETE	102.90	ZAC	167.83	ETC	193.78	CLP	-107.41

PLANETOCENTRIC CONIC

C3	57.024	VHL	7.551	DLA	-74.80	RAL	175.40	RAD	6569.0	VEL	13.356	PTH	2.44	VHP	8.640	DPA	57.71	RAP	256.50	ECC	1.9385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.32	2 52 16	2042.54	26.32	74.78	77.66	162.99	3 26 19	1442.5	33.94	72.39
162.68	13 43 15	5551.42	26.33	256.95	77.69	162.99	15 15 47	4951.4	33.95	254.56
17.32	2 52 16	2042.54	26.32	74.78	77.66	162.99	3 26 19	1442.5	33.94	72.39
162.68	13 43 15	5551.42	26.33	256.95	77.69	162.99	15 15 47	4951.4	33.95	254.56
17.32	2 52 16	2042.54	26.32	74.78	77.66	162.99	3 26 19	1442.5	33.94	72.39
162.68	13 43 15	5551.42	26.33	256.95	77.69	162.99	15 15 47	4951.4	33.95	254.56

DIFFERENTIAL CORRECTIONS

TDE	-.3819	TRA	-.3784	TC3	-.1994	BAU	.3164
RDE	5.3615	RRA	.6049	RC3	.3640	FAU	.01965
FDE	-3.2835	FRA	-.3485	FC3	-.2984	BSP	14574
BDE	5.3751	BRA	.7135	BC3	.4150	FSP	-744

MID-COURSE EXECUTION ACCURACY

SGT	1172.2	SGR	4462.7	SG3	235.5		
RRT	-.6235	RRF	-.9989	RTF	.6142		
SGB	4614.0	R23	.0450	R13	-.9979		
SG1	4524.6	SG2	903.9	THA	99.69		

ORBIT DETERMINATION ACCURACY

ST	438.1	SR	4101.8	SS	1873.5		
CRT	-.7519	CRS	1.0000	CST	-.7470		
LSA	4521.4	MSA	288.8	SSA	2.7		
EL1	4115.0	EL2	287.9	ALF	94.61		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 439.188

RL	151.81	LAL	-.00	LOL	310.26	VL	26.924	GAL	1.36	AZL	101.85	HCA	195.64	SMA	129.66	ECC	.17242	INC	11.8487	VI	29.349
RP	107.50	LAP	3.17	LOP	145.58	VP	38.020	GAP	1.34	AZP	78.58	TAL	173.47	TAP	9.11	RCA	107.30	APO	152.01	V2	35.251
RC	88.372	GL	-60.49	GP	71.09	ZAL	82.13	ZAP	96.67	ETS	11.18	ZAE	109.66	ETE	110.95	ZAC	163.97	ETC	218.36	CLP	-110.99

PLANETOCENTRIC CONIC

C3	40.331	VHL	6.351	DLA	-74.08	RAL	186.31	RAD	6568.6	VEL	12.716	PTH	2.31	VHP	7.125	DPA	53.09	RAP	249.34	ECC	1.6637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.15	3 37 30	1954.36	31.81	72.26	86.11	161.17	4 10 5	1354.4	39.34	69.35
161.85	14 25 6	5466.56	31.82	255.26	86.13	161.17	15 56 13	4866.6	39.35	252.35
18.15	3 37 30	1954.36	31.81	72.26	86.11	161.17	4 10 5	1354.4	39.34	69.35
161.85	14 25 6	5466.56	31.82	255.26	86.13	161.17	15 56 13	4866.6	39.35	252.35
18.15	3 37 30	1954.36	31.81	72.26	86.11	161.17	4 10 5	1354.4	39.34	69.35
161.85	14 25 6	5466.56	31.82	255.26	86.13	161.17	15 56 13	4866.6	39.35	252.35

DIFFERENTIAL CORRECTIONS

TDE	-1.4196	TRA	-.3098	TC3	-.4469	BAU	.4070
RDE	4.5783	RRA	.2476	RC3	.6082	FAU	.03142
FDE	-3.9154	FRA	-.1962	FC3	-.6744	BSP	14605
BDE	4.7934	BRA	.3966	BC3	.7548	FSP	-1004

MID-COURSE EXECUTION ACCURACY

SGT	1732.3	SGR	4280.4	SG3	319.0		
RRT	-.8845	RRF	-.9985	RTF	.8863		
SGB	4617.6	R23	.0548	R13	-.9970		
SG1	4554.7	SG2	759.4	THA	110.28		

ORBIT DETERMINATION ACCURACY

ST	1316.8	SR	4137.9	SS	2177.9		
CRT	-.9847	CRS	1.0000	CST	-.9839		
LSA	4852.8	MSA	222.7	SSA	3.6		
EL1	4336.8	EL2	219.2	ALF	107.44		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 445.456

RL	151.81	LAL	-.00	LOL	310.26	VL	26.917	GAL	1.46	AZL	100.07	HCA	198.84	SMA	129.61	ECC	.17309	INC	10.0669	VI	29.349
RP	107.51	LAP	3.24	LOP	148.83	VP	38.011	GAP	1.74	AZP	80.46	TAL	173.01	TAP	11.85	RCA	107.17	APO	152.04	V2	35.247
RC	90.641	GL	-57.49	GP	65.46	ZAL	80.54	ZAP	100.09	ETS	16.36	ZAE	114.03	ETE	117.07	ZAC	159.34	ETC	230.97	CLP	-114.95

PLANETOCENTRIC CONIC

C3	31.108	VHL	5.577	DLA	-72.77	RAL	196.26	RAD	6568.2	VEL	12.348	PTH	2.23	VHP	6.182	DPA	48.69	RAP	243.76	ECC	1.5120

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.66	4 20 18	1885.58	35.74	69.07	93.36	158.60	4 51 44	1285.6	43.13	65.49
160.34	15 1 41	5404.30	35.75	253.60	93.38	158.60	16 31 45	4804.3	43.13	250.03
19.66	4 20 18	1885.58	35.74	69.07	93.36	158.60	4 51 44	1285.6	43.13	65.49
160.34	15 1 41	5404.30	35.75	253.60	93.38	158.60	16 31 45	4804.3	43.13	250.03
19.66	4 20 18	1885.58	35.74	69.07	93.36	158.60	4 51 44	1285.6	43.13	65.49
160.34	15 1 41	5404.30	35.75	253.60	93.38	158.60	16 31 45	4804.3	43.13	250.03

DIFFERENTIAL CORRECTIONS

TDE	-1.9295	TRA	-.1954	TC3	-.7532	BAU	.4617
RDE	3.8247	RRA	.0190	RC3	.8156	FAU	.04296
FDE	-4.3782	FRA	.0032	FC3	-1.1956	BSP	14659
BDE	4.2838	BRA	.1963	BC3	1.1102	FSP	-1277

MID-COURSE EXECUTION ACCURACY

SGT	2257.0	SGR	4033.5	SG3	405.3		
RRT	-.9443	RRF	-.9980	RTF	.9471		
SGB	4622.0	R23	.0631	R13	-.9961		
SG1	4575.4	SG2	654.8	THA	118.49		

ORBIT DETERMINATION ACCURACY

ST	1992.7	SR	3929.1	SS	2402.4		
CRT	-.9953	CRS	1.0000	CST	-.9947		
LSA	5014.7	MSA	181.1	SSA	4.7		
EL1	4402.1	EL2	172.9	ALF	116.83		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 451.714

RL	151.81	LAL	-.00	LOL	310.26	VL	26.908	GAL	1.57	AZL	98.79	HCA	202.06	SMA	129.55	ECC	.17393	INC	8.7881	VI	29.349
RP	107.53	LAP	3.29	LOP	152.08	VP	38.001	GAP	2.15	AZP	81.85	TAL	172.52	TAP	14.58	RCA	107.01	APO	152.08	V2	35.243
RC	92.917	GL	--54.50	GP	60.21	ZAL	78.94	ZAP	103.90	ETS	20.26	ZAE	117.66	ETE	122.63	ZAC	154.60	ETC	238.25	CLP	-118.91

PLANETOCENTRIC CONIC

C3	25.477	VHL	5.047	DLA	-71.10	RAL	204.70	RAD	6568.0	VEL	12.118	PTH	2.17	VHP	5.570	DPA	44.45	RAP	239.23	ECC	1.4193

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.59	4 57 59	1831.20	38.45	65.41	98.92	155.57	5 28 31	1231.2	45.65	61.10
158.41	15 31 20	5359.10	38.46	251.92	98.94	155.57	17 0 39	4759.1	45.65	247.61
21.59	4 57 59	1831.20	38.45	65.41	98.92	155.57	5 28 31	1231.2	45.65	61.10
158.41	15 31 20	5359.10	38.46	251.92	98.94	155.57	17 0 39	4759.1	45.65	247.61
21.59	4 57 59	1831.20	38.45	65.41	98.92	155.57	5 28 31	1231.2	45.65	61.10
158.41	15 31 20	5359.10	38.46	251.92	98.94	155.57	17 0 39	4759.1	45.65	247.61

DIFFERENTIAL CORRECTIONS

TDE	-2.1928	TRA	-.0674	TC3	-1.1005	BAU	.4988
RDE	3.1492	RRA	-.1356	RC3	.9663	FAU	.05344
FDE	-4.6221	FRA	.2425	FC3	-1.8159	BSP	14730
BDE	3.8374	BRA	.1514	BC3	1.4645	FSP	-1538

MID-COURSE EXECUTION ACCURACY

SGT	2736.0	SGR	3735.8	SG3	485.8		
RRT	-.9656	RRF	-.9973	RTF	.9683		
SGB	4630.6	R23	.0703	R13	-.9951		
SG1	4594.3	SG2	578.6	THA	125.93		

ORBIT DETERMINATION ACCURACY

ST	2490.4	SR	3577.7	SS	2528.1		
CRT	-.9977	CRS	1.0000	CST	-.9970		
LSA	5036.8	MSA	155.4	SSA	5.8		
EL1	4356.9	EL2	140.0	ALF	124.82		

LAUNCH DATE AUG 3 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 457.960
RL 151.81 LAL -.00 LOL 310.26 VL 26.897 GAL 1.69 AZL 97.82 HCA 205.28 SMA 129.47 ECC .17494 INC 7.8212 V1 29.349
RP 107.54 LAP 3.33 LOP 155.33 VP 37.988 GAP 2.55 AZP 82.92 TAL 171.98 TAP 17.26 RCA 106.82 APO 152.12 V2 35.238
RC 95.197 GL -51.59 GP 55.30 ZAL 77.31 ZAP 107.93 ETS 23.29 ZAE 120.61 ETE 127.92 ZAC 150.00 ETC 242.86 CLP-122.74

PLANETOCENTRIC CONIC
C3 21.798 VHL 4.669 DLA -69.23 RAL 211.75 RAD 6567.9 VEL 11.966 PTH 2.13 VHP 5.167 DPA 40.37 RAP 235.50 ECC 1.3587

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.75	5 30 45	1787.32	40.23	61.49	103.03	152.33	6 0 32	1187.3	47.19	56.45
156.25	15 54 49	5326.78	40.24	250.28	103.05	152.32	17 23 36	4726.8	47.20	245.24
23.75	5 30 45	1787.32	40.23	61.49	103.03	152.33	6 0 32	1187.3	47.19	56.45
156.25	15 54 49	5326.78	40.24	250.28	103.05	152.32	17 23 36	4726.8	47.20	245.24
23.75	5 30 45	1787.32	40.23	61.49	103.03	152.33	6 0 32	1187.3	47.19	56.45
156.25	15 54 49	5326.78	40.24	250.28	103.05	152.32	17 23 36	4726.8	47.20	245.24

DIFFERENTIAL CORRECTIONS
TDE-2.3162 TRA .0665 TC3-1.4722 BAU .5281
RDE 2.5753 RRA -.2398 RC3 1.0566 FAU .06225
FDE-4.6645 FRA .5042 FC3-2.4722 BSP 14808
BDE 3.4636 BRA .2489 BC3 1.8121 FSP -1762

MID-COURSE EXECUTION ACCURACY
SGT 3165.8 SGR 3413.2 SG3 554.2
RRT -.9745 RRF -.9965 RTF .9773
SGB 4655.3 R23 .0763 R13 -.9940
SG1 4625.8 SG2 523.8 THA 132.79

ORBIT DETERMINATION ACCURACY
ST 2843.5 SR 3170.3 SS 2566.5
CRT -.9985 CRS .9999 CST -.9978
LSA 4970.3 MSA 140.9 SSA 7.0
EL1 4257.1 EL2 115.5 ALF 131.89

LAUNCH DATE AUG 3 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 464.188
RL 151.81 LAL -.00 LOL 310.26 VL 26.884 GAL 1.82 AZL 97.06 HCA 208.50 SMA 129.38 ECC .17612 INC 7.0606 V1 29.349
RP 107.56 LAP 3.36 LOP 158.58 VP 37.974 GAP 2.95 AZP 83.79 TAL 171.41 TAP 19.91 RCA 106.60 APO 152.17 V2 35.232
RC 97.481 GL -48.77 GP -50.73 ZAL 75.65 ZAP 112.05 ETS 25.64 ZAE 122.91 ETE 132.99 ZAC 145.65 ETC 245.98 CLP-126.37

PLANETOCENTRIC CONIC
C3 19.285 VHL 4.391 DLA -67.26 RAL 217.70 RAD 6567.8 VEL 11.860 PTH 2.10 VHP 4.907 DPA 36.47 RAP 232.44 ECC 1.3174

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.04	5 59 30	1751.16	41.29	57.50	106.10	149.04	6 28 41	1151.2	48.00	51.77
153.96	16 13 31	5304.35	41.30	248.75	106.11	149.04	17 41 55	4704.4	48.00	243.02
26.04	5 59 30	1751.16	41.29	57.50	106.10	149.04	6 28 41	1151.2	48.00	51.77
153.96	16 13 31	5304.35	41.30	248.75	106.11	149.04	17 41 55	4704.4	48.00	243.02
26.04	5 59 30	1751.16	41.29	57.50	106.10	149.04	6 28 41	1151.2	48.00	51.77
153.96	16 13 31	5304.35	41.30	248.75	106.11	149.04	17 41 55	4704.4	48.00	243.02

DIFFERENTIAL CORRECTIONS
TDE-2.3559 TRA .2046 TC3-1.8510 BAU .5538
RDE 2.1024 RRA -.3087 RC3 1.0896 FAU .06895
FDE-4.5423 FRA .7712 FC3-3.0955 BSP 14934
BDE 3.1576 BRA .3703 BC3 2.1479 FSP -1939

MID-COURSE EXECUTION ACCURACY
SGT 3545.2 SGR 3086.4 SG3 606.6
RRT -.9785 RRF -.9955 RTF .9817
SGB 4700.5 R23 .0808 R13 -.9929
SG1 4675.7 SG2 482.2 THA 139.04

ORBIT DETERMINATION ACCURACY
ST 3081.2 SR 2761.0 SS 2534.5
CRT -.9989 CRS .9998 CST -.9980
LSA 4850.0 MSA 133.3 SSA 8.2
EL1 4136.1 EL2 95.6 ALF 138.14

LAUNCH DATE AUG 3 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 470.398
RL 151.81 LAL -.00 LOL 310.26 VL 26.869 GAL 1.97 AZL 96.44 HCA 211.73 SMA 129.29 ECC .17746 INC 6.4433 V1 29.349
RP 107.58 LAP 3.38 LOP 161.83 VP 37.958 GAP 3.34 AZP 84.51 TAL 170.79 TAP 22.52 RCA 106.34 APO 152.23 V2 35.226
RC 99.767 GL -46.05 GP 46.50 ZAL 73.95 ZAP 116.14 ETS 27.46 ZAE 124.62 ETE 137.80 ZAC 141.62 ETC 248.20 CLP-129.79

PLANETOCENTRIC CONIC
C3 17.518 VHL 4.185 DLA -65.25 RAL 222.82 RAD 6567.7 VEL 11.786 PTH 2.08 VHP 4.748 DPA 32.76 RAP 229.97 ECC 1.2883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.39	6 25 14	1720.79	41.79	53.55	108.47	145.84	6 53 54	1120.8	48.23	47.23
151.61	16 28 37	5289.73	41.80	247.40	108.49	145.84	17 56 47	4689.7	48.24	241.07
28.39	6 25 14	1720.79	41.79	53.55	108.47	145.84	6 53 54	1120.8	48.23	47.23
151.61	16 28 37	5289.73	41.80	247.40	108.49	145.84	17 56 47	4689.7	48.24	241.07
28.39	6 25 14	1720.79	41.79	53.55	108.47	145.84	6 53 54	1120.8	48.23	47.23
151.61	16 28 37	5289.73	41.80	247.40	108.49	145.84	17 56 47	4689.7	48.24	241.07

DIFFERENTIAL CORRECTIONS
TDE-2.3423 TRA .3490 TC3-2.2175 BAU .5765
RDE 1.7167 RRA -.3550 RC3 1.0689 FAU .07312
FDE-4.2902 FRA 1.0356 FC3-3.6135 BSP 15027
BDE 2.9041 BRA .4978 BC3 2.4617 FSP -2048

MID-COURSE EXECUTION ACCURACY
SGT 3876.8 SGR 2769.6 SG3 641.4
RRT -.9799 RRF -.9941 RTF .9837
SGB 4764.5 R23 .0845 R13 -.9917
SG1 4743.0 SG2 452.0 THA 144.64

ORBIT DETERMINATION ACCURACY
ST 3225.2 SR 2375.9 SS 2445.1
CRT -.9992 CRS .9997 CST -.9979
LSA 4691.2 MSA 131.4 SSA 9.3
EL1 4005.1 EL2 78.7 ALF 143.63

LAUNCH DATE AUG 3 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 476.588
RL 151.81 LAL -.00 LOL 310.26 VL 26.853 GAL 2.13 AZL 95.93 HCA 214.96 SMA 129.18 ECC .17896 INC 5.9294 V1 29.349
RP 107.60 LAP 3.39 LOP 165.07 VP 37.940 GAP 3.74 AZP 85.13 TAL 170.13 TAP 25.09 RCA 106.06 APO 152.30 V2 35.218
RC 102.053 GL -43.43 GP 42.63 ZAL 72.21 ZAP 120.12 ETS 28.85 ZAE 125.81 ETE 142.30 ZAC 137.93 ETC 249.83 CLP-133.00

PLANETOCENTRIC CONIC
C3 16.260 VHL 4.032 DLA -63.23 RAL 227.31 RAD 6567.7 VEL 11.732 PTH 2.07 VHP 4.663 DPA 29.27 RAP 228.01 ECC 1.2676

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.77	6 48 40	1694.81	41.87	49.73	110.42	142.79	7 16 55	1094.8	48.03	42.92
149.23	16 41 0	5281.43	41.88	246.27	110.44	142.78	18 9 1	4681.4	48.04	239.46
30.77	6 48 40	1694.81	41.87	49.73	110.42	142.79	7 16 55	1094.8	48.03	42.92
149.23	16 41 0	5281.43	41.88	246.27	110.44	142.78	18 9 1	4681.4	48.04	239.46
30.77	6 48 40	1694.81	41.87	49.73	110.42	142.79	7 16 55	1094.8	48.03	42.92
149.23	16 41 0	5281.43	41.88	246.27	110.44	142.78	18 9 1	4681.4	48.04	239.46

DIFFERENTIAL CORRECTIONS
TDE-2.2999 TRA .4931 TC3-2.5724 BAU .6017
RDE 1.4122 RRA -.3791 RC3 1.0217 FAU .07568
FDE-3.9692 FRA 1.2682 FC3-4.0295 BSP 15314
BDE 2.6989 BRA .6220 BC3 2.7679 FSP -2130

MID-COURSE EXECUTION ACCURACY
SGT 4171.8 SGR 2477.1 SG3 660.1
RRT -.9800 RRF -.9923 RTF .9850
SGB 4851.8 R23 .0843 R13 -.9907
SG1 4833.2 SG2 425.0 THA 149.54

ORBIT DETERMINATION ACCURACY
ST 3301.7 SR 2038.6 SS 2323.3
CRT -.9994 CRS .9995 CST -.9977
LSA 4520.8 MSA 131.0 SSA 10.3
EL1 3879.8 EL2 61.9 ALF 148.31

LAUNCH DATE AUG 3 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 482.757

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.836 GAL   2.31 AZL  95.49 HCA 218.19 SMA 129.06 ECC .18063 INC 5.4925 V1  29.349
RP  107.63 LAP   3.39 LOP 168.32 VP  37.920 GAP   4.13 AZP  85.68 TAL 169.43 TAP  27.62 RCA 105.75 APO 152.37 V2  35.211
RC 104.339 GL  -40.90 GP   39.11 ZAL  70.44 ZAP 123.92 ETS  29.90 ZAE 126.56 ETE 146.41 ZAC 134.61 ETC 251.06 CLP-136.00
```

PLANETOCENTRIC CONIC

```
C3  15.368 VHL  3.920 DLA -61.23 RAL 231.33 RAD 6567.6 VEL 11.694 PTH   2.06 VHP  4.635 OPA  26.01 RAP 226.51 ECC 1.2529
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.14	7 10 26	1672.18	41.61	46.08	112.13	139.93	7 38 18	1072.2	47.49	38.88
146.86	16 51 17	5278.49	41.62	245.42	112.14	139.92	18 19 15	4678.5	47.50	238.21
33.14	7 10 26	1672.18	41.61	46.08	112.13	139.93	7 38 18	1072.2	47.49	38.88
146.86	16 51 17	5278.49	41.62	245.42	112.14	139.92	18 19 15	4678.5	47.50	238.21
33.14	7 10 26	1672.18	41.61	46.08	112.13	139.93	7 38 18	1072.2	47.49	38.88
146.86	16 51 17	5278.49	41.62	245.42	112.14	139.92	18 19 15	4678.5	47.50	238.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE-2.2363 TRA  .6422 TC3-2.8962 BAU  .6260    SGT 4431.9 SGR 2210.8 SG3  664.4      ST  3321.1 SR  1746.2 SS  2175.1
RDE 1.1695 RRA -.3917 RC3  .9469 FAU .07625    RRT -.9790 RRF -.9898 RTF  .9856      CRT -.9996 CRS  .9990 CST -.9973
FDE-3.6000 FRA 1.4764 FC3-4.2952 BSP  15611    SGB 4952.7 R23  .0825 R13 -.9897      LSA 4335.0 MSA  133.6 SSA   11.2
BDE 2.5236 BRA  .7523 BC3 3.0470 FSP  -2160    SG1 4936.1 SG2  404.9 THA 153.78      EL1 3751.9 EL2   46.0 ALF 152.27
```

LAUNCH DATE AUG 3 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 488.903

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.818 GAL   2.49 AZL  95.11 HCA 221.42 SMA 128.94 ECC .18247 INC 5.1142 V1  29.349
RP  107.65 LAP   3.38 LOP 171.56 VP  37.899 GAP   4.52 AZP  86.16 TAL 168.69 TAP  30.11 RCA 105.41 APO 152.46 V2  35.202
RC 106.624 GL  -38.45 GP   35.94 ZAL  68.62 ZAP 127.53 ETS  30.71 ZAE 126.96 ETE 150.13 ZAC 131.63 ETC 252.02 CLP-138.80
```

PLANETOCENTRIC CONIC

```
C3  14.752 VHL  3.841 DLA -59.24 RAL 234.98 RAD 6567.6 VEL 11.668 PTH   2.05 VHP  4.651 OPA  22.97 RAP 225.43 ECC 1.2428
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.51	7 30 57	1652.14	41.07	42.61	113.72	137.28	7 58 29	1052.1	46.70	35.12
144.49	16 59 54	5280.21	41.08	244.84	113.74	137.28	18 27 54	4680.2	46.71	237.35
35.51	7 30 57	1652.14	41.07	42.61	113.72	137.28	7 58 29	1052.1	46.70	35.12
144.49	16 59 54	5280.21	41.08	244.84	113.74	137.28	18 27 54	4680.2	46.71	237.35
35.51	7 30 57	1652.14	41.07	42.61	113.72	137.28	7 58 29	1052.1	46.70	35.12
144.49	16 59 54	5280.21	41.08	244.84	113.74	137.28	18 27 54	4680.2	46.71	237.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE-2.1597 TRA  .7953 TC3-3.1833 BAU  .6502    SGT 4662.7 SGR 1973.8 SG3  656.9      ST  3296.9 SR  1500.0 SS  2014.0
RDE  .9783 RRA -.3957 RC3  .8576 FAU .07531    RRT -.9768 RRF -.9865 RTF  .9858      CRT -.9998 CRS  .9982 CST -.9968
FDE-3.2158 FRA 1.6538 FC3-4.4197 BSP  15939    SGB 5063.3 R23  .0784 R13 -.9888      LSA 4142.0 MSA  137.9 SSA   12.0
BDE 2.3709 BRA  .8883 BC3 3.2968 FSP  -2152    SG1 5048.3 SG2  390.0 THA 157.39      EL1 3621.9 EL2   30.3 ALF 155.54
```

LAUNCH DATE AUG 3 1970 FLIGHT TIME 178.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 495.026

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.798 GAL   2.70 AZL  94.78 HCA 224.65 SMA 128.80 ECC .18449 INC 4.7815 V1  29.349
RP  107.68 LAP   3.36 LOP 174.80 VP  37.877 GAP   4.91 AZP  86.59 TAL 167.92 TAP  32.57 RCA 105.04 APO 152.57 V2  35.193
RC 108.906 GL  -36.08 GP   33.08 ZAL  66.79 ZAP 130.91 ETS  31.33 ZAE 127.08 ETE 153.42 ZAC 129.00 ETC 252.78 CLP-141.41
```

PLANETOCENTRIC CONIC

```
C3  14.353 VHL  3.789 DLA -57.29 RAL 238.33 RAD 6567.6 VEL 11.651 PTH   2.05 VHP  4.702 OPA  20.15 RAP 224.70 ECC 1.2362
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.87	7 50 31	1634.11	40.33	39.34	115.27	134.85	8 17 45	1034.1	45.70	31.63
142.13	17 7 7	5286.07	40.34	244.56	115.29	134.84	18 35 13	4686.1	45.71	236.85
37.87	7 50 31	1634.11	40.33	39.34	115.27	134.85	8 17 45	1034.1	45.70	31.63
142.13	17 7 7	5286.07	40.34	244.56	115.29	134.84	18 35 13	4686.1	45.71	236.85
37.87	7 50 31	1634.11	40.33	39.34	115.27	134.85	8 17 45	1034.1	45.70	31.63
142.13	17 7 7	5286.07	40.34	244.56	115.29	134.84	18 35 13	4686.1	45.71	236.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE-2.0810 TRA  .9461 TC3-3.4488 BAU  .6782    SGT 4872.7 SGR 1767.3 SG3  641.2      ST  3246.8 SR  1300.6 SS  1855.9
RDE  .8321 RRA -.3909 RC3  .7734 FAU .07400    RRT -.9740 RRF -.9822 RTF  .9861      CRT -.9999 CRS  .9968 CST -.9962
FDE-2.8522 FRA 1.7876 FC3-4.4635 BSP  16488    SGB 5183.3 R23  .0703 R13 -.9883      LSA 3956.9 MSA  142.0 SSA   12.8
BDE 2.2412 BRA 1.0237 BC3 3.5345 FSP  -2149    SG1 5169.6 SG2  377.4 THA 160.43      EL1 3497.6 EL2   16.0 ALF 158.17
```

LAUNCH DATE AUG 3 1970 FLIGHT TIME 180.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 501.127

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.777 GAL   2.91 AZL  94.48 HCA 227.88 SMA 128.66 ECC .18668 INC 4.4849 V1  29.349
RP  107.71 LAP   3.32 LOP 178.04 VP  37.854 GAP   5.30 AZP  86.99 TAL 167.11 TAP  34.99 RCA 104.65 APO 152.68 V2  35.184
RC 111.186 GL  -33.79 GP   30.53 ZAL  64.92 ZAP 134.07 ETS  31.83 ZAE 127.01 ETE 156.32 ZAC 126.68 ETC 253.40 CLP-143.85
```

PLANETOCENTRIC CONIC

```
C3  14.135 VHL  3.760 DLA -55.36 RAL 241.46 RAD 6567.6 VEL 11.641 PTH   2.04 VHP  4.782 OPA  17.54 RAP 224.30 ECC 1.2326
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.21	8 9 23	1617.66	39.42	36.25	116.84	132.63	8 36 20	1017.7	44.56	28.40
139.79	17 13 10	5295.76	39.43	244.57	116.86	132.62	18 41 26	4695.8	44.57	236.72
40.21	8 9 23	1617.66	39.42	36.25	116.84	132.63	8 36 20	1017.7	44.56	28.40
139.79	17 13 10	5295.76	39.43	244.57	116.86	132.62	18 41 26	4695.8	44.57	236.72
40.21	8 9 23	1617.66	39.42	36.25	116.84	132.63	8 36 20	1017.7	44.56	28.40
139.79	17 13 10	5295.76	39.43	244.57	116.86	132.62	18 41 26	4695.8	44.57	236.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE-1.9851 TRA 1.1145 TC3-3.6363 BAU  .6988    SGT 5055.5 SGR 1587.1 SG3  619.1      ST  3156.3 SR  1129.5 SS  1686.8
RDE  .7121 RRA -.3888 RC3  .6709 FAU .07062    RRT -.9693 RRF -.9766 RTF  .9856      CRT -.9999 CRS  .9942 CST -.9950
FDE-2.4793 FRA 1.9196 FC3-4.3254 BSP  16734    SGB 5298.7 R23  .0651 R13 -.9872      LSA 3749.7 MSA  151.8 SSA   13.4
BDE 2.1090 BRA 1.1803 BC3 3.6977 FSP  -2071    SG1 5285.6 SG2  373.1 THA 162.99      EL1 3352.3 EL2   15.6 ALF 160.31
```

LAUNCH DATE AUG 3 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 507.202

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.755 GAL   3.15 AZL  94.22 HCA 231.10 SMA 128.52 ECC .18906 INC 4.2173 V1  29.349
RP  107.74 LAP   3.28 LOP 181.28 VP  37.829 GAP   5.70 AZP  87.35 TAL 166.27 TAP  37.37 RCA 104.22 APO 152.82 V2  35.174
RC 113.462 GL  -31.58 GP   28.25 ZAL  63.04 ZAP 137.02 ETS  32.24 ZAE 126.79 ETE 158.84 ZAC 124.65 ETC 253.92 CLP-146.14
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PLANETOCENTRIC CONIC

```
C3  14.071 VHL  3.751 DLA -53.47 RAL 244.38 RAD 6567.6 VEL 11.639 PTH   2.04 VHP  4.885 DPA  15.11 RAP 224.18 ECC 1.2316
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.54	8 27 41	1602.38	38.37	33.33	118.45	130.61	8 54 24	1002.4	43.29	25.40
137.46	17 18 9	5309.04	38.38	244.87	118.47	130.60	18 46 38	4709.0	43.30	236.94
42.54	8 27 41	1602.38	38.37	33.33	118.45	130.61	8 54 24	1002.4	43.29	25.40
137.46	17 18 9	5309.04	38.38	244.87	118.47	130.60	18 46 38	4709.0	43.30	236.94
42.54	8 27 41	1602.38	38.37	33.33	118.45	130.61	8 54 24	1002.4	43.29	25.40
137.46	17 18 9	5309.04	38.38	244.87	118.47	130.60	18 46 38	4709.0	43.30	236.94

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8890 TRA 1.2847 TC3-3.7868 BAU  .7206   SGT 5221.5 SGR 1432.9 SG3  593.3   ST  3051.3 SR   993.0 SS  1529.4
RDE  .6207 RRA -.3830 RC3  .5783 FAU .06708   RRT -.9634 RRF -.9695 RTF  .9852   CRT -.9995 CRS  .9899 CST -.9936
FDE-2.1423 FRA 2.0196 FC3-4.1268 BSP  17082   SGB 5414.6 R23  .0581 R13 -.9864   LSA 3550.9 MSA  162.3 SSA   14.0
BDE 1.9884 BRA 1.3406 BC3 3.8307 FSP  -1995   SG1 5401.8 SG2  371.1 THA 165.12   EL1 3208.7 EL2   30.5 ALF 161.98
```

LAUNCH DATE AUG 3 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 513.252

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.732 GAL   3.39 AZL  93.97 HCA 234.33 SMA 128.37 ECC .19164 INC 3.9731 V1  29.349
RP  107.77 LAP   3.23 LOP 184.52 VP  37.803 GAP   6.09 AZP  87.68 TAL 165.40 TAP  39.73 RCA 103.77 APO 152.97 V2  35.164
RC 115.736 GL  -29.45 GP   26.21 ZAL  64.15 ZAP 139.75 ETS  32.61 ZAE 126.48 ETE 161.02 ZAC 122.88 ETC 254.37 CLP-148.29
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PLANETOCENTRIC CONIC

```
C3  14.147 VHL  3.761 DLA -51.62 RAL 247.12 RAD 6567.6 VEL 11.642 PTH   2.04 VHP  5.008 DPA  12.86 RAP 224.31 ECC 1.2328
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.85	8 45 35	1588.04	37.22	30.57	120.12	128.77	9 12 3	988.0	41.94	22.60
135.15	17 22 11	5325.73	37.23	245.46	120.13	128.76	18 50 57	4725.7	41.95	237.49
44.85	8 45 35	1588.04	37.22	30.57	120.12	128.77	9 12 3	988.0	41.94	22.60
135.15	17 22 11	5325.73	37.23	245.46	120.13	128.76	18 50 57	4725.7	41.95	237.49
44.85	8 45 35	1588.04	37.22	30.57	120.12	128.77	9 12 3	988.0	41.94	22.60
135.15	17 22 11	5325.73	37.23	245.46	120.13	128.76	18 50 57	4725.7	41.95	237.49

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7908 TRA 1.4610 TC3-3.8911 BAU  .7418   SGT 5371.9 SGR 1301.6 SG3  565.4   ST  2933.6 SR   883.2 SS  1383.4
RDE  .5504 RRA -.3765 RC3  .4935 FAU .06325   RRT -.9561 RRF -.9608 RTF  .9846   CRT -.9983 CRS  .9828 CST -.9917
FDE-1.8369 FRA 2.0986 FC3-3.8705 BSP  17435   SGB 5527.4 R23  .0508 R13 -.9856   LSA 3356.9 MSA  174.7 SSA   14.4
BDE 1.8735 BRA 1.5087 BC3 3.9223 FSP  -1912   SG1 5514.8 SG2  371.6 THA 166.90   EL1 3063.2 EL2   49.8 ALF 163.27
```

LAUNCH DATE AUG 3 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 519.275

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.709 GAL   3.66 AZL  93.75 HCA 237.55 SMA 128.21 ECC .19441 INC 3.7480 V1  29.349
RP  107.80 LAP   3.16 LOP 187.75 VP  37.776 GAP   6.49 AZP  87.99 TAL 164.50 TAP  42.05 RCA 103.29 APO 153.14 V2  35.153
RC 118.005 GL  -27.38 GP   24.39 ZAL  59.26 ZAP 142.30 ETS  32.97 ZAE 126.11 ETE 162.90 ZAC 121.34 ETC 254.76 CLP-150.31
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PLANETOCENTRIC CONIC

```
C3  14.351 VHL  3.788 DLA -49.80 RAL 249.72 RAD 6567.6 VEL 11.651 PTH   2.05 VHP  5.148 DPA  10.77 RAP 224.66 ECC 1.2362
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.15	9 3 11	1574.29	35.98	27.95	121.86	127.10	9 29 25	974.3	40.52	19.97
132.85	17 25 16	5345.82	36.00	246.34	121.87	127.09	18 54 22	4745.8	40.53	238.36
47.15	9 3 11	1574.29	35.98	27.95	121.86	127.10	9 29 25	974.3	40.52	19.97
132.85	17 25 16	5345.82	36.00	246.34	121.87	127.09	18 54 22	4745.8	40.53	238.36
47.15	9 3 11	1574.29	35.98	27.95	121.86	127.10	9 29 25	974.3	40.52	19.97
132.85	17 25 16	5345.82	36.00	246.34	121.87	127.09	18 54 22	4745.8	40.53	238.36

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.6915 TRA 1.6434 TC3-3.9514 BAU  .7623   SGT 5508.1 SGR 1190.3 SG3  536.5   ST  2808.5 SR   795.4 SS  1250.8
RDE  .4969 RRA -.3699 RC3  .4179 FAU .05931   RRT -.9471 RRF -.9503 RTF  .9841   CRT -.9957 CRS  .9718 CST -.9893
FDE-1.5843 FRA 2.1597 FC3-3.5782 BSP  17807   SGB 5635.2 R23  .0435 R13 -.9848   LSA 3170.0 MSA  188.9 SSA   14.7
BDE 1.7630 BRA 1.6845 BC3 3.9735 FSP  -1828   SG1 5622.8 SG2  374.1 THA 168.38   EL1 2918.1 EL2   71.2 ALF 164.24
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LAUNCH DATE AUG 3 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 525.271

```
RL  151.81 LAL   -.00 LOL 310.26 VL  26.685 GAL   3.94 AZL  93.54 HCA 240.77 SMA 128.05 ECC .19740 INC 3.5386 V1  29.349
RP  107.84 LAP   3.09 LOP 190.98 VP  37.749 GAP   6.89 AZP  88.27 TAL 163.57 TAP  44.35 RCA 102.77 APO 153.33 V2  35.141
RC 120.271 GL  -25.40 GP   22.77 ZAL  57.37 ZAP 144.67 ETS  33.35 ZAE 125.70 ETE 164.53 ZAC 120.01 ETC 255.13 CLP-152.22
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PLANETOCENTRIC CONIC

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C3  14.679 VHL  3.831 DLA -48.03 RAL 252.17 RAD 6567.6 VEL 11.665 PTH   2.05 VHP  5.303 DPA   8.82 RAP 225.21 ECC 1.2416
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.43	9 20 35	1560.92	34.69	25.45	123.66	125.59	9 46 36	960.9	39.06	17.49
130.57	17 27 28	5369.23	34.70	247.50	123.67	125.57	18 56 57	4769.2	39.07	239.53
49.43	9 20 35	1560.92	34.69	25.45	123.66	125.59	9 46 36	960.9	39.06	17.49
130.57	17 27 28	5369.23	34.70	247.50	123.67	125.57	18 56 57	4769.2	39.07	239.53
49.43	9 20 35	1560.92	34.69	25.45	123.66	125.59	9 46 36	960.9	39.06	17.49
130.57	17 27 28	5369.23	34.70	247.50	123.67	125.57	18 56 57	4769.2	39.07	239.53

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.5910 TRA 1.8337 TC3-3.9671 BAU  .7816   SGT 5631.8 SGR 1096.5 SG3  507.8   ST  2680.0 SR   725.2 SS  1132.5
RDE  .4565 RRA -.3643 RC3  .3512 FAU .05532   RRT -.9365 RRF -.9381 RTF  .9835   CRT -.9909 CRS  .9554 CST -.9863
FDE-1.3223 FRA 2.2080 FC3-3.2624 BSP  18156   SGB 5737.5 R23  .0368 R13 -.9840   LSA 2991.4 MSA  205.0 SSA   14.9
BDE 1.6552 BRA 1.8695 BC3 3.9826 FSP  -1741   SG1 5725.0 SG2  378.1 THA 169.62   EL1 2774.8 EL2   94.5 ALF 164.97
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LAUNCH DATE AUG 3 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 531.236
RL 151.81 LAL -.00 LOL 310.26 VL 26.660 GAL 4.24 AZL 93.34 HCA 243.99 SMA 127.89 ECC .20062 INC 3.3421 V1 29.349
RP 107.87 LAP 3.00 LOP 194.21 VP 37.720 GAP 7.30 AZP 88.53 TAL 162.62 TAP 46.61 RCA 102.23 APO 153.55 V2 35.130
RC 122.531 GL -23.48 GP 21.32 ZAL 55.50 ZAP 146.88 ETS 33.76 ZAE 125.28 ETE 165.92 ZAC 118.86 ETC 255.47 CLP-154.03
PLANETOCENTRIC CONIC
C3 15.131 VHL 3.890 DLA -46.30 RAL 254.50 RAD 6567.6 VEL 11.684 PTH 2.05 VHP 5.472 DPA 7.00 RAP 225.94 ECC 1.2490

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.70	9 37 51	1547.73	33.34	23.05	125.54	124.21	10 3 39	947.7	37.56	15.12
128.30	17 28 47	5395.96	33.35	248.93	125.55	124.20	18 58 43	4796.0	37.57	241.00
51.70	9 37 51	1547.73	33.34	23.05	125.54	124.21	10 3 39	947.7	37.56	15.12
128.30	17 28 47	5395.96	33.35	248.93	125.55	124.20	18 58 43	4796.0	37.57	241.00
51.70	9 37 51	1547.73	33.34	23.05	125.54	124.21	10 3 39	947.7	37.56	15.12
128.30	17 28 47	5395.96	33.35	248.93	125.55	124.20	18 58 43	4796.0	37.57	241.00

DIFFERENTIAL CORRECTIONS
TDE-1.4889 TRA 2.0326 TC3-3.9405 BAU .7993
RDE .4263 RRA -.3600 RC3 .2930 FAU .05131
FDE-1.1075 FRA 2.2464 FC3-2.9356 BSP 18481
BDE 1.5487 BRA 2.0642 BC3 3.9513 FSP -1652

MID-COURSE EXECUTION ACCURACY
SGT 5743.5 SGR 1017.5 SG3 479.6
RRT -.9244 RRF -.9243 RTF .9828
SGB 5832.9 R23 .0309 R13 -.9832
SG1 5820.3 SG2 383.1 THA 170.66

ORBIT DETERMINATION ACCURACY
ST 2551.1 SR 668.8 SS 1028.3
CRT -.9829 CRS .9319 CST -.9826
LSA 2821.9 MSA 223.3 SSA 15.0
EL1 2634.7 EL2 119.4 ALF 165.52

LAUNCH DATE AUG 3 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 537.170
RL 151.81 LAL -.00 LOL 310.26 VL 26.634 GAL 4.56 AZL 93.16 HCA 247.21 SMA 127.72 ECC .20408 INC 3.1562 V1 29.349
RP 107.91 LAP 2.91 LOP 197.44 VP 37.691 GAP 7.72 AZP 88.78 TAL 161.65 TAP 48.86 RCA 101.65 APO 153.79 V2 35.118
RC 124.786 GL -21.64 GP 20.02 ZAL 53.66 ZAP 148.94 ETS 34.23 ZAE 124.85 ETE 167.13 ZAC 117.86 ETC 255.79 CLP-155.74
PLANETOCENTRIC CONIC
C3 15.708 VHL 3.963 DLA -44.62 RAL 256.72 RAD 6567.6 VEL 11.709 PTH 2.06 VHP 5.654 DPA 5.30 RAP 226.82 ECC 1.2585

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.95	9 55 4	1534.47	31.96	20.74	127.48	122.97	10 20 39	934.5	36.05	12.85
126.05	17 29 13	5426.07	31.97	250.64	127.49	122.96	18 59 39	4826.1	36.06	242.75
53.95	9 55 4	1534.47	31.96	20.74	127.48	122.97	10 20 39	934.5	36.05	12.85
126.05	17 29 13	5426.07	31.97	250.64	127.49	122.96	18 59 39	4826.1	36.06	242.75
53.95	9 55 4	1534.47	31.96	20.74	127.48	122.97	10 20 39	934.5	36.05	12.85
126.05	17 29 13	5426.07	31.97	250.64	127.49	122.96	18 59 39	4826.1	36.06	242.75

DIFFERENTIAL CORRECTIONS
TDE-1.3968 TRA 2.2293 TC3-3.9039 BAU .8215
RDE .4067 RRA -.3549 RC3 .2495 FAU .04806
FDE -.9326 FRA 2.2637 FC3-2.6485 BSP 19052
BDE 1.4548 BRA 2.2574 BC3 3.9119 FSP -1595

MID-COURSE EXECUTION ACCURACY
SGT 5844.3 SGR 950.9 SG3 452.0
RRT -.9110 RRF -.9090 RTF .9825
SGB 5921.1 R23 .0242 R13 -.9828
SG1 5908.4 SG2 388.0 THA 171.53

ORBIT DETERMINATION ACCURACY
ST 2435.4 SR 626.5 SS 942.8
CRT -.9710 CRS .9027 CST -.9792
LSA 2674.8 MSA 240.4 SSA 15.0
EL1 2510.5 EL2 145.3 ALF 165.93

LAUNCH DATE AUG 3 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 543.072
RL 151.81 LAL -.00 LOL 310.26 VL 26.608 GAL 4.90 AZL 92.98 HCA 250.43 SMA 127.55 ECC .20780 INC 2.9791 V1 29.349
RP 107.95 LAP 2.81 LOP 200.66 VP 37.661 GAP 8.14 AZP 89.00 TAL 160.65 TAP 51.08 RCA 101.04 APO 154.06 V2 35.105
RC 127.036 GL -19.88 GP 18.86 ZAL 51.84 ZAP 150.86 ETS 34.77 ZAE 124.43 ETE 168.17 ZAC 117.01 ETC 256.11 CLP-157.38
PLANETOCENTRIC CONIC
C3 16.416 VHL 4.052 DLA -42.99 RAL 258.82 RAD 6567.7 VEL 11.739 PTH 2.07 VHP 5.849 DPA 3.70 RAP 227.83 ECC 1.2702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.19	10 12 19	1520.95	30.56	18.48	129.49	121.84	10 37 40	921.0	34.52	10.65
123.81	17 28 45	5459.64	30.58	252.63	129.50	121.83	18 59 45	4859.6	34.54	244.79
56.19	10 12 19	1520.95	30.56	18.48	129.49	121.84	10 37 40	921.0	34.52	10.65
123.81	17 28 45	5459.64	30.58	252.63	129.50	121.83	18 59 45	4859.6	34.54	244.79
56.19	10 12 19	1520.95	30.56	18.48	129.49	121.84	10 37 40	921.0	34.52	10.65
123.81	17 28 45	5459.64	30.58	252.63	129.50	121.83	18 59 45	4859.6	34.54	244.79

DIFFERENTIAL CORRECTIONS
TDE-1.2858 TRA 2.4546 TC3-3.7874 BAU .8324
RDE .3896 RRA -.3550 RC3 .2030 FAU .04380
FDE -.7571 FRA 2.2969 FC3-2.3099 BSP 19157
BDE 1.3439 BRA 2.4801 BC3 3.7928 FSP -1491

MID-COURSE EXECUTION ACCURACY
SGT 5936.5 SGR 895.3 SG3 426.5
RRT -.8962 RRF -.8927 RTF .9815
SGB 6003.6 R23 .0207 R13 -.9817
SG1 5990.7 SG2 393.7 THA 172.27

ORBIT DETERMINATION ACCURACY
ST 2311.1 SR 588.2 SS 864.1
CRT -.9529 CRS .8594 CST -.9738
LSA 2522.7 MSA 263.7 SSA 15.1
EL1 2378.4 EL2 173.4 ALF 166.29

LAUNCH DATE AUG 3 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 548.939
RL 151.81 LAL -.00 LOL 310.26 VL 26.582 GAL 5.25 AZL 92.81 HCA 253.64 SMA 127.38 ECC .21180 INC 2.8090 V1 29.349
RP 107.99 LAP 2.70 LOP 203.88 VP 37.631 GAP 8.57 AZP 89.21 TAL 159.63 TAP 53.28 RCA 100.40 APO 154.36 V2 35.093
RC 129.278 GL -18.19 GP 17.82 ZAL 50.07 ZAP 152.67 ETS 35.40 ZAE 124.02 ETE 169.06 ZAC 116.28 ETC 256.43 CLP-158.94
PLANETOCENTRIC CONIC
C3 17.262 VHL 4.155 DLA -41.41 RAL 260.82 RAD 6567.7 VEL 11.775 PTH 2.08 VHP 6.056 DPA 2.19 RAP 228.97 ECC 1.2841

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.43	10 29 41	1506.89	29.15	16.26	131.57	120.81	10 54 48	906.9	33.00	8.48
121.57	17 27 20	5496.80	29.16	254.90	131.57	120.80	18 58 57	4896.8	33.01	247.12
58.43	10 29 41	1506.89	29.15	16.26	131.57	120.81	10 54 48	906.9	33.00	8.48
121.57	17 27 20	5496.80	29.16	254.90	131.57	120.80	18 58 57	4896.8	33.01	247.12
58.43	10 29 41	1506.89	29.15	16.26	131.57	120.81	10 54 48	906.9	33.00	8.48
121.57	17 27 20	5496.80	29.16	254.90	131.57	120.80	18 58 57	4896.8	33.01	247.12

DIFFERENTIAL CORRECTIONS
TDE-1.1796 TRA 2.6840 TC3-3.6572 BAU .8449
RDE .3791 RRA -.3554 RC3 .1671 FAU .04007
FDE -.6100 FRA 2.3178 FC3-2.0095 BSP 19379
BDE 1.2390 BRA 2.7074 BC3 3.6610 FSP -1406

MID-COURSE EXECUTION ACCURACY
SGT 6019.5 SGR 848.3 SG3 402.1
RRT -.8807 RRF -.8755 RTF .9807
SGB 6079.0 R23 .0169 R13 -.9809
SG1 6065.9 SG2 398.8 THA 172.89

ORBIT DETERMINATION ACCURACY
ST 2201.5 SR 558.4 SS 801.2
CRT -.9283 CRS .8077 CST -.9688
LSA 2391.2 MSA 286.2 SSA 15.0
EL1 2262.2 EL2 202.1 ALF 166.64

LAUNCH DATE AUG 3 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 554.767

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RL  151.81 LAL   -.00 LOL 310.26 VL  26.555 GAL   5.64 AZL  92.64 HCA 256.86 SMA 127.20 ECC .21609 INC 2.6445 V1  29.349
RP  108.03 LAP   2.58 LOP 207.10 VP  37.600 GAP   9.01 AZP  89.40 TAL 158.60 TAP  55.46 RCA  99.72 APO 154.69 V2  35.080
RC 131.513 GL  -16.58 GP   16.88 ZAL  48.33 ZAP 154.37 ETS  36.14 ZAE 123.63 ETE 169.84 ZAC 115.65 ETC 256.75 CLP-160.43
PLANETOCENTRIC CONIC
C3  18.256 VHL  4.273 DLA -39.88 RAL 262.72 RAD 6567.7 VEL 11.817 PTH   2.09 VHP  6.276 DPA    .77 RAP 230.23 ECC 1.3004
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.66	10 47 13	1492.11	27.74	14.05	133.69	119.88	11 12 5	892.1	31.48	6.33
119.34	17 24 58	5537.62	27.75	257.45	133.70	119.87	18 57 16	4937.6	31.50	249.73
60.66	10 47 13	1492.11	27.74	14.05	133.69	119.88	11 12 5	892.1	31.48	6.33
119.34	17 24 58	5537.62	27.75	257.45	133.70	119.87	18 57 16	4937.6	31.50	249.73
60.66	10 47 13	1492.11	27.74	14.05	133.69	119.88	11 12 5	892.1	31.48	6.33
119.34	17 24 58	5537.62	27.75	257.45	133.70	119.87	18 57 16	4937.6	31.50	249.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-1.0748 TRA 2.9225 TC3-3.5081 BAU  .8569   SGT 6094.5 SGR  808.7 SG3  379.1          ST  2105.4 SR   534.4 SS   751.1
RDE  .3733 RRA -.3571 RC3  .1381 FAU .03661   RRT -.8648 RRF -.8581 RTF  .9801          CRT -.8964 CRS  .7480 CST -.9644
FDE -.4835 FRA 2.3336 FC3-1.7359 BSP  19627   SGB 6147.9 R23  .0135 R13 -.9802          LSA 2277.5 MSA  308.4 SSA   14.9
BDE 1.1378 BRA 2.9443 BC3 3.5108 FSP  -1329   SG1 6134.7 SG2  403.4 THA 173.43          EL1 2159.9 EL2  230.9 ALF 167.03
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LAUNCH DATE AUG 3 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 560.554

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RL  151.81 LAL   -.00 LOL 310.26 VL  26.527 GAL   6.04 AZL  92.48 HCA 260.07 SMA 127.03 ECC .22071 INC 2.4844 V1  29.349
RP  108.07 LAP   2.45 LOP 210.31 VP  37.568 GAP   9.46 AZP  89.57 TAL 157.56 TAP  57.63 RCA  98.99 APO 155.06 V2  35.067
RC 133.740 GL  -15.04 GP   16.04 ZAL  46.65 ZAP 155.97 ETS  37.01 ZAE 123.25 ETE 170.51 ZAC 115.11 ETC 257.07 CLP-161.86
PLANETOCENTRIC CONIC
C3  19.412 VHL  4.406 DLA -38.40 RAL 264.53 RAD 6567.8 VEL 11.866 PTH   2.10 VHP  6.508 DPA   -.57 RAP 231.58 ECC 1.3195
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.90	11 5 3	1476.21	26.33	11.83	135.87	119.03	11 29 39	876.2	29.98	4.17
117.10	17 21 33	5582.42	26.34	260.30	135.88	119.02	18 54 35	4982.4	30.00	252.64
62.90	11 5 3	1476.21	26.33	11.83	135.87	119.03	11 29 39	876.2	29.98	4.17
117.10	17 21 33	5582.42	26.34	260.30	135.88	119.02	18 54 35	4982.4	30.00	252.64
62.90	11 5 3	1476.21	26.33	11.83	135.87	119.03	11 29 39	876.2	29.98	4.17
117.10	17 21 33	5582.42	26.34	260.30	135.88	119.02	18 54 35	4982.4	30.00	252.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.9697 TRA 3.1717 TC3-3.3400 BAU  .8673   SGT 6160.7 SGR  774.8 SG3  357.4          ST  2022.6 SR   514.6 SS   711.6
RDE  .3709 RRA -.3603 RC3  .1143 FAU .03331   RRT -.8488 RRF -.8406 RTF  .9794          CRT -.8567 CRS  .6814 CST -.9610
FDE -.3731 FRA 2.3464 FC3-1.4857 BSP  19866   SGB 6209.2 R23  .0106 R13 -.9795          LSA 2180.2 MSA  329.9 SSA   14.8
BDE 1.0382 BRA 3.1922 BC3 3.3420 FSP  -1256   SG1 6195.9 SG2  407.3 THA 173.88          EL1 2070.9 EL2  259.2 ALF 167.51
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LAUNCH DATE AUG 3 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 566.296

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RL  151.81 LAL   -.00 LOL 310.26 VL  26.500 GAL   6.47 AZL  92.33 HCA 263.27 SMA 126.85 ECC .22567 INC 2.3275 V1  29.349
RP  108.11 LAP   2.31 LOP 213.52 VP  37.537 GAP   9.93 AZP  89.73 TAL 156.50 TAP  59.78 RCA  98.22 APO 155.47 V2  35.054
RC 135.957 GL  -13.58 GP   15.28 ZAL  45.01 ZAP 157.48 ETS  38.02 ZAE 122.88 ETE 171.10 ZAC 114.65 ETC 257.41 CLP-163.25
PLANETOCENTRIC CONIC
C3  20.745 VHL  4.555 DLA -36.98 RAL 266.24 RAD 6567.8 VEL 11.922 PTH   2.12 VHP  6.754 DPA  -1.84 RAP 233.02 ECC 1.3414
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.15	11 23 18	1458.80	24.93	9.56	138.11	118.25	11 47 37	858.8	28.50	1.96
114.85	17 17 0	5631.47	24.95	263.47	138.11	118.24	18 50 51	5031.5	28.51	255.86
65.15	11 23 18	1458.80	24.93	9.56	138.11	118.25	11 47 37	858.8	28.50	1.96
114.85	17 17 0	5631.47	24.95	263.47	138.11	118.24	18 50 51	5031.5	28.51	255.86
65.15	11 23 18	1458.80	24.93	9.56	138.11	118.25	11 47 37	858.8	28.50	1.96
114.85	17 17 0	5631.47	24.95	263.47	138.11	118.24	18 50 51	5031.5	28.51	255.86

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.8636 TRA 3.4336 TC3-3.1571 BAU  .8760   SGT 6219.9 SGR  745.6 SG3  337.1          ST  1954.2 SR   497.7 SS   681.3
RDE  .3712 RRA -.3651 RC3  .0947 FAU .03019   RRT -.8331 RRF -.8236 RTF  .9788          CRT -.8093 CRS  .6104 CST -.9590
FDE -.2767 FRA 2.3576 FC3-1.2600 BSP  20083   SGB 6264.4 R23  .0082 R13 -.9789          LSA 2099.5 MSA  350.0 SSA   14.6
BDE  .9400 BRA 3.4529 BC3 3.1586 FSP  -1187   SG1 6251.0 SG2  410.3 THA 174.27          EL1 1996.2 EL2  286.2 ALF 168.10
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LAUNCH DATE AUG 3 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 571.990

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RL  151.81 LAL   -.00 LOL 310.26 VL  26.472 GAL   6.93 AZL  92.17 HCA 266.48 SMA 126.67 ECC .23102 INC 2.1728 V1  29.349
RP  108.15 LAP   2.17 LOP 216.73 VP  37.505 GAP  10.42 AZP  89.87 TAL 155.44 TAP  61.92 RCA  97.41 APO 155.93 V2  35.041
RC 138.166 GL  -12.19 GP   14.59 ZAL  43.44 ZAP 158.90 ETS  39.19 ZAE 122.54 ETE 171.61 ZAC 114.26 ETC 257.75 CLP-164.59
PLANETOCENTRIC CONIC
C3  22.276 VHL  4.720 DLA -35.62 RAL 267.87 RAD 6567.9 VEL 11.986 PTH   2.14 VHP  7.014 DPA  -3.04 RAP 234.54 ECC 1.3666
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.43	11 42 8	1439.40	23.55	7.20	140.38	117.53	12 6 7	839.4	27.04	359.65
112.57	17 11 11	5685.19	23.56	266.98	140.39	117.52	18 45 56	5085.2	27.05	259.43
67.43	11 42 8	1439.40	23.55	7.20	140.38	117.53	12 6 7	839.4	27.04	359.65
112.57	17 11 11	5685.19	23.56	266.98	140.39	117.52	18 45 56	5085.2	27.05	259.43
67.43	11 42 8	1439.40	23.55	7.20	140.38	117.53	12 6 7	839.4	27.04	359.65
112.57	17 11 11	5685.19	23.56	266.98	140.39	117.52	18 45 56	5085.2	27.05	259.43

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.7566 TRA 3.7082 TC3-2.9645 BAU  .8832   SGT 6272.0 SGR  720.1 SG3  318.1          ST  1900.1 SR   483.2 SS   658.5
RDE  .3737 RRA -.3712 RC3  .0788 FAU .02726   RRT -.8179 RRF -.8072 RTF  .9783          CRT -.7550 CRS  .5381 CST -.9587
FDE -.1926 FRA 2.3678 FC3-1.0596 BSP  20296   SGB 6313.2 R23  .0062 R13 -.9784          LSA 2035.2 MSA  367.7 SSA   14.4
BDE  .8439 BRA 3.7267 BC3 2.9655 FSP  -1124   SG1 6299.7 SG2  412.5 THA 174.61          EL1 1935.8 EL2  311.0 ALF 168.84
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LAUNCH DATE AUG 3 1970 FLIGHT TIME 206.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 577.629
RL 151.81 LAL -.00 LOL 310.26 VL 26.444 GAL 7.42 AZL 92.02 HCA 269.68 SMA 126.49 ECC .23678 INC 2.0193 V1 29.349
RP 108.19 LAP 2.02 LOP 219.94 VP 37.472 GAP 10.92 AZP 89.99 TAL 154.37 TAP 64.05 RCA 96.54 APO 156.44 V2 35.028
RC 140.364 GL -10.87 GP 13.96 ZAL 41.92 ZAP 160.25 ETS 40.56 ZAE 122.20 ETE 172.05 ZAC 113.93 ETC 258.11 CLP-165.89
PLANETOCENTRIC CONIC
C3 24.028 VHL 4.902 DLA -34.31 RAL 269.42 RAD 6568.0 VEL 12.058 PTH 2.16 VHP 7.290 DPA -4.17 RAP 236.13 ECC 1.3954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.77	12 1 47	1417.16	22.18	4.68	142.71	116.87	12 25 24	817.2	25.60	357.19
110.23	17 3 53	5744.33	22.20	270.88	142.71	116.86	18 39 37	5144.3	25.62	263.39
69.77	12 1 47	1417.16	22.18	4.68	142.71	116.87	12 25 24	817.2	25.60	357.19
110.23	17 3 53	5744.33	22.20	270.88	142.71	116.86	18 39 37	5144.3	25.62	263.39
69.77	12 1 47	1417.16	22.18	4.68	142.71	116.87	12 25 24	817.2	25.60	357.19
110.23	17 3 53	5744.33	22.20	270.88	142.71	116.86	18 39 37	5144.3	25.62	263.39

DIFFERENTIAL CORRECTIONS
TDE -.6490 TRA 3.9963 TC3-2.7653 BAU .8885
RDE .3780 RRA -.3787 RC3 .0658 FAU .02450
FDE -.1191 FRA 2.3774 FC3 -.8828 BSP 20507
BDE .7511 BRA 4.0142 BC3 2.7661 FSP -1064

MID-COURSE EXECUTION ACCURACY
SGT 6317.0 SGR 697.5 SG3 300.4
RRT -.8035 RRF -.7918 RTF .9779
SGB 6355.3 R23 .0044 R13 -.9780
SG1 6341.9 SG2 413.6 THA 174.91

ORBIT DETERMINATION ACCURACY
ST 1860.2 SR 470.2 SS 641.9
CRT -.6952 CRS .4671 CST -.9600
LSA 1986.7 MSA 382.5 SSA 14.2
EL1 1889.6 EL2 332.7 ALF 169.71

LAUNCH DATE AUG 3 1970 FLIGHT TIME 208.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 583.208
RL 151.81 LAL -.00 LOL 310.26 VL 26.416 GAL 7.94 AZL 91.87 HCA 272.88 SMA 126.31 ECC .24300 INC 1.8661 V1 29.349
RP 108.23 LAP 1.86 LOP 223.14 VP 37.440 GAP 11.44 AZP 90.09 TAL 153.30 TAP 66.18 RCA 95.62 APO 157.00 V2 35.014
RC 142.552 GL -9.61 GP 13.39 ZAL 40.46 ZAP 161.52 ETS 42.16 ZAE 121.88 ETE 172.44 ZAC 113.64 ETC 258.47 CLP-167.15
PLANETOCENTRIC CONIC
C3 26.028 VHL 5.102 DLA -33.05 RAL 270.89 RAD 6568.1 VEL 12.141 PTH 2.18 VHP 7.582 DPA -5.24 RAP 237.78 ECC 1.4284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.19	12 22 34	1391.11	20.84	1.94	145.06	116.25	12 45 46	791.1	24.20	354.49
107.81	16 54 49	5809.77	20.86	275.24	145.07	116.24	18 31 38	5209.8	24.21	267.79
72.19	12 22 34	1391.11	20.84	1.94	145.06	116.25	12 45 46	791.1	24.20	354.49
107.81	16 54 49	5809.77	20.86	275.24	145.07	116.24	18 31 38	5209.8	24.21	267.79
110.00	16 1 55	684.37	14.70	306.37	141.53	121.21	16 13 19	84.4	18.73	299.57
110.00	18 14 39	5564.51	27.26	259.35	148.17	111.47	19 47 23	4964.5	29.93	251.18

DIFFERENTIAL CORRECTIONS
TDE -.5411 TRA 4.2986 TC3-2.5635 BAU .8922
RDE .3839 RRA -.3873 RC3 .0552 FAU .02191
FDE -.0553 FRA 2.3870 FC3 -.7288 BSP 20726
BDE .6634 BRA 4.3160 BC3 2.5641 FSP -1010

MID-COURSE EXECUTION ACCURACY
SGT 6355.0 SGR 677.0 SG3 283.8
RRT -.7899 RRF -.7774 RTF .9776
SGB 6390.9 R23 .0031 R13 -.9777
SG1 6377.5 SG2 413.7 THA 175.17

ORBIT DETERMINATION ACCURACY
ST 1833.3 SR 458.4 SS 630.0
CRT -.6320 CRS .3997 CST -.9627
LSA 1952.7 MSA 393.7 SSA 14.0
EL1 1857.0 EL2 350.7 ALF 170.69

LAUNCH DATE AUG 3 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 588.720
RL 151.81 LAL -.00 LOL 310.26 VL 26.387 GAL 8.50 AZL 91.71 HCA 276.08 SMA 126.13 ECC .24972 INC 1.7120 V1 29.349
RP 108.27 LAP 1.70 LOP 226.34 VP 37.408 GAP 11.99 AZP 90.18 TAL 152.22 TAP 68.31 RCA 94.63 APO 157.63 V2 35.001
RC 144.730 GL -8.43 GP 12.88 ZAL 39.07 ZAP 162.73 ETS 44.01 ZAE 121.57 ETE 172.79 ZAC 113.40 ETC 258.85 CLP-168.39
PLANETOCENTRIC CONIC
C3 28.311 VHL 5.321 DLA -31.85 RAL 272.28 RAD 6568.1 VEL 12.235 PTH 2.20 VHP 7.892 DPA -6.25 RAP 239.50 ECC 1.4659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.76	12 45 2	1359.45	19.53	358.84	147.46	115.68	13 7 41	759.5	22.82	351.43
105.24	16 43 27	5883.22	19.54	280.18	147.47	115.67	18 21 30	5283.2	22.83	272.77
74.76	12 45 2	1359.45	19.53	358.84	147.46	115.68	13 7 41	759.5	22.82	351.43
105.24	16 43 27	5883.22	19.54	280.18	147.47	115.67	18 21 30	5283.2	22.83	272.77
110.00	15 38 49	795.97	10.68	312.52	142.35	122.67	15 52 5	196.0	14.91	305.97
110.00	18 48 50	5494.70	28.91	254.59	151.69	109.09	20 20 25	4894.7	31.24	246.16

DIFFERENTIAL CORRECTIONS
TDE -.4323 TRA 4.6160 TC3-2.3612 BAU .8938
RDE .3909 RRA -.3970 RC3 .0464 FAU .01948
FDE .0003 FRA 2.3968 FC3 -.5957 BSP 20954
BDE .5828 BRA 4.6331 BC3 2.3616 FSP -960

MID-COURSE EXECUTION ACCURACY
SGT 6385.6 SGR 658.0 SG3 268.2
RRT -.7772 RRF -.7641 RTF .9775
SGB 6419.5 R23 .0019 R13 -.9775
SG1 6406.2 SG2 412.7 THA 175.40

ORBIT DETERMINATION ACCURACY
ST 1817.8 SR 447.2 SS 621.7
CRT -.5672 CRS .3373 CST -.9663
LSA 1931.3 MSA 401.3 SSA 13.7
EL1 1836.2 EL2 364.6 ALF 171.73

LAUNCH DATE AUG 3 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 594.156
RL 151.81 LAL -.00 LOL 310.26 VL 26.359 GAL 9.09 AZL 91.56 HCA 279.28 SMA 125.95 ECC .25699 INC 1.5562 V1 29.349
RP 108.31 LAP 1.54 LOP 229.54 VP 37.375 GAP 12.57 AZP 90.25 TAL 151.16 TAP 70.43 RCA 93.58 APO 158.32 V2 34.988
RC 146.899 GL -7.30 GP 12.41 ZAL 37.75 ZAP 163.86 ETS 46.16 ZAE 121.26 ETE 173.09 ZAC 113.19 ETC 259.24 CLP-169.60
PLANETOCENTRIC CONIC
C3 30.916 VHL 5.560 DLA -30.71 RAL 273.60 RAD 6568.2 VEL 12.341 PTH 2.23 VHP 8.223 DPA -7.21 RAP 241.26 ECC 1.5088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.59	13 10 10	1318.92	18.24	355.13	149.88	115.14	13 32 9	718.9	21.47	347.77
102.41	16 28 49	679.80	18.25	308.01	149.89	115.13	16 40 8	79.8	21.49	300.65
77.59	13 10 10	1318.92	18.24	355.13	149.88	115.14	13 32 9	718.9	21.47	347.77
102.41	16 28 49	679.80	18.25	308.01	149.89	115.13	16 40 8	79.8	21.49	300.65
110.00	15 23 21	885.36	7.35	317.31	143.63	123.48	15 38 6	285.4	11.71	310.91
110.00	19 14 48	5449.40	29.88	251.42	154.84	107.44	20 45 38	4849.4	31.97	242.83

DIFFERENTIAL CORRECTIONS
TDE -.3225 TRA 4.9506 TC3-2.1607 BAU .8932
RDE .3989 RRA -.4078 RC3 .0391 FAU .01719
FDE .0488 FRA 2.4079 FC3 -.4813 BSP 21186
BDE .5130 BRA 4.9674 BC3 2.1611 FSP -913

MID-COURSE EXECUTION ACCURACY
SGT 6410.1 SGR 640.1 SG3 253.6
RRT -.7655 RRF -.7520 RTF .9774
SGB 6442.0 R23 .0010 R13 -.9775
SG1 6428.9 SG2 410.7 THA 175.61

ORBIT DETERMINATION ACCURACY
ST 1812.2 SR 436.4 SS 616.2
CRT -.5028 CRS .2807 CST -.9705
LSA 1920.9 MSA 405.2 SSA 13.4
EL1 1826.1 EL2 374.4 ALF 172.79

LAUNCH DATE AUG 3 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 599.506

RL 151.81 LAL -.00 LOL 310.26 VL 26.330 GAL 9.73 AZL 91.40 HCA 282.47 SMA 125.77 ECC .26487 INC 1.3977 V1 29.349
RP 108.35 LAP 1.36 LOP 232.73 VP 37.343 GAP 13.18 AZP 90.30 TAL 150.10 TAP 72.57 RCA 92.46 APO 159.09 V2 34.975
RC 149.057 GL -6.24 GP 11.98 ZAL 36.49 ZAP 164.93 ETS 48.65 ZAE 120.96 ETE 173.36 ZAC 113.01 ETC 259.65 CLP-170.79

PLANETOCENTRIC CONIC

C3 33.891 VHL 5.822 DLA -29.61 RAL 274.84 RAD 6568.3 VEL 12.460 PTH 2.25 VHP 8.575 DPA -8.11 RAP 243.07 ECC 1.5578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.95	13 40 16	1261.94	16.98	350.27	152.33	114.64	14 1 18	661.9	20.16	342.94
99.05	16 8 36	783.06	16.99	315.09	152.34	114.62	16 21 39	183.1	20.17	307.77
100.00	15 41 34	869.57	13.89	319.96	150.79	116.74	15 56 3	269.6	17.36	312.90
100.00	16 50 0	650.67	20.14	306.72	153.79	112.57	17 0 51	50.7	23.02	299.11
110.00	15 11 40	963.84	4.39	321.45	145.17	123.93	15 27 43	363.8	8.81	315.15
110.00	19 36 24	5417.19	30.51	249.13	157.82	106.21	21 6 41	4817.2	32.43	240.43

DIFFERENTIAL CORRECTIONS
TDE -.2107 TRA 5.3038 TC3-1.9632 BAU .8896
RDE .4076 RRA -.4194 RC3 .0328 FAU .01501
FDE .0917 FRA 2.4205 FC3 -.3835 BSP 21423
BDE .4589 BRA 5.3204 BC3 1.9635 FSP -870

MID-COURSE EXECUTION ACCURACY
SGT 6428.0 SGR 622.7 SG3 240.0
RRT -.7547 RRF -.7410 RTF .9775
SGB 6458.1 R23 .0004 R13 -.9776
SG1 6445.2 SG2 407.5 THA 175.80

ORBIT DETERMINATION ACCURACY
ST 1814.5 SR 425.7 SS 612.8
CRT -.4399 CRS .2297 CST -.9748
LSA 1919.5 MSA 405.7 SSA 13.2
EL1 1824.6 EL2 380.2 ALF 173.84

LAUNCH DATE AUG 3 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 604.758

RL 151.81 LAL -.00 LOL 310.26 VL 26.302 GAL 10.41 AZL 91.24 HCA 285.66 SMA 125.59 ECC .27344 INC 1.2353 V1 29.349
RP 108.39 LAP 1.19 LOP 235.92 VP 37.311 GAP 13.82 AZP 90.33 TAL 149.06 TAP 74.72 RCA 91.25 APO 159.94 V2 34.962
RC 151.205 GL -5.24 GP 11.59 ZAL 35.30 ZAP 165.93 ETS 51.54 ZAE 120.66 ETE 173.59 ZAC 112.86 ETC 260.06 CLP-171.97

PLANETOCENTRIC CONIC

C3 37.295 VHL 6.107 DLA -28.57 RAL 276.01 RAD 6568.5 VEL 12.596 PTH 2.28 VHP 8.953 DPA -8.95 RAP 244.91 ECC 1.6138

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.02	14 25 43	1154.81	15.75	341.80	154.80	114.15	14 44 58	554.8	18.88	334.50
93.98	15 32 30	938.53	15.76	325.97	154.81	114.14	15 48 8	338.5	18.89	318.67
100.00	15 5 58	1024.13	8.99	328.82	151.37	118.63	15 23 2	424.1	12.74	322.04
100.00	17 34 56	5832.49	22.76	277.83	157.81	109.92	19 12 8	5232.5	25.27	269.92
110.00	15 2 20	1035.59	1.65	325.20	146.88	124.15	15 19 35	435.6	6.12	318.96
110.00	19 55 4	5393.79	30.95	247.44	160.72	105.30	21 24 57	4793.8	32.73	238.67

DIFFERENTIAL CORRECTIONS
TDE -.0960 TRA 5.6788 TC3-1.7694 BAU .8823
RDE .4168 RRA -.4318 RC3 .0271 FAU .01292
FDE .1302 FRA 2.4361 FC3 -.2999 BSP 21625
BDE .4277 BRA 5.6952 BC3 1.7696 FSP -828

MID-COURSE EXECUTION ACCURACY
SGT 6440.8 SGR 605.7 SG3 227.3
RRT -.7449 RRF -.7311 RTF .9778
SGB 6469.2 R23 -.0001 R13 -.9778
SG1 6456.7 SG2 403.1 THA 175.98

ORBIT DETERMINATION ACCURACY
ST 1823.4 SR 414.8 SS 611.3
CRT -.3797 CRS .1839 CST -.9789
LSA 1925.6 MSA 403.3 SSA 12.9
EL1 1830.5 EL2 382.3 ALF 174.84

LAUNCH DATE AUG 3 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 609.897

RL 151.81 LAL -.00 LOL 310.26 VL 26.274 GAL 11.14 AZL 91.07 HCA 288.85 SMA 125.42 ECC .28277 INC 1.0678 V1 29.349
RP 108.43 LAP 1.01 LOP 239.11 VP 37.279 GAP 14.51 AZP 90.35 TAL 148.03 TAP 76.88 RCA 89.95 APO 160.88 V2 34.949
RC 153.343 GL -4.29 GP 11.23 ZAL 34.18 ZAP 166.86 ETS 54.91 ZAE 120.36 ETE 173.81 ZAC 112.72 ETC 260.49 CLP-173.14

PLANETOCENTRIC CONIC

C3 41.197 VHL 6.419 DLA -27.58 RAL 277.11 RAD 6568.6 VEL 12.750 PTH 2.32 VHP 9.358 DPA -9.75 RAP 246.79 ECC 1.6780

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 6 50	1256.31	9.48	346.15	154.85	116.81	14 27 46	656.3	13.00	339.25
90.00	16 0 8	887.30	19.75	323.95	159.51	110.71	16 14 56	287.3	22.40	316.28
100.00	14 46 24	1128.44	5.54	334.64	152.72	119.42	15 5 12	528.4	9.42	328.00
100.00	18 3 16	5778.44	23.97	274.27	161.13	108.42	19 39 34	5178.4	26.26	266.22
110.00	14 54 36	1102.66	-.91	328.70	148.73	124.17	15 12 59	502.7	3.58	322.49
110.00	20 11 32	5376.99	31.24	246.22	163.56	104.64	21 41 9	4777.0	32.93	237.40

DIFFERENTIAL CORRECTIONS
TDE .0227 TRA 6.0780 TC3-1.5801 BAU .8703
RDE .4263 RRA -.4450 RC3 .0220 FAU .01088
FDE .1653 FRA 2.4552 FC3 -.2286 BSP 21797
BDE .4269 BRA 6.0942 BC3 1.5802 FSP -788

MID-COURSE EXECUTION ACCURACY
SGT 6448.5 SGR 588.6 SG3 215.5
RRT -.7358 RRF -.7222 RTF .9782
SGB 6475.3 R23 -.0005 R13 -.9782
SG1 6463.1 SG2 397.7 THA 176.14

ORBIT DETERMINATION ACCURACY
ST 1837.5 SR 403.6 SS 611.6
CRT -.3226 CRS .1429 CST -.9827
LSA 1937.7 MSA 398.1 SSA 12.6
EL1 1842.3 EL2 381.0 ALF 175.77

LAUNCH DATE AUG 3 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 614.906

RL 151.81 LAL -.00 LOL 310.26 VL 26.246 GAL 11.93 AZL 90.89 HCA 292.03 SMA 125.24 ECC .29294 INC .8941 V1 29.349
RP 108.47 LAP .83 LOP 242.29 VP 37.248 GAP 15.24 AZP 90.34 TAL 147.03 TAP 79.07 RCA 88.55 APO 161.93 V2 34.937
RC 155.470 GL -3.40 GP 10.91 ZAL 33.13 ZAP 167.71 ETS 58.81 ZAE 120.05 ETE 174.00 ZAC 112.60 ETC 260.92 CLP-174.31

PLANETOCENTRIC CONIC

C3 45.682 VHL 6.759 DLA -26.64 RAL 278.13 RAD 6568.7 VEL 12.925 PTH 2.36 VHP 9.795 DPA -10.49 RAP 248.69 ECC 1.7518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 42 5	1377.83	5.68	353.06	156.06	117.79	14 5 3	777.8	9.36	346.31
90.00	16 33 4	817.83	21.36	319.49	163.02	109.04	16 46 42	217.8	23.77	311.65
100.00	14 32 15	1215.80	2.60	339.46	154.36	119.79	14 52 31	615.8	6.54	332.90
100.00	18 25 35	5743.13	24.71	271.90	164.21	107.38	20 1 18	5143.1	26.85	263.76
110.00	14 48 3	1166.23	-3.34	332.02	150.67	124.04	15 7 29	566.2	1.15	325.81
110.00	20 26 17	5365.46	31.44	245.38	166.36	104.17	21 55 42	4765.5	33.06	236.53

DIFFERENTIAL CORRECTIONS
TDE .1464 TRA 6.5041 TC3-1.3960 BAU .8527
RDE .4360 RRA -.4587 RC3 .0173 FAU .00888
FDE .1976 FRA 2.4783 FC3 -.1682 BSP 21920
BDE .4599 BRA 6.5203 BC3 1.3961 FSP -748

MID-COURSE EXECUTION ACCURACY
SGT 6451.8 SGR 571.3 SG3 204.5
RRT -.7275 RRF -.7142 RTF .9787
SGB 6477.0 R23 -.0007 R13 -.9787
SG1 6465.2 SG2 391.1 THA 176.30

ORBIT DETERMINATION ACCURACY
ST 1855.5 SR 391.9 SS 613.4
CRT -.2691 CRS .1060 CST -.9860
LSA 1954.5 MSA 390.7 SSA 12.3
EL1 1858.7 EL2 376.8 ALF 176.61

LAUNCH DATE AUG 4 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 13 1970

HELIOCENTRIC CONIC DISTANCE 143.687

RL	151.78	LAL	.00	LOL	311.21	VL	19.193	GAL	10.57	AZL	94.20	HCA	51.11	SMA	96.14	ECC	.59775	INC	4.1973	V1	29.353
RP	108.67	LAP	-3.27	LOP	2.25	VP	32.591	GAP	-36.04	AZP	92.64	TAL	172.70	TAP	223.81	RCA	38.67	APO	153.61	V2	34.872
RC	55.801	GL	-7.04	GP	-4.49	ZAL	70.51	ZAP	24.68	ETS	167.96	ZAE	152.00	ETE	169.97	ZAC	90.90	ETC	256.11	CLP	24.29

PLANETOCENTRIC CONIC

C3	127.059	VHL	11.272	DLA	-27.21	RAL	237.09	RAD	6570.3	VEL	15.760	PTH	2.80	VHP	20.900	DPA	-11.95	RAP	203.77	ECC	3.0911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 10 29	1558.44	-.12	3.16	129.90	118.32	11 36 28	958.4	3.67	356.53
90.00	13 29 19	1105.31	13.97	337.34	136.98	114.88	13 47 44	505.3	17.21	330.16
100.00	11 55 17	1413.72	-4.11	350.33	127.69	119.64	12 18 51	813.7	-.13	343.80
100.00	15 27 13	725.26	18.12	311.34	138.95	114.19	15 39 18	125.3	21.23	303.93
110.00	12 6 45	1377.69	-11.27	343.26	123.35	122.49	12 29 43	777.7	-6.90	336.88
110.00	17 32 14	5622.10	25.77	263.16	142.58	113.28	19 5 56	5022.1	28.69	255.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2922	TRA	-1.3255	TC3	-.1076	BAU	.1853	SGT	809.2	SGR	450.6	SG3	34.6	ST	271.6	SR	445.1	SS	247.2
RDE	-.8749	RRA	-.1067	RC3	.0178	FAU	.01427	RRT	-.0811	RRF	.0821	RTF	-.6304	CRT	-.5121	CRS	-.6794	CST	.9752
FDE	-.1909	FRA	.5616	FC3	-.0972	BSP	2051	SGB	926.3	R23	-.0083	R13	.6311	LSA	517.2	MSA	255.4	SSA	13.9
BDE	.9224	BRA	1.3298	BC3	.1091	FSP	-71	SG1	810.4	SG2	448.5	THA	176.27	EL1	472.9	EL2	219.6	ALF	112.44

LAUNCH DATE AUG 4 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 15 1970

HELIOCENTRIC CONIC DISTANCE 149.839

RL	151.78	LAL	.00	LOL	311.21	VL	19.793	GAL	10.15	AZL	93.95	HCA	54.28	SMA	97.80	ECC	.57119	INC	3.9541	V1	29.353
RP	108.64	LAP	-3.21	LOP	5.43	VP	32.959	GAP	-34.32	AZP	92.31	TAL	172.18	TAP	226.46	RCA	41.94	APO	153.67	V2	34.883
RC	53.989	GL	-7.23	GP	-4.65	ZAL	69.57	ZAP	23.19	ETS	166.80	ZAE	153.14	ETE	169.83	ZAC	91.08	ETC	256.19	CLP	22.75

PLANETOCENTRIC CONIC

C3	114.015	VHL	10.678	DLA	-27.60	RAL	238.08	RAD	6570.2	VEL	15.341	PTH	2.75	VHP	20.007	DPA	-12.74	RAP	205.24	ECC	2.8764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 28 2	1492.13	2.02	359.47	130.33	118.25	11 52 55	892.1	5.78	352.81
90.00	13 19 43	1128.47	13.30	338.71	136.05	115.23	13 38 32	528.5	16.60	331.58
100.00	12 7 14	1365.45	-2.48	347.67	127.83	119.80	12 30 0	765.4	1.51	341.15
100.00	15 23 13	730.39	17.98	311.65	138.28	114.29	15 35 23	130.4	21.10	304.26
110.00	12 15 15	1340.29	-9.89	341.23	123.29	122.89	12 37 35	740.3	-5.49	334.91
110.00	17 31 42	5616.35	25.92	262.79	142.04	113.10	19 5 18	5016.3	28.82	254.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2852	TRA	-1.3177	TC3	-.1117	BAU	.1726	SGT	846.7	SGR	455.6	SG3	37.7	ST	284.2	SR	450.8	SS	256.5
RDE	-.8396	RRA	-.0901	RC3	.0186	FAU	.01457	RRT	-.0906	RRF	.0918	RTF	-.6504	CRT	-.5076	CRS	-.6745	CST	.9756
FDE	-.1939	FRA	.5814	FC3	-.1107	BSP	2184	SGB	961.5	R23	-.0093	R13	.6512	LSA	528.4	MSA	265.4	SSA	14.1
BDE	.8867	BRA	1.3207	BC3	.1132	FSP	-79	SG1	848.1	SG2	453.0	THA	176.09	EL1	481.0	EL2	229.5	ALF	113.36

LAUNCH DATE AUG 4 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 17 1970

HELIOCENTRIC CONIC DISTANCE 156.065

RL	151.78	LAL	.00	LOL	311.21	VL	20.352	GAL	9.72	AZL	93.73	HCA	57.46	SMA	99.45	ECC	.54552	INC	3.7294	V1	29.353
RP	108.60	LAP	-3.14	LOP	8.62	VP	33.309	GAP	-32.68	AZP	92.01	TAL	171.69	TAP	229.15	RCA	45.20	APO	153.70	V2	34.894
RC	52.249	GL	-7.41	GP	-4.82	ZAL	68.70	ZAP	21.73	ETS	165.45	ZAE	154.43	ETE	169.72	ZAC	91.24	ETC	256.29	CLP	21.21

PLANETOCENTRIC CONIC

C3	102.349	VHL	10.117	DLA	-27.96	RAL	239.01	RAD	6570.0	VEL	14.956	PTH	2.70	VHP	19.147	DPA	-13.55	RAP	206.72	ECC	2.6844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 48 19	1415.43	4.48	355.17	130.80	117.99	12 11 55	815.4	8.19	348.46
90.00	13 6 51	1160.30	12.37	340.58	134.83	115.67	13 26 11	560.3	15.73	333.51
100.00	12 18 58	1316.32	-.81	344.98	127.87	119.88	12 40 55	716.3	3.17	338.45
100.00	15 18 53	734.65	17.86	311.91	137.48	114.38	15 31 8	134.6	21.00	304.53
110.00	12 23 15	1302.86	-8.50	339.23	123.14	123.23	12 44 58	702.9	-4.07	332.94
110.00	17 31 6	5608.91	26.12	262.30	141.37	112.87	19 4 34	5008.9	28.99	254.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2789	TRA	-1.3095	TC3	-.1149	BAU	.1595	SGT	885.5	SGR	459.9	SG3	41.1	ST	297.4	SR	456.0	SS	266.1
RDE	-.8048	RRA	-.0742	RC3	.0193	FAU	.01491	RRT	-.1010	RRF	.1026	RTF	-.6698	CRT	-.5044	CRS	-.6700	CST	.9762
FDE	-.1968	FRA	.6016	FC3	-.1261	BSP	2329	SGB	997.8	R23	-.0105	R13	.6706	LSA	539.7	MSA	275.1	SSA	14.3
BDE	.8517	BRA	1.3116	BC3	.1166	FSP	-88	SG1	887.1	SG2	456.7	THA	175.91	EL1	488.9	EL2	239.5	ALF	114.44

LAUNCH DATE AUG 4 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 19 1970

HELIOCENTRIC CONIC DISTANCE 162.360

RL	151.78	LAL	.00	LOL	311.21	VL	20.872	GAL	9.28	AZL	93.52	HCA	60.63	SMA	101.07	ECC	.52079	INC	3.5199	V1	29.353
RP	108.57	LAP	-3.07	LOP	11.80	VP	33.642	GAP	-31.13	AZP	91.73	TAL	171.24	TAP	231.87	RCA	48.43	APO	153.71	V2	34.905
RC	50.589	GL	-7.58	GP	-5.01	ZAL	67.90	ZAP	20.30	ETS	163.90	ZAE	155.89	ETE	169.64	ZAC	91.38	ETC	256.40	CLP	19.69

PLANETOCENTRIC CONIC

C3	91.906	VHL	9.587	DLA	-28.30	RAL	239.87	RAD	6569.8	VEL	14.603	PTH	2.65	VHP	18.320	DPA	-14.37	RAP	208.22	ECC	2.5125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 21 20	1295.99	8.25	348.42	131.83	117.18	12 42 56	696.0	11.84	341.57
90.00	12 40 41	1233.27	10.19	344.83	132.82	116.56	13 1 14	633.3	13.67	337.88
100.00	12 30 28	1266.43	.88	342.24	127.81	119.88	12 51 34	666.4	4.85	335.70
100.00	15 14 15	738.05	17.76	312.12	136.54	114.45	15 26 33	138.1	20.91	304.74
110.00	12 30 45	1265.55	-7.10	337.24	122.88	123.53	12 51 50	665.5	-2.65	330.99
110.00	17 30 27	5599.74	26.36	261.70	140.57	112.59	19 3 47	4999.7	29.19	253.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2736	TRA	-1.3008	TC3	-.1172	BAU	.1461	SGT	925.6	SGR	463.7	SG3	44.8	ST	311.4	SR	460.5	SS	275.9
RDE	-.7703	RRA	-.0591	RC3	.0198	FAU	.01528	RRT	-.1127	RRF	.1147	RTF	-.6883	CRT	-.5028	CRS	-.6660	CST	.9771
FDE	-.1999	FRA	.6221	FC3	-.1440	BSP	2481	SGB	1035.3	R23	-.0118	R13	.6892	LSA	551.4	MSA	284.4	SSA	14.5
BDE	.8174	BRA	1.3021	BC3	.1189	FSP	-98	SG1	927.6	SG2	459.7	THA	175.71	EL1	496.8	EL2	249.5	ALF	115.70

LAUNCH DATE AUG 4 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 21 1970

HELIOCENTRIC CONIC DISTANCE 168.719

RL	151.78	LAL	.00	LOL	311.21	VL	21.357	GAL	8.85	AZL	93.32	HCA	63.81	SMA	102.67	ECC	.49704	INC	3.3230	VI	29.353
RP	108.53	LAP	-2.98	LOP	14.99	VP	33.957	GAP	-29.64	AZP	91.47	TAL	170.82	TAP	234.63	RCA	51.64	APO	153.71	V2	34.917
RC	49.017	GL	-7.74	GP	-5.21	ZAL	67.17	ZAP	18.89	ETS	162.08	ZAE	157.52	ETE	169.63	ZAC	91.50	ETC	256.52	CLP	18.18

PLANETOCENTRIC CONIC

C3	82.551	VHL	9.086	DLA	-28.60	RAL	240.66	RAD	6569.6	VEL	14.279	PTH	2.60	VHP	17.524	DPA	-15.20	RAP	209.72	ECC	2.3586

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.84	11 59 17	1353.59	10.04	353.56	131.68	116.91	12 21 50	753.6	13.58	346.65
94.16	13 9 1	1127.70	10.06	337.03	131.68	116.91	13 27 49	527.7	13.59	330.11
100.00	12 41 41	1215.93	2.59	339.47	127.64	119.79	13 1 56	615.9	6.54	332.90
100.00	15 9 18	740.59	17.69	312.27	135.46	114.50	15 21 39	140.6	20.85	304.90
110.00	12 37 40	1228.53	-5.71	335.29	122.50	123.76	12 58 9	628.5	-1.23	329.06
110.00	17 29 48	5588.79	26.65	260.97	139.64	112.25	19 2 57	4988.8	29.42	252.89

DIFFERENTIAL CORRECTIONS

TDE	.2689	TRA	-1.2918	TC3	-.1182	BAU	.1323
RDE	-.7363	RRA	-.0447	RC3	.0199	FAU	.01570
FDE	-.2031	FRA	.6432	FC3	-.1646	BSP	2632
BDE	.7838	BRA	1.2926	BC3	.1199	FSP	-109

MID-COURSE EXECUTION ACCURACY

SGT	967.4	SGR	466.8	SG3	48.8		
RRT	-.1255	RRF	.1281	RTF	-.7062		
SGB	1074.1	R23	-.0134	R13	.7072		
SG1	969.7	SG2	462.0	THA	175.51		

ORBIT DETERMINATION ACCURACY

ST	326.0	SR	464.4	SS	286.0
CRT	-.5023	CRS	-.6625	CST	.9780
LSA	563.4	MSA	293.4	SSA	14.8
EL1	504.6	EL2	259.4	ALF	117.14

LAUNCH DATE AUG 4 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 23 1970

HELIOCENTRIC CONIC DISTANCE 175.136

RL	151.78	LAL	.00	LOL	311.21	VL	21.809	GAL	8.42	AZL	93.14	HCA	67.00	SMA	104.25	ECC	.47426	INC	3.1365	VI	29.353
RP	108.49	LAP	-2.89	LOP	18.18	VP	34.255	GAP	-28.22	AZP	91.23	TAL	170.44	TAP	237.44	RCA	54.81	APO	153.69	V2	34.929
RC	47.541	GL	-7.88	GP	-5.43	ZAL	66.52	ZAP	17.52	ETS	159.92	ZAE	159.31	ETE	169.69	ZAC	91.60	ETC	256.65	CLP	16.68

PLANETOCENTRIC CONIC

C3	74.168	VHL	8.612	DLA	-28.86	RAL	241.37	RAD	6569.4	VEL	13.983	PTH	2.55	VHP	16.758	DPA	-16.05	RAP	211.24	ECC	2.2206

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.16	11 48 23	1373.27	10.89	355.45	130.91	116.89	12 11 17	773.3	14.42	348.50
95.84	13 25 36	1058.71	10.91	332.40	130.92	116.89	13 43 14	458.7	14.43	325.46
100.00	12 52 33	1165.06	4.31	336.67	127.35	119.61	13 11 58	565.1	8.22	330.06
100.00	15 4 7	742.15	17.64	312.37	134.27	114.53	15 16 29	142.2	20.81	305.00
110.00	12 43 58	1192.03	-4.32	333.37	122.01	123.94	13 3 50	592.0	.16	327.16
110.00	17 29 11	5575.98	26.98	260.12	138.58	111.84	19 2 7	4976.0	29.69	251.99

DIFFERENTIAL CORRECTIONS

TDE	.2651	TRA	-1.2822	TC3	-.1177	BAU	.1183
RDE	-.7028	RRA	-.0310	RC3	.0196	FAU	.01616
FDE	-.2065	FRA	.6649	FC3	-.1886	BSP	2792
BDE	.7512	BRA	1.2826	BC3	.1193	FSP	-120

MID-COURSE EXECUTION ACCURACY

SGT	1010.5	SGR	469.4	SG3	53.2		
RRT	-.1399	RRF	.1431	RTF	-.7235		
SGB	1114.2	R23	-.0151	R13	.7246		
SG1	1013.2	SG2	463.5	THA	175.29		

ORBIT DETERMINATION ACCURACY

ST	341.4	SR	467.7	SS	296.5
CRT	-.5036	CRS	-.6595	CST	.9792
LSA	576.1	MSA	301.7	SSA	14.9
EL1	512.7	EL2	269.0	ALF	118.78

LAUNCH DATE AUG 4 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 181.607

RL	151.78	LAL	.00	LOL	311.21	VL	22.230	GAL	7.99	AZL	92.96	HCA	70.18	SMA	105.79	ECC	.45249	INC	2.9584	VI	29.353
RP	108.45	LAP	-2.78	LOP	21.37	VP	34.537	GAP	-26.87	AZP	91.00	TAL	170.10	TAP	240.28	RCA	57.92	APO	153.65	V2	34.942
RC	46.171	GL	-8.00	GP	-5.68	ZAL	65.93	ZAP	16.18	ETS	157.36	ZAE	161.27	ETE	169.87	ZAC	91.67	ETC	256.80	CLP	15.17

PLANETOCENTRIC CONIC

C3	66.652	VHL	8.164	DLA	-29.10	RAL	242.01	RAD	6569.3	VEL	13.712	PTH	2.51	VHP	16.019	DPA	-16.91	RAP	212.76	ECC	2.0969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.02	11 41 43	1377.75	11.75	356.22	130.03	116.81	12 4 40	777.7	15.26	349.24
96.98	13 37 22	1003.76	11.77	328.80	130.04	116.80	13 54 5	403.8	15.27	321.82
100.00	13 2 58	1114.24	6.01	333.86	126.93	119.34	13 21 32	514.2	9.88	327.20
100.00	14 58 48	742.50	17.63	312.39	132.95	114.53	15 11 10	142.5	20.80	305.03
110.00	12 49 36	1156.32	-2.96	331.50	121.40	124.07	13 8 52	556.3	1.53	325.29
110.00	17 28 39	5561.23	27.35	259.13	137.39	111.36	19 1 20	4961.2	29.99	250.94

DIFFERENTIAL CORRECTIONS

TDE	.2618	TRA	-1.2722	TC3	-.1154	BAU	.1042
RDE	-.6701	RRA	-.0179	RC3	.0187	FAU	.01667
FDE	-.2100	FRA	.6873	FC3	-.2165	BSP	2955
BDE	.7194	BRA	1.2723	BC3	.1169	FSP	-133

MID-COURSE EXECUTION ACCURACY

SGT	1055.1	SGR	471.5	SG3	58.0		
RRT	-.1558	RRF	.1598	RTF	-.7399		
SGB	1155.6	R23	-.0170	R13	.7411		
SG1	1058.3	SG2	464.3	THA	175.07		

ORBIT DETERMINATION ACCURACY

ST	357.4	SR	470.3	SS	307.2
CRT	-.5063	CRS	-.6571	CST	.9805
LSA	589.4	MSA	309.3	SSA	15.1
EL1	521.1	EL2	278.2	ALF	120.62

LAUNCH DATE AUG 4 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 188.127

RL	151.78	LAL	.00	LOL	311.21	VL	22.621	GAL	7.57	AZL	92.79	HCA	73.37	SMA	107.29	ECC	.43172	INC	2.7873	VI	29.353
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.803	GAP	-25.57	AZP	90.80	TAL	169.80	TAP	243.17	RCA	60.97	APO	153.61	V2	34.954
RC	44.918	GL	-8.10	GP	-5.94	ZAL	65.42	ZAP	14.89	ETS	154.27	ZAE	163.41	ETE	170.23	ZAC	91.71	ETC	256.95	CLP	13.67

PLANETOCENTRIC CONIC

C3	59.913	VHL	7.740	DLA	-29.29	RAL	242.57	RAD	6569.1	VEL	13.464	PTH	2.46	VHP	15.308	DPA	-17.79	RAP	214.29	ECC	1.9860

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.18	11 37 19	1373.36	12.62	356.34	129.03	116.65	12 0 12	773.4	16.09	349.32
97.82	13 46 14	956.72	12.63	325.77	129.04	116.65	14 2 11	356.7	16.11	318.75
100.00	13 12 43	1064.18	7.67	331.07	126.38	118.98	13 30 27	464.2	11.48	324.35
100.00	14 53 31	741.13	17.67	312.31	131.54	114.51	15 5 52	141.1	20.83	304.94
110.00	12 54 28	1121.69	-1.64	329.69	120.66	124.15	13 13 9	521.7	2.85	323.48
110.00	17 28 16	5544.43	27.76	258.00	136.09	110.80	19 0 40	4944.4	30.33	249.75

DIFFERENTIAL CORRECTIONS

TDE	.2595	TRA	-1.2613	TC3	-.1107	BAU	.0897
RDE	-.6380	RRA	-.0053	RC3	.0170	FAU	.01724
FDE	-.2139	FRA	.7105	FC3	-.2491	BSP	3126
BDE	.6888	BRA	1.2613	BC3	.1120	FSP	-148

MID-COURSE EXECUTION ACCURACY

SGT	1101.0	SGR	473.0	SG3	63.3		
RRT	-.1736	RRF	.1785	RTF	-.7556		
SGB	1198.4	R23	-.0193	R13	.7569		
SG1	1104.8	SG2	464.3	THA	174.82		

ORBIT DETERMINATION ACCURACY

ST	374.2	SR	472.3	SS	318.3
CRT	-.5108	CRS	-.6556	CST	.9820
LSA	603.6	MSA	316.0	SSA	15.3
EL1	530.0	EL2	286.7	ALF	122.66

LAUNCH DATE AUG 4 1970 FLIGHT TIME 86.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 194.691

RL	151.78	LAL	.00	LOL	311.21	VL	22.986	GAL	7.16	AZL	92.62	HCA	76.56	SMA	108.75	ECC	.41194	INC	2.6215	V1	29.353
RP	108.38	LAP	-2.55	LOP	27.76	VP	35.054	GAP	-24.33	AZP	90.61	TAL	169.55	TAP	246.11	RCA	63.95	APO	153.55	V2	34.967
RC	43.790	GL	-8.17	GP	-6.24	ZAL	64.99	ZAP	13.65	ETS	150.52	ZAE	165.70	ETE	170.90	ZAC	91.72	ETC	257.12	CLP	12.17

PLANETOCENTRIC CONIC

C3	53.870	VHL	7.340	DLA	-29.44	RAL	243.05	RAD	6568.9	VEL	13.237	PTH	2.42	VHP	14.622	DPA	-18.69	RAP	215.82	ECC	1.8866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.58	11 34 31	1362.43	13.47	355.97	127.92	116.43	11 57 13	762.4	16.91	348.91
98.42	13 52 53	915.46	13.49	323.16	127.92	116.42	14 8 9	315.5	16.93	316.09
100.00	13 21 28	1016.11	9.25	328.37	125.67	118.55	13 38 24	416.1	12.99	321.58
100.00	14 48 38	737.01	17.79	312.06	130.05	114.43	15 0 55	137.0	20.94	304.68
110.00	12 58 29	1088.48	-.37	327.96	119.80	124.18	13 16 38	488.5	4.12	321.75
110.00	17 28 5	5525.44	28.21	256.71	134.68	110.16	19 0 11	4925.4	30.69	248.39

DIFFERENTIAL CORRECTIONS

TDE	.2576	TRA	-1.2499	TC3	-.1035	BAU	.0753
RDE	-.6067	RRA	.0068	RC3	.0144	FAU	.01786
FDE	-.2179	FRA	.7348	FC3	-.2871	BSP	3299
BDE	.6592	BRA	1.2500	BC3	.1045	FSP	-164

MID-COURSE EXECUTION ACCURACY

SGT	1148.4	SGR	474.2	SG3	69.1		
RRT	-.1933	RRF	.1994	RTF	-.7706		
SGB	1242.5	R23	-.0218	R13	.7720		
SG1	1152.8	SG2	463.5	THA	174.55		

ORBIT DETERMINATION ACCURACY

ST	391.7	SR	473.7	SS	329.7
CRT	-.5166	CRS	-.6544	CST	.9835
LSA	618.7	MSA	321.7	SSA	15.5
EL1	539.5	EL2	294.4	ALF	124.85

LAUNCH DATE AUG 4 1970 FLIGHT TIME 88.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 201.294

RL	151.78	LAL	.00	LOL	311.21	VL	23.325	GAL	6.75	AZL	92.46	HCA	79.75	SMA	110.17	ECC	.39315	INC	2.4601	V1	29.353
RP	108.34	LAP	-2.42	LOP	30.95	VP	35.290	GAP	-23.13	AZP	90.44	TAL	169.35	TAP	249.10	RCA	66.85	APO	153.48	V2	34.980
RC	42.797	GL	-8.21	GP	-6.56	ZAL	64.62	ZAP	12.50	ETS	145.95	ZAE	168.15	ETE	172.09	ZAC	91.69	ETC	257.30	CLP	10.66

PLANETOCENTRIC CONIC

C3	48.453	VHL	6.961	DLA	-29.55	RAL	243.45	RAD	6568.8	VEL	13.031	PTH	2.38	VHP	13.961	DPA	-19.60	RAP	217.34	ECC	1.7974

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.19	11 33 2	1345.96	14.31	355.18	126.69	116.13	11 55 28	746.0	17.71	348.06
98.81	13 57 35	879.21	14.33	320.90	126.69	116.12	14 12 14	279.2	17.72	313.78
100.00	13 28 33	972.10	10.67	325.87	124.78	118.09	13 44 46	372.1	14.34	319.01
100.00	14 44 45	728.30	18.03	311.52	128.51	114.25	14 56 54	128.3	21.16	304.12
110.00	13 1 36	1057.10	.83	326.32	118.82	124.17	13 19 13	457.1	5.31	320.10
110.00	17 28 13	5504.11	28.70	255.24	133.15	109.42	18 59 57	4904.1	31.07	246.84

DIFFERENTIAL CORRECTIONS

TDE	.2564	TRA	-1.2376	TC3	-.0931	BAU	.0607
RDE	-.5764	RRA	.0185	RC3	.0107	FAU	.01856
FDE	-.2222	FRA	.7600	FC3	-.3317	BSP	3480
BDE	.6308	BRA	1.2377	BC3	.0937	FSP	-182

MID-COURSE EXECUTION ACCURACY

SGT	1196.9	SGR	475.0	SG3	75.5		
RRT	-.2155	RRF	.2228	RTF	-.7847		
SGB	1287.7	R23	-.0247	R13	.7863		
SG1	1202.0	SG2	461.8	THA	174.26		

ORBIT DETERMINATION ACCURACY

ST	409.8	SR	474.5	SS	341.6
CRT	-.5244	CRS	-.6543	CST	.9852
LSA	634.9	MSA	326.2	SSA	15.7
EL1	549.9	EL2	301.1	ALF	127.17

LAUNCH DATE AUG 4 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 207.931

RL	151.78	LAL	.00	LOL	311.21	VL	23.640	GAL	6.36	AZL	92.30	HCA	82.94	SMA	111.54	ECC	.37535	INC	2.3017	V1	29.353
RP	108.29	LAP	-2.28	LOP	34.15	VP	35.512	GAP	-21.99	AZP	90.28	TAL	169.19	TAP	252.13	RCA	69.67	APO	153.40	V2	34.993
RC	41.950	GL	-8.22	GP	-6.92	ZAL	64.34	ZAP	11.45	ETS	140.33	ZAE	170.73	ETE	174.30	ZAC	91.63	ETC	257.49	CLP	9.14

PLANETOCENTRIC CONIC

C3	43.597	VHL	6.603	DLA	-29.60	RAL	243.78	RAD	6568.7	VEL	12.844	PTH	2.34	VHP	13.324	DPA	-20.54	RAP	218.86	ECC	1.7175

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.98	11 32 46	1324.52	15.13	354.00	125.35	115.75	11 54 50	724.5	18.47	346.83
99.02	14 0 28	847.65	15.14	318.98	125.35	115.74	14 14 35	247.6	18.48	311.80
100.00	13 33 4	935.28	11.84	323.77	123.65	117.65	13 48 39	335.3	15.45	316.84
100.00	14 42 50	712.12	18.48	310.53	126.97	113.92	14 54 42	112.1	21.56	303.09
110.00	13 3 41	1027.94	1.94	324.80	117.69	124.13	13 20 49	427.9	6.41	318.56
110.00	17 28 43	5480.25	29.23	253.59	131.53	108.57	19 0 3	4880.3	31.48	245.11

DIFFERENTIAL CORRECTIONS

TDE	.2557	TRA	-1.2247	TC3	-.0788	BAU	.0460
RDE	-.5469	RRA	.0298	RC3	.0054	FAU	.01934
FDE	-.2267	FRA	.7867	FC3	-.3841	BSP	3664
BDE	.6038	BRA	1.2250	BC3	.0790	FSP	-201

MID-COURSE EXECUTION ACCURACY

SGT	1246.6	SGR	475.6	SG3	82.5		
RRT	-.2402	RRF	.2490	RTF	-.7982		
SGB	1334.2	R23	-.0279	R13	.7999		
SG1	1252.6	SG2	459.4	THA	173.95		

ORBIT DETERMINATION ACCURACY

ST	428.6	SR	474.7	SS	353.8
CRT	-.5337	CRS	-.6546	CST	.9869
LSA	652.2	MSA	329.5	SSA	15.9
EL1	561.3	EL2	306.5	ALF	129.57

LAUNCH DATE AUG 4 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 214.598

RL	151.78	LAL	.00	LOL	311.21	VL	23.933	GAL	5.98	AZL	92.15	HCA	86.14	SMA	112.86	ECC	.35851	INC	2.1454	V1	29.353
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.721	GAP	-20.88	AZP	90.14	TAL	169.08	TAP	255.22	RCA	72.40	APO	153.32	V2	35.007
RC	41.257	GL	-8.18	GP	-7.31	ZAL	64.12	ZAP	10.54	ETS	133.49	ZAE	173.39	ETE	178.87	ZAC	91.51	ETC	257.69	CLP	7.61

PLANETOCENTRIC CONIC

C3	39.247	VHL	6.265	DLA	-29.60	RAL	244.03	RAD	6568.5	VEL	12.673	PTH	2.30	VHP	12.711	DPA	-21.50	RAP	220.37	ECC	1.6459

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.99	11 33 46	1297.92	15.91	352.42	123.90	115.30	11 55 24	697.9	19.18	345.18
99.01	14 1 25	821.20	15.92	317.40	123.91	115.29	14 15 6	221.2	19.20	310.16
100.00	13 34 0	908.92	12.67	322.25	122.25	117.30	13 49 9	308.9	16.23	315.27
100.00	14 43 52	685.43	19.21	308.89	125.47	113.35	14 55 18	85.4	22.21	301.37
110.00	13 4 39	1001.46	2.95	323.42	116.44	124.07	13 21 20	401.5	7.41	317.16
110.00	17 29 43	5453.69	29.79	251.72	129.80	107.60	19 0 37	4853.7	31.90	243.15

DIFFERENTIAL CORRECTIONS

TDE	.2554	TRA	-1.2110	TC3	-.0603	BAU	.0316
RDE	-.5185	RRA	.0409	RC3	-.0017	FAU	.02021
FDE	-.2314	FRA	.8148	FC3	-.4457	BSP	3848
BDE	.5780	BRA	1.2117	BC3	.0603	FSP	-223

MID-COURSE EXECUTION ACCURACY

SGT	1297.3	SGR	476.1	SG3	90.3		
RRT	-.2678	RRF	.2783	RTF	-.8110		
SGB	1381.9	R23	-.0316	R13	.8129		
SG1	1304.4	SG2	456.2	THA	173.60		

ORBIT DETERMINATION ACCURACY

ST	447.9	SR	474.4	SS	366.2
CRT	-.5445	CRS	-.6555	CST	.9887
LSA	670.5	MSA	331.6	SSA	16.1
EL1	573.7	EL2	310.6	ALF	131.99

LAUNCH DATE AUG 4 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 221.291

RL	151.78	LAL	.00	LOL	311.21	VL	24.205	GAL	5.61	AZL	91.99	HCA	89.34	SMA	114.13	ECC	.34261	INC	1.9901	V1	29.353
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.917	GAP	-19.82	AZP	90.02	TAL	169.02	TAP	258.36	RCA	75.03	APO	153.23	V2	35.020
RC	40.727	GL	-8.09	GP	-7.75	ZAL	63.99	ZAP	9.83	ETS	125.30	ZAE	176.03	ETE	190.80	ZAC	91.34	ETC	257.89	CLP	6.07

PLANETOCENTRIC CONIC

C3	35.351	VHL	5.946	DLA	-29.54	RAL	244.19	RAD	6568.4	VEL	12.519	PTH	2.27	VHP	12.121	DPA	-22.48	RAP	221.87	ECC	1.5818		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.22	11 36 15	1265.70	16.63	350.38	122.36	114.77	11 57 21	665.7	19.84	343.08
98.78	14 0 17	800.59	16.65	316.23	122.36	114.76	14 13 37	200.6	19.85	308.92
100.00	13 30 59	894.34	13.12	321.41	120.59	117.10	13 45 54	294.3	16.65	314.39
100.00	14 48 13	647.19	20.23	306.50	124.01	112.49	14 59 1	47.2	23.10	298.88
110.00	13 4 25	978.11	3.84	322.19	115.06	123.99	13 20 43	378.1	8.28	315.91
110.00	17 31 18	5424.22	30.38	249.63	127.98	106.48	19 1 42	4824.2	32.33	240.96

DIFFERENTIAL CORRECTIONS

TDE	.2554	TRA	-1.1965	TC3	-.0365	BAU	.0180
RDE	-.4911	RRA	.0519	RC3	-.0111	FAU	.02117
FDE	-.2363	FRA	.8447	FC3	-.5184	BSP	4043
BDE	.5535	BRA	1.1976	BC3	.0381	FSP	-247

MID-COURSE EXECUTION ACCURACY

SGT	1348.6	SGR	476.9	SG3	98.8		
RRT	-.2986	RRF	.3111	RTF	-.8232		
SGB	1430.4	R23	-.0358	R13	.8252		
SG1	1357.0	SG2	452.3	THA	173.21		

ORBIT DETERMINATION ACCURACY

ST	467.6	SR	473.5	SS	379.0
CRT	-.5569	CRS	-.6570	CST	.9905
LSA	689.7	MSA	332.4	SSA	16.3
EL1	587.2	EL2	313.2	ALF	134.35

LAUNCH DATE AUG 4 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 228.005

RL	151.78	LAL	.00	LOL	311.21	VL	24.457	GAL	5.26	AZL	91.84	HCA	92.54	SMA	115.35	ECC	.32764	INC	1.8350	V1	29.353		
RP	108.17	LAP	-1.83	LOP	43.75	VP	36.100	GAP	-18.80	AZP	89.92	TAL	169.01	TAP	261.55	RCA	77.56	APO	153.14	V2	35.033		
RC	40.367	GL	-7.94	GP	-8.24	ZAL	63.92	ZAP	9.38	ETS	115.82	ZAE	177.95	ETE	236.16	ZAC	91.12	ETC	258.11	CLP	4.51		

PLANETOCENTRIC CONIC

C3	31.865	VHL	5.645	DLA	-29.40	RAL	244.29	RAD	6568.3	VEL	12.379	PTH	2.23	VHP	11.552	DPA	-23.50	RAP	223.35	ECC	1.5244		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.73	11 40 37	1226.70	17.30	347.81	120.72	114.15	12 1 3	626.7	20.42	340.44
98.27	13 56 39	787.23	17.31	315.55	120.72	114.14	14 9 46	187.2	20.43	308.18
100.00	13 24 33	890.03	13.26	321.16	118.71	117.04	13 39 23	290.0	16.78	314.13
100.00	14 55 23	5887.17	21.45	281.36	122.56	111.34	16 33 30	5287.2	24.16	273.61
110.00	13 2 52	958.32	4.60	321.16	113.56	123.91	13 18 51	358.3	9.02	314.86
110.00	17 33 33	5391.64	30.98	247.28	126.08	105.22	19 3 25	4791.6	32.76	238.51

DIFFERENTIAL CORRECTIONS

TDE	.2554	TRA	-1.1816	TC3	-.0073	BAU	.0104
RDE	-.4647	RRA	.0629	RC3	-.0233	FAU	.02223
FDE	-.2410	FRA	.8767	FC3	-.6039	BSP	4234
BDE	.5303	BRA	1.1833	BC3	.0244	FSP	-274

MID-COURSE EXECUTION ACCURACY

SGT	1400.9	SGR	478.1	SG3	108.2		
RRT	-.3329	RRF	.3477	RTF	-.8345		
SGB	1480.2	R23	-.0406	R13	.8368		
SG1	1411.0	SG2	447.6	THA	172.79		

ORBIT DETERMINATION ACCURACY

ST	487.6	SR	472.2	SS	391.9
CRT	-.5705	CRS	-.6588	CST	.9922
LSA	709.8	MSA	332.0	SSA	16.5
EL1	601.6	EL2	314.3	ALF	136.61

LAUNCH DATE AUG 4 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 234.736

RL	151.78	LAL	.00	LOL	311.21	VL	24.691	GAL	4.92	AZL	91.68	HCA	95.74	SMA	116.51	ECC	.31357	INC	1.6789	V1	29.353		
RP	108.13	LAP	-1.67	LOP	46.96	VP	36.272	GAP	-17.82	AZP	89.83	TAL	169.05	TAP	264.80	RCA	79.98	APO	153.05	V2	35.046		
RC	40.182	GL	-7.73	GP	-8.78	ZAL	63.93	ZAP	9.25	ETS	105.44	ZAE	176.80	ETE	300.91	ZAC	90.83	ETC	258.33	CLP	2.92		

PLANETOCENTRIC CONIC

C3	28.748	VHL	5.362	DLA	-29.19	RAL	244.30	RAD	6568.2	VEL	12.252	PTH	2.20	VHP	11.006	DPA	-24.55	RAP	224.80	ECC	1.4731		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.62	11 47 39	1178.46	17.89	344.52	118.99	113.46	12 7 18	578.5	20.91	337.08
97.38	13 49 44	783.82	17.90	315.57	118.99	113.44	14 2 47	183.8	20.92	308.14
100.00	13 15 31	893.62	13.14	321.36	116.67	117.09	13 30 25	293.6	16.67	314.35
100.00	15 4 33	5831.95	22.77	277.79	121.06	109.91	16 41 45	5231.9	25.28	269.89
110.00	12 59 58	942.54	5.20	320.33	111.94	123.83	13 15 41	342.5	9.60	314.01
110.00	17 36 35	5355.78	31.60	244.67	124.06	103.78	19 5 50	4755.8	33.17	235.79

DIFFERENTIAL CORRECTIONS

TDE	.2557	TRA	-1.1659	TC3	.0289	BAU	.0186
RDE	-.4395	RRA	.0741	RC3	-.0389	FAU	.02341
FDE	-.2458	FRA	.9110	FC3	-.7051	BSP	4432
BDE	.5084	BRA	1.1682	BC3	.0485	FSP	-305

MID-COURSE EXECUTION ACCURACY

SGT	1453.3	SGR	480.1	SG3	118.6		
RRT	-.3712	RRF	.3884	RTF	-.8454		
SGB	1530.6	R23	-.0459	R13	.8480		
SG1	1465.3	SG2	442.2	THA	172.30		

ORBIT DETERMINATION ACCURACY

ST	507.9	SR	470.4	SS	405.0
CRT	-.5858	CRS	-.6611	CST	.9939
LSA	730.6	MSA	330.3	SSA	16.7
EL1	617.1	EL2	313.8	ALF	138.73

LAUNCH DATE AUG 4 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 241.481

RL	151.78	LAL	.00	LOL	311.21	VL	24.908	GAL	4.59	AZL	91.52	HCA	98.95	SMA	117.62	ECC	.30038	INC	1.5210	V1	29.353		
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.432	GAP	-16.87	AZP	89.76	TAL	169.14	TAP	268.09	RCA	82.29	APO	152.95	V2	35.060		
RC	40.174	GL	-7.43	GP	-9.38	ZAL	64.01	ZAP	9.47	ETS	94.88	ZAE	174.13	ETE	318.78	ZAC	90.47	ETC	258.55	CLP	1.31		

PLANETOCENTRIC CONIC

C3	25.964	VHL	5.095	DLA	-28.88	RAL	244.25	RAD	6568.0	VEL	12.138	PTH	2.18	VHP	10.481	DPA	-25.64	RAP	226.22	ECC	1.4273		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.08	11 59 12	1115.25	18.38	340.09	117.18	112.67	12 17 47	515.3	21.29	332.58
95.92	13 37 44	796.36	18.39	316.72	117.19	112.66	13 51 1	196.4	21.31	309.21
100.00	13 4 31	903.27	12.84	321.92	114.51	117.23	13 19 34	303.3	16.39	314.93
100.00	15 15 6	5771.62	24.11	273.81	119.47	108.22	16 51 18	5171.6	26.38	265.74
110.00	12 55 39	931.16	5.63	319.73	110.21	123.77	13 11 10	331.2	10.03	313.40
110.00	17 40 27	5316.49	32.20	241.76	121.96	102.16	19 9 4	4716.5	33.53	232.79

DIFFERENTIAL CORRECTIONS

TDE	.2554	TRA	-1.1495	TC3	.0720	BAU	.0323
RDE	-.4153	RRA	.0856	RC3	-.0589	FAU	.02473
FDE	-.2500	FRA	.9481	FC3	-.8246	BSP	4637
BDE	.4876	BRA	1.1526	BC3	.0930	FSP	-338

MID-COURSE EXECUTION ACCURACY

SGT	1505.5	SGR	483.5	SG3	130.1		
RRT	-.4131	RRF	.4333	RTF	-.8555		
SGB	1581.3	R23	-.0522	R13	.8584		
SG1	1519.9	SG2	436.2	THA	171.76		

ORBIT DETERMINATION ACCURACY

ST	527.8	SR	468.2	SS	418.0
CRT	-.6018	CRS	-.6635	CST	.9955
LSA	751.6	MSA	327.6	SSA	16.9
EL1	632.8	EL2	311.8	ALF	140.64

LAUNCH DATE AUG 4 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 248.235

RL	151.78	LAL	.00	LOL	311.21	VL	25.108	GAL	4.27	AZL	91.36	HCA	102.16	SMA	118.67	ECC	.28804	INC	1.3601	V1	29.353
RP	108.05	LAP	-1.33	LOP	53.37	VP	36.582	GAP	-15.95	AZP	89.71	TAL	169.28	TAP	271.43	RCA	84.49	APO	152.86	V2	35.073
RC	40.345	GL	-7.05	GP	-10.05	ZAL	64.17	ZAP	10.05	ETS	84.92	ZAE	171.25	ETE	324.59	ZAC	90.02	ETC	258.78	CLP	-.34

PLANETOCENTRIC CONIC

C3	23.480	VHL	4.846	DLA	-28.47	RAL	244.12	RAD	6568.0	VEL	12.036	PTH	2.15	VHP	9.976	DPA	-26.78	RAP	227.60	ECC	1.3864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.94	12 22 16	1014.40	18.76	332.85	115.31	111.81	12 39 10	414.4	21.56	325.28
93.06	13 13 42	847.76	18.78	320.66	115.31	111.80	13 27 49	247.8	21.57	313.09
100.00	12 51 57	918.00	12.38	322.77	112.27	117.42	13 7 15	318.0	15.96	315.81
100.00	15 26 41	5707.44	25.41	269.48	117.78	106.30	17 1 48	5107.4	27.40	261.25
110.00	12 49 52	924.56	5.88	319.38	108.38	123.73	13 5 17	324.6	10.27	313.04
110.00	17 45 16	5273.64	32.77	238.55	119.77	100.34	19 13 9	4673.6	33.84	229.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2557	TRA	-1.1321	TC3	.1235	BAU	.0469	SGT 1557.1 SGR 488.9 SG3 142.8	ST	547.8	SR 465.5 SS 430.7
RDE	-.3922	RRA	.0976	RC3	-.0840	FAU	.02618	RRT -.4597 RRF .4822 RTF -.8652	CRT	-.6206	CRS -.6653 CST .9970
FDE	-.2534	FRA	.9885	FC3	-.9655	BSP	4843	SGB 1632.0 R23 -.0581 R13 .8685	LSA	772.9	MSA 323.5 SSA 17.1
BDE	.4682	BRA	1.1363	BC3	.1493	FSP	-375	SG1 1574.5 SG2 429.3 THA 171.12	EL1	649.7	EL2 307.8 ALF 142.39

LAUNCH DATE AUG 4 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 254.996

RL	151.78	LAL	.00	LOL	311.21	VL	25.293	GAL	3.98	AZL	91.20	HCA	105.37	SMA	119.67	ECC	.27652	INC	1.1951	V1	29.353
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.722	GAP	-15.07	AZP	89.68	TAL	169.46	TAP	274.82	RCA	86.58	APO	152.76	V2	35.086
RC	40.692	GL	-6.55	GP	-10.80	ZAL	64.39	ZAP	10.99	ETS	76.14	ZAE	168.36	ETE	326.92	ZAC	89.49	ETC	259.01	CLP	-2.02

PLANETOCENTRIC CONIC

C3	21.266	VHL	4.612	DLA	-27.94	RAL	243.94	RAD	6567.9	VEL	11.943	PTH	2.13	VHP	9.493	DPA	-27.97	RAP	228.94	ECC	1.3500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 6 40	1038.91	15.84	333.35	112.00	113.78	12 23 59	438.9	18.92	326.03
90.00	13 27 49	775.23	22.28	316.71	114.60	107.94	13 40 44	175.2	24.53	308.76
100.00	12 38 4	937.37	11.77	323.89	109.99	117.67	12 53 42	337.4	15.39	316.96
100.00	15 39 6	5640.05	26.62	264.84	115.97	104.13	17 13 6	5040.1	28.30	256.44
110.00	12 42 37	923.07	5.93	319.30	106.48	123.73	12 58 0	323.1	10.32	312.96
110.00	17 51 2	5227.11	33.28	235.02	117.49	98.30	19 18 9	4627.1	34.07	225.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2533	TRA	-1.1159	TC3	.1827	BAU	.0614	SGT 1609.4 SGR 497.0 SG3 156.9	ST	566.4	SR 462.3 SS 442.8
RDE	-.3702	RRA	.1104	RC3	-.1154	FAU	.02780	RRT -.5082 RRF .5347 RTF -.8739	CRT	-.6368	CRS -.6666 CST .9980
FDE	-.2555	FRA	1.0324	FC3	-1.1316	BSP	5043	SGB 1684.4 R23 -.0670 R13 .8777	LSA	792.6	MSA 319.3 SSA 17.3
BDE	.4486	BRA	1.1213	BC3	.2161	FSP	-417	SG1 1630.6 SG2 422.5 THA 170.43	EL1	665.1	EL2 303.5 ALF 143.90

LAUNCH DATE AUG 4 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 261.761

RL	151.78	LAL	.00	LOL	311.21	VL	25.464	GAL	3.69	AZL	91.03	HCA	108.58	SMA	120.61	ECC	.26580	INC	1.0249	V1	29.353
RP	107.97	LAP	-.97	LOP	59.80	VP	36.852	GAP	-14.22	AZP	89.67	TAL	169.68	TAP	278.26	RCA	88.56	APO	152.67	V2	35.098
RC	41.209	GL	-5.94	GP	-11.65	ZAL	64.68	ZAP	12.23	ETS	68.78	ZAE	165.51	ETE	327.78	ZAC	88.84	ETC	259.23	CLP	-3.75

PLANETOCENTRIC CONIC

C3	19.298	VHL	4.393	DLA	-27.28	RAL	243.70	RAD	6567.8	VEL	11.861	PTH	2.10	VHP	9.031	DPA	-29.24	RAP	230.21	ECC	1.3176

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 39 1	1103.40	14.03	337.22	109.21	114.85	11 57 25	503.4	17.26	330.04
90.00	13 53 34	664.41	24.41	309.29	113.17	104.81	14 4 39	64.4	26.21	301.08
100.00	12 23 0	961.29	11.01	325.26	107.68	117.97	12 39 1	361.3	14.67	318.38
100.00	15 52 17	5569.79	27.69	259.89	114.03	101.74	17 25 6	4969.8	29.03	251.35
110.00	12 33 55	927.02	5.78	319.51	104.52	123.75	12 49 22	327.0	10.18	313.17
110.00	17 57 51	5176.82	33.71	231.15	115.13	96.06	19 24 8	4576.8	34.18	221.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2506	TRA	-1.0988	TC3	.2513	BAU	.0761	SGT 1660.0 SGR 509.0 SG3 172.5	ST	583.8	SR 458.6 SS 454.2
RDE	-.3491	RRA	.1244	RC3	-.1547	FAU	.02959	RRT -.5600 RRF .5902 RTF -.8822	CRT	-.6548	CRS -.6669 CST .9987
FDE	-.2557	FRA	1.0808	FC3	-1.3273	BSP	5242	SGB 1736.3 R23 -.0763 R13 .8865	LSA	811.4	MSA 314.2 SSA 17.6
BDE	.4297	BRA	1.1058	BC3	.2951	FSP	-463	SG1 1685.9 SG2 415.2 THA 169.62	EL1	680.2	EL2 297.5 ALF 145.21

LAUNCH DATE AUG 4 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 268.526

RL	151.78	LAL	.00	LOL	311.21	VL	25.621	GAL	3.42	AZL	90.85	HCA	111.80	SMA	121.50	ECC	.25585	INC	.8480	V1	29.353
RP	107.93	LAP	-.79	LOP	63.01	VP	36.972	GAP	-13.39	AZP	89.69	TAL	169.94	TAP	281.74	RCA	90.42	APO	152.59	V2	35.111
RC	41.891	GL	-5.18	GP	-12.60	ZAL	65.04	ZAP	13.74	ETS	62.80	ZAE	162.75	ETE	327.83	ZAC	88.08	ETC	259.45	CLP	-5.53

PLANETOCENTRIC CONIC

C3	17.551	VHL	4.189	DLA	-26.47	RAL	243.42	RAD	6567.7	VEL	11.787	PTH	2.08	VHP	8.589	DPA	-30.58	RAP	231.41	ECC	1.2889

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 15 26	1155.92	12.50	340.33	106.62	115.61	11 34 42	555.9	15.85	333.25
90.00	14 14 55	5855.47	25.93	280.50	111.42	101.79	15 52 30	5255.5	27.30	272.10
100.00	12 6 50	989.91	10.10	326.89	105.37	118.29	12 23 20	389.9	13.80	320.05
100.00	16 6 12	5496.72	28.59	254.65	111.97	99.12	17 37 49	4896.7	29.55	245.98
110.00	12 23 47	936.72	5.42	320.02	102.53	123.80	12 39 23	336.7	9.82	313.70
110.00	18 5 45	5122.67	34.02	226.95	112.68	93.59	19 31 7	4522.7	34.14	217.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2463	TRA	-1.0818	TC3	.3288	BAU	.0907	SGT 1709.0 SGR 526.1 SG3 189.7	ST	599.5	SR 454.2 SS 464.3
RDE	-.3287	RRA	.1398	RC3	-.2033	FAU	.03155	RRT -.6132 RRF .6472 RTF -.8898	CRT	-.6731	CRS -.6653 CST .9988
FDE	-.2530	FRA	1.1342	FC3	-1.5560	BSP	5438	SGB 1788.2 R23 -.0868 R13 .8949	LSA	828.1	MSA 308.5 SSA 17.9
BDE	.4108	BRA	1.0908	BC3	.3866	FSP	-515	SG1 1741.0 SG2 407.9 THA 168.68	EL1	693.9	EL2 290.2 ALF 146.34

LAUNCH DATE AUG 4 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 275.288

RL	151.78	LAL	.00	LOL	311.21	VL	25.766	GAL	3.16	AZL	90.66	HCA	115.01	SMA	122.33	ECC	.24663	INC	.6627	V1	29.353
RP	107.89	LAP	-.60	LOP	66.23	VP	37.084	GAP	-12.60	AZP	89.72	TAL	170.23	TAP	285.25	RCA	92.16	APO	152.50	V2	35.123
RC	42.728	GL	-4.27	GP	-13.68	ZAL	65.46	ZAP	15.51	ETS	58.03	ZAE	160.10	ETE	327.34	ZAC	87.17	ETC	259.67	CLP	-7.37

PLANETOCENTRIC CONIC

C3	16.006	VHL	4.001	DLA	-25.48	RAL	243.10	RAD	6567.6	VEL	11.721	PTH	2.07	VHP	8.169	DPA	-32.02	RAP	232.53	ECC	1.2634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 52 57	1206.49	11.00	343.28	104.15	116.26	11 13 3	606.5	14.44	336.29
90.00	14 34 53	5762.59	27.06	273.93	109.47	98.68	16 10 55	5162.6	27.98	265.39
100.00	11 49 37	1023.50	9.01	328.79	103.10	118.62	12 6 41	423.5	12.76	322.01
100.00	16 20 54	5420.80	29.28	249.12	109.81	96.29	17 51 15	4820.8	29.85	240.36
110.00	12 12 15	952.52	4.82	320.85	100.54	123.88	12 28 7	352.5	9.23	314.55
110.00	18 14 45	5064.55	34.17	222.42	110.17	90.91	19 39 10	4464.6	33.92	213.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2401	TRA	-1.0645	TC3	.4157	BAU	.1053	SGT	1755.3	SGR	549.8	SG3	208.7	ST	612.4	SR	448.8	SS	472.8
RDE	-.3090	RRA	.1571	RC3	-.2633	FAU	.03370	RRT	-.6663	RRF	.7041	RTF	-.8969	CRT	-.6916	CRS	-.6612	CST	.9980
FDE	-.2463	FRA	1.1930	FC3	-1.8230	BSP	5631	SGB	1839.4	R23	-.0985	R13	.9029	LSA	841.5	MSA	302.6	SSA	18.1
BDE	.3913	BRA	1.0761	BC3	.4921	FSP	-572	SG1	1795.2	SG2	400.9	THA	167.58	EL1	705.1	EL2	281.6	ALF	147.27

LAUNCH DATE AUG 4 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 282.046

RL	151.78	LAL	.00	LOL	311.21	VL	25.898	GAL	2.92	AZL	90.47	HCA	118.23	SMA	123.11	ECC	.23812	INC	.4674	V1	29.353
RP	107.86	LAP	-.41	LOP	69.45	VP	37.188	GAP	-11.82	AZP	89.78	TAL	170.56	TAP	288.79	RCA	93.80	APO	152.43	V2	35.135
RC	43.711	GL	-3.16	GP	-14.91	ZAL	65.94	ZAP	17.50	ETS	54.25	ZAE	157.56	ETE	326.44	ZAC	86.11	ETC	259.87	CLP	-9.27

PLANETOCENTRIC CONIC

C3	14.645	VHL	3.827	DLA	-24.30	RAL	242.77	RAD	6567.6	VEL	11.663	PTH	2.05	VHP	7.771	DPA	-33.58	RAP	233.55	ECC	1.2410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 30 39	1258.58	9.41	346.28	101.78	116.83	10 51 38	658.6	12.94	339.38
90.00	14 54 29	5670.61	27.83	267.31	107.38	95.45	16 29 0	5070.5	28.29	258.67
100.00	11 31 24	1062.49	7.73	330.97	100.88	118.97	11 49 6	462.5	11.53	324.25
100.00	16 36 26	5341.84	29.73	243.29	107.54	93.26	18 5 28	4741.8	29.87	234.49
110.00	11 59 22	974.77	3.97	322.02	98.57	123.98	12 15 37	374.8	8.41	315.74
110.00	18 24 57	5002.32	34.13	217.56	107.60	88.04	19 48 19	4402.3	33.48	208.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2321	TRA	-1.0471	TC3	.5111	BAU	.1199	SGT	1798.0	SGR	582.1	SG3	229.5	ST	622.3	SR	442.3	SS	479.6
RDE	-.2896	RRA	.1767	RC3	-.3370	FAU	.03606	RRT	-.7175	RRF	.7587	RTF	-.9035	CRT	-.7111	CRS	-.6544	CST	.9958
FDE	-.2347	FRA	1.2578	FC3	-2.1319	BSP	5830	SGB	1889.9	R23	-.1114	R13	.9105	LSA	851.3	MSA	296.4	SSA	18.5
BDE	.3712	BRA	1.0619	BC3	.6122	FSP	-635	SG1	1848.3	SG2	394.4	THA	166.29	EL1	713.7	EL2	271.2	ALF	148.04

LAUNCH DATE AUG 4 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 288.796

RL	151.78	LAL	.00	LOL	311.21	VL	26.020	GAL	2.70	AZL	90.26	HCA	121.45	SMA	123.84	ECC	.23028	INC	.2593	V1	29.353
RP	107.82	LAP	-.22	LOP	72.67	VP	37.283	GAP	-11.08	AZP	89.86	TAL	170.91	TAP	292.37	RCA	95.32	APO	152.36	V2	35.146
RC	44.829	GL	-1.84	GP	-16.30	ZAL	66.48	ZAP	19.71	ETS	51.29	ZAE	155.13	ETE	325.19	ZAC	84.87	ETC	260.05	CLP	-11.24

PLANETOCENTRIC CONIC

C3	13.452	VHL	3.668	DLA	-22.90	RAL	242.43	RAD	6567.5	VEL	11.612	PTH	2.03	VHP	7.395	DPA	-35.26	RAP	234.44	ECC	1.2214

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 8 8	1314.17	7.69	349.46	99.54	117.34	10 30 2	714.2	11.29	342.63
90.00	15 14 17	5577.54	28.25	260.54	105.18	92.08	16 47 14	4977.5	28.24	251.87
100.00	11 12 12	1107.39	6.24	333.48	98.76	119.29	11 30 39	507.4	10.10	326.81
100.00	16 52 54	5259.55	29.89	237.18	105.22	90.04	18 20 34	4659.5	29.58	228.39
110.00	11 45 12	1003.92	2.86	323.54	96.67	124.08	12 1 56	403.9	7.31	317.29
110.00	18 36 23	4935.79	33.86	212.39	105.01	84.99	19 58 39	4335.8	32.79	203.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2209	TRA	-1.0309	TC3	.6137	BAU	.1345	SGT	1838.0	SGR	625.1	SG3	252.3	ST	628.0	SR	434.0	SS	484.3
RDE	-.2700	RRA	.1996	RC3	-.4271	FAU	.03862	RRT	-.7647	RRF	.8091	RTF	-.9095	CRT	-.7301	CRS	-.6422	CST	.9915
FDE	-.2155	FRA	1.3306	FC3	-2.4855	BSP	6016	SGB	1941.4	R23	-.1256	R13	.9179	LSA	855.8	MSA	290.8	SSA	18.8
BDE	.3489	BRA	1.0501	BC3	.7477	FSP	-704	SG1	1901.9	SG2	389.3	THA	164.77	EL1	717.9	EL2	259.4	ALF	148.68

LAUNCH DATE AUG 4 1970 FLIGHT TIME 116.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 295.538

RL	151.78	LAL	.00	LOL	311.21	VL	26.131	GAL	2.48	AZL	90.04	HCA	124.68	SMA	124.51	ECC	.22309	INC	.0328	V1	29.353
RP	107.79	LAP	-.03	LOP	75.89	VP	37.372	GAP	-10.36	AZP	89.98	TAL	171.28	TAP	295.96	RCA	96.73	APO	152.29	V2	35.158
RC	46.073	GL	-.28	GP	-17.89	ZAL	67.08	ZAP	22.16	ETS	48.96	ZAE	152.79	ETE	323.60	ZAC	83.42	ETC	260.22	CLP	-13.30

PLANETOCENTRIC CONIC

C3	12.415	VHL	3.524	DLA	-21.25	RAL	242.09	RAD	6567.5	VEL	11.567	PTH	2.02	VHP	7.043	DPA	-37.11	RAP	235.18	ECC	1.2043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 45 8	1374.72	5.78	352.88	97.46	117.77	10 8 3	774.7	9.45	346.13
90.00	15 34 37	5482.49	28.28	253.59	102.93	88.59	17 5 59	4882.5	27.79	244.96
100.00	10 52 1	1158.89	4.52	336.33	96.77	119.58	11 11 20	558.9	8.42	329.72
100.00	17 10 25	5173.55	29.73	230.79	102.87	86.69	18 36 39	4573.6	28.95	222.07
110.00	11 29 47	1040.50	1.46	325.45	94.87	124.16	11 47 8	440.5	5.94	319.22
110.00	18 49 9	4864.71	33.30	206.91	102.44	81.79	20 10 13	4264.7	31.81	198.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2071	TRA	-1.0143	TC3	.7217	BAU	.1492	SGT	1871.9	SGR	681.1	SG3	277.0	ST	628.9	SR	423.3	SS	487.3
RDE	-.2498	RRA	.2264	RC3	-.5364	FAU	.04136	RRT	-.8063	RRF	.8535	RTF	-.9149	CRT	-.7508	CRS	-.6249	CST	.9836
FDE	-.1873	FRA	1.4103	FC3	-2.8843	BSP	6203	SGB	1992.0	R23	-.1402	R13	.9251	LSA	854.5	MSA	285.7	SSA	19.1
BDE	.3245	BRA	1.0393	BC3	.8992	FSP	-780	SG1	1954.2	SG2	385.9	THA	162.96	EL1	717.4	EL2	245.1	ALF	149.21

LAUNCH DATE AUG 4 1970 FLIGHT TIME 118.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 302.268

RL	151.78	LAL	.00	LOL	311.21	VL	26.233	GAL	2.29	AZL	89.80	HCA	127.90	SMA	125.13	ECC	.21652	INC	.2025	V1	29.353
RP	107.76	LAP	.16	LOP	79.12	VP	37.453	GAP	-9.66	AZP	90.12	TAL	171.67	TAP	299.57	RCA	98.04	APO	152.23	V2	35.168
RC	47.431	GL	1.57	GP	-19.70	ZAL	67.73	ZAP	24.85	ETS	47.15	ZAE	150.52	ETE	321.69	ZAC	81.72	ETC	260.36	CLP	-15.45

PLANETOCENTRIC CONIC

C3	11.526	VHL	3.395	DLA	-19.31	RAL	241.79	RAD	6567.4	VEL	11.529	PTH	2.01	VHP	6.716	DPA	-39.15	RAP	235.74	ECC	1.1897

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 21 30	1441.55	3.65	356.64	95.57	118.10	9 45 32	841.5	7.38	349.95
90.00	15 55 49	5384.38	27.91	246.44	100.69	85.03	17 25 33	4784.4	26.93	237.91
100.00	10 30 51	1217.78	2.53	339.57	94.95	119.80	10 51 9	617.8	6.48	333.01
100.00	17 29 10	5083.37	29.19	224.15	100.54	83.23	18 53 53	4483.4	27.94	215.56
110.00	11 13 10	1085.18	-.24	327.78	93.22	124.18	11 31 15	485.2	4.24	321.57
110.00	19 3 20	4788.74	32.41	201.16	99.93	78.50	20 23 9	4188.7	30.49	192.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1899	TRA	-.9979	TC3	.8298	BAU	.1641	SGT	1898.6	SGR	752.8	SG3	303.3	ST	624.2	SR	409.3
RDE	-.2281	RRA	.2581	RC3	-.6677	FAU	.04424	RRT	-.8413	RRF	.8909	RTF	-.9197	CRT	-.7739	CRS	-.6012
FDE	-.1468	FRA	1.4977	FC3	-3.3228	BSP	6393	SGB	2042.4	R23	-.1549	R13	.9321	LSA	846.6	MSA	282.1
BDE	.2968	BRA	1.0307	BC3	1.0651	FSP	-862	SG1	2005.7	SG2	385.2	THA	160.82	EL1	710.8	EL2	227.6

SS	489.5
CST	.9700
SSA	19.4
ALF	149.66

LAUNCH DATE AUG 4 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 308.985

RL	151.78	LAL	.00	LOL	311.21	VL	26.325	GAL	2.10	AZL	89.53	HCA	131.13	SMA	125.71	ECC	.21052	INC	.4657	V1	29.353
RP	107.72	LAP	.35	LOP	82.34	VP	37.527	GAP	-8.98	AZP	90.31	TAL	172.06	TAP	303.19	RCA	99.24	APO	152.17	V2	35.179
RC	48.893	GL	3.74	GP	-21.78	ZAL	68.44	ZAP	27.79	ETS	45.73	ZAE	148.28	ETE	319.45	ZAC	79.75	ETC	260.46	CLP	-17.70

PLANETOCENTRIC CONIC

C3	10.779	VHL	3.283	DLA	-17.06	RAL	241.53	RAD	6567.4	VEL	11.496	PTH	2.00	VHP	6.418	DPA	-41.40	RAP	236.07	ECC	1.1774

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 57 6	1515.98	1.25	.80	93.92	118.29	9 22 22	916.0	5.03	354.15
90.00	16 18 10	5282.30	27.09	239.08	98.51	81.43	17 46 13	4682.3	25.63	230.72
100.00	10 8 39	1285.07	.25	343.26	93.36	119.89	10 30 4	685.1	4.22	336.73
100.00	17 49 18	4988.44	28.23	217.25	98.30	79.73	19 12 26	4388.4	26.52	208.87
110.00	10 55 21	1138.79	-2.29	330.58	91.77	124.12	11 14 20	538.8	2.20	324.38
110.00	19 19 5	4707.49	31.15	195.17	97.55	75.16	20 37 33	4107.5	28.80	186.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1689	TRA	-.9825	TC3	.9343	BAU	.1795	SGT	1918.3	SGR	843.4	SG3	331.1	ST	613.8	SR	390.9
RDE	-.2036	RRA	.2963	RC3	-.8238	FAU	.04721	RRT	-.8694	RRF	.9209	RTF	-.9238	CRT	-.8016	CRS	-.5726
FDE	-.0910	FRA	1.5935	FC3	-3.7915	BSP	6562	SGB	2095.6	R23	-.1684	R13	.9391	LSA	833.1	MSA	280.6
BDE	.2645	BRA	1.0262	BC3	1.2456	FSP	-947	SG1	2059.3	SG2	388.2	THA	158.27	EL1	698.1	EL2	205.5

SS	493.6
CST	.9476
SSA	19.6
ALF	150.10

LAUNCH DATE AUG 4 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 315.687

RL	151.78	LAL	.00	LOL	311.21	VL	26.408	GAL	1.94	AZL	89.24	HCA	134.36	SMA	126.24	ECC	.20509	INC	.7563	V1	29.353
RP	107.69	LAP	.54	LOP	85.57	VP	37.595	GAP	-8.32	AZP	90.53	TAL	172.45	TAP	306.81	RCA	100.35	APO	152.12	V2	35.188
RC	50.451	GL	6.27	GP	-24.16	ZAL	69.20	ZAP	31.02	ETS	44.61	ZAE	146.01	ETE	316.89	ZAC	77.47	ETC	260.51	CLP	-20.07

PLANETOCENTRIC CONIC

C3	10.171	VHL	3.189	DLA	-14.44	RAL	241.34	RAD	6567.4	VEL	11.470	PTH	1.99	VHP	6.150	DPA	-43.92	RAP	236.14	ECC	1.1674

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 31 44	1599.52	-1.44	5.46	92.57	118.28	8 58 24	999.5	2.35	358.83
90.00	16 42 1	5175.31	25.78	231.53	96.48	77.86	18 8 16	4575.3	23.85	223.39
100.00	9 45 22	1361.99	-2.36	347.48	92.06	119.81	10 8 4	762.0	1.63	340.96
100.00	18 11 4	4888.08	26.80	210.14	96.22	76.24	19 32 33	4288.1	24.64	202.00
110.00	10 36 20	1202.35	-4.71	333.91	90.60	123.90	10 56 22	602.4	-.23	327.69
110.00	19 36 36	4620.48	29.47	188.95	95.36	71.84	20 53 36	4020.5	26.70	180.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1446	TRA	-.9674	TC3	1.0290	BAU	.1957	SGT	1928.4	SGR	956.2	SG3	359.6	ST	598.1	SR	367.8
RDE	-.1748	RRA	.3426	RC3	-1.0062	FAU	.05015	RRT	-.8911	RRF	.9441	RTF	-.9274	CRT	-.8390	CRS	-.5478
FDE	-.0168	FRA	1.6966	FC3	-4.2684	BSP	6768	SGB	2152.5	R23	-.1787	R13	.9463	LSA	816.5	MSA	282.4
BDE	.2268	BRA	1.0262	BC3	1.4392	FSP	-1038	SG1	2115.8	SG2	395.4	THA	155.24	EL1	679.7	EL2	176.1

SS	503.8
CST	.9131
SSA	19.5
ALF	150.54

LAUNCH DATE AUG 4 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 322.374

RL	151.78	LAL	.00	LOL	311.21	VL	26.484	GAL	1.78	AZL	88.92	HCA	137.58	SMA	126.72	ECC	.20017	INC	1.0809	V1	29.353
RP	107.67	LAP	.73	LOP	88.80	VP	37.656	GAP	-7.68	AZP	90.80	TAL	172.84	TAP	310.42	RCA	101.35	APO	152.08	V2	35.198
RC	52.096	GL	9.22	GP	-26.90	ZAL	70.03	ZAP	34.56	ETS	43.71	ZAE	143.64	ETE	314.00	ZAC	74.81	ETC	260.51	CLP	-22.56

PLANETOCENTRIC CONIC

C3	9.709	VHL	3.116	DLA	-11.42	RAL	241.24	RAD	6567.4	VEL	11.450	PTH	1.99	VHP	5.918	DPA	-46.73	RAP	235.85	ECC	1.1598

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 15	1693.91	-4.48	10.73	91.60	117.99	8 33 29	1093.9	-.70	4.09
90.00	17 7 42	5062.42	23.94	223.77	94.70	74.40	18 32 5	4462.4	21.57	215.90
100.00	9 20 50	1450.06	-5.33	352.34	91.14	119.46	9 45 0	850.1	-1.36	345.80
100.00	18 34 48	4781.50	24.86	202.81	94.40	72.85	19 54 30	4181.5	22.28	194.97
110.00	10 16 2	1277.18	-7.54	337.86	89.77	123.44	10 37 19	677.2	-3.09	331.60
110.00	19 56 5	4527.15	27.31	182.54	93.45	68.60	21 11 32	3927.2	24.16	174.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1169	TRA	-.9525	TC3	1.1035	BAU	.2129	SGT	1926.6	SGR	1094.6	SG3	387.5	ST	577.9	SR	341.5
RDE	-.1394	RRA	.3990	RC3	-1.2138	FAU	.05289	RRT	-.9070	RRF	.9613	RTF	-.9302	CRT	-.8915	CRS	-.5481
FDE	.0792	FRA	1.8043	FC3	-4.7165	BSP	6976	SGB	2215.8	R23	-.1844	R13	.9535	LSA	802.6	MSA	288.5
BDE	.1819	BRA	1.0327	BC3	1.6404	FSP	-1128	SG1	2178.0	SG2	407.8	THA	151.65	EL1	657.3	EL2	136.0

SS	526.4
CST	.8652
SSA	18.9
ALF	150.85

LAUNCH DATE AUG 4 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 329.042

RL	151.78	LAL	.00	LOL	311.21	VL	26.552	GAL	1.65	AZL	88.55	HCA	140.81	SMA	127.15	ECC	.19575	INC	1.4481	V1	29.353
RP	107.64	LAP	.92	LOP	92.03	VP	37.712	GAP	-7.06	AZP	91.12	TAL	173.21	TAP	314.02	RCA	102.26	APO	152.04	V2	35.206
RC	53.818	GL	12.64	GP	-30.03	ZAL	70.93	ZAP	38.42	ETS	42.94	ZAE	141.10	ETE	310.81	ZAC	71.75	ETC	260.43	CLP	-25.19

PLANETOCENTRIC CONIC

C3	9.405	VHL	3.067	DLA	-7.94	RAL	241.25	RAD	6567.3	VEL	11.437	PTH	1.98	VHP	5.727	DPA	-49.86	RAP	235.12	ECC	1.1548		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 37 20	1801.27	-7.87	16.80	91.12	117.29	8 7 21	1201.3	-4.15	10.09
90.00	17 35 43	4942.55	21.51	215.82	93.27	71.13	18 58 5	4342.5	18.74	208.25
100.00	8 54 51	1551.20	-8.68	357.98	90.68	118.72	9 20 42	951.2	-4.78	351.36
100.00	19 0 53	4667.85	22.37	195.29	92.94	69.64	20 18 41	4067.8	19.40	187.76
110.00	9 54 21	1364.88	-10.80	342.56	89.41	122.63	10 17 6	764.9	-6.42	336.21
110.00	20 17 52	4426.93	24.65	175.97	91.91	65.53	21 31 39	3826.9	21.14	168.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0854	TRA	-.9375	TC3	1.1483	BAU	.2317	SGT	1910.3	SGR	1262.0	SG3	413.2	ST	554.4	SR	318.9	SS	569.1
RDE	-.0939	RRA	.4684	RC3	-1.4409	FAU	.05520	RRT	-.9180	RRF	.9737	RTF	-.9322	CRT	-.9567	CRS	-.6093	CST	.8099
FDE	.2014	FRA	1.9131	FC3	-5.0810	BSP	7198	SGB	2289.5	R23	-.1837	R13	.9610	LSA	802.2	MSA	298.6	SSA	17.6
BDE	.1269	BRA	1.0480	BC3	1.8425	FSP	-1211	SG1	2249.8	SG2	424.9	THA	147.46	EL1	634.5	EL2	81.1	ALF	150.65

LAUNCH DATE AUG 4 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 335.692

RL	151.78	LAL	.00	LOL	311.21	VL	26.612	GAL	1.52	AZL	88.13	HCA	144.04	SMA	127.55	ECC	.19179	INC	1.8705	V1	29.353		
RP	107.61	LAP	1.10	LOP	95.27	VP	37.763	GAP	-6.46	AZP	91.51	TAL	173.57	TAP	317.61	RCA	103.09	APO	152.01	V2	35.214		
RC	55.612	GL	16.56	GP	-33.60	ZAL	71.91	ZAP	42.63	ETS	42.21	ZAE	138.28	ETE	307.36	ZAC	68.24	ETC	260.25	CLP	-27.95		

PLANETOCENTRIC CONIC

C3	9.283	VHL	3.047	DLA	-3.97	RAL	241.40	RAD	6567.3	VEL	11.431	PTH	1.98	VHP	5.587	DPA	-53.37	RAP	233.81	ECC	1.1528		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 7 35	1924.23	-11.63	23.87	91.25	116.00	7 39 39	1324.2	-8.04	17.03
90.00	18 6 38	4814.52	18.47	207.66	92.33	68.15	19 26 53	4214.5	15.35	200.38
100.00	8 27 4	1667.82	-12.42	4.62	90.84	117.41	8 54 51	1067.8	-8.65	357.85
100.00	19 29 50	4546.16	19.29	187.57	91.97	66.71	20 45 36	3946.2	15.97	180.35
110.00	9 31 3	1467.51	-14.50	348.21	89.64	121.30	9 55 30	867.5	-10.25	341.68
110.00	20 42 21	4319.24	21.45	169.25	90.88	62.72	21 54 20	3719.2	17.62	162.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0524	TRA	-.9221	TC3	1.1526	BAU	.2524	SGT	1877.2	SGR	1461.8	SG3	434.3	ST	531.1	SR	321.3	SS	636.1
RDE	-.0345	RRA	.5538	RC3	-1.6759	FAU	.05676	RRT	-.9249	RRF	.9823	RTF	-.9330	CRT	-.9983	CRS	-.7495	CST	.7599
FDE	.3481	FRA	2.0150	FC3	-5.2939	BSP	7479	SGB	2379.3	R23	-.1759	R13	.9685	LSA	833.0	MSA	309.4	SSA	15.6
BDE	.0627	BRA	1.0756	BC3	2.0339	FSP	-1283	SG1	2337.0	SG2	446.4	THA	142.64	EL1	620.5	EL2	16.1	ALF	148.85

LAUNCH DATE AUG 4 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 342.322

RL	151.78	LAL	.00	LOL	311.21	VL	26.667	GAL	1.41	AZL	87.64	HCA	147.27	SMA	127.90	ECC	.18827	INC	2.3641	V1	29.353		
RP	107.59	LAP	1.28	LOP	98.51	VP	37.808	GAP	-5.88	AZP	91.99	TAL	173.90	TAP	321.17	RCA	103.82	APO	151.98	V2	35.222		
RC	57.469	GL	21.03	GP	-37.66	ZAL	72.99	ZAP	47.18	ETS	41.44	ZAE	135.09	ETE	303.71	ZAC	64.23	ETC	259.94	CLP	-30.85		

PLANETOCENTRIC CONIC

C3	9.389	VHL	3.064	DLA	.54	RAL	241.70	RAD	6567.3	VEL	11.436	PTH	1.98	VHP	5.509	DPA	-57.25	RAP	231.67	ECC	1.1545		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 35 20	2066.20	-15.71	32.30	92.18	113.86	7 9 46	1466.2	-12.36	25.23
90.00	18 41 19	4676.98	14.79	199.25	92.03	65.57	19 59 16	4077.0	11.37	192.24
100.00	7 56 55	1803.02	-16.51	12.57	91.80	115.28	8 26 58	1203.0	-12.97	5.57
100.00	20 2 24	4415.40	15.58	179.63	91.65	64.16	21 16 0	3815.4	11.98	172.69
110.00	9 5 44	1587.61	-18.62	355.07	90.66	119.20	9 32 12	987.6	-14.59	348.28
110.00	21 10 5	4203.57	17.68	162.39	90.49	60.26	22 20 8	3603.6	13.59	155.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0177	TRA	-.9066	TC3	1.1088	BAU	.2758	SGT	1826.6	SGR	1697.7	SG3	447.9	ST	510.1	SR	381.5	SS	729.2
RDE	.0454	RRA	.6602	RC3	-1.8967	FAU	.05722	RRT	-.9286	RRF	.9882	RTF	-.9328	CRT	-.9571	CRS	-.8945	CST	.7293
FDE	.5200	FRA	2.1034	FC3	-5.2757	BSP	7821	SGB	2493.8	R23	-.1607	R13	.9759	LSA	915.4	MSA	315.2	SSA	13.1
BDE	.0487	BRA	1.1215	BC3	2.1970	FSP	-1334	SG1	2449.1	SG2	469.8	THA	137.26	EL1	630.7	EL2	89.4	ALF	143.55

LAUNCH DATE AUG 4 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 348.931

RL	151.78	LAL	.00	LOL	311.21	VL	26.715	GAL	1.32	AZL	87.05	HCA	150.50	SMA	128.22	ECC	.18516	INC	2.9528	V1	29.353		
RP	107.57	LAP	1.45	LOP	101.74	VP	37.848	GAP	-5.31	AZP	92.57	TAL	174.19	TAP	324.69	RCA	104.48	APO	151.96	V2	35.229		
RC	59.382	GL	26.07	GP	-42.23	ZAL	74.19	ZAP	52.07	ETS	40.53	ZAE	131.43	ETE	299.94	ZAC	59.70	ETC	259.45	CLP	-33.88		

PLANETOCENTRIC CONIC

C3	9.801	VHL	3.131	DLA	5.58	RAL	242.19	RAD	6567.4	VEL	11.454	PTH	1.99	VHP	5.510	DPA	-61.50	RAP	228.36	ECC	1.1613		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 59 33	2231.86	-19.98	42.58	94.18	110.49	6 36 45	1631.9	-17.02	35.16
90.00	19 20 58	4528.21	10.43	190.50	92.60	63.52	20 36 26	3928.2	6.79	183.72
100.00	7 23 32	1960.99	-20.83	22.31	93.83	111.94	7 56 13	1361.0	-17.67	14.94
100.00	20 39 40	4274.32	11.23	171.41	92.18	62.11	21 50 54	3674.3	7.41	164.71
110.00	8 37 49	1728.49	-23.07	3.58	92.76	115.95	9 6 37	1128.5	-19.39	356.38
110.00	21 41 52	4079.59	13.36	155.38	90.93	58.24	22 49 52	3479.6	9.07	148.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0162	TRA	-.8892	TC3	1.0019	BAU	.3007	SGT	1751.6	SGR	1967.8	SG3	449.7	ST	491.8	SR	521.5	SS	840.8
RDE	.1541	RRA	.7922	RC3	-2.0643	FAU	.05596	RRT	-.9287	RRF	.9921	RTF	-.9306	CRT	-.8713	CRS	-.9676	CST	.7203
FDE	.7098	FRA	2.1631	FC3	-4.9430	BSP	8204	SGB	2634.4	R23	-.1402	R13	.9825	LSA	1059.5	MSA	313.4	SSA	10.5
BDE	.1549	BRA	1.1909	BC3	2.2946	FSP	-1345	SG1	2587.7	SG2	493.8	THA	131.42	EL1	693.5	EL2	181.5	ALF	133.07

LAUNCH DATE AUG 4 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 355.517

RL	151.78	LAL	.00	LOL	311.21	VL	26.757	GAL	1.23	AZL	86.33	HCA	153.72	SMA	128.50	ECC	.18244	INC	3.6720	V1	29.353
RP	107.55	LAP	1.62	LOP	104.98	VP	37.883	GAP	-4.76	AZP	93.29	TAL	174.45	TAP	328.18	RCA	105.06	APO	151.94	V2	35.235
RC	61.346	GL	31.66	GP	-47.30	ZAL	75.52	ZAP	57.22	ETS	39.37	ZAE	127.24	ETE	296.15	ZAC	54.66	ETC	258.71	CLP	-37.01

PLANETOCENTRIC CONIC

C3	10.657	VHL	3.265	DLA	11.15	RAL	242.87	RAD	6567.4	VEL	11.491	PTH	2.00	VHP	5.614	DPA	-66.04	RAP	223.20	ECC	1.1754

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 18 22	2428.27	-24.11	55.49	97.59	105.31	5 58 51	1828.3	-21.78	47.59
90.00	20 7 37	4365.40	5.35	181.23	94.35	62.15	21 20 22	3765.4	1.58	174.58
100.00	6 45 19	2147.85	-25.07	34.56	97.29	106.84	7 21 7	1547.9	-22.53	26.69
100.00	21 23 21	4121.04	6.23	162.79	93.87	60.70	22 32 2	3521.0	2.28	156.23
110.00	8 6 15	1894.58	-27.60	14.36	96.32	111.02	8 37 50	1294.6	-24.49	6.57
110.00	22 18 54	3947.08	8.51	148.19	92.47	56.77	23 24 41	3347.1	4.08	141.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0539	TRA -.8787	TC3 .8053	BAU .3223			SGT 1660.2	SGR 2273.2	SG3 437.4	ST 481.2	SR 749.0	SS 967.3
RDE .3078	RRA .9636	RC3-2.1136	FAU .05203			RRT -.9237	RRF .9948	RTF -.9254	CRT -.8201	CRS -.9914	CST .7388
FDE .9154	FRA 2.1958	FC3-4.2268	BSP 8459			SGB 2814.9	R23 -.1158	R13 .9881	LSA 1279.3	MSA 302.6	SSA 8.3
BDE .3125	BRA 1.3041	BC3 2.2618	FSP -1287			SG1 2766.0	SG2 522.6	THA 125.46	EL1 857.1	EL2 240.6	ALF 120.44

LAUNCH DATE AUG 4 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 362.077

RL	151.78	LAL	.00	LOL	311.21	VL	26.793	GAL	1.17	AZL	85.42	HCA	156.94	SMA	128.75	ECC	.18008	INC	4.5769	V1	29.353
RP	107.53	LAP	1.79	LOP	108.22	VP	37.914	GAP	-4.23	AZP	94.21	TAL	174.67	TAP	331.62	RCA	105.56	APO	151.93	V2	35.240
RC	63.355	GL	37.72	GP	-52.88	ZAL	77.00	ZAP	62.54	ETS	37.86	ZAE	122.46	ETE	292.42	ZAC	49.13	ETC	257.64	CLP	-40.18

PLANETOCENTRIC CONIC

C3	12.206	VHL	3.494	DLA	17.17	RAL	243.77	RAD	6567.5	VEL	11.558	PTH	2.02	VHP	5.859	DPA	-70.71	RAP	214.90	ECC	1.2009

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 27 56	2668.49	-27.38	72.29	102.75	97.52	5 12 24	2068.5	-26.06	63.88
90.00	21 5 12	4181.50	-.56	170.95	97.73	61.69	22 14 54	3581.5	-4.34	164.31
100.00	5 59 9	2374.31	-28.57	50.46	102.56	99.19	6 38 44	1774.3	-27.00	42.00
100.00	22 16 40	3950.92	.49	153.41	97.15	60.11	23 22 31	3350.9	-3.49	146.89
110.00	7 29 9	2092.71	-31.64	28.35	101.84	103.66	8 4 2	1492.7	-29.44	19.84
110.00	23 3 9	3805.28	3.15	140.71	95.49	55.94	24 6 34	3205.3	-1.34	134.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0681	TRA -.8488	TC3 .6235	BAU .3509			SGT 1524.8	SGR 2600.8	SG3 406.4	ST 451.3	SR 1026.3	SS 1059.0
RDE .5069	RRA 1.1658	RC3-2.0583	FAU .04687			RRT -.9166	RRF .9965	RTF -.9173	CRT -.7680	CRS -.9976	CST .7226
FDE 1.0821	FRA 2.1468	FC3-3.3242	BSP 9196			SGB 3014.8	R23 -.0904	R13 .9924	LSA 1513.3	MSA 297.5	SSA 6.3
BDE .5115	BRA 1.4421	BC3 2.1506	FSP -1222			SG1 2967.1	SG2 534.4	THA 119.30	EL1 1087.5	EL2 272.8	ALF 109.97

LAUNCH DATE AUG 4 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 368.609

RL	151.78	LAL	.00	LOL	311.21	VL	26.825	GAL	1.12	AZL	84.24	HCA	160.16	SMA	128.96	ECC	.17805	INC	5.7577	V1	29.353
RP	107.52	LAP	1.95	LOP	111.47	VP	37.941	GAP	-3.71	AZP	95.42	TAL	174.84	TAP	335.00	RCA	106.00	APO	151.92	V2	35.245
RC	65.403	GL	44.13	GP	-58.90	ZAL	78.63	ZAP	67.89	ETS	35.94	ZAE	117.09	ETE	288.84	ZAC	43.17	ETC	256.07	CLP	-43.22

PLANETOCENTRIC CONIC

C3	14.934	VHL	3.864	DLA	23.51	RAL	244.88	RAD	6567.6	VEL	11.676	PTH	2.05	VHP	6.304	DPA	-75.11	RAP	200.77	ECC	1.2458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 17 15	2987.61	-28.05	95.53	109.61	85.95	4 7 3	2387.6	-28.32	86.87
90.00	22 24 45	3950.20	-7.94	157.96	103.71	62.73	23 30 35	3350.2	-11.53	151.12
100.00	4 57 11	2665.44	-29.83	71.93	109.71	88.00	5 41 36	2065.4	-29.79	63.13
100.00	23 27 31	3747.61	-6.37	142.22	102.86	60.73	24 29 58	3147.6	-10.22	135.55
110.00	6 42 42	2335.29	-34.07	46.81	109.67	93.02	7 21 38	1735.3	-33.27	37.66
110.00	0 2 24	3650.52	-2.76	132.63	100.63	55.92	1 3 15	3050.5	-7.22	126.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0649	TRA -.8156	TC3 .4189	BAU .3753			SGT 1361.3	SGR 2941.3	SG3 358.3	ST 407.3	SR 1348.5	SS 1115.4
RDE .7805	RRA 1.4248	RC3-1.8325	FAU .03941			RRT -.9010	RRF .9976	RTF -.9019	CRT -.7014	CRS -.9994	CST .6767
FDE 1.2087	FRA 2.0391	FC3-2.2844	BSP 9941			SGB 3241.1	R23 -.0661	R13 .9955	LSA 1772.9	MSA 291.9	SSA 4.7
BDE .7832	BRA 1.6417	BC3 1.8798	FSP -1095			SG1 3195.2	SG2 543.6	THA 113.35	EL1 1379.8	EL2 283.7	ALF 102.50

LAUNCH DATE AUG 4 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 375.108

RL	151.78	LAL	.00	LOL	311.21	VL	26.852	GAL	1.08	AZL	82.63	HCA	163.37	SMA	129.14	ECC	.17634	INC	7.3738	V1	29.353
RP	107.51	LAP	2.11	LOP	114.71	VP	37.964	GAP	-3.20	AZP	97.07	TAL	174.95	TAP	338.32	RCA	106.37	APO	151.91	V2	35.249
RC	67.486	GL	50.64	GP	-65.31	ZAL	80.37	ZAP	73.06	ETS	33.62	ZAE	111.14	ETE	285.54	ZAC	36.86	ETC	253.75	CLP	-45.76

PLANETOCENTRIC CONIC

C3	19.863	VHL	4.457	DLA	29.93	RAL	246.18	RAD	6567.8	VEL	11.885	PTH	2.11	VHP	7.052	DPA	-78.33	RAP	176.20	ECC	1.3269

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.89	23 32 7	3799.58	-20.74	153.05	115.06	67.93	24 35 26	3199.6	-23.55	145.38
100.11	2 20 15	3269.94	-20.73	114.09	115.06	67.92	3 14 45	2669.9	-23.54	106.42
79.89	23 32 7	3799.58	-20.74	153.05	115.06	67.93	24 35 26	3199.6	-23.55	145.38
100.11	2 20 15	3269.94	-20.73	114.09	115.06	67.92	3 14 45	2669.9	-23.54	106.42
110.00	5 35 36	2656.54	-32.42	71.62	118.99	78.51	6 19 52	2056.5	-33.66	62.61
110.00	1 19 53	3460.98	-9.90	122.60	109.23	57.11	2 17 34	2861.0	-14.17	116.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0308	TRA -.7762	TC3 .2279	BAU .3888			SGT 1169.8	SGR 3275.4	SG3 296.5	ST 347.7	SR 1685.6	SS 1120.0
RDE 1.1600	RRA 1.7634	RC3-1.4461	FAU .03015			RRT -.8698	RRF .9983	RTF -.8724	CRT -.5636	CRS -.9999	CST .5524
FDE 1.2740	FRA 1.8736	FC3-1.3139	BSP 10714			SGB 3478.0	R23 -.0428	R13 .9974	LSA 2033.3	MSA 287.0	SSA 3.5
BDE 1.1604	BRA 1.9267	BC3 1.4640	FSP -921			SG1 3434.2	SG2 550.5	THA 107.73	EL1 1697.3	EL2 285.3	ALF 96.83

LAUNCH DATE AUG 4 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 381.566

RL	151.78	LAL	.00	LOL	311.21	VL	26.875	GAL	1.06	AZL	80.27	HCA	166.56	SMA	129.29	ECC	.17493	INC	9.7336
RP	107.50	LAP	2.25	LOP	117.96	VP	37.983	GAP	-2.72	AZP	99.47	TAL	174.99	TAP	341.55	RCA	106.67	APO	151.91
RC	69.600	GL	56.90	GP	-72.10	ZAL	82.19	ZAP	77.84	ETS	31.14	ZAE	104.59	ETE	282.79	ZAC	30.28	ETC	250.27

V1	29.353	V2	35.253	CLP	-46.74														

PLANETOCENTRIC CONIC

C3	29.410	VHL	5.423	DLA	36.10	RAL	247.56	RAD	6568.2	VEL	12.279	PTH	2.21	VHP	8.298	DPA	-78.68	RAP	141.42
ECC	1.4840																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.61	22 10 48	4165.11	-21.61	181.52	124.68	60.35	23 20 13	3565.1	-25.38	174.25
113.39	3 52 35	3096.61	-21.59	101.29	124.67	60.34	4 44 11	2496.6	-25.37	94.01
66.61	22 10 48	4165.11	-21.61	181.52	124.68	60.35	23 20 13	3565.1	-25.38	174.25
113.39	3 52 35	3096.61	-21.59	101.29	124.67	60.34	4 44 11	2496.6	-25.37	94.01
66.61	22 10 48	4165.11	-21.61	181.52	124.68	60.35	23 20 13	3565.1	-25.38	174.25
113.39	3 52 35	3096.61	-21.59	101.29	124.67	60.34	4 44 11	2496.6	-25.37	94.01

DIFFERENTIAL CORRECTIONS

TDE	.0544	TRA	-.7319	TC3	.0888	BAU	.3775
RDE	1.7078	RRA	2.2330	RC3	-.9559	FAU	.01992
FDE	1.2743	FRA	1.6721	FC3	-.5863	BSP	11426
BDE	1.7087	BRA	2.3499	BC3	.9600	FSP	-718

MID-COURSE EXECUTION ACCURACY

SGT	963.6	SGR	3585.6	SG3	228.6		
RRT	-.8077	RRF	.9987	RTF	-.8146		
SGB	3712.8	R23	-.0201	R13	.9986		
SG1	3671.1	SG2	554.9	THA	102.54		

ORBIT DETERMINATION ACCURACY

ST	292.8	SR	2006.0	SS	1073.8
CRT	-.2519	CRS	-1.0000	CST	.2532
LSA	2276.5	MSA	283.2	SSA	2.6
EL1	2007.3	EL2	283.2	ALF	92.15

LAUNCH DATE AUG 4 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 387.963

RL	151.78	LAL	.00	LOL	311.21	VL	26.893	GAL	1.06	AZL	76.48	HCA	169.71	SMA	129.41	ECC	.17381	INC	13.5173
RP	107.49	LAP	2.39	LOP	121.20	VP	37.999	GAP	-2.26	AZP	103.31	TAL	174.95	TAP	344.66	RCA	106.92	APO	151.91
RC	71.740	GL	62.35	GP	-79.28	ZAL	84.03	ZAP	82.01	ETS	29.88	ZAE	97.24	ETE	281.90	ZAC	23.46	ETC	245.12

V1	29.353	V2	35.255	CLP	-41.66														

PLANETOCENTRIC CONIC

C3	50.339	VHL	7.095	DLA	41.53	RAL	248.72	RAD	6568.9	VEL	13.103	PTH	2.39	VHP	10.468	DPA	-75.41	RAP	110.98
ECC	1.8285																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.25	21 34 51	4417.06	-19.04	200.61	135.81	52.36	22 48 28	3817.1	-23.79	194.11
121.75	4 37 47	3115.21	-19.02	101.00	135.80	52.35	5 29 42	2515.2	-23.77	94.50
58.25	21 34 51	4417.06	-19.04	200.61	135.81	52.36	22 48 28	3817.1	-23.79	194.11
121.75	4 37 47	3115.21	-19.02	101.00	135.80	52.35	5 29 42	2515.2	-23.77	94.50
58.25	21 34 51	4417.06	-19.04	200.61	135.81	52.36	22 48 28	3817.1	-23.79	194.11
121.75	4 37 47	3115.21	-19.02	101.00	135.80	52.35	5 29 42	2515.2	-23.77	94.50

DIFFERENTIAL CORRECTIONS

TDE	.2033	TRA	-.7151	TC3	.0209	BAU	.3080
RDE	2.5625	RRA	2.9438	RC3	-.4572	FAU	.00963
FDE	1.2316	FRA	1.4748	FC3	-.1656	BSP	12026
BDE	2.5705	BRA	3.0294	BC3	.4577	FSP	-516

MID-COURSE EXECUTION ACCURACY

SGT	789.3	SGR	3845.6	SG3	163.4		
RRT	-.7016	RRF	.9988	RTF	-.7176		
SGB	3925.7	R23	.0027	R13	.9991		
SG1	3886.1	SG2	556.6	THA	98.37		

ORBIT DETERMINATION ACCURACY

ST	283.8	SR	2278.2	SS	997.7
CRT	.1844	CRS	-.9999	CST	-.1687
LSA	2487.6	MSA	279.3	SSA	2.1
EL1	2278.8	EL2	278.8	ALF	88.66

LAUNCH DATE AUG 4 1970 FLIGHT TIME 146.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 394.246

RL	151.78	LAL	.00	LOL	311.21	VL	26.907	GAL	1.09	AZL	69.47	HCA	172.78	SMA	129.51	ECC	.17298	INC	20.5336
RP	107.48	LAP	2.53	LOP	124.45	VP	38.011	GAP	-1.83	AZP	110.38	TAL	174.77	TAP	347.55	RCA	107.11	APO	151.92
RC	73.903	GL	65.87	GP	-85.31	ZAL	85.83	ZAP	85.37	ETS	54.52	ZAE	88.37	ETE	307.37	ZAC	16.66	ETC	256.33

V1	29.353	V2	35.257	CLP	9.44														

PLANETOCENTRIC CONIC

C3	106.904	VHL	10.339	DLA	45.24	RAL	248.80	RAD	6570.1	VEL	15.108	PTH	2.72	VHP	14.682	DPA	-69.14	RAP	90.12
ECC	2.7594																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.11	21 14 32	4647.24	-12.37	215.19	146.26	46.12	22 32 0	4047.2	-17.84	209.55
126.89	4 58 44	3234.85	-12.35	105.69	146.24	46.12	5 52 39	2634.9	-17.83	100.06
53.11	21 14 32	4647.24	-12.37	215.19	146.26	46.12	22 32 0	4047.2	-17.84	209.55
126.89	4 58 44	3234.85	-12.35	105.69	146.24	46.12	5 52 39	2634.9	-17.83	100.06
53.11	21 14 32	4647.24	-12.37	215.19	146.26	46.12	22 32 0	4047.2	-17.84	209.55
126.89	4 58 44	3234.85	-12.35	105.69	146.24	46.12	5 52 39	2634.9	-17.83	100.06

DIFFERENTIAL CORRECTIONS

TDE	-1.0279	TRA	-1.9838	TC3	.0053	BAU	.0691
RDE	4.0212	RRA	3.7998	RC3	-.0481	FAU	-.00101
FDE	1.2291	FRA	1.3642	FC3	.0082	BSP	12477
BDE	4.1505	BRA	4.2864	BC3	.0484	FSP	-350

MID-COURSE EXECUTION ACCURACY

SGT	1662.0	SGR	3730.8	SG3	109.9		
RRT	-.9579	RRF	.9964	RTF	-.9767		
SGB	4084.2	R23	.0309	R13	.9989		
SG1	4060.6	SG2	438.4	THA	113.40		

ORBIT DETERMINATION ACCURACY

ST	737.5	SR	2402.2	SS	955.8
CRT	-.9537	CRS	-.9983	CST	.9698
LSA	2679.8	MSA	214.9	SSA	1.6
EL1	2503.8	EL2	212.8	ALF	106.44

LAUNCH DATE AUG 4 1970 FLIGHT TIME 148.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 400.217

RL	151.78	LAL	.00	LOL	311.21	VL	26.918	GAL	1.19	AZL	52.94	HCA	175.60	SMA	129.59	ECC	.17251	INC	37.0578
RP	107.48	LAP	2.65	LOP	127.70	VP	38.019	GAP	-1.48	AZP	126.98	TAL	174.28	TAP	349.88	RCA	107.23	APO	151.94
RC	76.087	GL	63.99	GP	-76.30	ZAL	87.46	ZAP	87.75	ETS	182.23	ZAE	75.20	ETE	75.82	ZAC	13.98	ETC	337.43

V1	29.353	V2	35.258	CLP	80.44														

PLANETOCENTRIC CONIC

C3	325.683	VHL	18.047	DLA	44.18	RAL	245.35	RAD	6571.8	VEL	21.142	PTH	3.20	VHP	24.672	DPA	-58.15	RAP	73.19
ECC	6.3599																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.56	21 6 18	4811.99	-3.73	221.83	151.52	45.95	22 26 30	4212.0	-9.27	216.43
125.44	4 39 27	3428.55	-3.71	114.98	151.50	45.95	5 36 35	2828.5	-9.25	109.58
54.56	21 6 18	4811.99	-3.73	221.83	151.52	45.95	22 26 30	4212.0	-9.27	216.43
125.44	4 39 27	3428.55	-3.71	114.98	151.50	45.95	5 36 35	2828.5	-9.25	109.58
54.56	21 6 18	4811.99	-3.73	221.83	151.52	45.95	22 26 30	4212.0	-9.27	216.43
125.44	4 39 27	3428.55	-3.71	114.98	151.50	45.95	5 36 35	2828.5	-9.25	109.58

DIFFERENTIAL CORRECTIONS

TDE	-2.9139	TRA	-.6293	TC3	-.0639	BAU	.9434
RDE	-7.1779	RRA	-7.1804	RC3	-.2070	FAU	-.01918
FDE	1.5203	FRA	1.5859	FC3	.0510	BSP	12266
BDE	7.7468	BRA	7.2079	BC3	.2167	FSP	-235

MID-COURSE EXECUTION ACCURACY

SGT	993.3	SGR	3981.9	SG3	75.3		
RRT	.8005	RRF	-.9995	RTF	-.7907		
SGB	4103.9	R23	-.0450	R13	-.9986		
SG1	4062.2	SG2	583.6	THA	78.47		

ORBIT DETERMINATION ACCURACY

ST	928.9	SR	2470.5	SS	1122.7
CRT	.9535	CRS	.9999	CST	.9488
LSA	2855.5	MSA	268.7	SSA	1.4
EL1	2626.1	EL2	263.4	ALF	70.07

LAUNCH DATE AUG 4 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 404.813

RL 151.78 LAL .00 LOL 311.21 VL 26.926 GAL 1.55 AZL 5.45 HCA 177.22 SMA 129.64 ECC .17288 INC84.5446 V1 29.353
RP 107.48 LAP 2.77 LOP 130.95 VP 38.025 GAP -1.50 AZP 174.54 TAL 172.56 TAP 349.79 RCA 107.23 APO 152.05 V2 35.259
RC 78.289 GL 44.98 GP -49.02 ZAL 88.54 ZAP 88.87 ETS 182.99 ZAE 48.30 ETE 73.56 ZAC 34.47 ETC 292.58 CLP 88.27

PLANETOCENTRIC CONIC

C31436.729 VHL 37.904 DLA 27.11 RAL 234.66 RAD 6573.2 VEL 39.472 PTH 3.56 VHP 50.257 DPA -32.93 RAP 56.47 ECC24.6449

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 24 49	3981.75	-6.95	159.75	149.79	62.48	2 31 11	3381.7	-10.58	152.95
90.00	22 55 37	4456.24	8.21	186.37	141.98	62.81	24 9 53	3856.2	4.50	179.66
100.00	3 21 32	3605.49	-11.01	134.22	151.95	62.03	4 21 38	3005.5	-14.66	127.34
100.00	23 41 35	4307.73	12.29	173.33	139.84	62.53	24 53 23	3707.7	8.51	166.58
110.00	5 25 42	3216.97	-18.52	108.96	156.19	60.74	6 19 19	2617.0	-22.28	101.83
110.00	23 53 55	4269.02	19.85	166.23	135.67	61.58	25 5 4	3669.0	15.90	159.34

DIFFERENTIAL CORRECTIONS
TDE-6.0320 TRA-1.4816 TC3 -.1035 BAU 5.0060
RD-10.3347 RR-12.1393 RC3 -.2392 FAU-.09132
FDE 2.2802 FRA 2.8015 FC3 .0550 BSP 9531
BDE11.9662 BRA12.2294 BC3 .2606 FSP -184

MID-COURSE EXECUTION ACCURACY
SGT 1228.9 SGR 3158.7 SG3 62.3
RRT .8670 RRF -.9998 RTF -.8597
SGB 3389.4 R23 -.0747 R13 -.9971
SG1 3339.5 SG2 579.2 THA 70.76

ORBIT DETERMINATION ACCURACY
ST 915.2 SR 1681.0 SS 1620.8
CRT .9570 CRS .9999 CST .9524
LSA 2495.1 MSA 255.3 SSA 1.1
EL1 1899.5 EL2 234.9 ALF 62.01

LAUNCH DATE AUG 4 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 415.375

RL 151.78 LAL .00 LOL 311.21 VL 26.930 GAL .82 AZL 133.93 HCA 184.14 SMA 129.67 ECC .17113 INC43.9336 V1 29.353
RP 107.48 LAP 2.87 LOP 134.20 VP 38.028 GAP .03 AZP 46.14 TAL 176.03 TAP .17 RCA 107.48 APO 151.86 V2 35.258
RC 80.507 GL -61.89 GP 74.59 ZAL 88.31 ZAP 90.01 ETS 189.60 ZAE 77.60 ETE 291.91 ZAC 154.15 ETC 301.87 CLP 90.03

PLANETOCENTRIC CONIC

C3 448.655 VHL 21.181 DLA -70.28 RAL 172.11 RAD 6572.2 VEL 23.874 PTH 3.31 VHP 26.420 DPA 70.69 RAP 317.93 ECC 8.3837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.54	2 46 5	2386.10	2.96	77.29	81.04	160.25	3 25 51	1786.1	10.48	74.96
157.46	13 15 21	630.92	2.97	286.89	81.06	160.25	13 25 52	30.9	10.49	284.57
22.54	2 46 5	2386.10	2.96	77.29	81.04	160.25	3 25 51	1786.1	10.48	74.96
157.46	13 15 21	630.92	2.97	286.89	81.06	160.25	13 25 52	30.9	10.49	284.57
22.54	2 46 5	2386.10	2.96	77.29	81.04	160.25	3 25 51	1786.1	10.48	74.96
157.46	13 15 21	630.92	2.97	286.89	81.06	160.25	13 25 52	30.9	10.49	284.57

DIFFERENTIAL CORRECTIONS
TDE 5.9408 TRA 1.7112 TC3 -.1244 BAU 1.6073
RD-11.6265 RRA-1.9080 RC3 .2373 FAU-.02686
FDE-2.8758 FRA -.4913 FC3 .0518 BSP 12769
BDE13.0563 BRA 2.5629 BC3 .2680 FSP -236

MID-COURSE EXECUTION ACCURACY
SGT 2177.4 SGR 3638.7 SG3 77.7
RRT -.9695 RRF .9993 RTF -.9735
SGB 4240.4 R23 -.0453 R13 .9985
SG1 4215.3 SG2 460.8 THA 120.52

ORBIT DETERMINATION ACCURACY
ST 1658.9 SR 3178.4 SS 1796.1
CRT -.9944 CRS-1.0000 CST .9950
LSA 4006.9 MSA 157.7 SSA 1.8
EL1 3581.9 EL2 155.4 ALF 117.49

LAUNCH DATE AUG 4 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 421.223

RL 151.78 LAL .00 LOL 311.21 VL 26.932 GAL .97 AZL 115.54 HCA 186.91 SMA 129.68 ECC .17127 INC25.5354 V1 29.353
RP 107.48 LAP 2.97 LOP 137.45 VP 38.028 GAP .33 AZP 64.63 TAL 175.32 TAP 2.22 RCA 107.47 APO 151.89 V2 35.257
RC 82.739 GL -66.27 GP 88.19 ZAL 86.86 ZAP 90.71 ETS 214.40 ZAE 91.03 ETE 314.91 ZAC 165.42 ETC 346.38 CLP 113.08

PLANETOCENTRIC CONIC

C3 160.770 VHL 12.680 DLA -73.90 RAL 162.04 RAD 6570.7 VEL 16.796 PTH 2.90 VHP 15.311 DPA 67.15 RAP 280.09 ECC 3.6459

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.36	1 57 10	2262.79	11.73	77.62	68.59	163.55	2 34 53	1662.8	19.39	75.64
161.64	12 43 56	5775.84	11.74	260.83	68.62	163.55	14 20 12	5175.8	19.40	258.86
18.36	1 57 10	2262.79	11.73	77.62	68.59	163.55	2 34 53	1662.8	19.39	75.64
161.64	12 43 56	5775.84	11.74	260.83	68.62	163.55	14 20 12	5175.8	19.40	258.86
18.36	1 57 10	2262.79	11.73	77.62	68.59	163.55	2 34 53	1662.8	19.39	75.64
161.64	12 43 56	5775.84	11.74	260.83	68.62	163.55	14 20 12	5175.8	19.40	258.86

DIFFERENTIAL CORRECTIONS
TDE 6.6399 TRA 1.6024 TC3 -.0718 BAU .2259
RDE-3.6786 RRA -.7505 RC3 .0767 FAU-.00298
FDE-2.3361 FRA -.4917 FC3 .0160 BSP 13943
BDE 7.5908 BRA 1.7694 BC3 .1051 FSP -358

MID-COURSE EXECUTION ACCURACY
SGT 3981.5 SGR 2072.8 SG3 114.6
RRT -.9955 RRF .9979 RTF -.9977
SGB 4488.7 R23 -.0297 R13 .9985
SG1 4485.4 SG2 174.2 THA 152.56

ORBIT DETERMINATION ACCURACY
ST 3101.0 SR 1702.3 SS 1432.2
CRT -.9993 CRS-1.0000 CST .9995
LSA 3815.9 MSA 64.4 SSA 2.4
EL1 3537.0 EL2 57.0 ALF 151.24

LAUNCH DATE AUG 4 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 427.382

RL 151.78 LAL .00 LOL 311.21 VL 26.931 GAL 1.06 AZL 107.96 HCA 189.96 SMA 129.67 ECC .17151 INC17.9641 V1 29.353
RP 107.49 LAP 3.06 LOP 140.70 VP 38.025 GAP .70 AZP 72.29 TAL 174.85 TAP 4.81 RCA 107.43 APO 151.91 V2 35.255
RC 84.985 GL -65.35 GP 82.91 ZAL 85.36 ZAP 92.29 ETS 351.51 ZAE 99.16 ETE 91.02 ZAC 168.83 ETC 155.78 CLP-108.88

PLANETOCENTRIC CONIC

C3 83.490 VHL 9.137 DLA -74.87 RAL 167.08 RAD 6569.6 VEL 14.312 PTH 2.60 VHP 10.714 DPA 61.90 RAP 264.21 ECC 2.3740

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.25	2 14 59	2132.94	20.44	76.38	71.28	163.82	2 50 32	1532.9	28.10	74.28
162.75	13 6 17	5641.51	20.45	258.48	71.30	163.82	14 40 18	5041.5	28.11	256.38
17.25	2 14 59	2132.94	20.44	76.38	71.28	163.82	2 50 32	1532.9	28.10	74.28
162.75	13 6 17	5641.51	20.45	258.48	71.30	163.82	14 40 18	5041.5	28.11	256.38
17.25	2 14 59	2132.94	20.44	76.38	71.28	163.82	2 50 32	1532.9	28.10	74.28
162.75	13 6 17	5641.51	20.45	258.48	71.30	163.82	14 40 18	5041.5	28.11	256.38

DIFFERENTIAL CORRECTIONS
TDE 1.6041 TRA -.2677 TC3 -.0584 BAU .1801
RDE 5.7026 RRA 1.0666 RC3 .1504 FAU .00999
FDE-2.6894 FRA -.4322 FC3 -.1036 BSP 14285
BDE 5.9239 BRA 1.0997 BC3 .1613 FSP -540

MID-COURSE EXECUTION ACCURACY
SGT 1198.6 SGR 4407.5 SG3 171.9
RRT .3634 RRF -.9970 RTF -.4229
SGB 4567.6 R23 .0386 R13 -.9984
SG1 4430.4 SG2 1110.9 THA 83.98

ORBIT DETERMINATION ACCURACY
ST 1024.2 SR 3657.5 SS 1587.4
CRT .9206 CRS .9996 CST .9315
LSA 4098.4 MSA 387.2 SSA 2.2
EL1 3778.4 EL2 387.2 ALF 75.39

LAUNCH DATE AUG 4 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 433.621

RL	151.78	LAL	.00	LOL	311.21	VL	26.927	GAL	1.16	AZL	103.96	HCA	193.11	SMA	129.65	ECC	.17191	INC	13.9607	V1	29.353
RP	107.50	LAP	3.14	LOP	143.95	VP	38.020	GAP	1.10	AZP	76.39	TAL	174.42	TAP	7.53	RCA	107.36	APO	151.93	V2	35.253
RC	87.241	GL	-62.93	GP	76.11	ZAL	83.84	ZAP	94.66	ETS	6.96	ZAE	105.29	ETE	106.13	ZAC	167.11	ETC	199.89	CLP	-109.80

PLANETOCENTRIC CONIC

C3	53.202	VHL	7.294	DLA	-74.80	RAL	177.19	RAD	6568.9	VEL	13.212	PTH	2.41	VHP	8.351	DPA	57.01	RAP	254.84	ECC	1.8756

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.33	2 55 29	2025.44	27.43	74.46	79.06	162.81	3 29 14	1425.4	35.04	72.00
162.67	13 46 27	5534.31	27.44	256.64	79.09	162.81	15 18 42	4934.3	35.05	254.18
17.33	2 55 29	2025.44	27.43	74.46	79.06	162.81	3 29 14	1425.4	35.04	72.00
162.67	13 46 27	5534.31	27.44	256.64	79.09	162.81	15 18 42	4934.3	35.05	254.18
17.33	2 55 29	2025.44	27.43	74.46	79.06	162.81	3 29 14	1425.4	35.04	72.00
162.67	13 46 27	5534.31	27.44	256.64	79.09	162.81	15 18 42	4934.3	35.05	254.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.7967	TRA	-.3985	TC3	-.2539	BAU	.3434	SGT	1397.7	SGR	4393.9	SG3	245.9
RDE	5.1470	RRA	.5384	RC3	.4106	FAU	.02187	RRT	-.7616	RRF	-.9988	RTF	.7596
FDE	-3.3267	FRA	-.3339	FC3	-.3559	BSP	14590	SGB	4610.8	R23	.0505	R13	-.9975
BDE	5.2083	BRA	.6699	BC3	.4828	FSP	-778	SG1	4526.2	SG2	879.3	THA	104.16

ST	721.1	SR	4072.0	SS	1897.9	CRT	-.9208	CRS	1.0000	CST	-.9189	LSA	4541.5
MSA	278.9	SSA	2.9	EL1	4126.0	EL2	277.6	ALF	99.30				

LAUNCH DATE AUG 4 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 439.881

RL	151.78	LAL	.00	LOL	311.21	VL	26.921	GAL	1.25	AZL	101.49	HCA	196.30	SMA	129.61	ECC	.17247	INC	11.4941	V1	29.353
RP	107.51	LAP	3.21	LOP	147.20	VP	38.013	GAP	1.51	AZP	78.96	TAL	173.97	TAP	10.27	RCA	107.25	APO	151.96	V2	35.249
RC	89.506	GL	-60.05	GP	70.09	ZAL	82.31	ZAP	97.70	ETS	13.67	ZAE	110.32	ETE	113.23	ZAC	163.11	ETC	221.21	CLP	-113.16

PLANETOCENTRIC CONIC

C3	38.313	VHL	6.190	DLA	-73.96	RAL	187.98	RAD	6568.5	VEL	12.637	PTH	2.29	VHP	6.967	DPA	52.41	RAP	248.09	ECC	1.6305

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.29	3 40 31	1941.11	32.63	71.83	87.36	160.85	4 12 52	1341.1	40.14	68.82
161.71	14 27 33	5453.88	32.63	254.97	87.39	160.85	15 58 27	4853.9	40.14	251.97
18.29	3 40 31	1941.11	32.63	71.83	87.36	160.85	4 12 52	1341.1	40.14	68.82
161.71	14 27 33	5453.88	32.63	254.97	87.39	160.85	15 58 27	4853.9	40.14	251.97
18.29	3 40 31	1941.11	32.63	71.83	87.36	160.85	4 12 52	1341.1	40.14	68.82
161.71	14 27 33	5453.88	32.63	254.97	87.39	160.85	15 58 27	4853.9	40.14	251.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.6429	TRA	-.3079	TC3	-.5190	BAU	.4252	SGT	1946.7	SGR	4186.2	SG3	328.2
RDE	4.3697	RRA	.2153	RC3	.6479	FAU	.03348	RRT	-.9093	RRF	-.9983	RTF	.9123
FDE	-3.9232	FRA	-.1800	FC3	-.7566	BSP	14613	SGB	4616.7	R23	.0602	R13	-.9966
BDE	4.6683	BRA	.3757	BC3	.8302	FSP	-1035	SG1	4556.3	SG2	744.1	THA	113.59

ST	1552.0	SR	4050.7	SS	2188.9	CRT	-.9891	CRS	1.0000	CST	-.9886	LSA	4853.9
MSA	217.6	SSA	3.7	EL1	4332.6	EL2	213.2	ALF	110.81				

LAUNCH DATE AUG 4 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 446.141

RL	151.78	LAL	.00	LOL	311.21	VL	26.913	GAL	1.36	AZL	99.82	HCA	199.50	SMA	129.55	ECC	.17321	INC	9.8187	V1	29.353
RP	107.52	LAP	3.26	LOP	150.45	VP	38.004	GAP	1.91	AZP	80.73	TAL	173.49	TAP	13.00	RCA	107.11	APO	151.99	V2	35.245
RC	91.778	GL	-57.06	GP	64.54	ZAL	80.76	ZAP	101.23	ETS	18.34	ZAE	114.52	ETE	119.00	ZAC	158.47	ETC	232.50	CLP	-116.94

PLANETOCENTRIC CONIC

C3	29.891	VHL	5.467	DLA	-72.59	RAL	197.71	RAD	6568.2	VEL	12.299	PTH	2.22	VHP	6.096	DPA	48.01	RAP	242.80	ECC	1.4919

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.87	4 22 34	1875.08	36.33	68.56	94.36	158.19	4 53 49	1275.1	43.69	64.88
160.13	15 3 4	5394.77	36.34	253.31	94.38	158.19	16 32 59	4794.8	43.70	249.62
19.87	4 22 34	1875.08	36.33	68.56	94.36	158.19	4 53 49	1275.1	43.69	64.88
160.13	15 3 4	5394.77	36.34	253.31	94.38	158.19	16 32 59	4794.8	43.70	249.62
19.87	4 22 34	1875.08	36.33	68.56	94.36	158.19	4 53 49	1275.1	43.69	64.88
160.13	15 3 4	5394.77	36.34	253.31	94.38	158.19	16 32 59	4794.8	43.70	249.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.0676	TRA	-.1869	TC3	-.8395	BAU	.4757	SGT	2442.5	SGR	3924.5	SG3	411.5
RDE	3.6398	RRA	.0037	RC3	.8440	FAU	.04468	RRT	-.9515	RRF	-.9978	RTF	.9546
FDE	-4.3392	FRA	.0204	FC3	-1.2940	BSP	14679	SGB	4622.5	R23	.0683	R13	-.9956
BDE	4.1861	BRA	.1870	BC3	1.1904	FSP	-1300	SG1	4577.4	SG2	644.4	THA	121.32

ST	2175.8	SR	3814.5	SS	2395.2	CRT	-.9960	CRS	1.0000	CST	-.9955	LSA	4999.0
MSA	178.7	SSA	4.8	EL1	4388.2	EL2	169.1	ALF	119.65				

LAUNCH DATE AUG 4 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 452.391

RL	151.78	LAL	.00	LOL	311.21	VL	26.903	GAL	1.47	AZL	98.60	HCA	202.72	SMA	129.48	ECC	.17410	INC	8.6016	V1	29.353
RP	107.53	LAP	3.31	LOP	153.70	VP	37.992	GAP	2.31	AZP	82.06	TAL	172.97	TAP	15.69	RCA	106.94	APO	152.03	V2	35.240
RC	94.056	GL	-54.08	GP	59.35	ZAL	79.18	ZAP	105.10	ETS	21.91	ZAE	118.00	ETE	124.35	ZAC	153.78	ETC	239.17	CLP	-120.73

PLANETOCENTRIC CONIC

C3	24.669	VHL	4.967	DLA	-70.89	RAL	205.95	RAD	6568.0	VEL	12.085	PTH	2.16	VHP	5.527	DPA	43.77	RAP	238.49	ECC	1.4060

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.84	4 59 36	1822.60	38.88	64.85	99.71	155.12	5 29 58	1222.6	46.05	60.43
158.16	15 31 50	5351.82	38.89	251.63	99.73	155.12	17 1 2	4751.8	46.05	247.21
21.84	4 59 36	1822.60	38.88	64.85	99.71	155.12	5 29 58	1222.6	46.05	60.43
158.16	15 31 50	5351.82	38.89	251.63	99.73	155.12	17 1 2	4751.8	46.05	247.21
21.84	4 59 36	1822.60	38.88	64.85	99.71	155.12	5 29 58	1222.6	46.05	60.43
158.16	15 31 50	5351.82	38.89	251.63	99.73	155.12	17 1 2	4751.8	46.05	247.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.2811	TRA	-.0563	TC3	-1.1978	BAU	.5109	SGT	2894.8	SGR	3622.2	SG3	488.0
RDE	2.9933	RRA	-.1404	RC3	.9824	FAU	.05466	RRT	-.9680	RRF	-.9971	RTF	.9709
FDE	-4.5414	FRA	.2576	FC3	-1.9184	BSP	14726	SGB	4636.9	R23	.0752	R13	-.9945
BDE	3.7635	BRA	.1513	BC3	1.5491	FSP	-1544	SG1	4601.4	SG2	572.1	THA	128.43

ST	2632.4	SR	3456.4	SS	2505.3	CRT	-.9978	CRS	1.0000	CST	-.9972	LSA	5012.8
MSA	155.0	SSA	6.0	EL1	4342.5	EL2	137.6	ALF	127.28				

LAUNCH DATE AUG 4 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 458.627

RL	151.78	LAL	.00	LOL	311.21	VL	26.891	GAL	1.60	AZL	97.67	HCA	205.94	SMA	129.40	ECC	.17516	INC	7.6730
RP	107.55	LAP	3.35	LOP	156.95	VP	37.978	GAP	2.71	AZP	83.09	TAL	172.42	TAP	18.36	RCA	106.73	APO	152.07
RC	96.339	GL	-51.18	GP	54.50	ZAL	77.57	ZAP	109.16	ETS	24.68	ZAE	120.81	ETE	129.47	ZAC	149.25	ETC	243.47

PLANETOCENTRIC CONIC

C3	21.222	VHL	4.607	DLA	-69.00	RAL	212.87	RAD	6567.9	VEL	11.942	PTH	2.13	VHP	5.153	DPA	39.69	RAP	234.96

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.03	5 31 53	1780.07	40.54	60.91	103.69	151.86	6 1 33	1180.1	47.47	55.76
155.97	15 54 46	5321.10	40.55	249.99	103.71	151.86	17 23 27	4721.1	47.48	244.83
24.03	5 31 53	1780.07	40.54	60.91	103.69	151.86	6 1 33	1180.1	47.47	55.76
155.97	15 54 46	5321.10	40.55	249.99	103.71	151.86	17 23 27	4721.1	47.48	244.83
24.03	5 31 53	1780.07	40.54	60.91	103.69	151.86	6 1 33	1180.1	47.47	55.76
155.97	15 54 46	5321.10	40.55	249.99	103.71	151.86	17 23 27	4721.1	47.48	244.83

DIFFERENTIAL CORRECTIONS

TDE	-2.3725	TRA	.0782	TC3	-1.5791	BAU	.5403
RDE	2.4467	RRA	-.2372	RC3	1.0643	FAU	.06305
FDE	-4.5499	FRA	.5127	FC3	-2.5721	BSP	14842
BDE	3.4081	BRA	.2497	BC3	1.9043	FSP	-1756

MID-COURSE EXECUTION ACCURACY

SGT	3301.2	SGR	3301.4	SG3	551.9		
RRT	-.9753	RRF	-.9962	RTF	.9783		
SGB	4668.7	R23	.0807	R13	-.9934		
SG1	4639.8	SG2	518.6	THA	135.00		

ORBIT DETERMINATION ACCURACY

ST	2952.3	SR	3053.2	SS	2530.8		
CRT	-.9986	CRS	.9999	CST	-.9978		
LSA	4942.0	MSA	141.5	SSA	7.2		
EL1	4245.6	EL2	113.8	ALF	134.04		

LAUNCH DATE AUG 4 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 464.846

RL	151.78	LAL	.00	LOL	311.21	VL	26.877	GAL	1.74	AZL	96.94	HCA	209.17	SMA	129.31	ECC	.17639	INC	6.9374
RP	107.57	LAP	3.37	LOP	160.20	VP	37.963	GAP	3.10	AZP	83.94	TAL	171.81	TAP	20.98	RCA	106.50	APO	152.12
RC	98.624	GL	-48.36	GP	50.00	ZAL	75.91	ZAP	113.26	ETS	26.83	ZAE	122.99	ETE	134.38	ZAC	144.98	ETC	246.41

PLANETOCENTRIC CONIC

C3	18.850	VHL	4.342	DLA	-67.01	RAL	218.74	RAD	6567.8	VEL	11.842	PTH	2.10	VHP	4.912	DPA	35.80	RAP	232.08

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.33	6 0 23	1744.86	41.51	56.90	106.68	148.57	6 29 28	1144.9	48.18	51.07
153.67	16 13 6	5299.90	41.52	248.47	106.70	148.56	17 41 26	4699.9	48.18	242.64
26.33	6 0 23	1744.86	41.51	56.90	106.68	148.57	6 29 28	1144.9	48.18	51.07
153.67	16 13 6	5299.90	41.52	248.47	106.70	148.56	17 41 26	4699.9	48.18	242.64
26.33	6 0 23	1744.86	41.51	56.90	106.68	148.57	6 29 28	1144.9	48.18	51.07
153.67	16 13 6	5299.90	41.52	248.47	106.70	148.56	17 41 26	4699.9	48.18	242.64

DIFFERENTIAL CORRECTIONS

TDE	-2.3905	TRA	.2161	TC3	-1.9644	BAU	.5660
RDE	1.9977	RRA	-.3011	RC3	1.0892	FAU	.06925
FDE	-4.4038	FRA	.7702	FC3	-3.1803	BSP	15004
BDE	3.1153	BRA	.3706	BC3	2.2461	FSP	-1922

MID-COURSE EXECUTION ACCURACY

SGT	3659.9	SGR	2979.9	SG3	599.7		
RRT	-.9786	RRF	-.9951	RTF	.9820		
SGB	4719.6	R23	.0845	R13	-.9923		
SG1	4695.4	SG2	477.7	THA	140.97		

ORBIT DETERMINATION ACCURACY

ST	3162.7	SR	2654.1	SS	2489.0		
CRT	-.9989	CRS	.9998	CST	-.9979		
LSA	4819.1	MSA	134.4	SSA	8.4		
EL1	4127.7	EL2	94.0	ALF	140.00		

LAUNCH DATE AUG 4 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 471.047

RL	151.78	LAL	.00	LOL	311.21	VL	26.862	GAL	1.90	AZL	96.34	HCA	212.39	SMA	129.20	ECC	.17777	INC	6.3369
RP	107.59	LAP	3.39	LOP	163.45	VP	37.946	GAP	3.50	AZP	84.64	TAL	171.17	TAP	23.57	RCA	106.24	APO	152.17
RC	100.910	GL	-45.64	GP	45.84	ZAL	74.20	ZAP	117.32	ETS	28.49	ZAE	124.61	ETE	139.03	ZAC	141.03	ETC	248.51

PLANETOCENTRIC CONIC

C3	17.176	VHL	4.144	DLA	-64.99	RAL	223.82	RAD	6567.7	VEL	11.771	PTH	2.08	VHP	4.767	DPA	32.11	RAP	229.77

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.70	6 26 0	1715.16	41.94	52.95	109.03	145.37	6 54 35	1115.2	48.34	46.54
151.30	16 27 59	5286.24	41.95	247.14	109.04	145.36	17 56 6	4686.2	48.34	240.72
28.70	6 26 0	1715.16	41.94	52.95	109.03	145.37	6 54 35	1115.2	48.34	46.54
151.30	16 27 59	5286.24	41.95	247.14	109.04	145.36	17 56 6	4686.2	48.34	240.72
28.70	6 26 0	1715.16	41.94	52.95	109.03	145.37	6 54 35	1115.2	48.34	46.54
151.30	16 27 59	5286.24	41.95	247.14	109.04	145.36	17 56 6	4686.2	48.34	240.72

DIFFERENTIAL CORRECTIONS

TDE	-2.3609	TRA	.3609	TC3	-2.3343	BAU	.5890
RDE	1.6321	RRA	-.3448	RC3	1.0634	FAU	.07299
FDE	-4.1374	FRA	1.0256	FC3	-3.6790	BSP	15122
BDE	2.8701	BRA	.4992	BC3	2.5651	FSP	-2021

MID-COURSE EXECUTION ACCURACY

SGT	3973.6	SGR	2672.0	SG3	630.6		
RRT	-.9796	RRF	-.9936	RTF	.9837		
SGB	4788.4	R23	.0873	R13	-.9911		
SG1	4767.5	SG2	447.7	THA	146.29		

ORBIT DETERMINATION ACCURACY

ST	3283.6	SR	2281.7	SS	2392.4		
CRT	-.9992	CRS	.9997	CST	-.9978		
LSA	4657.6	MSA	132.7	SSA	9.4		
EL1	3997.7	EL2	77.2	ALF	145.21		

LAUNCH DATE AUG 4 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 477.227

RL	151.78	LAL	.00	LOL	311.21	VL	26.845	GAL	2.06	AZL	95.83	HCA	215.62	SMA	129.09	ECC	.17932	INC	5.8347
RP	107.61	LAP	3.39	LOP	166.69	VP	37.927	GAP	3.89	AZP	85.25	TAL	170.49	TAP	26.11	RCA	105.94	APO	152.24
RC	103.196	GL	-43.01	GP	42.04	ZAL	72.45	ZAP	121.24	ETS	29.75	ZAE	125.72	ETE	143.36	ZAC	137.44	ETC	250.07

PLANETOCENTRIC CONIC

C3	15.983	VHL	3.998	DLA	-62.96	RAL	228.30	RAD	6567.6	VEL	11.720	PTH	2.07	VHP	4.693	DPA	28.64	RAP	227.97

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.09	6 49 28	1689.60	41.96	49.12	110.98	142.32	7 17 37	1089.6	48.07	42.23
148.91	16 40 14	5278.83	41.96	246.04	110.99	142.31	18 8 12	4678.8	48.08	239.15
31.09	6 49 28	1689.60	41.96	49.12	110.98	142.32	7 17 37	1089.6	48.07	42.23
148.91	16 40 14	5278.83	41.96	246.04	110.99	142.31	18 8 12	4678.8	48.08	239.15
31.09	6 49 28	1689.60	41.96	49.12	110.98	142.32	7 17 37	1089.6	48.07	42.23
148.91	16 40 14	5278.83	41.96	246.04	110.99	142.31	18 8 12	4678.8	48.08	239.15

DIFFERENTIAL CORRECTIONS

TDE	-2.3061	TRA	.5059	TC3	-2.6884	BAU	.6137
RDE	1.3432	RRA	-.3683	RC3	1.0103	FAU	.07505
FDE	-3.8082	FRA	1.2510	FC3	-4.0650	BSP	15391
BDE	2.6688	BRA	.6258	BC3	2.8719	FSP	-2087

MID-COURSE EXECUTION ACCURACY

SGT	4252.9	SGR	2388.9	SG3	646.0		
RRT	-.9794	RRF	-.9916	RTF	.9848		
SGB	4877.9	R23	.0867	R13	-.9901		
SG1	4859.6	SG2	421.9	THA	150.94		

ORBIT DETERMINATION ACCURACY

ST	3340.0	SR	1956.5	SS	2264.8		
CRT	-.9994	CRS	.9994	CST	-.9976		
LSA	4482.8	MSA	132.8	SSA	10.4		
EL1	3870.4	EL2	60.6	ALF	149.65		

LAUNCH DATE AUG 4 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 483.386

```
RL  151.78 LAL    .00 LOL 311.21 VL  26.827 GAL   2.24 AZL  95.41 HCA 218.85 SMA 128.97 ECC .18104 INC 5.4059 V1  29.353
RP  107.64 LAP   3.39 LOP 169.94 VP  37.907 GAP   4.28 AZP  85.78 TAL 169.77 TAP  28.62 RCA 105.62 APO 152.32 V2  35.207
RC 105.482 GL  -40.47 GP   38.59 ZAL  70.66 ZAP 124.98 ETS  30.71 ZAE 126.42 ETE 147.33 ZAC 134.19 ETC 251.25 CLP-137.19
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PLANETOCENTRIC CONIC

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C3  15.139 VHL  3.891 DLA -60.94 RAL 232.31 RAD 6567.6 VEL 11.684 PTH   2.06 VHP  4.673 DPA  25.40 RAP 226.61 ECC 1.2492
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.48	7 11 17	1667.32	41.64	45.47	112.70	139.47	7 39 4	1067.3	47.48	38.20
146.52	16 50 27	5276.61	41.65	245.22	112.71	139.46	18 18 24	4676.6	47.49	237.94
33.48	7 11 17	1667.32	41.64	45.47	112.70	139.47	7 39 4	1067.3	47.48	38.20
146.52	16 50 27	5276.61	41.65	245.22	112.71	139.46	18 18 24	4676.6	47.49	237.94
33.48	7 11 17	1667.32	41.64	45.47	112.70	139.47	7 39 4	1067.3	47.48	38.20
146.52	16 50 27	5276.61	41.65	245.22	112.71	139.46	18 18 24	4676.6	47.49	237.94

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2333 TRA  .6552 TC3-3.0115 BAU  .6381   SGT 4500.5 SGR 2133.3 SG3  648.1      ST  3343.0 SR  1676.8 SS  2114.4
RDE 1.1141 RRA -.3805 RC3  .9340 FAU .07535   RRT -.9781 RRF -.9889 RTF  .9852      CRT -.9996 CRS  .9989 CST -.9971
FDE-3.4406 FRA 1.4509 FC3-4.3087 BSP  15702   SGB 4980.5 R23  .0840 R13 -.9891      LSA 4294.1 MSA  135.4 SSA   11.3
BDE 2.4958 BRA  .7577 BC3 3.1530 FSP  -2111   SG1 4964.2 SG2  402.3 THA 154.95      EL1 3739.7 EL2   44.6 ALF 153.37
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LAUNCH DATE AUG 4 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 489.523

```
RL  151.78 LAL    .00 LOL 311.21 VL  26.808 GAL   2.43 AZL  95.03 HCA 222.08 SMA 128.84 ECC .18292 INC 5.0335 V1  29.353
RP  107.66 LAP   3.37 LOP 173.18 VP  37.885 GAP   4.67 AZP  86.26 TAL 169.01 TAP  31.09 RCA 105.27 APO 152.41 V2  35.198
RC 107.765 GL  -38.01 GP   35.48 ZAL  68.82 ZAP 128.52 ETS  31.44 ZAE 126.79 ETE 150.89 ZAC 131.30 ETC 252.17 CLP-139.89
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PLANETOCENTRIC CONIC

```
C3  14.560 VHL  3.816 DLA -58.94 RAL 235.97 RAD 6567.6 VEL 11.660 PTH   2.05 VHP  4.696 DPA  22.38 RAP 225.65 ECC 1.2396
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.87	7 31 55	1647.49	41.06	42.00	114.31	136.83	7 59 22	1047.5	46.64	34.44
144.13	16 59 1	5279.02	41.07	244.68	114.33	136.82	18 27 0	4679.0	46.65	237.12
35.87	7 31 55	1647.49	41.06	42.00	114.31	136.83	7 59 22	1047.5	46.64	34.44
144.13	16 59 1	5279.02	41.07	244.68	114.33	136.82	18 27 0	4679.0	46.65	237.12
35.87	7 31 55	1647.49	41.06	42.00	114.31	136.83	7 59 22	1047.5	46.64	34.44
144.13	16 59 1	5279.02	41.07	244.68	114.33	136.82	18 27 0	4679.0	46.65	237.12

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1492 TRA  .8088 TC3-3.2966 BAU  .6624   SGT 4720.8 SGR 1906.6 SG3  639.4      ST  3304.4 SR  1441.7 SS  1952.2
RDE  .9336 RRA -.3847 RC3  .8450 FAU .07425   RRT -.9758 RRF -.9854 RTF  .9854      CRT -.9998 CRS  .9980 CST -.9965
FDE-3.0619 FRA 1.6215 FC3-4.4151 BSP  16042   SGB 5091.3 R23  .0792 R13 -.9882      LSA 4097.4 MSA  139.9 SSA   12.2
BDE 2.3432 BRA  .8956 BC3 3.4032 FSP  -2100   SG1 5076.5 SG2  387.9 THA 158.36      EL1 3605.1 EL2   28.9 ALF 156.43
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LAUNCH DATE AUG 4 1970 FLIGHT TIME 178.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 495.636

```
RL  151.78 LAL    .00 LOL 311.21 VL  26.787 GAL   2.64 AZL  94.71 HCA 225.31 SMA 128.70 ECC .18498 INC 4.7050 V1  29.353
RP  107.69 LAP   3.34 LOP 176.42 VP  37.862 GAP   5.06 AZP  86.69 TAL 168.21 TAP  33.52 RCA 104.90 APO 152.51 V2  35.189
RC 110.046 GL  -35.64 GP   32.69 ZAL  66.96 ZAP 131.83 ETS  32.00 ZAE 126.90 ETE 154.05 ZAC 128.74 ETC 252.91 CLP-142.42
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PLANETOCENTRIC CONIC

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C3  14.191 VHL  3.767 DLA -56.97 RAL 239.34 RAD 6567.6 VEL 11.644 PTH   2.04 VHP  4.752 DPA  19.59 RAP 225.04 ECC 1.2335
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.25	7 51 38	1629.56	40.28	38.71	115.90	134.40	8 18 47	1029.6	45.60	30.96
141.75	17 6 12	5285.60	40.29	244.43	115.91	134.39	18 34 17	4685.6	45.61	236.68
38.25	7 51 38	1629.56	40.28	38.71	115.90	134.40	8 18 47	1029.6	45.60	30.96
141.75	17 6 12	5285.60	40.29	244.43	115.91	134.39	18 34 17	4685.6	45.61	236.68
38.25	7 51 38	1629.56	40.28	38.71	115.90	134.40	8 18 47	1029.6	45.60	30.96
141.75	17 6 12	5285.60	40.29	244.43	115.91	134.39	18 34 17	4685.6	45.61	236.68

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0638 TRA  .9610 TC3-3.5552 BAU  .6897   SGT 4921.2 SGR 1709.6 SG3  623.1      ST  3241.3 SR  1251.7 SS  1794.0
RDE  .7957 RRA -.3810 RC3  .7597 FAU .07271   RRT -.9726 RRF -.9807 RTF  .9856      CRT -.9999 CRS  .9964 CST -.9958
FDE-2.7056 FRA 1.7519 FC3-4.4357 BSP  16559   SGB 5209.7 R23  .0707 R13 -.9877      LSA 3907.7 MSA  144.5 SSA   12.9
BDE 2.2119 BRA 1.0338 BC3 3.6355 FSP  -2088   SG1 5196.1 SG2  376.2 THA 161.23      EL1 3474.6 EL2   15.2 ALF 158.89
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LAUNCH DATE AUG 4 1970 FLIGHT TIME 180.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 501.727

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RL  151.78 LAL    .00 LOL 311.21 VL  26.766 GAL   2.86 AZL  94.41 HCA 228.53 SMA 128.56 ECC .18721 INC 4.4114 V1  29.353
RP  107.72 LAP   3.30 LOP 179.66 VP  37.838 GAP   5.45 AZP  87.08 TAL 167.38 TAP  35.92 RCA 104.49 APO 152.63 V2  35.179
RC 112.324 GL  -33.34 GP   30.19 ZAL  65.07 ZAP 134.92 ETS  32.46 ZAE 126.82 ETE 156.83 ZAC 126.49 ETC 253.52 CLP-144.78
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PLANETOCENTRIC CONIC

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C3  13.998 VHL  3.741 DLA -55.03 RAL 242.48 RAD 6567.6 VEL 11.635 PTH   2.04 VHP  4.835 DPA  17.00 RAP 224.73 ECC 1.2304
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.62	8 10 40	1613.14	39.33	35.62	117.50	132.19	8 37 33	1013.1	44.42	27.73
139.38	17 12 11	5296.01	39.34	244.49	117.52	132.18	18 40 27	4696.0	44.43	236.61
40.62	8 10 40	1613.14	39.33	35.62	117.50	132.19	8 37 33	1013.1	44.42	27.73
139.38	17 12 11	5296.01	39.34	244.49	117.52	132.18	18 40 27	4696.0	44.43	236.61
40.62	8 10 40	1613.14	39.33	35.62	117.50	132.19	8 37 33	1013.1	44.42	27.73
139.38	17 12 11	5296.01	39.34	244.49	117.52	132.18	18 40 27	4696.0	44.43	236.61

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9630 TRA 1.1298 TC3-3.7373 BAU  .7102   SGT 5096.1 SGR 1538.0 SG3  601.1      ST  3140.7 SR  1089.5 SS  1627.3
RDE  .6831 RRA -.3796 RC3  .6586 FAU .06930   RRT -.9676 RRF -.9747 RTF  .9851      CRT -.9999 CRS  .9934 CST -.9945
FDE-2.3450 FRA 1.8793 FC3-4.2860 BSP  16810   SGB 5323.1 R23  .0652 R13 -.9866      LSA 3698.0 MSA  154.5 SSA   13.5
BDE 2.0784 BRA 1.1919 BC3 3.7949 FSP  -2012   SG1 5310.1 SG2  372.6 THA 163.64      EL1 3324.2 EL2   16.7 ALF 160.87
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LAUNCH DATE AUG 4 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 507.793

RL	151.78	LAL	.00	LOL	311.21	VL	26.743	GAL	3.10	AZL	94.15	HCA	231.76	SMA	128.41	ECC	.18964	INC	4.1458	V1	29.353
RP	107.75	LAP	3.26	LOP	182.90	VP	37.813	GAP	5.84	AZP	87.43	TAL	166.52	TAP	38.28	RCA	104.06	APO	152.76	V2	35.169
RC	114.599	GL	-31.12	GP	27.96	ZAL	63.16	ZAP	137.80	ETS	32.85	ZAE	126.61	ETE	159.24	ZAC	124.52	ETC	254.03	CLP	-147.00

PLANETOCENTRIC CONIC

C3	13.957	VHL	3.736	DLA	-53.12	RAL	245.42	RAO	6567.5	VEL	11.634	PTH	2.04	VHP	4.941	DPA	14.60	RAP	224.70	ECC	1.2297

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.98	8 29 11	1597.79	38.24	32.69	119.15	130.17	8 55 48	997.8	43.12	24.73
137.02	17 17 6	5310.05	38.26	244.85	119.16	130.16	18 45 36	4710.1	43.13	236.89
42.98	8 29 11	1597.79	38.24	32.69	119.15	130.17	8 55 48	997.8	43.12	24.73
137.02	17 17 6	5310.05	38.26	244.85	119.16	130.16	18 45 36	4710.1	43.13	236.89
42.98	8 29 11	1597.79	38.24	32.69	119.15	130.17	8 55 48	997.8	43.12	24.73
137.02	17 17 6	5310.05	38.26	244.85	119.16	130.16	18 45 36	4710.1	43.13	236.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.8625	TRA	1.3011	TC3	-3.8800	BAU	.7317	SGT 5255.3 SGR 1391.4 SG3 575.7	ST 3026.7	SR 960.1	SS 1472.8
RDE	.5973	RRA	-.3747	RC3	.5676	FAU	.06575	RRT -.9614 RRF -.9672 RTF .9846	CRT -.9994	CRS .9885	CST -.9929
FDE	-2.0199	FRA	1.9767	FC3	-4.0781	BSP	17152	SGB 5436.4 R23 .0578 R13 -.9858	LSA 3496.4	MSA 165.2	SSA 14.1
BDE	1.9559	BRA	1.3540	BC3	3.9213	FSP	-1937	SG1 5423.7 SG2 371.0 THA 165.65	EL1 3175.2	EL2 32.6	ALF 162.41

LAUNCH DATE AUG 4 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 513.832

RL	151.78	LAL	.00	LOL	311.21	VL	26.720	GAL	3.36	AZL	93.90	HCA	234.98	SMA	128.26	ECC	.19225	INC	3.9030	V1	29.353
RP	107.79	LAP	3.20	LOP	186.14	VP	37.786	GAP	6.23	AZP	87.76	TAL	165.63	TAP	40.62	RCA	103.60	APO	152.91	V2	35.158
RC	116.871	GL	-28.97	GP	25.97	ZAL	61.24	ZAP	140.48	ETS	33.21	ZAE	126.31	ETE	161.34	ZAC	122.80	ETC	254.48	CLP	-149.09

PLANETOCENTRIC CONIC

C3	14.054	VHL	3.749	DLA	-51.25	RAL	248.18	RAO	6567.6	VEL	11.638	PTH	2.04	VHP	5.066	DPA	12.37	RAP	224.92	ECC	1.2313

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.32	8 47 18	1583.26	37.06	29.91	120.86	128.34	9 13 41	983.3	41.73	21.92
134.68	17 21 0	5327.61	37.07	245.50	120.87	128.33	18 49 48	4727.6	41.74	237.50
45.32	8 47 18	1583.26	37.06	29.91	120.86	128.34	9 13 41	983.3	41.73	21.92
134.68	17 21 0	5327.61	37.07	245.50	120.87	128.33	18 49 48	4727.6	41.74	237.50
45.32	8 47 18	1583.26	37.06	29.91	120.86	128.34	9 13 41	983.3	41.73	21.92
134.68	17 21 0	5327.61	37.07	245.50	120.87	128.33	18 49 48	4727.6	41.74	237.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.7606	TRA	1.4781	TC3	-3.9773	BAU	.7528	SGT 5399.9 SGR 1266.7 SG3 548.5	ST 2901.9	SR 856.2	SS 1330.2
RDE	.5315	RRA	-.3692	RC3	.4849	FAU	.06198	RRT -.9537 RRF -.9580 RTF .9841	CRT -.9980	CRS .9806	CST -.9908
FDE	-1.7265	FRA	2.0539	FC3	-3.8181	BSP	17506	SGB 5546.5 R23 .0502 R13 -.9849	LSA 3300.3	MSA 178.0	SSA 14.5
BDE	1.8391	BRA	1.5235	BC3	4.0068	FSP	-1857	SG1 5534.0 SG2 371.9 THA 167.33	EL1 3025.1	EL2 52.4	ALF 163.59

LAUNCH DATE AUG 4 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 519.845

RL	151.78	LAL	.00	LOL	311.21	VL	26.696	GAL	3.63	AZL	93.68	HCA	238.21	SMA	128.10	ECC	.19507	INC	3.6787	V1	29.353
RP	107.82	LAP	3.13	LOP	189.37	VP	37.759	GAP	6.63	AZP	88.06	TAL	164.71	TAP	42.92	RCA	103.11	APO	153.09	V2	35.147
RC	119.138	GL	-26.90	GP	24.19	ZAL	59.32	ZAP	142.96	ETS	33.57	ZAE	125.96	ETE	163.15	ZAC	121.31	ETC	254.87	CLP	-151.06

PLANETOCENTRIC CONIC

C3	14.279	VHL	3.779	DLA	-49.42	RAL	250.78	RAO	6567.6	VEL	11.647	PTH	2.04	VHP	5.209	DPA	10.30	RAP	225.34	ECC	1.2350

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.64	9 5 7	1569.33	35.79	27.27	122.63	126.68	9 31 16	969.3	40.28	19.28
132.36	17 23 59	5348.54	35.80	246.44	122.64	126.67	18 53 8	4748.5	40.29	238.44
47.64	9 5 7	1569.33	35.79	27.27	122.63	126.68	9 31 16	969.3	40.28	19.28
132.36	17 23 59	5348.54	35.80	246.44	122.64	126.67	18 53 8	4748.5	40.29	238.44
47.64	9 5 7	1569.33	35.79	27.27	122.63	126.68	9 31 16	969.3	40.28	19.28
132.36	17 23 59	5348.54	35.80	246.44	122.64	126.67	18 53 8	4748.5	40.29	238.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.6579	TRA	1.6618	TC3	-4.0289	BAU	.7731	SGT 5531.1 SGR 1161.2 SG3 520.7	ST 2771.0	SR 773.2	SS 1201.4
RDE	.4815	RRA	-.3637	RC3	.4111	FAU	.05811	RRT -.9443 RRF -.9471 RTF .9835	CRT -.9950	CRS .9682	CST -.9881
FDE	-1.4650	FRA	2.1146	FC3	-3.5231	BSP	17872	SGB 5651.6 R23 .0428 R13 -.9841	LSA 3111.6	MSA 192.6	SSA 14.8
BDE	1.7264	BRA	1.7011	BC3	4.0498	FSP	-1776	SG1 5639.2 SG2 374.7 THA 168.74	EL1 2875.9	EL2 74.4	ALF 164.47

LAUNCH DATE AUG 4 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 525.830

RL	151.78	LAL	.00	LOL	311.21	VL	26.671	GAL	3.91	AZL	93.47	HCA	241.43	SMA	127.93	ECC	.19811	INC	3.4697	V1	29.353
RP	107.86	LAP	3.05	LOP	192.60	VP	37.731	GAP	7.03	AZP	88.34	TAL	163.77	TAP	45.19	RCA	102.59	APO	153.28	V2	35.136
RC	121.402	GL	-24.90	GP	22.61	ZAL	57.42	ZAP	145.28	ETS	33.94	ZAE	125.57	ETE	164.71	ZAC	120.02	ETC	255.24	CLP	-152.92

PLANETOCENTRIC CONIC

C3	14.628	VHL	3.825	DLA	-47.63	RAL	253.25	RAO	6567.6	VEL	11.662	PTH	2.05	VHP	5.366	DPA	8.37	RAP	225.95	ECC	1.2407

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.95	9 22 46	1555.64	34.47	24.75	124.47	125.17	9 48 42	955.6	38.79	16.78
130.05	17 26 1	5372.94	34.48	247.67	124.48	125.16	18 55 34	4772.9	38.80	239.69
49.95	9 22 46	1555.64	34.47	24.75	124.47	125.17	9 48 42	955.6	38.79	16.78
130.05	17 26 1	5372.94	34.48	247.67	124.48	125.16	18 55 34	4772.9	38.80	239.69
49.95	9 22 46	1555.64	34.47	24.75	124.47	125.17	9 48 42	955.6	38.79	16.78
130.05	17 26 1	5372.94	34.48	247.67	124.48	125.16	18 55 34	4772.9	38.80	239.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.5534	TRA	1.8540	TC3	-4.0337	BAU	.7917	SGT 5649.7 SGR 1072.1 SG3 492.9	ST 2636.8	SR 706.5	SS 1086.4
RDE	.4436	RRA	-.3593	RC3	.3455	FAU	.05414	RRT -.9334 RRF -.9344 RTF .9828	CRT -.9896	CRS .9498	CST -.9847
FDE	-1.2315	FRA	2.1640	FC3	-3.2041	BSP	18204	SGB 5750.6 R23 .0361 R13 -.9833	LSA 2930.5	MSA 209.6	SSA 15.0
BDE	1.6155	BRA	1.8885	BC3	4.0484	FSP	-1690	SG1 5738.1 SG2 378.9 THA 169.91	EL1 2728.0	EL2 98.2	ALF 165.13

LAUNCH DATE AUG 4 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 531.785

RL 151.78 LAL .00 LOL 311.21 VL 26.646 GAL 4.22 AZL 93.27 HCA 244.65 SMA 127.77 ECC .20138 INC 3.2733 V1 29.353
RP 107.89 LAP 2.96 LOP 195.83 VP 37.702 GAP 7.44 AZP 88.60 TAL 162.80 TAP 47.44 RCA 102.04 APO 153.50 V2 35.124
RC 123.660 GL -22.98 GP 21.19 ZAL 55.53 ZAP 147.44 ETS 34.37 ZAE 125.17 ETE 166.06 ZAC 118.90 ETC 255.59 CLP-154.68

PLANETOCENTRIC CONIC

C3 15.101 VHL 3.886 DLA -45.89 RAL 255.59 RAD 6567.6 VEL 11.683 PTH 2.05 VHP 5.536 DPA 6.57 RAP 226.74 ECC 1.2485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.25	9 40 17	1542.10	33.09	22.33	126.38	123.81	10 5 59	942.1	37.27	14.39
127.75	17 27 10	5400.69	33.11	249.18	126.39	123.80	18 57 10	4800.7	37.28	241.24
52.25	9 40 17	1542.10	33.09	22.33	126.38	123.81	10 5 59	942.1	37.27	14.39
127.75	17 27 10	5400.69	33.11	249.18	126.39	123.80	18 57 10	4800.7	37.28	241.24
52.25	9 40 17	1542.10	33.09	22.33	126.38	123.81	10 5 59	942.1	37.27	14.39
127.75	17 27 10	5400.69	33.11	249.18	126.39	123.80	18 57 10	4800.7	37.28	241.24

DIFFERENTIAL CORRECTIONS
TDE-1.4489 TRA 2.0542 TC3-3.9981 BAU .8093
RDE .4158 RRA -.3558 RC3 .2889 FAU .05022
FDE-1.0269 FRA 2.2026 FC3-2.8794 BSP 18529
BDE 1.5074 BRA 2.0848 BC3 4.0085 FSP -1606

MID-COURSE EXECUTION ACCURACY
SGT 5757.6 SGR 997.2 SG3 465.8
RRT -.9208 RRF -.9202 RTF .9822
SGB 5843.3 R23 .0302 R13 -.9825
SG1 5830.7 SG2 384.0 THA 170.90

ORBIT DETERMINATION ACCURACY
ST 2505.2 SR 653.5 SS 986.8
CRT -.9807 CRS .9236 CST -.9805
LSA 2761.3 MSA 228.3 SSA 15.1
EL1 2586.1 EL2 123.8 ALF 165.62

LAUNCH DATE AUG 4 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 537.708

RL 151.78 LAL .00 LOL 311.21 VL 26.620 GAL 4.54 AZL 93.09 HCA 247.87 SMA 127.60 ECC .20489 INC 3.0871 V1 29.353
RP 107.93 LAP 2.86 LOP 199.05 VP 37.672 GAP 7.85 AZP 88.84 TAL 161.80 TAP 49.67 RCA 101.45 APO 153.74 V2 35.112
RC 125.912 GL -21.14 GP 19.92 ZAL 53.66 ZAP 149.46 ETS 34.85 ZAE 124.76 ETE 167.22 ZAC 117.94 ETC 255.92 CLP-156.35

PLANETOCENTRIC CONIC

C3 15.700 VHL 3.962 DLA -44.19 RAL 257.81 RAD 6567.6 VEL 11.708 PTH 2.06 VHP 5.720 DPA 4.88 RAP 227.67 ECC 1.2584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.54	9 57 47	1528.37	31.69	19.98	128.36	122.57	10 23 15	928.4	35.73	12.09
125.46	17 27 22	5431.95	31.70	250.97	128.37	122.56	18 57 54	4831.9	35.74	243.08
54.54	9 57 47	1528.37	31.69	19.98	128.36	122.57	10 23 15	928.4	35.73	12.09
125.46	17 27 22	5431.95	31.70	250.97	128.37	122.56	18 57 54	4831.9	35.74	243.08
54.54	9 57 47	1528.37	31.69	19.98	128.36	122.57	10 23 15	928.4	35.73	12.09
125.46	17 27 22	5431.95	31.70	250.97	128.37	122.56	18 57 54	4831.9	35.74	243.08

DIFFERENTIAL CORRECTIONS
TDE-1.3527 TRA 2.2544 TC3-3.9488 BAU .8304
RDE .3976 RRA -.3520 RC3 .2459 FAU .04697
FDE -.8584 FRA 2.2234 FC3-2.5898 BSP 19060
BDE 1.4099 BRA 2.2817 BC3 3.9565 FSP -1548

MID-COURSE EXECUTION ACCURACY
SGT 5855.6 SGR 934.1 SG3 439.3
RRT -.9072 RRF -.9046 RTF .9818
SGB 5929.6 R23 .0236 R13 -.9821
SG1 5916.8 SG2 389.0 THA 171.73

ORBIT DETERMINATION ACCURACY
ST 2386.4 SR 613.2 SS 905.1
CRT -.9675 CRS .8910 CST -.9766
LSA 2613.3 MSA 246.4 SSA 15.1
EL1 2459.4 EL2 150.6 ALF 165.99

LAUNCH DATE AUG 4 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 543.599

RL 151.78 LAL .00 LOL 311.21 VL 26.593 GAL 4.89 AZL 92.91 HCA 251.08 SMA 127.43 ECC .20865 INC 2.9094 V1 29.353
RP 107.97 LAP 2.75 LOP 202.27 VP 37.642 GAP 8.27 AZP 89.06 TAL 160.79 TAP 51.87 RCA 100.84 APO 154.01 V2 35.099
RC 128.158 GL -19.38 GP 18.78 ZAL 51.83 ZAP 151.34 ETS 35.41 ZAE 124.36 ETE 168.22 ZAC 117.11 ETC 256.25 CLP-157.95

PLANETOCENTRIC CONIC

C3 16.432 VHL 4.054 DLA -42.55 RAL 259.92 RAD 6567.7 VEL 11.739 PTH 2.07 VHP 5.916 DPA 3.29 RAP 228.73 ECC 1.2704

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.81	10 15 19	1514.28	30.27	17.68	130.41	121.45	10 40 34	914.3	34.19	9.85
123.19	17 26 39	5466.76	30.28	253.05	130.41	121.44	18 57 45	4866.8	34.20	245.21
56.81	10 15 19	1514.28	30.27	17.68	130.41	121.45	10 40 34	914.3	34.19	9.85
123.19	17 26 39	5466.76	30.28	253.05	130.41	121.44	18 57 45	4866.8	34.20	245.21
56.81	10 15 19	1514.28	30.27	17.68	130.41	121.45	10 40 34	914.3	34.19	9.85
123.19	17 26 39	5466.76	30.28	253.05	130.41	121.44	18 57 45	4866.8	34.20	245.21

DIFFERENTIAL CORRECTIONS
TDE-1.2396 TRA 2.4805 TC3-3.8246 BAU .8414
RDE .3821 RRA -.3528 RC3 .2011 FAU .04285
FDE -.6912 FRA 2.2566 FC3-2.2575 BSP 19173
BDE 1.2972 BRA 2.5055 BC3 3.8299 FSP -1449

MID-COURSE EXECUTION ACCURACY
SGT 5944.1 SGR 881.2 SG3 414.8
RRT -.8922 RRF -.8880 RTF .9809
SGB 6009.0 R23 .0199 R13 -.9811
SG1 5996.0 SG2 394.6 THA 172.43

ORBIT DETERMINATION ACCURACY
ST 2262.1 SR 577.1 SS 831.2
CRT -.9474 CRS .8437 CST -.9708
LSA 2463.3 MSA 270.1 SSA 15.1
EL1 2327.6 EL2 179.4 ALF 166.33

LAUNCH DATE AUG 4 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 549.454

RL 151.78 LAL .00 LOL 311.21 VL 26.567 GAL 5.25 AZL 92.74 HCA 254.29 SMA 127.25 ECC .21270 INC 2.7386 V1 29.353
RP 108.01 LAP 2.64 LOP 205.49 VP 37.611 GAP 8.70 AZP 89.26 TAL 159.76 TAP 54.06 RCA 100.18 APO 154.32 V2 35.086
RC 130.397 GL -17.69 GP 17.76 ZAL 50.04 ZAP 153.11 ETS 36.07 ZAE 123.97 ETE 169.09 ZAC 116.40 ETC 256.57 CLP-159.48

PLANETOCENTRIC CONIC

C3 17.304 VHL 4.160 DLA -40.95 RAL 261.92 RAD 6567.7 VEL 11.777 PTH 2.08 VHP 6.125 DPA 1.80 RAP 229.92 ECC 1.2848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.08	10 33 0	1499.56	28.85	15.42	132.51	120.43	10 57 59	899.6	32.65	7.64
120.92	17 24 57	5505.26	28.86	255.42	132.52	120.42	18 56 42	4905.3	32.66	247.64
59.08	10 33 0	1499.56	28.85	15.42	132.51	120.43	10 57 59	899.6	32.65	7.64
120.92	17 24 57	5505.26	28.86	255.42	132.52	120.42	18 56 42	4905.3	32.66	247.64
59.08	10 33 0	1499.56	28.85	15.42	132.51	120.43	10 57 59	899.6	32.65	7.64
120.92	17 24 57	5505.26	28.86	255.42	132.52	120.42	18 56 42	4905.3	32.66	247.64

DIFFERENTIAL CORRECTIONS
TDE-1.1315 TRA 2.7117 TC3-3.6869 BAU .8538
RDE .3729 RRA -.3541 RC3 .1662 FAU .03922
FDE -.5512 FRA 2.2791 FC3-1.9623 BSP 19398
BDE 1.1913 BRA 2.7347 BC3 3.6906 FSP -1368

MID-COURSE EXECUTION ACCURACY
SGT 6024.5 SGR 836.6 SG3 391.4
RRT -.8766 RRF -.8707 RTF .9801
SGB 6082.3 R23 .0162 R13 -.9803
SG1 6069.2 SG2 399.6 THA 173.03

ORBIT DETERMINATION ACCURACY
ST 2153.7 SR 548.9 SS 773.0
CRT -.9205 CRS .7878 CST -.9656
LSA 2334.8 MSA 293.0 SSA 15.1
EL1 2212.7 EL2 208.8 ALF 166.68

LAUNCH DATE AUG 4 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 555.270

RL 151.78 LAL .00 LOL 311.21 VL 26.539 GAL 5.64 AZL 92.57 HCA 257.51 SMA 127.07 ECC .21706 INC 2.5731 V1 29.353
RP 108.05 LAP 2.51 LOP 208.71 VP 37.580 GAP 9.15 AZP 89.44 TAL 158.72 TAP 56.22 RCA 99.49 APO 154.66 V2 35.074
RC 132.627 GL -16.08 GP 16.84 ZAL 48.29 ZAP 154.78 ETS 36.84 ZAE 123.59 ETE 169.84 ZAC 115.79 ETC 256.90 CLP-160.94

PLANETOCENTRIC CONIC

C3 18.327 VHL 4.281 DLA -39.42 RAL 263.82 RAD 6567.7 VEL 11.820 PTH 2.09 VHP 6.346 DRA .39 RAP 231.21 ECC 1.3016

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.35	10 50 54	1483.91	27.42	13.15	134.67	119.50	11 15 38	883.9	31.12	5.44
118.65	17 22 14	5547.64	27.43	258.08	134.68	119.49	18 54 41	4947.6	31.13	250.37
61.35	10 50 54	1483.91	27.42	13.15	134.67	119.50	11 15 38	883.9	31.12	5.44
118.65	17 22 14	5547.64	27.43	258.08	134.68	119.49	18 54 41	4947.6	31.13	250.37
61.35	10 50 54	1483.91	27.42	13.15	134.67	119.50	11 15 38	883.9	31.12	5.44
118.65	17 22 14	5547.64	27.43	258.08	134.68	119.49	18 54 41	4947.6	31.13	250.37

DIFFERENTIAL CORRECTIONS
TDE -1.0243 TRA 2.9520 TC3-3.5300 BAU .8655
RDE .3679 RRA -.3565 RC3 .1380 FAU .03584
FDE -.4302 FRA 2.2963 FC3-1.6933 BSP 19641
BDE 1.0884 BRA 2.9735 BC3 3.5327 FSP -1294

MID-COURSE EXECUTION ACCURACY
SGT 6096.6 SGR 798.7 SG3 369.2
RRT -.8607 RRF -.8532 RTF .9795
SGB 6148.7 R23 .0128 R13 -.9796
SG1 6135.4 SG2 404.1 THA 173.54

ORBIT DETERMINATION ACCURACY
ST 2059.5 SR 526.1 SS 726.9
CRT -.8856 CRS .7237 CST -.9611
LSA 2224.2 MSA 315.5 SSA 14.9
EL1 2112.2 EL2 238.2 ALF 167.08

LAUNCH DATE AUG 4 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 561.045

RL 151.78 LAL .00 LOL 311.21 VL 26.512 GAL 6.05 AZL 92.41 HCA 260.71 SMA 126.89 ECC .22173 INC 2.4119 V1 29.353
RP 108.09 LAP 2.38 LOP 211.92 VP 37.548 GAP 9.60 AZP 89.61 TAL 157.66 TAP 58.37 RCA 98.76 APO 155.03 V2 35.061
RC 134.850 GL -14.55 GP 16.01 ZAL 46.60 ZAP 156.34 ETS 37.74 ZAE 123.23 ETE 170.50 ZAC 115.26 ETC 257.24 CLP-162.35

PLANETOCENTRIC CONIC

C3 19.514 VHL 4.417 DLA -37.94 RAL 265.63 RAD 6567.8 VEL 11.870 PTH 2.11 VHP 6.580 DPA -.93 RAP 232.59 ECC 1.3212

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.63	11 9 9	1466.97	26.00	10.86	136.88	118.66	11 33 36	867.0	29.61	3.21
116.37	17 18 24	5594.15	26.01	261.06	136.89	118.65	18 51 38	4994.2	29.62	253.40
63.63	11 9 9	1466.97	26.00	10.86	136.88	118.66	11 33 36	867.0	29.61	3.21
116.37	17 18 24	5594.15	26.01	261.06	136.89	118.65	18 51 38	4994.2	29.62	253.40
63.63	11 9 9	1466.97	26.00	10.86	136.88	118.66	11 33 36	867.0	29.61	3.21
116.37	17 18 24	5594.15	26.01	261.06	136.89	118.65	18 51 38	4994.2	29.62	253.40

DIFFERENTIAL CORRECTIONS
TDE -.9164 TRA 3.2040 TC3-3.3540 BAU .8755
RDE .3661 RRA -.3605 RC3 .1146 FAU .03262
FDE -.3245 FRA 2.3111 FC3-1.4470 BSP 19871
BDE .9868 BRA 3.2243 BC3 3.3559 FSP -1224

MID-COURSE EXECUTION ACCURACY
SGT 6160.8 SGR 766.3 SG3 348.4
RRT -.8447 RRF -.8358 RTF .9788
SGB 6208.3 R23 .0099 R13 -.9789
SG1 6194.9 SG2 407.8 THA 173.98

ORBIT DETERMINATION ACCURACY
ST 1979.7 SR 507.1 SS 691.3
CRT -.8425 CRS .6531 CST -.9579
LSA 2130.8 MSA 337.2 SSA 14.8
EL1 2026.1 EL2 266.9 ALF 167.60

LAUNCH DATE AUG 4 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 566.774

RL 151.78 LAL .00 LOL 311.21 VL 26.484 GAL 6.49 AZL 92.25 HCA 263.92 SMA 126.72 ECC .22677 INC 2.2537 V1 29.353
RP 108.13 LAP 2.24 LOP 215.13 VP 37.516 GAP 10.07 AZP 89.76 TAL 156.59 TAP 60.51 RCA 97.98 APO 155.45 V2 35.047
RC 137.063 GL -13.09 GP 15.26 ZAL 44.95 ZAP 157.82 ETS 38.80 ZAE 122.88 ETE 171.07 ZAC 114.82 ETC 257.58 CLP-163.71

PLANETOCENTRIC CONIC

C3 20.883 VHL 4.570 DLA -36.51 RAL 267.35 RAD 6567.8 VEL 11.927 PTH 2.12 VHP 6.828 DPA -2.19 RAP 234.07 ECC 1.3437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.92	11 27 52	1448.32	24.59	8.51	139.14	117.88	11 52 0	848.3	28.12	.91
114.08	17 13 23	5645.13	24.60	264.37	139.15	117.87	18 47 28	5045.1	28.13	256.77
65.92	11 27 52	1448.32	24.59	8.51	139.14	117.88	11 52 0	848.3	28.12	.91
114.08	17 13 23	5645.13	24.60	264.37	139.15	117.87	18 47 28	5045.1	28.13	256.77
65.92	11 27 52	1448.32	24.59	8.51	139.14	117.88	11 52 0	848.3	28.12	.91
114.08	17 13 23	5645.13	24.60	264.37	139.15	117.87	18 47 28	5045.1	28.13	256.77

DIFFERENTIAL CORRECTIONS
TDE -.8079 TRA 3.4680 TC3-3.1645 BAU .8839
RDE .3670 RRA -.3658 RC3 .0954 FAU .02956
FDE -.2323 FRA 2.3242 FC3-1.2253 BSP 20091
BDE .8873 BRA 3.4873 BC3 3.1659 FSP -1159

MID-COURSE EXECUTION ACCURACY
SGT 6217.6 SGR 738.2 SG3 328.8
RRT -.8291 RRF -.8189 RTF .9783
SGB 6261.2 R23 .0076 R13 -.9783
SG1 6247.7 SG2 410.8 THA 174.35

ORBIT DETERMINATION ACCURACY
ST 1915.1 SR 491.0 SS 664.5
CRT -.7915 CRS .5791 CST -.9564
LSA 2054.9 MSA 357.1 SSA 14.6
EL1 1955.0 EL2 294.0 ALF 168.26

LAUNCH DATE AUG 4 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 572.454

RL 151.78 LAL .00 LOL 311.21 VL 26.455 GAL 6.96 AZL 92.10 HCA 267.12 SMA 126.53 ECC .23219 INC 2.0975 V1 29.353
RP 108.17 LAP 2.09 LOP 218.34 VP 37.484 GAP 10.55 AZP 89.89 TAL 155.51 TAP 62.63 RCA 97.16 APO 155.91 V2 35.034
RC 139.266 GL -11.70 GP 14.58 ZAL 43.37 ZAP 159.22 ETS 40.02 ZAE 122.55 ETE 171.56 ZAC 114.43 ETC 257.93 CLP-165.03

PLANETOCENTRIC CONIC

C3 22.454 VHL 4.739 DLA -35.14 RAL 268.98 RAD 6567.9 VEL 11.993 PTH 2.14 VHP 7.090 DPA -3.37 RAP 235.62 ECC 1.3695

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.26	11 47 17	1427.28	23.20	6.04	141.45	117.17	12 11 4	827.3	26.65	358.49
111.74	17 6 58	5701.17	23.21	268.05	141.46	117.16	18 41 59	5101.2	26.66	260.50
68.26	11 47 17	1427.28	23.20	6.04	141.45	117.17	12 11 4	827.3	26.65	358.49
111.74	17 6 58	5701.17	23.21	268.05	141.46	117.16	18 41 59	5101.2	26.66	260.50
68.26	11 47 17	1427.28	23.20	6.04	141.45	117.17	12 11 4	827.3	26.65	358.49
111.74	17 6 58	5701.17	23.21	268.05	141.46	117.16	18 41 59	5101.2	26.66	260.50

DIFFERENTIAL CORRECTIONS
TDE -.6983 TRA 3.7454 TC3-2.9652 BAU .8904
RDE .3699 RRA -.3726 RC3 .0797 FAU .02667
FDE -.1515 FRA 2.3364 FC3-1.0283 BSP 20291
BDE .7903 BRA 3.7639 BC3 2.9663 FSP -1096

MID-COURSE EXECUTION ACCURACY
SGT 6267.5 SGR 713.6 SG3 310.5
RRT -.8140 RRF -.8026 RTF .9778
SGB 6308.0 R23 .0056 R13 -.9778
SG1 6294.5 SG2 412.7 THA 174.68

ORBIT DETERMINATION ACCURACY
ST 1865.6 SR 476.9 SS 645.0
CRT -.7334 CRS .5045 CST -.9567
LSA 1995.9 MSA 374.3 SSA 14.4
EL1 1899.1 EL2 318.5 ALF 169.07

LAUNCH DATE AUG 4 1970 FLIGHT TIME 206.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 578.078

RL 151.78 LAL .00 LOL 311.21 VL 26.427 GAL 7.45 AZL 91.94 HCA 270.33 SMA 126.35 ECC .23803 INC 1.9423 VI 29.353
RP 108.21 LAP 1.94 LOP 221.54 VP 37.451 GAP 11.06 AZP 90.01 TAL 154.43 TAP 64.75 RCA 96.28 APO 156.43 V2 35.021
RC-141.459 GL -10.39 GP 13.97 ZAL 41.85 ZAP 160.54 ETS 41.45 ZAE 122.22 ETE 172.00 ZAC 114.10 ETC 258.30 CLP-166.31

PLANETOCENTRIC CONIC

C3 24.251 VHL 4.925 DLA -33.83 RAL 270.52 RAD 6568.0 VEL 12.068 PTH 2.16 VHP 7.367 DPA -4.49 RAP 237.23 ECC 1.3991

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.66	12 7 39	1402.95	21.83	3.38	143.80	116.51	12 31 2	803.0	25.21	355.89
109.34	16 58 56	5763.08	21.84	272.15	143.81	116.50	18 34 59	5163.1	25.22	264.66
70.66	12 7 39	1402.95	21.83	3.38	143.80	116.51	12 31 2	803.0	25.21	355.89
109.34	16 58 56	5763.08	21.84	272.15	143.81	116.50	18 34 59	5163.1	25.22	264.66
110.00	16 25 49	5864.24	18.42	278.10	141.87	119.32	18 3 33	5264.2	22.18	270.99
110.00	17 39 56	5637.82	25.34	264.19	145.60	113.75	19 13 54	5037.8	28.33	256.28

DIFFERENTIAL CORRECTIONS
TDE -.5885 TRA 4.0362 TC3-2.7613 BAU .8955
RDE .3747 RRA -.3805 RC3 .0668 FAU .02397
FDE -.0815 FRA 2.3478 FC3 -.8556 BSP 20498
BDE .6976 BRA 4.0541 BC3 2.7621 FSP -1039

MID-COURSE EXECUTION ACCURACY
SGT 6310.6 SGR 691.7 SG3 293.4
RRT -.7997 RRF -.7874 RTF .9774
SGB 6348.4 R23 .0040 R13 -.9775
SG1 6334.9 SG2 413.7 THA 174.97

ORBIT DETERMINATION ACCURACY
ST 1830.8 SR 464.3 SS 631.1
CRT -.6703 CRS .4326 CST -.9587
LSA 1953.1 MSA 388.2 SSA 14.2
EL1 1858.0 EL2 339.5 ALF 170.02

LAUNCH DATE AUG 4 1970 FLIGHT TIME 208.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 583.641

RL 151.78 LAL .00 LOL 311.21 VL 26.398 GAL 7.98 AZL 91.79 HCA 273.53 SMA 126.17 ECC .24433 INC 1.7871 VI 29.353
RP 108.25 LAP 1.78 LOP 224.74 VP 37.419 GAP 11.59 AZP 90.11 TAL 153.34 TAP 66.87 RCA 95.34 APO 157.00 V2 35.008
RC 143.643 GL -9.15 GP 13.41 ZAL 40.39 ZAP 161.78 ETS 43.11 ZAE 121.91 ETE 172.38 ZAC 113.82 ETC 258.68 CLP-167.55

PLANETOCENTRIC CONIC

C3 26.303 VHL 5.129 DLA -32.58 RAL 271.99 RAD 6568.1 VEL 12.152 PTH 2.18 VHP 7.662 DPA -5.54 RAP 238.92 ECC 1.4329

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.18	12 29 20	1374.16	20.49	.45	146.18	115.90	12 52 14	774.2	23.80	353.00
106.82	16 48 56	5831.93	20.50	276.76	146.19	115.89	18 26 7	5231.9	23.81	269.31
73.18	12 29 20	1374.16	20.49	.45	146.18	115.90	12 52 14	774.2	23.80	353.00
106.82	16 48 56	5831.93	20.50	276.76	146.19	115.89	18 26 7	5231.9	23.81	269.31
110.00	15 49 43	726.71	13.19	308.73	141.99	121.82	16 1 49	126.7	17.31	302.03
110.00	18 27 43	5527.38	28.16	256.84	149.77	110.23	19 59 51	4927.4	30.65	248.53

DIFFERENTIAL CORRECTIONS
TDE -.4780 TRA 4.3411 TC3-2.5552 BAU .8988
RDE .3808 RRA -.3896 RC3 .0563 FAU .02143
FDE -.0205 FRA 2.3591 FC3 -.7053 BSP 20715
BDE .6111 BRA 4.3585 BC3 2.5558 FSP -987

MID-COURSE EXECUTION ACCURACY
SGT 6346.5 SGR 671.6 SG3 277.4
RRT -.7862 RRF -.7731 RTF .9772
SGB 6381.9 R23 .0026 R13 -.9772
SG1 6368.5 SG2 413.6 THA 175.22

ORBIT DETERMINATION ACCURACY
ST 1809.0 SR 452.7 SS 621.5
CRT -.6042 CRS .3651 CST -.9621
LSA 1924.8 MSA 398.3 SSA 14.0
EL1 1830.4 EL2 356.6 ALF 171.06

LAUNCH DATE AUG 4 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 589.136

RL 151.78 LAL .00 LOL 311.21 VL 26.370 GAL 8.55 AZL 91.63 HCA 276.72 SMA 125.99 ECC .25115 INC 1.6309 VI 29.353
RP 108.29 LAP 1.62 LOP 227.94 VP 37.386 GAP 12.14 AZP 90.19 TAL 152.26 TAP 68.98 RCA 94.35 APO 157.63 V2 34.995
RC 145.816 GL -7.97 GP 12.90 ZAL 39.00 ZAP 162.96 ETS 45.03 ZAE 121.61 ETE 172.72 ZAC 113.58 ETC 259.07 CLP-168.78

PLANETOCENTRIC CONIC

C3 28.645 VHL 5.352 DLA -31.38 RAL 273.37 RAD 6568.2 VEL 12.248 PTH 2.20 VHP 7.975 DPA -6.54 RAP 240.65 ECC 1.4714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.88	12 53 8	1338.30	19.17	357.05	148.60	115.33	13 15 27	738.3	22.42	349.65
104.12	16 36 11	622.20	19.18	304.14	148.61	115.32	16 46 33	22.2	22.43	296.73
75.88	12 53 8	1338.30	19.17	357.05	148.60	115.33	13 15 27	738.3	22.42	349.65
104.12	16 36 11	622.20	19.18	304.14	148.61	115.32	16 46 33	22.2	22.43	296.73
110.00	15 30 9	828.26	9.48	314.26	143.04	123.00	15 43 57	228.3	13.76	307.77
110.00	18 58 21	5468.28	29.49	252.75	153.11	108.13	20 29 29	4868.3	31.68	244.23

DIFFERENTIAL CORRECTIONS
TDE -.3666 TRA 4.6619 TC3-2.3498 BAU .9001
RDE .3880 RRA -.3997 RC3 .0475 FAU .01904
FDE .0328 FRA 2.3708 FC3 -.5756 BSP 20941
BDE .5338 BRA 4.6790 BC3 2.3503 FSP -938

MID-COURSE EXECUTION ACCURACY
SGT 6375.9 SGR 652.9 SG3 262.3
RRT -.7736 RRF -.7600 RTF .9770
SGB 6409.3 R23 .0015 R13 -.9771
SG1 6396.0 SG2 412.4 THA 175.45

ORBIT DETERMINATION ACCURACY
ST 1798.7 SR 441.8 SS 615.1
CRT -.5372 CRS .3031 CST -.9663
LSA 1909.2 MSA 404.6 SSA 13.7
EL1 1814.9 EL2 369.3 ALF 172.16

LAUNCH DATE AUG 4 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 594.553

RL 151.78 LAL .00 LOL 311.21 VL 26.341 GAL 9.15 AZL 91.47 HCA 279.92 SMA 125.81 ECC .25853 INC 1.4728 VI 29.353
RP 108.33 LAP 1.45 LOP 231.13 VP 37.354 GAP 12.72 AZP 90.25 TAL 151.19 TAP 71.10 RCA 93.29 APO 158.34 V2 34.982
RC 147.979 GL -6.86 GP 12.44 ZAL 37.68 ZAP 164.07 ETS 47.26 ZAE 121.31 ETE 173.01 ZAC 113.37 ETC 259.47 CLP-169.97

PLANETOCENTRIC CONIC

C3 31.319 VHL 5.596 DLA -30.24 RAL 274.68 RAD 6568.2 VEL 12.357 PTH 2.23 VHP 8.309 DPA -7.48 RAP 242.44 ECC 1.5154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.93	13 20 24	1290.97	17.88	352.87	151.05	114.79	13 41 55	691.0	21.08	345.50
101.07	16 19 23	714.26	17.90	310.41	151.06	114.79	16 31 17	114.3	21.09	303.05
78.93	13 20 24	1290.97	17.88	352.87	151.05	114.79	13 41 55	691.0	21.08	345.50
101.07	16 19 23	714.26	17.90	310.41	151.06	114.79	16 31 17	114.3	21.09	303.05
110.00	15 16 17	913.29	6.30	318.78	144.44	123.67	15 31 30	313.3	10.68	312.43
110.00	19 22 40	5427.98	30.31	249.90	156.18	106.63	20 53 8	4828.0	32.28	241.24

DIFFERENTIAL CORRECTIONS
TDE -.2541 TRA 4.9994 TC3-2.1467 BAU .8990
RDE .3962 RRA -.4107 RC3 .0401 FAU .01680
FDE .0793 FRA 2.3835 FC3 -.4644 BSP 21175
BDE .4707 BRA 5.0162 BC3 2.1471 FSP -894

MID-COURSE EXECUTION ACCURACY
SGT 6398.4 SGR 635.2 SG3 248.2
RRT -.7620 RRF -.7480 RTF .9771
SGB 6429.9 R23 .0007 R13 -.9771
SG1 6416.8 SG2 410.2 THA 175.66

ORBIT DETERMINATION ACCURACY
ST 1797.7 SR 431.1 SS 611.2
CRT -.4711 CRS .2474 CST -.9709
LSA 1904.0 MSA 407.2 SSA 13.4
EL1 1809.7 EL2 377.8 ALF 173.26

LAUNCH DATE AUG 4 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 599.882

RL	151.78	LAL	.00	LOL	311.21	VL	26.313	GAL	9.80	AZL	91.31	HCA	283.11	SMA	125.63	ECC	.26654	INC	1.3117	V1	29.353
RP	108.37	LAP	1.28	LOP	234.33	VP	37.321	GAP	13.33	AZP	90.30	TAL	150.12	TAP	73.23	RCA	92.15	APO	159.12	V2	34.969
RC	150.132	GL	-5.81	GP	12.02	ZAL	36.42	ZAP	165.12	ETS	49.84	ZAE	121.02	ETE	173.28	ZAC	113.19	ETC	259.88	CLP	-171.16

PLANETOCENTRIC CONIC

C3	34.373	VHL	5.863	DLA	-29.15	RAL	275.92	RAD	6568.4	VEL	12.480	PTH	2.26	VHP	8.665	DPA	-8.36	RAP	244.26	ECC	1.5657

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.79	13 55 9	1218.99	16.63	346.93	153.53	114.29	14 15 28	619.0	19.77	339.60
97.21	15 54 29	833.14	16.64	318.63	153.53	114.28	16 8 23	233.1	19.78	311.30
100.00	15 20 9	943.38	11.58	324.23	150.99	117.75	15 35 52	343.4	15.21	317.32
100.00	17 12 10	5872.02	21.82	280.39	155.82	110.95	18 50 2	5272.0	24.47	272.59
110.00	15 5 34	989.27	3.42	322.78	146.07	124.03	15 22 4	389.3	7.86	316.51
110.00	19 43 14	5398.90	30.85	247.81	159.13	105.50	21 13 13	4798.9	32.67	239.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	-.1393	TRA	5.3564	TC3	-1.9468	BAU	.8947	SGT	6415.0	SGR	617.9	SG3	235.1	ST	1804.5	SR	420.5	SS	609.2
ROE	.4050	RRA	-.4226	RC3	.0336	FAU	.01465	RRT	-.7513	RRF	-.7372	RTF	.9772	CRT	-.4073	CRS	.1973	CST	-.9754
FOE	.1207	FRA	2.3982	FC3	-.3690	BSP	21403	SGB	6444.7	R23	.0001	R13	-.9772	LSA	1907.6	MSA	406.5	SSA	13.1
BOE	.4283	BRA	5.3730	BC3	1.9470	FSP	-852	SG1	6431.8	SG2	406.7	THA	175.84	EL1	1813.0	EL2	382.2	ALF	174.33

LAUNCH DATE AUG 4 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 605.111

RL	151.78	LAL	.00	LOL	311.21	VL	26.284	GAL	10.49	AZL	91.15	HCA	286.30	SMA	125.45	ECC	.27524	INC	1.1465	V1	29.353
RP	108.41	LAP	1.10	LOP	237.51	VP	37.289	GAP	13.98	AZP	90.32	TAL	149.07	TAP	75.37	RCA	90.92	APO	159.98	V2	34.956
RC	152.275	GL	-4.82	GP	11.63	ZAL	35.24	ZAP	166.09	ETS	52.83	ZAE	120.73	ETE	173.51	ZAC	113.04	ETC	260.31	CLP	-172.33

PLANETOCENTRIC CONIC

C3	37.869	VHL	6.154	DLA	-28.11	RAL	277.08	RAD	6568.5	VEL	12.619	PTH	2.29	VHP	9.047	DPA	-9.19	RAP	246.12	ECC	1.6232

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 29 24	1148.11	12.73	339.87	154.75	115.51	14 48 32	548.1	16.06	332.77
90.00	15 29 31	952.95	18.12	328.08	157.22	112.14	15 45 24	353.0	20.97	320.56
100.00	14 54 18	1067.53	7.56	331.26	152.05	119.01	15 12 6	467.5	11.37	324.54
100.00	17 47 18	5796.80	23.57	275.48	159.40	108.94	19 23 55	5196.8	26.93	267.48
110.00	14 56 54	1059.36	.74	326.44	147.85	124.18	15 14 34	459.4	5.22	320.22
110.00	20 1 11	5377.74	31.23	246.27	162.01	104.67	21 30 49	4777.7	32.92	237.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	-.0214	TRA	5.7353	TC3	-1.7510	BAU	.8866	SGT	6426.2	SGR	600.8	SG3	222.8	ST	1817.5	SR	409.6	SS	608.9
ROE	.4143	RRA	-.4352	RC3	.0279	FAU	.01258	RRT	-.7414	RRF	-.7273	RTF	.9775	CRT	-.3466	CRS	.1528	CST	-.9797
FOE	.1578	FRA	2.4155	FC3	-.2877	BSP	21600	SGB	6454.3	R23	-.0004	R13	-.9775	LSA	1918.2	MSA	402.8	SSA	12.8
BOE	.4148	BRA	5.7518	BC3	1.7512	FSP	-811	SG1	6441.7	SG2	402.2	THA	176.02	EL1	1823.3	EL2	383.0	ALF	175.33

LAUNCH DATE AUG 4 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 610.224

RL	151.78	LAL	.00	LOL	311.21	VL	26.256	GAL	11.24	AZL	90.98	HCA	289.48	SMA	125.28	ECC	.28471	INC	.9759	V1	29.353
RP	108.45	LAP	.92	LOP	240.70	VP	37.257	GAP	14.67	AZP	90.33	TAL	148.04	TAP	77.52	RCA	89.61	APO	160.94	V2	34.943
RC	154.408	GL	-3.89	GP	11.28	ZAL	34.12	ZAP	167.00	ETS	56.30	ZAE	120.43	ETE	173.72	ZAC	112.90	ETC	260.74	CLP	-173.49

PLANETOCENTRIC CONIC

C3	41.878	VHL	6.471	DLA	-27.12	RAL	278.17	RAD	6568.6	VEL	12.777	PTH	2.32	VHP	9.457	DPA	-9.97	RAP	248.02	ECC	1.6892

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 51 43	1311.39	7.77	349.30	155.42	117.31	14 13 34	711.4	11.38	342.47
90.00	16 15 54	840.50	20.85	320.96	161.26	109.60	16 29 55	240.5	23.34	313.17
100.00	14 37 29	1163.51	4.36	336.58	153.56	119.60	14 56 53	563.5	8.27	329.98
100.00	18 12 49	5751.65	24.53	272.48	162.61	107.64	19 48 41	5151.7	26.71	264.36
110.00	14 49 40	1125.25	-1.78	329.87	149.75	124.14	15 8 26	525.2	2.72	323.67
110.00	20 17 7	5362.68	31.48	245.17	164.84	104.06	21 46 30	4762.7	33.09	236.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.1008	TRA	6.1389	TC3	-1.5602	BAU	.8736	SGT	6432.7	SGR	583.7	SG3	211.3	ST	1835.2	SR	398.4	SS	610.2
ROE	.4238	RRA	-.4485	RC3	.0226	FAU	.01057	RRT	-.7324	RRF	-.7185	RTF	.9779	CRT	-.2896	CRS	.1129	CST	-.9835
FOE	.1919	FRA	2.4365	FC3	-.2184	BSP	21768	SGB	6459.1	R23	-.0007	R13	-.9779	LSA	1934.3	MSA	396.6	SSA	12.5
BOE	.4357	BRA	6.1553	BC3	1.5604	FSP	-772	SG1	6446.9	SG2	396.5	THA	176.18	EL1	1839.0	EL2	380.5	ALF	176.24

LAUNCH DATE AUG 4 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 615.203

RL	151.78	LAL	.00	LOL	311.21	VL	26.227	GAL	12.05	AZL	90.80	HCA	292.67	SMA	125.10	ECC	.29506	INC	.7985	V1	29.353
RP	108.49	LAP	.74	LOP	243.89	VP	37.226	GAP	15.42	AZP	90.31	TAL	147.03	TAP	79.70	RCA	88.19	APO	162.01	V2	34.931
RC	156.530	GL	-3.01	GP	10.96	ZAL	33.08	ZAP	167.82	ETS	60.32	ZAE	120.12	ETE	173.91	ZAC	112.77	ETC	261.19	CLP	-174.65

PLANETOCENTRIC CONIC

C3	46.490	VHL	6.818	DLA	-26.19	RAL	279.19	RAD	6568.7	VEL	12.956	PTH	2.36	VHP	9.900	DPA	-10.69	RAP	249.93	ECC	1.7651

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 31 38	1418.30	4.39	355.34	156.87	118.00	13 55 16	818.3	8.11	348.62
90.00	16 44 7	786.16	22.05	317.43	164.57	108.23	16 57 13	186.2	24.34	309.50
100.00	14 24 48	1246.61	1.55	341.15	155.30	119.86	14 45 35	646.6	5.51	334.61
100.00	18 33 38	5721.12	25.15	270.42	165.63	106.72	20 8 59	5121.1	27.20	262.21
110.00	14 43 30	1187.92	-4.17	333.15	151.74	123.96	15 3 18	587.9	.32	326.94
110.00	20 31 25	5352.58	31.65	244.43	167.64	103.65	22 0 38	4752.6	33.20	235.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2287	TRA	6.5705	TC3	-1.3750	BAU	.8547	SGT	6435.1	SGR	566.2	SG3	200.7	ST	1856.7	SR	386.7	SS	613.0
ROE	.4335	RRA	-.4622	RC3	.0176	FAU	.00857	RRT	-.7240	RRF	-.7104	RTF	.9785	CRT	-.2363	CRS	.0771	CST	-.9868
FOE	.2236	FRA	2.4617	FC3	-.1596	BSP	21866	SGB	6459.9	R23	-.0009	R13	-.9785	LSA	1954.9	MSA	388.3	SSA	12.2
BOE	.4901	BRA	6.5868	BC3	1.3751	FSP	-733	SG1	6448.2	SG2	389.8	THA	176.34	EL1	1859.0	EL2	375.3	ALF	177.06

LAUNCH DATE AUG 5 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 14 1970

HELIOCENTRIC CONIC DISTANCE 144.389

RL	151.76	LAL	.00	LOL	312.17	VL	19.354	GAL	10.07	AZL	94.13	HCA	51.74	SMA	96.56	ECC	.58938	INC	4.1262	V1	29.357
RP	108.65	LAP	-3.24	LOP	3.84	VP	32.688	GAP	-35.49	AZP	92.56	TAL	172.81	TAP	224.55	RCA	39.65	APO	153.47	V2	34.878
RC	54.887	GL	-7.13	GP	-4.62	ZAL	70.82	ZAP	24.28	ETS	167.45	ZAE	152.90	ETE	169.90	ZAC	91.01	ETC	256.17	CLP	23.87

PLANETOCENTRIC CONIC

C3	122.172	VHL	11.053	DLA	-27.44	RAL	237.76	RAD	6570.3	VEL	15.605	PTH	2.78	VHP	20.610	DPA	-12.53	RAP	204.82	ECC	3.0106

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 16 43	1526.16	.92	1.36	130.51	118.30	11 42 9	926.2	4.70	354.72
90.00	13 20 39	1122.19	13.49	338.34	136.87	115.14	13 39 21	522.2	16.76	331.19
100.00	11 58 34	1390.89	-3.34	349.07	128.15	119.72	12 21 45	790.9	.65	342.55
100.00	15 21 29	732.69	17.91	311.79	138.99	114.34	15 33 41	132.7	21.05	304.40
110.00	12 8 7	1360.92	-10.65	342.35	123.69	122.67	12 30 48	760.9	-6.27	336.00
110.00	17 28 25	5623.46	25.73	263.25	142.70	113.32	19 2 9	5023.5	28.66	255.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2825	TRA	-1.3014	TC3	-.1063	BAU	.1760	SGT	809.0	SGR	450.2	SG3	35.2	ST	271.1	SR	445.1	SS	245.0
RDE	-.8581	RRA	-.0984	RC3	.0177	FAU	.01440	RRT	-.0842	RRF	.0852	RTF	-.6317	CRT	-.5073	CRS	-.6762	CST	.9749
FDE	-.1870	FRA	.5561	FC3	-.1020	BSP	2054	SGB	925.8	R23	-.0085	R13	.6324	LSA	515.7	MSA	256.0	SSA	13.9
BDE	.9034	BRA	1.3051	BC3	.1078	FSP	-73	SG1	810.2	SG2	447.9	THA	176.13	EL1	472.4	EL2	220.1	ALF	112.24

LAUNCH DATE AUG 5 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 16 1970

HELIOCENTRIC CONIC DISTANCE 150.564

RL	151.76	LAL	.00	LOL	312.17	VL	19.946	GAL	9.66	AZL	93.88	HCA	54.91	SMA	98.22	ECC	.56294	INC	3.8842	V1	29.357
RP	108.62	LAP	-3.18	LOP	7.02	VP	33.053	GAP	-33.78	AZP	92.24	TAL	172.32	TAP	227.23	RCA	42.93	APO	153.52	V2	34.888
RC	53.110	GL	-7.31	GP	-4.78	ZAL	69.91	ZAP	22.80	ETS	166.22	ZAE	154.11	ETE	169.78	ZAC	91.18	ETC	256.26	CLP	22.32

PLANETOCENTRIC CONIC

C3	109.534	VHL	10.466	DLA	-27.81	RAL	238.74	RAD	6570.1	VEL	15.195	PTH	2.73	VHP	19.723	DPA	-13.32	RAP	206.28	ECC	2.8027

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 35 38	1454.71	3.23	357.38	130.97	118.15	11 59 52	854.7	6.97	350.69
90.00	13 9 30	1149.44	12.69	339.95	135.80	115.53	13 28 40	549.4	16.03	332.86
100.00	12 10 30	1341.99	-1.68	346.39	128.25	119.85	12 32 52	742.0	2.30	339.87
100.00	15 17 19	737.40	17.78	312.08	138.25	114.43	15 29 37	137.4	20.93	304.70
110.00	12 16 25	1323.40	-9.27	340.33	123.59	123.05	12 38 28	723.4	-4.85	334.02
110.00	17 27 53	5616.79	25.91	262.82	142.11	113.12	19 1 30	5016.8	28.81	254.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2758	TRA	-1.2932	TC3	-.1100	BAU	.1634	SGT	846.5	SGR	455.1	SG3	38.3	ST	283.7	SR	450.9	SS	254.3
RDE	-.8231	RRA	-.0823	RC3	.0185	FAU	.01472	RRT	-.0939	RRF	.0953	RTF	-.6516	CRT	-.5032	CRS	-.6713	CST	.9754
FDE	-.1898	FRA	.5756	FC3	-.1163	BSP	2188	SGB	961.1	R23	-.0097	R13	.6524	LSA	526.8	MSA	265.9	SSA	14.1
BDE	.8680	BRA	1.2958	BC3	.1116	FSP	-81	SG1	848.0	SG2	452.3	THA	175.96	EL1	480.5	EL2	230.1	ALF	113.18

LAUNCH DATE AUG 5 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 18 1970

HELIOCENTRIC CONIC DISTANCE 156.811

RL	151.76	LAL	.00	LOL	312.17	VL	20.497	GAL	9.25	AZL	93.66	HCA	58.09	SMA	99.87	ECC	.53743	INC	3.6602	V1	29.357
RP	108.58	LAP	-3.11	LOP	10.21	VP	33.400	GAP	-32.16	AZP	91.94	TAL	171.85	TAP	229.94	RCA	46.20	APO	153.54	V2	34.900
RC	51.409	GL	-7.49	GP	-4.96	ZAL	69.07	ZAP	21.34	ETS	164.80	ZAE	155.48	ETE	169.69	ZAC	91.33	ETC	256.36	CLP	20.78

PLANETOCENTRIC CONIC

C3	98.241	VHL	9.912	DLA	-28.16	RAL	239.64	RAD	6569.9	VEL	14.818	PTH	2.68	VHP	18.870	DPA	-14.13	RAP	207.76	ECC	2.6168

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 59 50	1364.57	6.10	352.31	131.60	117.71	12 22 34	764.6	9.76	345.55
90.00	12 52 30	1193.67	11.38	342.53	134.30	116.10	13 12 24	593.7	14.80	335.52
100.00	12 22 11	1292.25	.01	343.66	128.24	119.89	12 43 43	692.3	3.98	337.13
100.00	15 12 50	741.22	17.67	312.31	137.37	114.51	15 25 11	141.2	20.83	304.94
110.00	12 24 12	1285.91	-7.87	338.32	123.39	123.37	12 45 38	685.9	-3.42	332.06
110.00	17 27 18	5608.37	26.14	262.27	141.37	112.86	19 0 47	5008.4	29.00	254.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2699	TRA	-1.2845	TC3	-.1128	BAU	.1503	SGT	885.2	SGR	459.4	SG3	41.8	ST	297.0	SR	455.9	SS	263.8
RDE	-.7884	RRA	-.0669	RC3	.0191	FAU	.01507	RRT	-.1047	RRF	.1065	RTF	-.6709	CRT	-.5005	CRS	-.6669	CST	.9761
FDE	-.1927	FRA	.5956	FC3	-.1328	BSP	2329	SGB	997.4	R23	-.0109	R13	.6718	LSA	538.1	MSA	275.6	SSA	14.3
BDE	.8333	BRA	1.2863	BC3	.1144	FSP	-90	SG1	887.0	SG2	456.0	THA	175.77	EL1	488.3	EL2	240.1	ALF	114.28

LAUNCH DATE AUG 5 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 20 1970

HELIOCENTRIC CONIC DISTANCE 163.126

RL	151.76	LAL	.00	LOL	312.17	VL	21.010	GAL	8.83	AZL	93.45	HCA	61.27	SMA	101.50	ECC	.51288	INC	3.4509	V1	29.357
RP	108.55	LAP	-3.03	LOP	13.40	VP	33.730	GAP	-30.62	AZP	91.66	TAL	171.42	TAP	232.68	RCA	49.44	APO	153.55	V2	34.911
RC	49.791	GL	-7.65	GP	-5.15	ZAL	68.30	ZAP	19.91	ETS	163.14	ZAE	157.01	ETE	169.64	ZAC	91.46	ETC	256.48	CLP	19.26

PLANETOCENTRIC CONIC

C3	88.140	VHL	9.388	DLA	-28.47	RAL	240.47	RAD	6569.7	VEL	14.474	PTH	2.63	VHP	18.050	DPA	-14.95	RAP	209.26	ECC	2.4506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.89	12 3 19	1340.15	9.55	352.32	132.38	116.95	12 25 39	740.2	13.09	345.43
93.11	12 55 39	1170.59	9.57	339.92	132.39	116.95	13 15 9	570.6	13.11	333.02
100.00	12 33 36	1241.81	1.72	340.89	128.13	119.85	12 54 18	641.8	5.68	334.34
100.00	15 8 2	744.17	17.59	312.49	136.36	114.57	15 20 26	144.2	20.76	305.13
110.00	12 31 26	1248.61	-6.47	336.35	123.07	123.64	12 52 15	648.6	-2.00	330.11
110.00	17 26 41	5598.17	26.41	261.59	140.50	112.54	19 0 0	4998.2	29.22	253.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2648	TRA	-1.2755	TC3	-.1144	BAU	.1367	SGT	925.4	SGR	463.1	SG3	45.6	ST	311.0	SR	460.4	SS	273.6
RDE	-.7542	RRA	-.0523	RC3	.0193	FAU	.01546	RRT	-.1167	RRF	.1190	RTF	-.6896	CRT	-.4993	CRS	-.6629	CST	.9771
FDE	-.1956	FRA	.6159	FC3	-.1518	BSP	2481	SGB	1034.8	R23	-.0123	R13	.6905	LSA	549.7	MSA	285.0	SSA	14.6
BDE	.7993	BRA	1.2766	BC3	.1160	FSP	-100	SG1	927.5	SG2	458.9	THA	175.57	EL1	496.2	EL2	250.1	ALF	115.57

LAUNCH DATE AUG 5 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 22 1970

HELIOCENTRIC CONIC DISTANCE 169.503

RL	151.76	LAL	.00	LOL	312.17	VL	21.487	GAL	8.41	AZL	93.25	HCA	64.45	SMA	103.10	ECC	.48931	INC	3.2540	V1	29.357		
RP	108.51	LAP	-2.94	LOP	16.58	VP	34.042	GAP	-29.15	AZP	91.40	TAL	171.02	TAP	235.47	RCA	52.65	APO	153.55	V2	34.923		
RC	48.266	GL	-7.80	GP	-5.36	ZAL	67.60	ZAP	18.51	ETS	161.20	ZAE	158.71	ETE	169.66	ZAC	91.57	ETC	256.61	CLP	17.74		

PLANETOCENTRIC CONIC

C3	79.101	VHL	8.894	DLA	-28.76	RAL	241.23	RAD	6569.5	VEL	14.158	PTH	2.58	VHP	17.261	DPA	-15.78	RAP	210.76	ECC	2.3018		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.77	11 48 51	1372.15	10.40	355.11	131.67	116.96	12 11 44	772.2	13.93	348.18
95.23	13 16 8	1089.64	10.41	334.42	131.68	116.96	13 34 17	489.6	13.95	327.49
100.00	12 44 43	1190.84	3.44	338.09	127.90	119.71	13 4 34	590.8	7.37	331.51
100.00	15 2 58	746.18	17.53	312.61	135.22	114.61	15 15 24	146.2	20.70	305.26
110.00	12 38 4	1211.72	-5.07	334.40	122.63	123.85	12 58 16	611.7	-.59	328.18
110.00	17 26 5	5586.11	26.72	260.79	139.50	112.16	18 59 11	4986.1	29.48	252.70

DIFFERENTIAL CORRECTIONS

TDE	.2603	TRA	-1.2661	TC3	-.1147	BAU	.1230
RDE	-.7205	RRA	-.0384	RC3	.0192	FAU	.01589
FDE	-.1987	FRA	.6367	FC3	-.1739	BSP	2630
BDE	.7661	BRA	1.2667	BC3	.1163	FSP	-111

MID-COURSE EXECUTION ACCURACY

SGT	967.2	SGR	466.3	SG3	49.7		
RRT	-.1299	RRF	.1329	RTF	-.7074		
SGB	1073.7	R23	-.0140	R13	.7085		
SG1	969.6	SG2	461.1	THA	175.37		

ORBIT DETERMINATION ACCURACY

ST	325.7	SR	464.2	SS	283.7
CRT	-.4992	CRS	-.6594	CST	.9781
LSA	561.7	MSA	293.9	SSA	14.8
EL1	504.0	EL2	259.9	ALF	117.03

LAUNCH DATE AUG 5 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 175.937

RL	151.76	LAL	.00	LOL	312.17	VL	21.932	GAL	7.99	AZL	93.07	HCA	67.63	SMA	104.67	ECC	.46675	INC	3.0670	V1	29.357		
RP	108.47	LAP	-2.84	LOP	19.77	VP	34.336	GAP	-27.75	AZP	91.17	TAL	170.66	TAP	238.30	RCA	55.81	APO	153.52	V2	34.935		
RC	46.842	GL	-7.93	GP	-5.59	ZAL	66.98	ZAP	17.14	ETS	158.91	ZAE	160.58	ETE	169.78	ZAC	91.65	ETC	256.75	CLP	16.23		

PLANETOCENTRIC CONIC

C3	71.007	VHL	8.427	DLA	-29.00	RAL	241.91	RAD	6569.4	VEL	13.869	PTH	2.53	VHP	16.501	DPA	-16.63	RAP	212.28	ECC	2.1686		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.44	11 40 49	1381.71	11.26	356.26	130.85	116.91	12 3 51	781.7	14.78	349.30
96.56	13 29 36	1029.84	11.27	330.47	130.85	116.90	13 46 46	429.8	14.79	323.51
100.00	12 55 25	1139.68	5.16	335.27	127.55	119.48	13 14 25	539.7	9.05	328.64
100.00	14 57 41	747.10	17.50	312.67	133.96	114.62	15 10 8	147.1	20.68	305.32
110.00	12 44 3	1175.48	-3.69	332.50	122.08	124.01	13 3 38	575.5	.80	326.29
110.00	17 25 32	5572.12	27.07	259.86	138.37	111.71	18 58 24	4972.1	29.77	251.71

DIFFERENTIAL CORRECTIONS

TDE	.2569	TRA	-1.2560	TC3	-.1133	BAU	.1090
RDE	-.6874	RRA	-.0251	RC3	.0186	FAU	.01637
FDE	-.2020	FRA	.6582	FC3	-.1996	BSP	2793
BDE	.7338	BRA	1.2563	BC3	.1148	FSP	-123

MID-COURSE EXECUTION ACCURACY

SGT	1010.2	SGR	468.8	SG3	54.2		
RRT	-.1448	RRF	.1484	RTF	-.7246		
SGB	1113.7	R23	-.0158	R13	.7258		
SG1	1013.1	SG2	462.6	THA	175.14		

ORBIT DETERMINATION ACCURACY

ST	341.1	SR	467.4	SS	294.0
CRT	-.5012	CRS	-.6566	CST	.9794
LSA	574.3	MSA	302.1	SSA	15.0
EL1	512.1	EL2	269.4	ALF	118.71

LAUNCH DATE AUG 5 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 182.424

RL	151.76	LAL	.00	LOL	312.17	VL	22.346	GAL	7.58	AZL	92.89	HCA	70.82	SMA	106.20	ECC	.44520	INC	2.8884	V1	29.357		
RP	108.44	LAP	-2.73	LOP	22.97	VP	34.615	GAP	-26.41	AZP	90.95	TAL	170.35	TAP	241.17	RCA	58.92	APO	153.49	V2	34.948		
RC	45.530	GL	-8.04	GP	-5.85	ZAL	66.43	ZAP	15.82	ETS	156.16	ZAE	162.62	ETE	170.05	ZAC	91.71	ETC	256.90	CLP	14.72		

PLANETOCENTRIC CONIC

C3	63.759	VHL	7.985	DLA	-29.22	RAL	242.51	RAD	6569.2	VEL	13.606	PTH	2.49	VHP	15.768	DPA	-17.50	RAP	213.80	ECC	2.0493		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.49	11 35 35	1380.63	12.13	356.63	129.90	116.79	11 58 35	780.6	15.62	349.63
97.51	13 39 39	979.59	12.14	327.21	129.91	116.78	13 55 58	379.6	15.64	320.21
100.00	13 5 35	1088.89	6.85	332.45	127.06	119.17	13 23 44	488.9	10.69	325.76
100.00	14 52 20	746.56	17.52	312.64	132.58	114.61	15 4 46	146.6	20.69	305.28
110.00	12 49 18	1140.16	-2.35	330.65	121.40	124.11	13 8 18	540.2	2.15	324.45
110.00	17 25 6	5556.10	27.47	258.79	137.12	111.19	18 57 42	4956.1	30.10	250.58

DIFFERENTIAL CORRECTIONS

TDE	.2540	TRA	-1.2454	TC3	-.1098	BAU	.0948
RDE	-.6550	RRA	-.0124	RC3	.0174	FAU	.01691
FDE	-.2056	FRA	.6803	FC3	-.2296	BSP	2954
BDE	.7025	BRA	1.2455	BC3	.1112	FSP	-136

MID-COURSE EXECUTION ACCURACY

SGT	1054.7	SGR	470.9	SG3	59.2		
RRT	-.1612	RRF	.1657	RTF	-.7411		
SGB	1155.1	R23	-.0179	R13	.7423		
SG1	1058.1	SG2	463.2	THA	174.90		

ORBIT DETERMINATION ACCURACY

ST	357.2	SR	470.0	SS	304.7
CRT	-.5047	CRS	-.6545	CST	.9808
LSA	587.6	MSA	309.5	SSA	15.2
EL1	520.5	EL2	278.4	ALF	120.59

LAUNCH DATE AUG 5 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 188.957

RL	151.76	LAL	.00	LOL	312.17	VL	22.731	GAL	7.17	AZL	92.72	HCA	74.00	SMA	107.70	ECC	.42467	INC	2.7164	V1	29.357		
RP	108.40	LAP	-2.61	LOP	26.16	VP	34.878	GAP	-25.13	AZP	90.75	TAL	170.08	TAP	244.08	RCA	61.96	APO	153.44	V2	34.961		
RC	44.337	GL	-8.12	GP	-6.13	ZAL	65.95	ZAP	14.54	ETS	152.84	ZAE	164.83	ETE	170.56	ZAC	91.73	ETC	257.07	CLP	13.21		

PLANETOCENTRIC CONIC

C3	57.266	VHL	7.567	DLA	-29.39	RAL	243.03	RAD	6569.0	VEL	13.365	PTH	2.44	VHP	15.063	DPA	-18.38	RAP	215.32	ECC	1.9424		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.79	11 32 9	1372.22	12.99	356.45	128.83	116.59	11 55 1	772.2	16.46	349.41
98.21	13 47 15	935.77	13.01	324.42	128.84	116.58	14 2 51	335.8	16.47	317.38
100.00	13 14 54	1039.41	8.49	329.68	126.42	118.77	13 32 14	439.4	12.26	322.93
100.00	14 47 11	743.81	17.60	312.47	131.11	114.56	14 59 35	143.8	20.76	305.11
110.00	12 53 44	1106.09	-1.04	328.87	120.59	124.17	13 12 10	506.1	3.45	322.67
110.00	17 24 51	5537.93	27.91	257.56	135.75	110.58	18 57 9	4937.9	30.45	249.28

DIFFERENTIAL CORRECTIONS

TDE	.2520	TRA	-1.2342	TC3	-.1040	BAU	.0805
RDE	-.6233	RRA	-.0003	RC3	.0153	FAU	.01750
FDE	-.2093	FRA	.7032	FC3	-.2645	BSP	3125
BDE	.6723	BRA	1.2342	BC3	.1051	FSP	-151

MID-COURSE EXECUTION ACCURACY

SGT	1100.6	SGR	472.5	SG3	64.6		
RRT	-.1796	RRF	.1850	RTF	-.7567		
SGB	1197.7	R23	-.0202	R13	.7581		
SG1	1104.6	SG2	463.1	THA	174.65		

ORBIT DETERMINATION ACCURACY

ST	374.1	SR	471.9	SS	315.7
CRT	-.5099	CRS	-.6529	CST	.9824
LSA	601.8	MSA	316.0	SSA	15.3
EL1	529.5	EL2	286.8	ALF	122.65

LAUNCH DATE AUG 5 1970 FLIGHT TIME 86.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 195.534

RL	151.76	LAL	.00	LOL	312.17	VL	23.090	GAL	6.77	AZL	92.55	HCA	77.19	SMA	109.16	ECC	.40514	INC	2.5497	V1	29.357
RP	108.36	LAP	-2.49	LOP	29.35	VP	35.125	GAP	-23.90	AZP	90.57	TAL	169.86	TAP	247.05	RCA	64.93	APO	153.38	V2	34.974
RC	43.276	GL	-8.18	GP	-6.43	ZAL	65.56	ZAP	13.33	ETS	148.81	ZAE	167.20	ETE	171.47	ZAC	91.72	ETC	257.24	CLP	11.70

PLANETOCENTRIC CONIC

C3	51.450	VHL	7.173	DLA	-29.51	RAL	243.48	RAD	6568.9	VEL	13.146	PTH	2.40	VHP	14.384	DPA	-19.28	RAP	216.85	ECC	1.8467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.31	11 30 8	1357.92	13.85	355.83	127.64	116.33	11 52 46	757.9	17.27	348.74
98.69	13 52 48	897.17	13.86	322.00	127.65	116.32	14 7 45	297.2	17.29	314.91
100.00	13 22 54	992.90	10.00	327.06	125.61	118.32	13 39 27	392.9	13.71	320.23
100.00	14 42 43	737.42	17.78	312.08	129.58	114.43	14 55 1	137.4	20.93	304.70
110.00	12 57 17	1073.65	.20	327.18	119.65	124.18	13 15 10	473.7	4.68	320.97
110.00	17 24 50	5517.48	28.39	256.16	134.27	109.88	18 56 48	4917.5	30.83	247.81

DIFFERENTIAL CORRECTIONS

TOE	.2505	TRA	-1.2220	TC3	-.0950	BAU	.0659
RDE	-.5925	RRA	.0114	RC3	.0121	FAU	.01816
FDE	-.2133	FRA	.7272	FC3	-.3056	BSP	3301
BDE	.6433	BRA	1.2221	BC3	.0958	FSP	-167

MID-COURSE EXECUTION ACCURACY

SGT	1147.5	SGR	473.7	SG3	70.5		
RRT	-.2001	RRF	.2067	RTF	-.7717		
SGB	1241.4	R23	-.0228	R13	.7732		
SG1	1152.2	SG2	462.2	THA	174.37		

ORBIT DETERMINATION ACCURACY

ST	391.5	SR	473.3	SS	327.1		
CRT	-.5168	CRS	-.6522	CST	.9840		
LSA	617.0	MSA	321.5	SSA	15.5		
EL1	539.2	EL2	294.2	ALF	124.87		

LAUNCH DATE AUG 5 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 202.147

RL	151.76	LAL	.00	LOL	312.17	VL	23.423	GAL	6.38	AZL	92.39	HCA	80.39	SMA	110.57	ECC	.38661	INC	2.3870	V1	29.357
RP	108.32	LAP	-2.35	LOP	32.55	VP	35.358	GAP	-22.72	AZP	90.40	TAL	169.68	TAP	250.07	RCA	67.82	APO	153.31	V2	34.987
RC	42.355	GL	-8.20	GP	-6.77	ZAL	65.23	ZAP	12.21	ETS	143.88	ZAE	169.70	ETE	173.12	ZAC	91.68	ETC	257.43	CLP	10.18

PLANETOCENTRIC CONIC

C3	46.241	VHL	6.800	DLA	-29.59	RAL	243.84	RAD	6568.7	VEL	12.946	PTH	2.36	VHP	13.729	DPA	-20.20	RAP	218.37	ECC	1.7610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.02	11 29 21	1338.40	14.68	354.81	126.34	115.98	11 51 40	738.4	18.06	347.67
98.98	13 56 29	863.37	14.70	319.92	126.35	115.98	14 10 52	263.4	18.07	312.77
100.00	13 28 45	952.06	11.31	324.73	124.58	117.86	13 44 38	352.1	14.95	317.83
100.00	14 39 46	724.94	18.13	311.32	128.02	114.18	14 51 51	124.9	21.24	303.91
110.00	12 59 50	1043.24	1.36	325.60	118.58	124.16	13 17 13	443.2	5.83	319.37
110.00	17 25 10	5494.56	28.91	254.58	132.68	109.08	18 56 45	4894.6	31.24	246.15

DIFFERENTIAL CORRECTIONS

TOE	.2496	TRA	-1.2095	TC3	-.0827	BAU	.0514
RDE	-.5625	RRA	.0227	RC3	.0077	FAU	.01889
FDE	-.2174	FRA	.7523	FC3	-.3536	BSP	3476
BDE	.6154	BRA	1.2097	BC3	.0831	FSP	-186

MID-COURSE EXECUTION ACCURACY

SGT	1196.0	SGR	474.6	SG3	77.1		
RRT	-.2230	RRF	.2310	RTF	-.7859		
SGB	1286.8	R23	-.0258	R13	.7876		
SG1	1201.5	SG2	460.5	THA	174.07		

ORBIT DETERMINATION ACCURACY

ST	409.7	SR	474.0	SS	338.9		
CRT	-.5252	CRS	-.6519	CST	.9858		
LSA	633.2	MSA	325.8	SSA	15.7		
EL1	549.7	EL2	300.6	ALF	127.22		

LAUNCH DATE AUG 5 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 208.794

RL	151.76	LAL	.00	LOL	312.17	VL	23.733	GAL	6.00	AZL	92.23	HCA	83.58	SMA	111.93	ECC	.36906	INC	2.2272	V1	29.357
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.577	GAP	-21.58	AZP	90.25	TAL	169.55	TAP	253.14	RCA	70.62	APO	153.23	V2	35.000
RC	41.583	GL	-8.18	GP	-7.15	ZAL	64.99	ZAP	11.21	ETS	137.86	ZAE	172.32	ETE	176.37	ZAC	91.59	ETC	257.62	CLP	8.66

PLANETOCENTRIC CONIC

C3	41.578	VHL	6.448	DLA	-29.62	RAL	244.12	RAD	6568.6	VEL	12.765	PTH	2.32	VHP	13.099	DPA	-21.14	RAP	219.88	ECC	1.6843

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.93	11 29 47	1313.84	15.49	353.39	124.93	115.56	11 51 41	713.8	18.80	346.19
99.07	13 58 17	834.42	15.50	318.17	124.94	115.56	14 12 12	234.4	18.82	310.97
100.00	13 31 25	920.40	12.31	322.91	123.30	117.46	13 46 45	320.4	15.89	315.95
100.00	14 39 21	703.09	18.73	309.98	126.49	113.73	14 51 4	103.1	21.78	302.51
110.00	13 1 19	1015.28	2.43	324.14	117.37	124.11	13 18 14	415.3	6.89	317.89
110.00	17 25 56	5469.02	29.47	252.80	130.98	108.16	18 57 5	4869.0	31.66	244.28

DIFFERENTIAL CORRECTIONS

TOE	.2493	TRA	-1.1959	TC3	-.0663	BAU	.0369
RDE	-.5335	RRA	.0336	RC3	.0016	FAU	.01970
FDE	-.2219	FRA	.7786	FC3	-.4102	BSP	3667
BDE	.5889	BRA	1.1964	BC3	.0663	FSP	-206

MID-COURSE EXECUTION ACCURACY

SGT	1245.2	SGR	475.3	SG3	84.3		
RRT	-.2487	RRF	.2582	RTF	-.7994		
SGB	1332.9	R23	-.0292	R13	.8012		
SG1	1251.7	SG2	458.0	THA	173.74		

ORBIT DETERMINATION ACCURACY

ST	428.5	SR	474.2	SS	350.9		
CRT	-.5356	CRS	-.6525	CST	.9876		
LSA	650.5	MSA	328.8	SSA	15.9		
EL1	561.2	EL2	305.7	ALF	129.63		

LAUNCH DATE AUG 5 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 215.470

RL	151.76	LAL	.00	LOL	312.17	VL	24.020	GAL	5.63	AZL	92.07	HCA	86.78	SMA	113.24	ECC	.35248	INC	2.0694	V1	29.357
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.783	GAP	-20.49	AZP	90.12	TAL	169.48	TAP	256.26	RCA	73.32	APO	153.15	V2	35.013
RC	40.971	GL	-8.11	GP	-7.56	ZAL	64.82	ZAP	10.37	ETS	130.56	ZAE	174.99	ETE	183.94	ZAC	91.45	ETC	257.82	CLP	7.12

PLANETOCENTRIC CONIC

C3	37.405	VHL	6.116	DLA	-29.58	RAL	244.32	RAD	6568.5	VEL	12.601	PTH	2.29	VHP	12.492	DPA	-22.11	RAP	221.38	ECC	1.6156

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.06	11 31 34	1284.03	16.25	351.56	123.41	115.07	11 52 58	684.0	19.49	344.29
98.94	13 58 7	810.81	16.26	316.80	123.42	115.06	14 11 38	210.8	19.50	309.53
100.00	13 30 7	900.41	12.93	321.76	121.73	117.19	13 45 7	300.4	16.48	314.76
100.00	14 42 15	669.65	19.63	307.91	125.00	113.00	14 53 25	69.7	22.58	300.35
110.00	13 1 37	990.23	3.38	322.83	116.04	124.04	13 18 8	390.2	7.83	316.56
110.00	17 27 14	5440.64	30.06	250.80	129.19	107.11	18 57 55	4840.6	32.10	242.18

DIFFERENTIAL CORRECTIONS

TOE	.2493	TRA	-1.1819	TC3	-.0451	BAU	.0228
RDE	-.5056	RRA	.0444	RC3	-.0066	FAU	.02061
FDE	-.2265	FRA	.8066	FC3	-.4769	BSP	3855
BDE	.5637	BRA	1.1828	BC3	.0456	FSP	-229

MID-COURSE EXECUTION ACCURACY

SGT	1295.7	SGR	476.1	SG3	92.3		
RRT	-.2773	RRF	.2887	RTF	-.8121		
SGB	1380.4	R23	-.0331	R13	.8141		
SG1	1303.3	SG2	454.7	THA	173.37		

ORBIT DETERMINATION ACCURACY

ST	447.7	SR	473.8	SS	363.3		
CRT	-.5472	CRS	-.6536	CST	.9894		
LSA	668.8	MSA	330.7	SSA	16.1		
EL1	573.8	EL2	309.5	ALF	132.04		

LAUNCH DATE AUG 5 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 222.169

RL	151.76	LAL	.00	LOL	312.17	VL	24.287	GAL	5.27	AZL	91.91	HCA	89.98	SMA	114.50	ECC	.33685	INC	1.9124	V1	29.357
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.975	GAP	-19.44	AZP	90.00	TAL	169.45	TAP	259.43	RCA	75.93	APO	153.07	V2	35.027
RC	40.525	GL	-7.99	GP	-8.02	ZAL	64.72	ZAP	9.74	ETS	121.92	ZAE	177.41	ETE	209.01	ZAC	91.25	ETC	258.04	CLP	5.56

PLANETOCENTRIC CONIC

C3	33.673	VHL	5.803	DLA	-29.48	RAL	244.44	RAD	6568.3	VEL	12.452	PTH	2.25	VHP	11.908	DPA	-23.10	RAP	222.87	ECC	1.5542

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.43	11 34 57	1248.18	16.95	349.24	121.80	114.49	11 55 45	648.2	20.11	341.90
98.57	13 55 42	793.56	16.97	315.86	121.80	114.48	14 8 56	193.6	20.13	308.52
100.00	13 25 3	891.69	13.20	321.25	119.92	117.06	13 39 55	291.7	16.73	314.23
100.00	14 48 17	625.28	20.79	305.12	123.54	111.97	14 58 42	25.3	23.59	297.44
110.00	13 0 40	968.53	4.21	321.69	114.57	123.95	13 16 49	368.5	8.64	315.40
110.00	17 29 9	5409.25	30.66	248.55	127.29	105.91	18 59 18	4809.2	32.54	239.84

DIFFERENTIAL CORRECTIONS

TDE	.2494	TRA	-1.1671	TC3	-.0187	BAU	.0115
RDE	-.4786	RRA	.0551	RC3	-.0173	FAU	.02161
FDE	-.2310	FRA	.8363	FC3	-.5555	BSP	4042
BDE	.5397	BRA	1.1684	BC3	.0254	FSP	-254

MID-COURSE EXECUTION ACCURACY

SGT	1346.7	SGR	477.1	SG3	101.0		
RRT	-.3091	RRF	.3226	RTF	-.8242		
SGB	1428.7	R23	-.0375	R13	.8264		
SG1	1355.8	SG2	450.7	THA	172.97		

ORBIT DETERMINATION ACCURACY

ST	467.3	SR	473.0	SS	375.8
CRT	-.5602	CRS	-.6550	CST	.9913
LSA	687.9	MSA	331.3	SSA	16.3
EL1	587.2	EL2	311.7	ALF	134.38

LAUNCH DATE AUG 5 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 228.888

RL	151.76	LAL	.00	LOL	312.17	VL	24.535	GAL	4.92	AZL	91.76	HCA	93.18	SMA	115.70	ECC	.32215	INC	1.7553	V1	29.357
RP	108.15	LAP	-1.75	LOP	45.36	VP	36.156	GAP	-18.43	AZP	89.90	TAL	169.47	TAP	262.65	RCA	78.43	APO	152.98	V2	35.040
RC	40.252	GL	-7.81	GP	-8.52	ZAL	64.71	ZAP	9.40	ETS	112.11	ZAE	177.69	ETE	282.74	ZAC	91.00	ETC	258.25	CLP	3.98

PLANETOCENTRIC CONIC

C3	30.338	VHL	5.508	DLA	-29.30	RAL	244.48	RAD	6568.2	VEL	12.317	PTH	2.22	VHP	11.346	DPA	-24.13	RAP	224.34	ECC	1.4993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.13	11 40 35	1204.38	17.58	346.30	120.09	113.82	12 0 39	604.4	20.66	338.89
97.87	13 50 24	784.88	17.60	315.51	120.09	113.81	14 3 29	184.9	20.67	308.11
100.00	13 17 1	891.89	13.20	321.26	117.92	117.07	13 31 53	291.9	16.72	314.25
100.00	14 56 39	5860.63	22.10	279.65	122.05	110.66	16 34 19	5260.6	24.71	271.83
110.00	12 58 22	950.63	4.89	320.75	112.98	123.87	13 14 13	350.6	9.30	314.44
110.00	17 31 47	5374.66	31.28	246.05	125.30	104.54	19 1 22	4774.7	32.96	237.23

DIFFERENTIAL CORRECTIONS

TDE	.2494	TRA	-1.1520	TC3	.0137	BAU	.0138
RDE	-.4528	RRA	.0658	RC3	-.0311	FAU	.02272
FDE	-.2355	FRA	.8682	FC3	-.6483	BSP	4234
BDE	.5169	BRA	1.1539	BC3	.0340	FSP	-282

MID-COURSE EXECUTION ACCURACY

SGT	1398.6	SGR	478.7	SG3	110.7		
RRT	-.3444	RRF	.3605	RTF	-.8355		
SGB	1478.2	R23	-.0427	R13	.8380		
SG1	1409.4	SG2	446.0	THA	172.52		

ORBIT DETERMINATION ACCURACY

ST	487.1	SR	471.6	SS	388.4
CRT	-.5742	CRS	-.6568	CST	.9930
LSA	707.7	MSA	330.7	SSA	16.5
EL1	601.6	EL2	312.6	ALF	136.61

LAUNCH DATE AUG 5 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 235.624

RL	151.76	LAL	.00	LOL	312.17	VL	24.764	GAL	4.59	AZL	91.60	HCA	96.39	SMA	116.85	ECC	.30835	INC	1.5970	V1	29.357
RP	108.11	LAP	-1.59	LOP	48.56	VP	36.324	GAP	-17.46	AZP	89.82	TAL	169.54	TAP	265.93	RCA	80.82	APO	152.89	V2	35.053
RC	40.156	GL	-7.56	GP	-9.09	ZAL	64.76	ZAP	9.39	ETS	101.65	ZAE	175.32	ETE	314.68	ZAC	90.68	ETC	258.48	CLP	2.38

PLANETOCENTRIC CONIC

C3	27.360	VHL	5.231	DLA	-29.04	RAL	244.45	RAD	6568.1	VEL	12.196	PTH	2.19	VHP	10.806	DPA	-25.19	RAP	225.78	ECC	1.4503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.28	11 49 37	1149.10	18.13	342.47	118.29	113.08	12 8 46	549.1	21.10	335.00
96.72	13 41 6	788.51	18.15	316.03	118.29	113.07	13 54 15	188.5	21.11	308.56
100.00	13 6 46	898.82	12.98	321.67	115.78	117.16	13 21 45	298.8	16.52	314.66
100.00	15 6 37	5802.07	23.45	275.83	120.48	109.09	16 43 20	5202.1	25.84	267.85
110.00	12 54 40	936.94	5.41	320.03	111.27	123.80	13 10 16	336.9	9.81	313.71
110.00	17 35 14	5336.72	31.90	243.26	123.22	103.00	19 4 10	4736.7	33.35	234.34

DIFFERENTIAL CORRECTIONS

TDE	.2497	TRA	-1.1361	TC3	.0535	BAU	.0265
RDE	-.4280	RRA	.0768	RC3	-.0488	FAU	.02396
FDE	-.2398	FRA	.9025	FC3	-.7583	BSP	4434
BDE	.4955	BRA	1.1387	BC3	.0724	FSP	-313

MID-COURSE EXECUTION ACCURACY

SGT	1450.5	SGR	481.3	SG3	121.5		
RRT	-.3839	RRF	.4026	RTF	-.8462		
SGB	1528.3	R23	-.0484	R13	.8490		
SG1	1463.4	SG2	440.5	THA	172.01		

ORBIT DETERMINATION ACCURACY

ST	507.1	SR	469.8	SS	401.1
CRT	-.5900	CRS	-.6588	CST	.9947
LSA	728.2	MSA	328.8	SSA	16.7
EL1	616.9	EL2	311.7	ALF	138.70

LAUNCH DATE AUG 5 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 242.372

RL	151.76	LAL	.00	LOL	312.17	VL	24.976	GAL	4.27	AZL	91.44	HCA	99.60	SMA	117.95	ECC	.29543	INC	1.4367	V1	29.357
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.482	GAP	-16.52	AZP	89.76	TAL	169.66	TAP	269.26	RCA	83.10	APO	152.80	V2	35.066
RC	40.238	GL	-7.22	GP	-9.72	ZAL	64.90	ZAP	9.75	ETS	91.28	ZAE	172.48	ETE	323.40	ZAC	90.28	ETC	258.70	CLP	.75

PLANETOCENTRIC CONIC

C3	24.704	VHL	4.970	DLA	-28.68	RAL	244.35	RAD	6568.0	VEL	12.086	PTH	2.16	VHP	10.287	DPA	-26.30	RAP	227.18	ECC	1.4066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.26	12 5 20	1071.77	18.58	336.98	116.41	112.25	12 23 12	471.8	21.43	329.44
94.74	13 24 32	815.32	18.59	318.20	116.42	112.24	13 38 8	215.3	21.45	310.66
100.00	12 54 49	911.12	12.60	322.38	113.55	117.33	13 10 0	311.1	16.16	315.40
100.00	15 17 44	5739.24	24.79	271.64	118.81	107.27	16 53 23	5139.2	26.91	263.49
110.00	12 49 30	927.84	5.75	319.55	109.46	123.75	13 4 58	327.8	10.15	313.22
110.00	17 39 32	5295.29	32.49	240.18	121.04	101.26	19 7 48	4695.3	33.70	231.15

DIFFERENTIAL CORRECTIONS

TDE	.2481	TRA	-1.1200	TC3	.1016	BAU	.0410
RDE	-.4043	RRA	.0881	RC3	-.0712	FAU	.02534
FDE	-.2433	FRA	.9393	FC3	-.8878	BSP	4632
BDE	.4744	BRA	1.1234	BC3	.1240	FSP	-347

MID-COURSE EXECUTION ACCURACY

SGT	1502.5	SGR	485.5	SG3	133.3		
RRT	-.4262	RRF	.4486	RTF	-.8565		
SGB	1579.0	R23	-.0555	R13	.8596		
SG1	1517.9	SG2	434.7	THA	171.45		

ORBIT DETERMINATION ACCURACY

ST	526.0	SR	467.4	SS	413.5
CRT	-.6046	CRS	-.6605	CST	.9960
LSA	747.9	MSA	326.4	SSA	16.9
EL1	631.7	EL2	310.0	ALF	140.54

LAUNCH DATE AUG 5 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 249.128

RL 151.76 LAL .00 LOL 312.17 VL 25.172 GAL 3.97 AZL 91.27 HCA 102.81 SMA 118.99 ECC .28336 INC 1.2732 V1 29.357
RP 108.03 LAP -1.24 LOP 54.98 VP 36.629 GAP -15.61 AZP 89.72 TAL 169.83 TAP 272.63 RCA 85.27 APO 152.71 V2 35.079
RC 40.497 GL -6.78 GP -10.42 ZAL 65.10 ZAP 10.46 ETS 81.75 ZAE 169.58 ETE 326.72 ZAC 89.80 ETC 258.93 CLP -.92

PLANETOCENTRIC CONIC

C3 22.338 VHL 4.726 DLA -28.21 RAL 244.17 RAD 6567.9 VEL 11.988 PTH 2.14 VHP 9.789 DPA -27.45 RAP 228.54 ECC 1.3676

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 22 18	990.17	17.15	330.38	113.73	112.88	12 38 48	390.2	20.10	322.95
90.00	13 6 12	847.74	20.69	321.43	115.19	109.78	13 20 20	247.7	23.20	313.65
100.00	12 41 28	928.14	12.07	323.36	111.25	117.56	12 56 56	328.1	15.66	316.41
100.00	15 29 43	5673.04	26.05	267.13	117.03	105.21	17 4 16	5073.0	27.88	258.81
110.00	12 42 53	923.68	5.91	319.33	107.57	123.73	12 58 17	323.7	10.30	312.99
110.00	17 44 48	5250.27	33.04	236.78	118.77	99.32	19 12 18	4650.3	33.97	227.66

DIFFERENTIAL CORRECTIONS
TDE .2487 TRA-1.1023 TC3 .1576 BAU .0556
RDE -.3817 RRA .1001 RC3 -.0993 FAU .02686
FDE -.2459 FRA .9797 FC3-1.0409 BSP 4845
BDE .4556 BRA 1.1068 BC3 .1863 FSP -386

MID-COURSE EXECUTION ACCURACY
SGT 1553.2 SGR 491.8 SG3 146.4
RRT -.4742 RRF .4988 RTF -.8660
SGB 1629.2 R23 -.0617 R13 .8696
SG1 1572.0 SG2 427.8 THA 170.77

ORBIT DETERMINATION ACCURACY
ST 545.8 SR 464.6 SS 425.6
CRT -.6244 CRS -.6618 CST .9975
LSA 768.7 MSA 322.0 SSA 17.2
EL1 648.4 EL2 305.5 ALF 142.26

LAUNCH DATE AUG 5 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 255.890

RL 151.76 LAL .00 LOL 312.17 VL 25.353 GAL 3.68 AZL 91.11 HCA 106.02 SMA 119.97 ECC .27211 INC 1.1053 V1 29.357
RP 107.99 LAP -1.06 LOP 58.19 VP 36.766 GAP -14.74 AZP 89.70 TAL 170.04 TAP 276.06 RCA 87.33 APO 152.62 V2 35.092
RC 40.930 GL -6.23 GP -11.21 ZAL 65.36 ZAP 11.51 ETS 73.50 ZAE 166.71 ETE 328.05 ZAC 89.21 ETC 259.16 CLP -2.63

PLANETOCENTRIC CONIC

C3 20.234 VHL 4.498 DLA -27.61 RAL 243.94 RAD 6567.8 VEL 11.900 PTH 2.11 VHP 9.313 DPA -28.67 RAP 229.85 ECC 1.3330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 47 50	1075.86	14.81	335.58	110.65	114.41	12 5 45	475.9	17.98	328.34
90.00	13 38 49	714.46	23.50	312.67	114.05	106.27	13 50 44	114.5	25.51	304.57
100.00	12 26 52	949.68	11.38	324.59	108.92	117.83	12 42 42	349.7	15.02	317.69
100.00	15 42 28	5603.91	27.19	262.31	115.12	102.92	17 15 52	5003.9	28.70	253.83
110.00	12 34 48	924.78	5.87	319.39	105.60	123.74	12 50 12	324.8	10.26	313.05
110.00	17 51 2	5201.56	33.51	233.06	116.41	97.17	19 17 44	4601.6	34.14	223.87

DIFFERENTIAL CORRECTIONS
TDE .2467 TRA-1.0859 TC3 .2218 BAU .0702
RDE -.3601 RRA .1129 RC3 -.1345 FAU .02854
FDE -.2468 FRA 1.0240 FC3-1.2211 BSP 5037
BDE .4365 BRA 1.0917 BC3 .2594 FSP -429

MID-COURSE EXECUTION ACCURACY
SGT 1604.6 SGR 501.3 SG3 161.0
RRT -.5242 RRF .5524 RTF -.8747
SGB 1681.1 R23 -.0704 R13 .8788
SG1 1627.6 SG2 420.9 THA 170.03

ORBIT DETERMINATION ACCURACY
ST 564.0 SR 461.2 SS 436.9
CRT -.6418 CRS -.6619 CST .9984
LSA 787.7 MSA 317.6 SSA 17.4
EL1 663.7 EL2 300.6 ALF 143.75

LAUNCH DATE AUG 5 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 262.654

RL 151.76 LAL .00 LOL 312.17 VL 25.520 GAL 3.40 AZL 90.93 HCA 109.23 SMA 120.90 ECC .26165 INC .9318 V1 29.357
RP 107.95 LAP -.88 LOP 61.41 VP 36.893 GAP -13.89 AZP 89.69 TAL 170.29 TAP 279.52 RCA 89.27 APO 152.53 V2 35.105
RC 41.530 GL -5.55 GP -12.10 ZAL 65.73 ZAP 12.86 ETS 66.66 ZAE 163.91 ETE 328.38 ZAC 88.52 ETC 259.38 CLP -4.38

PLANETOCENTRIC CONIC

C3 18.367 VHL 4.286 DLA -26.87 RAL 243.66 RAD 6567.7 VEL 11.822 PTH 2.09 VHP 8.857 DPA -29.96 RAP 231.10 ECC 1.3023

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 22 55	1131.57	13.22	338.89	107.95	115.27	11 41 46	531.6	16.51	331.77
90.00	14 1 28	612.96	25.26	305.76	112.39	103.24	14 11 41	13.0	26.84	297.44
100.00	12 11 9	975.77	10.55	326.08	106.58	118.13	12 27 24	375.8	14.23	319.23
100.00	15 55 56	5532.03	28.18	257.20	113.08	100.40	17 28 8	4932.0	29.33	248.58
110.00	12 25 15	931.47	5.61	319.74	103.59	123.77	12 40 47	331.5	10.01	313.41
110.00	17 58 18	5149.10	33.89	229.01	113.97	94.80	19 24 8	4549.1	34.18	219.77

DIFFERENTIAL CORRECTIONS
TDE .2433 TRA-1.0686 TC3 .2961 BAU .0848
RDE -.3393 RRA .1269 RC3 -.1782 FAU .03040
FDE -.2453 FRA 1.0723 FC3-1.4331 BSP 5237
BDE .4175 BRA 1.0761 BC3 .3455 FSP -477

MID-COURSE EXECUTION ACCURACY
SGT 1653.8 SGR 515.0 SG3 177.1
RRT -.5764 RRF .6084 RTF -.8829
SGB 1732.2 R23 -.0800 R13 .8877
SG1 1682.0 SG2 413.8 THA 169.16

ORBIT DETERMINATION ACCURACY
ST 580.3 SR 457.2 SS 447.1
CRT -.6596 CRS -.6605 CST .9987
LSA 804.8 MSA 312.5 SSA 17.7
EL1 677.6 EL2 294.3 ALF 145.02

LAUNCH DATE AUG 5 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 269.418

RL 151.76 LAL .00 LOL 312.17 VL 25.673 GAL 3.14 AZL 90.75 HCA 112.45 SMA 121.77 ECC .25195 INC .7512 V1 29.357
RP 107.91 LAP -.69 LOP 64.62 VP 37.011 GAP -13.08 AZP 89.71 TAL 170.58 TAP 283.03 RCA 91.09 APO 152.45 V2 35.117
RC 42.291 GL -4.72 GP -13.10 ZAL 66.14 ZAP 14.47 ETS 61.14 ZAE 161.21 ETE 328.11 ZAC 87.70 ETC 259.60 CLP -6.19

PLANETOCENTRIC CONIC

C3 16.714 VHL 4.088 DLA -25.98 RAL 243.33 RAD 6567.7 VEL 11.751 PTH 2.07 VHP 8.423 DPA -31.34 RAP 232.27 ECC 1.2751

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 0 2	1182.10	11.73	341.86	105.39	115.96	11 19 44	582.1	15.13	334.83
90.00	14 21 46	5806.73	26.57	277.07	110.49	100.18	15 58 33	5206.7	27.70	268.59
100.00	11 54 22	1006.63	9.55	327.83	104.25	118.46	12 11 8	406.6	13.28	321.03
100.00	16 10 7	5457.42	28.98	251.80	110.92	97.67	17 41 5	4857.4	29.74	243.07
110.00	12 14 19	944.04	5.14	320.40	101.56	123.84	12 30 3	344.0	9.55	314.09
110.00	18 6 40	5092.78	34.12	224.63	111.44	92.22	19 31 32	4492.8	34.05	215.38

DIFFERENTIAL CORRECTIONS
TDE .2384 TRA-1.0514 TC3 .3796 BAU .0994
RDE -.3192 RRA .1425 RC3 -.2323 FAU .03246
FDE -.2407 FRA 1.1258 FC3-1.6813 BSP 5428
BDE .3984 BRA 1.0610 BC3 .4450 FSP -530

MID-COURSE EXECUTION ACCURACY
SGT 1701.4 SGR 534.4 SG3 194.8
RRT -.6297 RRF .6655 RTF -.8905
SGB 1783.3 R23 -.0910 R13 .8961
SG1 1736.3 SG2 406.7 THA 168.15

ORBIT DETERMINATION ACCURACY
ST 594.6 SR 452.3 SS 456.1
CRT -.6778 CRS -.6570 CST .9984
LSA 819.5 MSA 306.9 SSA 18.0
EL1 689.9 EL2 286.6 ALF 146.11

LAUNCH DATE AUG 5 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 276.179

RL 151.76 LAL .00 LOL 312.17 VL 25.814 GAL 2.89 AZL 90.56 HCA 115.67 SMA 122.59 ECC .24299 INC .5618 V1 29.357
RP 107.88 LAP -.51 LOP 67.84 VP 37.120 GAP -12.29 AZP 89.76 TAL 170.90 TAP 286.57 RCA 92.80 APO 152.38 V2 35.129
RC 43.202 GL -3.71 GP -14.24 ZAL 66.61 ZAP 16.31 ETS 56.74 ZAE 158.62 ETE 327.40 ZAC 86.73 ETC 259.81 CLP -8.06

PLANETOCENTRIC CONIC

C3 15.255 VHL 3.906 DLA -24.90 RAL 242.98 RAD 6567.6 VEL 11.689 PTH 2.06 VHP 8.010 DPA -32.82 RAP 233.34 ECC 1.2511

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 37 41	1232.75	10.20	344.80	102.93	116.56	10 58 13	632.7	13.69	337.85
90.00	14 41 17	5714.60	27.51	270.49	108.42	97.01	16 16 32	5114.6	28.19	261.89
100.00	11 36 34	1042.61	8.38	329.86	101.97	118.80	11 53 57	442.6	12.16	323.11
100.00	16 25 5	5379.97	29.55	246.11	108.66	94.73	17 54 45	4780.0	29.89	237.32
110.00	12 2 0	962.84	4.43	321.39	99.54	123.93	12 18 3	362.8	8.85	315.10
110.00	18 16 8	5032.51	34.18	219.92	108.86	89.43	19 40 1	4432.5	33.72	210.70

DIFFERENTIAL CORRECTIONS
TDE .2315 TRA-1.0343 TC3 .4715 BAU .1138
RDE -.2996 RRA .1601 RC3 -.2987 FAU .03469
FDE -.2316 FRA 1.1849 FC3-1.9688 BSP 5620
BDE .3786 BRA 1.0466 BC3 .5581 FSP -589

MID-COURSE EXECUTION ACCURACY
SGT 1746.0 SGR 560.9 SG3 214.3
RRT -.6822 RRF .7218 RTF -.8975
SGB 1833.9 R23 -.1032 R13 .9040
SG1 1789.8 SG2 400.1 THA 166.98

ORBIT DETERMINATION ACCURACY
ST 606.0 SR 446.3 SS 463.3
CRT -.6961 CRS -.6503 CST .9968
LSA 830.7 MSA 301.3 SSA 18.3
EL1 699.6 EL2 277.6 ALF 147.02

LAUNCH DATE AUG 5 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 282.933

RL 151.76 LAL .00 LOL 312.17 VL 25.943 GAL 2.66 AZL 90.36 HCA 118.89 SMA 123.35 ECC .23472 INC .3619 V1 29.357
RP 107.84 LAP -.32 LOP 71.06 VP 37.221 GAP -11.52 AZP 89.83 TAL 171.25 TAP 290.14 RCA 94.40 APO 152.30 V2 35.141
RC 44.254 GL -2.51 GP -15.52 ZAL 67.15 ZAP 18.39 ETS 53.26 ZAE 156.15 ETE 326.32 ZAC 85.60 ETC 260.01 CLP -9.99

PLANETOCENTRIC CONIC

C3 13.974 VHL 3.738 DLA -23.61 RAL 242.61 RAD 6567.6 VEL 11.634 PTH 2.04 VHP 7.619 DPA -34.42 RAP 234.31 ECC 1.2300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 15 17	1285.98	8.57	347.85	100.60	117.09	10 36 43	686.0	12.13	340.99
90.00	15 0 44	5622.39	28.09	263.81	106.23	93.71	16 34 26	5022.4	28.31	255.15
100.00	11 17 48	1084.16	7.01	332.18	99.76	119.13	11 35 52	484.2	10.84	325.49
100.00	16 40 54	5299.44	29.85	240.14	106.33	91.60	18 9 13	4699.4	29.76	231.34
110.00	11 48 24	988.24	3.46	322.72	97.57	124.03	12 4 52	388.2	7.90	316.45
110.00	18 26 48	4968.13	34.02	214.90	106.24	86.46	19 49 36	4368.1	33.16	205.76

DIFFERENTIAL CORRECTIONS
TDE .2221 TRA-1.0171 TC3 .5729 BAU .1285
RDE -.2801 RRA .1802 RC3 -.3803 FAU .03715
FDE -.2164 FRA 1.2503 FC3-2.3018 BSP 5812
BDE .3575 BRA 1.0330 BC3 .6876 FSP -654

MID-COURSE EXECUTION ACCURACY
SGT 1787.2 SGR 596.6 SG3 235.8
RRT -.7322 RRF .7752 RTF -.9040
SGB 1884.2 R23 -.1165 R13 .9117
SG1 1842.5 SG2 394.2 THA 165.59

ORBIT DETERMINATION ACCURACY
ST 613.7 SR 438.8 SS 468.4
CRT -.7146 CRS -.6391 CST .9935
LSA 837.1 MSA 295.7 SSA 18.7
EL1 705.6 EL2 267.0 ALF 147.78

LAUNCH DATE AUG 5 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 289.680

RL 151.76 LAL .00 LOL 312.17 VL 26.062 GAL 2.44 AZL 90.15 HCA 122.11 SMA 124.06 ECC .22713 INC .1482 V1 29.357
RP 107.81 LAP -.13 LOP 74.28 VP 37.315 GAP -10.79 AZP 89.92 TAL 171.63 TAP 293.74 RCA 95.88 APO 152.24 V2 35.152
RC 45.436 GL -1.08 GP -16.98 ZAL 67.75 ZAP 20.70 ETS 50.52 ZAE 153.78 ETE 324.91 ZAC 84.28 ETC 260.19 CLP -12.01

PLANETOCENTRIC CONIC

C3 12.857 VHL 3.586 DLA -22.10 RAL 242.24 RAD 6567.5 VEL 11.586 PTH 2.03 VHP 7.252 DPA -36.16 RAP 235.15 ECC 1.2116

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 32	1343.40	6.77	351.12	98.40	117.56	10 14 55	743.4	10.41	344.33
90.00	15 20 32	5528.76	28.32	256.97	103.96	90.29	16 52 40	4928.8	28.06	248.32
100.00	10 58 5	1131.86	5.42	334.83	97.66	119.44	11 16 56	531.9	9.30	328.20
100.00	16 57 40	5215.53	29.85	233.91	103.94	88.32	18 24 36	4615.5	29.30	225.15
110.00	11 33 32	1020.71	2.22	324.42	95.67	124.12	11 50 33	420.7	6.68	318.18
110.00	18 38 42	4899.45	33.61	209.58	103.62	83.34	20 0 22	4299.4	32.32	200.58

DIFFERENTIAL CORRECTIONS
TDE .2100 TRA-1.0002 TC3 .6792 BAU .1429
RDE -.2603 RRA .2036 RC3 -.4792 FAU .03978
FDE -.1932 FRA 1.3225 FC3-2.6787 BSP 6002
BDE .3344 BRA 1.0207 BC3 .8312 FSP -725

MID-COURSE EXECUTION ACCURACY
SGT 1823.5 SGR 643.7 SG3 259.0
RRT -.7775 RRF .8236 RTF -.9098
SGB 1933.7 R23 -.1309 R13 .9191
SG1 1894.1 SG2 389.7 THA 163.96

ORBIT DETERMINATION ACCURACY
ST 616.9 SR 429.1 SS 471.7
CRT -.7336 CRS -.6224 CST .9872
LSA 838.1 MSA 290.7 SSA 19.0
EL1 707.1 EL2 254.4 ALF 148.41

LAUNCH DATE AUG 5 1970 FLIGHT TIME 116.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 296.417

RL 151.76 LAL .00 LOL 312.17 VL 26.170 GAL 2.24 AZL 89.92 HCA 125.33 SMA 124.72 ECC .22017 INC .0785 V1 29.357
RP 107.77 LAP .06 LOP 77.50 VP 37.400 GAP -10.07 AZP 90.05 TAL 172.02 TAP 297.35 RCA 97.26 APO 152.18 V2 35.163
RC 46.738 GL .60 GP -18.65 ZAL 68.40 ZAP 23.23 ETS 48.37 ZAE 151.51 ETE 323.19 ZAC 82.74 ETC 260.34 CLP -14.11

PLANETOCENTRIC CONIC

C3 11.892 VHL 3.449 DLA -20.32 RAL 241.89 RAD 6567.5 VEL 11.545 PTH 2.01 VHP 6.909 DPA -38.07 RAP 235.82 ECC 1.1957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 29 15	1406.33	4.77	354.66	96.37	117.94	9 52 41	806.3	8.48	347.94
90.00	15 41 0	5432.68	28.15	249.95	101.67	86.78	17 11 32	4832.7	27.40	241.36
100.00	10 37 24	1186.40	3.59	337.84	95.72	119.70	10 57 10	586.4	7.52	331.26
100.00	17 15 32	5127.84	29.50	227.41	101.56	84.92	18 41 0	4527.8	28.48	218.76
110.00	11 17 28	1060.81	.69	326.51	93.91	124.18	11 35 9	460.8	5.17	320.29
110.00	18 51 57	4826.19	32.89	203.98	101.04	80.10	20 12 23	4226.2	31.17	195.18

DIFFERENTIAL CORRECTIONS
TDE .1947 TRA -.9843 TC3 .7906 BAU .1577
RDE -.2393 RRA .2313 RC3 -.5992 FAU .04261
FDE -.1595 FRA 1.4031 FC3-3.1022 BSP 6190
BDE .3085 BRA 1.0111 BC3 .9920 FSP -803

MID-COURSE EXECUTION ACCURACY
SGT 1855.6 SGR 704.9 SG3 284.3
RRT -.8170 RRF .8659 RTF -.9151
SGB 1985.0 R23 -.1456 R13 .9264
SG1 1946.8 SG2 387.4 THA 162.02

ORBIT DETERMINATION ACCURACY
ST 615.3 SR 416.4 SS 474.0
CRT -.7538 CRS -.5984 CST .9762
LSA 833.1 MSA 286.7 SSA 19.4
EL1 703.4 EL2 239.4 ALF 148.99

LAUNCH DATE AUG 5 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 303.141

RL 151.76 LAL .00 LOL 312.17 VL 26.268 GAL 2.05 AZL 89.67 HCA 128.56 SMA 125.33 ECC .21382 INC .3268 V1 29.357
RP 107.74 LAP .26 LOP 80.73 VP 37.479 GAP -9.38 AZP 90.20 TAL 172.42 TAP 300.98 RCA 98.53 APO 152.12 V2 35.174
RC 48.150 GL 2.58 GP -20.56 ZAL 69.11 ZAP 26.02 ETS 46.68 ZAE 149.28 ETE 321.15 ZAC 80.95 ETC 260.47 CLP -16.30

PLANETOCENTRIC CONIC

C3 11.072 VHL 3.327 DLA -18.24 RAL 241.57 RAD 6567.4 VEL 11.509 PTH 2.00 VHP 6.592 DPA -40.18 RAP 236.30 ECC 1.1822

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 5 17	1476.01	2.54	358.57	94.56	118.21	9 29 53	876.0	6.29	351.90
90.00	16 2 25	5333.26	27.56	242.74	99.42	83.21	17 31 19	4733.3	26.33	234.29
100.00	10 15 45	1248.64	1.48	341.27	93.97	119.86	10 36 34	648.6	5.45	334.72
100.00	17 34 39	5035.87	28.75	220.68	99.23	81.46	18 58 35	4435.9	27.27	212.19
110.00	11 0 15	1109.23	-1.16	329.04	92.32	124.17	11 18 44	509.2	3.33	322.83
110.00	19 6 38	4748.05	31.82	198.14	98.55	76.80	20 25 46	4148.0	29.68	189.58

DIFFERENTIAL CORRECTIONS
TDE .1763 TRA -.9682 TC3 .9006 BAU .1728
RDE -.2165 RRA .2642 RC3 -.7423 FAU .04556
FDE -.1127 FRA 1.4907 FC3-3.5623 BSP 6374
BDE .2792 BRA 1.0036 BC3 1.1671 FSP -887

MID-COURSE EXECUTION ACCURACY
SGT 1879.6 SGR 782.5 SG3 311.1
RRT -.8498 RRF .9008 RTF -.9198
SGB 2036.0 R23 -.1597 R13 .9336
SG1 1998.7 SG2 387.9 THA 159.72

ORBIT DETERMINATION ACCURACY
ST 608.1 SR 399.8 SS 476.6
CRT -.7778 CRS -.5677 CST .9575
LSA 821.8 MSA 284.4 SSA 19.6
EL1 693.6 EL2 220.3 ALF 149.52

LAUNCH DATE AUG 5 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 309.853

RL 151.76 LAL .00 LOL 312.17 VL 26.358 GAL 1.88 AZL 89.40 HCA 131.78 SMA 125.89 ECC .20805 INC .5983 V1 29.357
RP 107.71 LAP .45 LOP 83.96 VP 37.551 GAP -8.71 AZP 90.40 TAL 172.83 TAP 304.61 RCA 99.69 APO 152.08 V2 35.184
RC 49.661 GL 4.90 GP -22.74 ZAL 69.87 ZAP 29.07 ETS 45.35 ZAE 147.07 ETE 318.78 ZAC 78.87 ETC 260.55 CLP -18.61

PLANETOCENTRIC CONIC

C3 10.391 VHL 3.224 DLA -15.84 RAL 241.31 RAD 6567.4 VEL 11.480 PTH 2.00 VHP 6.304 DPA -42.52 RAP 236.54 ECC 1.1710

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 40 31	1553.79	.03	2.91	93.01	118.32	9 6 25	953.8	3.82	356.27
90.00	16 25 7	5229.64	26.50	235.34	97.27	79.65	17 52 16	4629.6	24.80	227.08
100.00	9 53 6	1319.61	-.92	345.16	92.48	119.88	10 15 5	719.6	3.06	338.64
100.00	17 55 13	4939.05	27.58	213.73	97.03	77.98	19 17 32	4339.0	25.64	205.46
110.00	10 41 52	1166.83	-3.36	332.05	90.96	124.04	11 1 19	566.8	1.13	325.84
110.00	19 22 56	4664.60	30.36	192.07	96.22	73.49	20 40 41	4064.6	27.80	183.82

DIFFERENTIAL CORRECTIONS
TDE .1537 TRA -.9529 TC3 1.0029 BAU .1882
RDE -.1902 RRA .3039 RC3 -.9110 FAU .04855
FDE -.0489 FRA 1.5865 FC3-4.0449 BSP 6553
BDE .2445 BRA 1.0002 BC3 1.3549 FSP -973

MID-COURSE EXECUTION ACCURACY
SGT 1895.4 SGR 880.0 SG3 339.1
RRT -.8757 RRF .9286 RTF -.9237
SGB 2089.7 R23 -.1723 R13 .9407
SG1 2052.5 SG2 392.4 THA 156.98

ORBIT DETERMINATION ACCURACY
ST 595.0 SR 378.1 SS 483.2
CRT -.8076 CRS -.5334 CST .9279
LSA 805.5 MSA 284.9 SSA 19.7
EL1 677.2 EL2 195.9 ALF 150.08

LAUNCH DATE AUG 5 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 316.548

RL 151.76 LAL .00 LOL 312.17 VL 26.438 GAL 1.72 AZL 89.10 HCA 135.01 SMA 126.40 ECC .20282 INC .8986 V1 29.357
RP 107.68 LAP .64 LOP 87.19 VP 37.617 GAP -8.06 AZP 90.64 TAL 173.23 TAP 308.24 RCA 100.76 APO 152.03 V2 35.193
RC 51.263 GL 7.59 GP -25.24 ZAL 70.68 ZAP 32.41 ETS 44.28 ZAE 144.81 ETE 316.09 ZAC 76.46 ETC 260.59 CLP -21.03

PLANETOCENTRIC CONIC

C3 9.851 VHL 3.139 DLA -13.06 RAL 241.12 RAD 6567.4 VEL 11.456 PTH 1.99 VHP 6.048 DPA -45.12 RAP 236.48 ECC 1.1621

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 47	1641.16	-2.79	7.78	91.80	118.19	8 42 8	1041.2	1.01	1.15
90.00	16 49 23	5120.91	24.95	227.76	95.32	76.15	18 14 44	4520.9	22.80	219.75
100.00	9 29 20	1400.61	-3.66	349.61	91.32	119.69	9 52 41	800.6	.32	343.08
100.00	18 17 31	4836.70	25.92	206.57	95.04	74.56	19 38 8	4236.7	23.55	198.58
110.00	10 22 19	1234.69	-5.94	335.61	89.91	123.73	10 42 54	634.7	-1.47	329.38
110.00	19 41 2	4575.38	28.47	185.82	94.13	70.23	20 57 17	3975.4	25.51	177.89

DIFFERENTIAL CORRECTIONS
TDE .1282 TRA -.9374 TC3 1.0907 BAU .2045
RDE -.1588 RRA .3519 RC3-1.1057 FAU .05146
FDE .0341 FRA 1.6875 FC3-4.5222 BSP 6751
BDE .2041 BRA 1.0012 BC3 1.5531 FSP -1064

MID-COURSE EXECUTION ACCURACY
SGT 1899.8 SGR 1000.3 SG3 367.2
RRT -.8953 RRF .9497 RTF -.9269
SGB 2147.0 R23 -.1812 R13 .9480
SG1 2109.2 SG2 401.4 THA 153.74

ORBIT DETERMINATION ACCURACY
ST 577.0 SR 351.6 SS 498.8
CRT -.8505 CRS -.5106 CST .8844
LSA 788.4 MSA 289.0 SSA 19.4
EL1 655.8 EL2 162.7 ALF 150.62

LAUNCH DATE AUG 5 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 323.228

RL 151.76 LAL .00 LOL 312.17 VL 26.511 GAL 1.57 AZL 88.77 HCA 138.24 SMA 126.86 ECC .19811 INC 1.2350 V1 29.357
RP 107.65 LAP .82 LOP 90.42 VP 37.676 GAP -7.42 AZP 90.92 TAL 173.62 TAP 311.86 RCA 101.73 APO 152.00 V2 35.202
RC 52.948 GL 10.70 GP -28.10 ZAL 71.55 ZAP 36.06 ETS 43.40 ZAE 142.44 ETE 313.08 ZAC 73.67 ETC 260.55 CLP -23.59

PLANETOCENTRIC CONIC

C3 9.458 VHL 3.075 DLA -9.87 RAL 241.04 RAD 6567.3 VEL 11.439 PTH 1.98 VHP 5.830 DPA -48.03 RAP 236.04 ECC 1.1557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 47 52	1739.93	-5.94	13.32	91.01	117.74	8 16 52	1139.9	-2.18	6.66
90.00	17 15 39	5006.10	22.85	220.00	93.67	72.81	18 39 5	4406.1	20.28	212.27
100.00	9 4 20	1493.21	-6.76	354.73	90.56	119.19	9 29 13	893.2	-2.82	348.16
100.00	18 41 51	4728.05	23.74	199.24	93.35	71.29	20 0 39	4128.1	20.97	191.54
110.00	10 1 31	1314.15	-8.92	339.83	89.24	123.14	10 23 25	714.1	-4.50	333.54
110.00	20 1 10	4479.87	26.10	179.40	92.37	67.10	21 15 50	3879.9	22.77	171.83

DIFFERENTIAL CORRECTIONS
TDE .0992 TRA -.9232 TC3 1.1565 BAU .2223
RDE -.1197 RRA .4110 RC3-1.3246 FAU .05413
FDE .1405 FRA 1.7942 FC3-4.9545 BSP 6965
BDE .1554 BRA 1.0106 BC3 1.7584 FSP -1152

MID-COURSE EXECUTION ACCURACY
SGT 1894.2 SGR 1147.9 SG3 394.7
RRT -.9096 RRF .9653 RTF -.9295
SGB 2214.9 R23 -.1845 R13 .9556
SG1 2175.6 SG2 415.3 THA 149.93

ORBIT DETERMINATION ACCURACY
ST 555.8 SR 323.5 SS 531.4
CRT -.9111 CRS -.5309 CST .8301
LSA 779.4 MSA 297.1 SSA 18.6
EL1 632.3 EL2 117.2 ALF 150.97

LAUNCH DATE AUG 5 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 329.889

RL	151.76	LAL	.00	LOL	312.17	VL	26.577	GAL	1.44	AZL	88.38	HCA	141.47	SMA	127.29	ECC	.19388	INC	1.6168	V1	29.357
RP	107.63	LAP	1.01	LOP	93.65	VP	37.730	GAP	-6.81	AZP	91.26	TAL	174.00	TAP	315.47	RCA	102.61	APO	151.96	V2	35.210
RC	54.707	GL	14.29	GP	-31.37	ZAL	72.49	ZAP	40.04	ETS	42.61	ZAE	139.85	ETE	309.79	ZAC	70.47	ETC	260.44	CLP	-26.28

PLANETOCENTRIC CONIC

C3 9.228 VHL 3.038 DLA -6.22 RAL 241.08 RAD 6567.3 VEL 11.429 PTH 1.98 VHP 5.656 DPA -51.28 RAP 235.11 ECC 1.1519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 19 27	1852.26	-9.45	19.71	90.74	116.82	7 50 19	1252.3	-5.78	12.96
90.00	17 44 23	4884.16	20.18	212.06	92.42	69.70	19 5 47	4284.2	17.24	204.62
100.00	8 37 50	1599.38	-10.24	.70	90.33	118.24	9 4 29	999.4	-6.39	354.03
100.00	19 8 40	4612.27	21.01	191.72	92.08	68.24	20 25 33	4012.3	17.87	184.33
110.00	9 39 19	1406.88	-12.33	344.85	89.09	122.14	10 2 46	806.9	-8.00	338.44
110.00	20 23 41	4377.54	23.22	172.85	91.03	64.18	21 36 38	3777.5	19.56	165.63

DIFFERENTIAL CORRECTIONS

TDE	.0671	TRA	-.9078	TC3	1.1849	BAU	.2415
RDE	-.0691	RRA	.4833	RC3	-1.5583	FAU	.05622
FDE	.2726	FRA	1.8984	FC3	-5.2749	BSP	7207
BDE	.0963	BRA	1.0285	BC3	1.9576	FSP	-1232

MID-COURSE EXECUTION ACCURACY

SGT	1871.1	SGR	1324.5	SG3	418.9		
RRT	-.9190	RRF	.9764	RTF	-.9310		
SGB	2292.4	R23	-.1814	R13	.9632		
SG1	2251.0	SG2	434.0	THA	145.49		

ORBIT DETERMINATION ACCURACY

ST	532.5	SR	305.7	SS	586.7
CRT	-.9784	CRS	-.6347	CST	.7749
LSA	791.5	MSA	307.2	SSA	17.0
EL1	611.5	EL2	55.1	ALF	150.41

LAUNCH DATE AUG 5 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 336.531

RL	151.76	LAL	.00	LOL	312.17	VL	26.635	GAL	1.32	AZL	87.94	HCA	144.70	SMA	127.67	ECC	.19010	INC	2.0572	V1	29.357
RP	107.60	LAP	1.19	LOP	96.89	VP	37.779	GAP	-6.22	AZP	91.68	TAL	174.36	TAP	319.05	RCA	103.40	APO	151.94	V2	35.218
RC	56.533	GL	18.38	GP	-35.08	ZAL	73.50	ZAP	44.36	ETS	41.83	ZAE	136.96	ETE	306.25	ZAC	66.80	ETC	260.22	CLP	-29.11

PLANETOCENTRIC CONIC

C3 9.191 VHL 3.032 DLA -2.08 RAL 241.27 RAD 6567.3 VEL 11.427 PTH 1.98 VHP 5.535 DPA -54.89 RAP 233.53 ECC 1.1513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 49 3	1980.92	-13.30	27.20	91.15	115.23	7 22 4	1380.9	-9.79	20.28
90.00	18 16 14	4753.95	16.90	203.92	91.72	66.94	19 35 28	4153.9	13.63	196.76
100.00	8 9 26	1721.65	-14.08	7.74	90.76	116.64	8 38 8	1121.6	-10.39	.90
100.00	19 38 33	4488.45	17.69	184.02	91.35	65.51	20 53 21	3888.5	14.24	176.93
110.00	9 15 27	1514.98	-16.16	350.88	89.59	120.54	9 40 42	915.0	-11.99	344.26
110.00	20 49 1	4267.89	19.81	166.17	90.24	61.56	22 0 9	3667.9	15.86	159.27

DIFFERENTIAL CORRECTIONS

TDE	.0334	TRA	-.8924	TC3	1.1687	BAU	.2629
RDE	-.0023	RRA	.5729	RC3	-1.7921	FAU	.05746
FDE	.4302	FRA	1.9952	FC3	-5.4127	BSP	7513
BDE	.0335	BRA	1.0605	BC3	2.1395	FSP	-1300

MID-COURSE EXECUTION ACCURACY

SGT	1831.6	SGR	1534.4	SG3	437.7		
RRT	-.9247	RRF	.9841	RTF	-.9314		
SGB	2389.4	R23	-.1709	R13	.9708		
SG1	2345.4	SG2	456.2	THA	140.45		

ORBIT DETERMINATION ACCURACY

ST	510.7	SR	326.7	SS	668.2
CRT	-.9922	CRS	-.8052	CST	.7342
LSA	845.6	MSA	314.4	SSA	14.8
EL1	605.3	EL2	34.3	ALF	147.48

LAUNCH DATE AUG 5 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 343.152

RL	151.76	LAL	.00	LOL	312.17	VL	26.687	GAL	1.22	AZL	87.43	HCA	147.93	SMA	128.01	ECC	.18676	INC	2.5738	V1	29.357
RP	107.58	LAP	1.37	LOP	100.12	VP	37.822	GAP	-5.64	AZP	92.18	TAL	174.68	TAP	322.61	RCA	104.10	APO	151.91	V2	35.225
RC	58.419	GL	23.01	GP	-39.28	ZAL	74.60	ZAP	49.02	ETS	40.97	ZAE	133.68	ETE	302.53	ZAC	62.65	ETC	259.85	CLP	-32.09

PLANETOCENTRIC CONIC

C3 9.399 VHL 3.066 DLA 2.57 RAL 241.62 RAD 6567.3 VEL 11.436 PTH 1.98 VHP 5.481 DPA -58.86 RAP 231.02 ECC 1.1547

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 15 58	2129.50	-17.42	36.17	92.44	112.69	6 51 28	1529.5	-14.19	28.97
90.00	18 52 9	4614.09	12.98	195.51	91.73	64.61	20 9 3	4014.1	9.46	188.61
100.00	7 38 30	1863.26	-18.22	16.22	92.08	114.11	8 9 34	1263.3	-14.81	9.09
100.00	20 12 17	4355.56	13.77	176.11	91.34	63.21	21 24 53	3755.6	10.07	169.28
110.00	8 49 30	1641.06	-20.37	358.24	90.96	118.06	9 16 51	1041.1	-16.46	351.30
110.00	21 17 47	4150.53	15.87	159.36	90.15	59.32	22 26 57	3550.5	11.68	152.75

DIFFERENTIAL CORRECTIONS

TDE	-.0006	TRA	-.8758	TC3	1.0980	BAU	.2865
RDE	.0874	RRA	.6838	RC3	-1.9987	FAU	.05740
FDE	.6101	FRA	2.0738	FC3	-5.2868	BSP	7858
BDE	.0874	BRA	1.1111	BC3	2.2804	FSP	-1337

MID-COURSE EXECUTION ACCURACY

SGT	1771.4	SGR	1779.0	SG3	447.8		
RRT	-.9270	RRF	.9893	RTF	-.9303		
SGB	2510.5	R23	-.1537	R13	.9780		
SG1	2464.3	SG2	479.7	THA	134.87		

ORBIT DETERMINATION ACCURACY

ST	492.0	SR	418.7	SS	773.0
CRT	-.9203	CRS	-.9314	CST	.7166
LSA	956.9	MSA	314.5	SSA	12.3
EL1	633.4	EL2	127.2	ALF	139.99

LAUNCH DATE AUG 5 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 349.751

RL	151.76	LAL	.00	LOL	312.17	VL	26.733	GAL	1.13	AZL	86.81	HCA	151.15	SMA	128.31	ECC	.18381	INC	3.1930	V1	29.357
RP	107.56	LAP	1.54	LOP	103.36	VP	37.860	GAP	-5.08	AZP	92.80	TAL	174.97	TAP	326.13	RCA	104.73	APO	151.89	V2	35.232
RC	60.358	GL	28.17	GP	-43.97	ZAL	75.79	ZAP	53.97	ETS	39.93	ZAE	129.92	ETE	298.72	ZAC	57.99	ETC	259.28	CLP	-35.19

PLANETOCENTRIC CONIC

C3 9.943 VHL 3.153 DLA 7.74 RAL 242.16 RAD 6567.4 VEL 11.460 PTH 1.99 VHP 5.511 DPA -63.17 RAP 227.16 ECC 1.1636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 38 56	2303.11	-21.61	47.17	94.89	108.75	6 17 19	1703.1	-18.85	39.58
90.00	19 33 30	4462.67	8.41	186.74	92.70	62.86	20 47 53	3862.7	4.71	180.02
100.00	7 4 0	2028.75	-22.49	26.66	94.55	110.23	7 37 49	1428.7	-19.53	19.11
100.00	20 51 7	4212.27	9.23	167.89	92.26	61.44	22 1 20	3612.3	5.35	161.26
110.00	8 20 45	1788.56	-24.81	7.38	93.52	114.31	8 50 33	1188.6	-21.32	359.97
110.00	21 50 52	4025.22	11.39	152.40	90.96	57.55	22 57 57	3425.2	7.03	146.02

DIFFERENTIAL CORRECTIONS

TDE	-.0323	TRA	-.8575	TC3	.9690	BAU	.3123
RDE	.2088	RRA	.8217	RC3	-2.1403	FAU	.05560
FDE	.8024	FRA	2.1215	FC3	-4.8411	BSP	8299
BDE	.2113	BRA	1.1876	BC3	2.3494	FSP	-1340

MID-COURSE EXECUTION ACCURACY

SGT	1688.1	SGR	2058.2	SG3	445.5		
RRT	-.9258	RRF	.9929	RTF	-.9271		
SGB	2661.9	R23	-.1315	R13	.9843		
SG1	2614.0	SG2	502.5	THA	128.92		

ORBIT DETERMINATION ACCURACY

ST	475.7	SR	591.5	SS	890.3
CRT	-.8395	CRS	-.9805	CST	.7171
LSA	1128.5	MSA	308.4	SSA	9.8
EL1	729.6	EL2	209.5	ALF	127.67

LAUNCH DATE AUG 5 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 356.327

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RL  151.76 LAL    .00 LOL 312.17 VL  26.773 GAL   1.06 AZL  86.05 HCA 154.38 SMA 128.58 ECC .18124 INC 3.9536 V1  29.357
RP  107.54 LAP   1.71 LOP 106.60 VP  37.894 GAP  -4.53 AZP  93.57 TAL 175.22 TAP 329.60 RCA 105.27 APO 151.88 V2  35.238
RC  62.346 GL   33.84 GP  -49.16 ZAL  77.10 ZAP  59.16 ETS  38.60 ZAE 125.61 ETE 294.91 ZAC  52.84 ETC 258.44 CLP -38.39
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PLANETOCENTRIC CONIC

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C3  10.984 VHL  3.314 DLA  13.38 RAL 242.91 RAD 6567.4 VEL 11.505 PTH   2.00 VHP  5.653 DPA -67.72 RAP 221.13 ECC 1.1808
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 55 42	2509.92	-25.47	61.09	98.83	102.82	5 37 32	1909.9	-23.45	53.00
90.00	20 22 45	4296.08	3.14	177.34	94.95	61.84	21 34 21	3696.1	-.65	170.71
100.00	6 24 2	2225.03	-26.49	39.86	98.56	104.39	7 1 7	1625.0	-24.25	31.77
100.00	21 37 6	4056.21	4.05	159.20	94.44	60.36	22 44 42	3456.2	.08	152.67
110.00	7 48 0	1962.29	-29.16	19.01	97.66	108.68	8 20 43	1362.3	-26.34	10.97
110.00	22 29 37	3891.71	6.43	145.25	92.97	56.35	23 34 28	3291.7	1.96	139.01

DIFFERENTIAL CORRECTIONS

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TDE -.0660 TRA -.8450 TC3  .7521 BAU  .3338
RDE  .3799 RRA 1.0008 RC3-2.1452 FAU .05098
FDE 1.0045 FRA 2.1398 FC3-4.0179 BSP  8562
BDE  .3856 BRA 1.3098 BC3 2.2732 FSP  -1265
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MID-COURSE EXECUTION ACCURACY

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SGT 1586.2 SGR 2369.9 SG3  428.2
RRT -.9189 RRF  .9952 RTF -.9203
SGB 2851.7 R23  .1062 R13  .9896
SG1 2802.2 SG2  529.2 THA 122.92
```

ORBIT DETERMINATION ACCURACY

```
ST   464.9 SR   847.3 SS  1015.4
CRT -.8020 CRS -.9948 CST  .7379
LSA 1370.3 MSA  295.9 SSA    7.7
EL1  933.0 EL2  252.2 ALF 115.77
```

LAUNCH DATE AUG 5 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 362.876

```
RL  151.76 LAL    .00 LOL 312.17 VL  26.808 GAL   1.00 AZL  85.08 HCA 157.60 SMA 128.81 ECC .17902 INC 4.9169 V1  29.357
RP  107.53 LAP   1.87 LOP 109.85 VP  37.924 GAP  -4.01 AZP  94.55 TAL 175.43 TAP 333.03 RCA 105.75 APO 151.87 V2  35.243
RC  64.375 GL   39.93 GP  -54.81 ZAL  78.52 ZAP  64.47 ETS  36.89 ZAE 120.73 ETE 291.17 ZAC  47.23 ETC 257.23 CLP -41.59
```

PLANETOCENTRIC CONIC

```
C3  12.814 VHL  3.580 DLA  19.41 RAL 243.88 RAD 6567.5 VEL 11.584 PTH   2.03 VHP  5.946 DPA -72.28 RAP 211.33 ECC 1.2109
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 1 10	2766.62	-28.05	79.39	104.54	94.02	4 47 17	2166.6	-27.20	70.83
90.00	21 25 0	4104.09	-3.05	166.63	99.04	61.83	22 33 24	3504.1	-6.80	159.95
100.00	5 34 37	2465.28	-29.38	57.09	104.41	95.79	6 15 42	1865.3	-28.27	48.47
100.00	22 34 14	3880.67	-1.89	149.56	98.39	60.16	23 38 55	3280.7	-5.85	143.01
110.00	7 9 0	2170.00	-32.74	34.11	103.85	100.42	7 45 10	1570.0	-30.96	25.34
110.00	23 16 21	3748.70	.99	137.75	96.59	55.83	24 18 50	3148.7	-3.50	131.55

DIFFERENTIAL CORRECTIONS

```
TDE -.0728 TRA -.8122 TC3  .5593 BAU  .3621
RDE  .6007 RRA 1.2127 RC3-2.0383 FAU .04518
FDE 1.1590 FRA 2.0767 FC3-3.0527 BSP  9303
BDE  .6051 BRA 1.4596 BC3 2.1136 FSP  -1182
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1440.1 SGR 2699.9 SG3  392.5
RRT -.9087 RRF  .9968 RTF -.9093
SGB 3059.9 R23 -.0812 R13  .9935
SG1 3012.1 SG2  538.8 THA 116.78
```

ORBIT DETERMINATION ACCURACY

```
ST   429.8 SR  1143.4 SS  1097.5
CRT -.7486 CRS -.9986 CST  .7125
LSA 1616.3 MSA  290.3 SSA    5.8
EL1 1190.5 EL2  273.7 ALF 106.62
```

LAUNCH DATE AUG 5 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 369.397

```
RL  151.76 LAL    .00 LOL 312.17 VL  26.838 GAL    .95 AZL  83.82 HCA 160.81 SMA 129.01 ECC .17713 INC 6.1848 V1  29.357
RP  107.51 LAP   2.03 LOP 113.09 VP  37.949 GAP  -3.49 AZP  95.84 TAL 175.58 TAP 336.39 RCA 106.16 APO 151.86 V2  35.247
RC  66.441 GL   46.26 GP  -60.87 ZAL  80.04 ZAP  69.72 ETS  34.73 ZAE 115.28 ETE 287.60 ZAC  41.24 ETC 255.46 CLP -44.62
```

PLANETOCENTRIC CONIC

```
C3  16.011 VHL  4.001 DLA  25.66 RAL 245.07 RAD 6567.6 VEL 11.722 PTH   2.07 VHP  6.459 DPA -76.35 RAP 194.52 ECC 1.2635
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 37 7	3130.96	-26.93	105.86	111.46	80.90	3 29 18	2531.0	-27.91	97.33
90.00	22 58 30	3838.24	-11.37	151.52	106.25	63.89	24 2 29	3238.2	-14.79	144.51
100.00	4 23 57	2786.58	-29.21	80.88	111.82	83.34	5 10 23	2186.6	-29.82	72.13
100.00	23 54 22	3657.85	-9.32	137.19	105.18	61.47	24 55 20	3057.9	-13.06	130.40
110.00	6 18 46	2427.34	-34.16	54.00	112.22	88.77	6 59 13	1827.3	-33.96	44.76
110.00	0 19 58	3589.85	-5.07	129.45	102.59	56.15	1 19 48	2989.9	-9.48	123.14

DIFFERENTIAL CORRECTIONS

```
TDE -.0569 TRA -.7737 TC3  .3520 BAU  .3840
RDE  .9019 RRA 1.4842 RC3-1.7591 FAU .03716
FDE 1.2652 FRA 1.9562 FC3-2.0091 BSP  10076
BDE  .9037 BRA 1.6738 BC3 1.7940 FSP  -1044
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1263.7 SGR 3034.7 SG3  340.4
RRT -.8866 RRF  .9978 RTF -.8878
SGB 3287.3 R23 -.0573 R13  .9962
SG1 3241.4 SG2  547.2 THA 110.89
```

ORBIT DETERMINATION ACCURACY

```
ST   377.8 SR  1473.1 SS  1137.4
CRT -.6586 CRS -.9997 CST  .6389
LSA 1877.5 MSA  285.1 SSA    4.3
EL1 1494.7 EL2  280.2 ALF  99.94
```

LAUNCH DATE AUG 5 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 375.882

```
RL  151.76 LAL    .00 LOL 312.17 VL  26.863 GAL    .92 AZL  82.06 HCA 164.02 SMA 129.18 ECC .17554 INC 7.9401 V1  29.357
RP  107.50 LAP   2.18 LOP 116.33 VP  37.970 GAP  -3.00 AZP  97.64 TAL 175.67 TAP 339.68 RCA 106.50 APO 151.86 V2  35.251
RC  68.539 GL   52.60 GP  -67.29 ZAL  81.64 ZAP  74.74 ETS  32.18 ZAE 109.27 ETE 284.31 ZAC  34.93 ETC 252.85 CLP -47.00
```

PLANETOCENTRIC CONIC

```
C3  21.813 VHL  4.670 DLA  31.90 RAL 246.43 RAD 6567.9 VEL 11.966 PTH   2.13 VHP  7.307 DPA -78.79 RAP 166.46 ECC 1.3590
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.65	22 51 29	3941.20	-21.41	163.99	117.40	65.77	23 57 10	3341.2	-24.50	156.39
105.35	2 55 0	3173.23	-21.40	107.13	117.39	65.76	3 47 53	2573.2	-24.49	99.54
74.65	22 51 29	3941.20	-21.41	163.99	117.40	65.77	23 57 10	3341.2	-24.50	156.39
105.35	2 55 0	3173.23	-21.40	107.13	117.39	65.76	3 47 53	2573.2	-24.49	99.54
110.00	4 58 50	2789.69	-30.19	81.35	121.05	73.15	5 45 19	2189.7	-32.20	72.71
110.00	1 50 46	3372.73	-13.12	117.79	112.78	58.15	2 46 59	2772.7	-17.24	111.10

DIFFERENTIAL CORRECTIONS

```
TDE -.0016 TRA -.7259 TC3  .1755 BAU  .3936
RDE 1.3200 RRA 1.8437 RC3-1.3382 FAU .02768
FDE 1.3071 FRA 1.7855 FC3-1.0985 BSP  10869
BDE 1.3200 BRA 1.9814 BC3 1.3497 FSP   -865
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1061.7 SGR 3359.0 SG3  277.0
RRT -.8420 RRF  .9984 RTF -.8453
SGB 3522.8 R23 -.0347 R13  .9978
SG1 3479.1 SG2  553.0 THA 105.30
```

ORBIT DETERMINATION ACCURACY

```
ST   314.7 SR  1806.2 SS  1124.4
CRT -.4483 CRS-1.0000 CST  .4404
LSA 2132.2 MSA  281.2 SSA    3.3
EL1 1811.8 EL2  280.5 ALF  94.58
```

LAUNCH DATE AUG 5 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 382.323

RL	151.76	LAL	.00	LOL	312.17	VL	26.883	GAL	.91	AZL	79.46	HCA	167.20	SMA	129.32	ECC	.17425	INC	10.5446	V1	29.357		
RP	107.49	LAP	2.32	LOP	119.58	VP	37.988	GAP	-2.52	AZP	100.29	TAL	175.68	TAP	342.88	RCA	106.79	APO	151.85	V2	35.254		
RC	70.666	GL	58.57	GP	-74.08	ZAL	83.29	ZAP	79.29	ETS	29.55	ZAE	102.65	ETE	281.63	ZAC	28.37	ETC	248.89	CLP	-47.34		

PLANETOCENTRIC CONIC

C3	33.235	VHL	5.765	DLA	37.78	RAL	247.83	RAD	6568.3	VEL	12.434	PTH	2.25	VHP	8.719	DPA	-78.04	RAP	132.04	ECC	1.5470		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
63.87		21 53 37		4238.05		-21.42		187.31		127.45		58.10		23 4 15		3638.1		-25.47		180.21			
116.13		4 4 5		3085.13		-21.40		100.23		127.44		58.09		4 55 30		2485.1		-25.46		93.13			
63.87		21 53 37		4238.05		-21.42		187.31		127.45		58.10		23 4 15		3638.1		-25.47		180.21			
116.13		4 4 5		3085.13		-21.40		100.23		127.44		58.09		4 55 30		2485.1		-25.46		93.13			
63.87		21 53 37		4238.05		-21.42		187.31		127.45		58.10		23 4 15		3638.1		-25.47		180.21			
116.13		4 4 5		3085.13		-21.40		100.23		127.44		58.09		4 55 30		2485.1		-25.46		93.13			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1186	TRA	-.6691	TC3	.0556	BAU	.3727	SGT	852.0	SGR	3652.3	SG3	209.9	ST	278.6	SR	2110.7	SS	1064.6
RDE	1.9270	RRA	2.3510	RC3	-.8370	FAU	.01746	RRT	-.7467	RRF	.9987	RTF	-.7554	CRT	.0030	CRS	-1.0000	CST	.0013
FDE	1.2876	FRA	1.5888	FC3	-.4548	BSP	11544	SGB	3750.3	R23	-.0124	R13	.9988	LSA	2364.0	MSA	278.6	SSA	2.6
BDE	1.9306	BRA	2.4444	BC3	.8389	FSP	-662	SG1	3708.6	SG2	558.1	THA	100.11	EL1	2110.7	EL2	278.6	ALF	89.98

LAUNCH DATE AUG 5 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 388.695

RL	151.76	LAL	.00	LOL	312.17	VL	26.900	GAL	.92	AZL	75.18	HCA	170.34	SMA	129.43	ECC	.17324	INC	14.8215	V1	29.357		
RP	107.48	LAP	2.46	LOP	122.83	VP	38.002	GAP	-2.06	AZP	104.62	TAL	175.61	TAP	345.95	RCA	107.01	APO	151.86	V2	35.256		
RC	72.818	GL	63.56	GP	-81.23	ZAL	84.93	ZAP	83.17	ETS	28.83	ZAE	95.15	ETE	281.46	ZAC	21.60	ETC	243.12	CLP	-38.71		

PLANETOCENTRIC CONIC

C3	59.052	VHL	7.685	DLA	42.75	RAL	248.91	RAD	6569.1	VEL	13.432	PTH	2.46	VHP	11.210	DPA	-73.97	RAP	105.21	ECC	1.9718		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
56.52		21 24 27		4476.22		-17.81		204.77		138.59		50.47		22 39 3		3876.2		-22.79		198.50			
123.48		4 41 51		3134.84		-17.80		101.69		138.58		50.46		5 34 6		2534.8		-22.77		95.42			
56.52		21 24 27		4476.22		-17.81		204.77		138.59		50.47		22 39 3		3876.2		-22.79		198.50			
123.48		4 41 51		3134.84		-17.80		101.69		138.58		50.46		5 34 6		2534.8		-22.77		95.42			
56.52		21 24 27		4476.22		-17.81		204.77		138.59		50.47		22 39 3		3876.2		-22.79		198.50			
123.48		4 41 51		3134.84		-17.80		101.69		138.58		50.46		5 34 6		2534.8		-22.77		95.42			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3234	TRA	-.6376	TC3	.0092	BAU	.2794	SGT	691.0	SGR	3889.7	SG3	148.0	ST	309.6	SR	2362.1	SS	987.8
RDE	2.8965	RRA	3.1407	RC3	-.3538	FAU	.00733	RRT	-.5773	RRF	.9988	RTF	-.5970	CRT	.4579	CRS	-.9998	CST	-.4419
FDE	1.2406	FRA	1.4109	FC3	-.1074	BSP	12146	SGB	3950.6	R23	.0100	R13	.9991	LSA	2564.2	MSA	275.7	SSA	2.0
BDE	2.9145	BRA	3.2048	BC3	.3540	FSP	-471	SG1	3910.6	SG2	561.2	THA	95.98	EL1	2366.4	EL2	274.7	ALF	86.52

LAUNCH DATE AUG 5 1970 FLIGHT TIME 146.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 394.931

RL	151.76	LAL	.00	LOL	312.17	VL	26.913	GAL	.96	AZL	66.94	HCA	173.38	SMA	129.52	ECC	.17252	INC	23.0617	V1	29.357		
RP	107.48	LAP	2.59	LOP	126.08	VP	38.012	GAP	-1.65	AZP	112.92	TAL	175.37	TAP	348.75	RCA	107.18	APO	151.87	V2	35.258		
RC	74.992	GL	66.20	GP	-85.14	ZAL	86.52	ZAP	86.20	ETS	124.66	ZAE	85.83	ETE	18.21	ZAC	15.05	ETC	321.02	CLP	38.56		

PLANETOCENTRIC CONIC

C3	132.738	VHL	11.521	DLA	45.64	RAL	248.61	RAD	6570.4	VEL	15.940	PTH	2.82	VHP	16.189	DPA	-67.00	RAP	86.44	ECC	3.1845		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
52.58		21 7 54		4695.62		-10.39		217.71		148.30		45.30		22 26 9		4095.6		-15.95		212.22			
127.42		4 56 2		3273.03		-10.38		107.27		148.28		45.30		5 50 35		2673.0		-15.94		101.78			
52.58		21 7 54		4695.62		-10.39		217.71		148.30		45.30		22 26 9		4095.6		-15.95		212.22			
127.42		4 56 2		3273.03		-10.38		107.27		148.28		45.30		5 50 35		2673.0		-15.94		101.78			
52.58		21 7 54		4695.62		-10.39		217.71		148.30		45.30		22 26 9		4095.6		-15.95		212.22			
127.42		4 56 2		3273.03		-10.38		107.27		148.28		45.30		5 50 35		2673.0		-15.94		101.78			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.9423	TRA	-2.0404	TC3	-.0229	BAU	.0575	SGT	2061.6	SGR	3533.1	SG3	99.5	ST	1526.6	SR	2081.6	SS	971.2
RDE	-3.7766	RRA	-4.2068	RC3	-.0229	FAU	-.00376	RRT	.9739	RRF	-.9992	RTF	-.9782	CRT	.9878	CRS	.9998	CST	.9903
FDE	1.2701	FRA	1.3513	FC3	.0245	BSP	12491	SGB	4090.6	R23	-.0349	R13	-.9988	LSA	2751.1	MSA	195.5	SSA	1.5
BDE	4.7875	BRA	4.6755	BC3	.0324	FSP	-317	SG1	4070.3	SG2	406.5	THA	60.06	EL1	2574.2	EL2	192.6	ALF	53.85

LAUNCH DATE AUG 5 1970 FLIGHT TIME 148.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 400.752

RL	151.76	LAL	.00	LOL	312.17	VL	26.923	GAL	1.09	AZL	46.39	HCA	176.07	SMA	129.59	ECC	.17217	INC	43.6106	V1	29.357		
RP	107.48	LAP	2.71	LOP	129.32	VP	38.020	GAP	-1.35	AZP	133.54	TAL	174.74	TAP	350.81	RCA	107.28	APO	151.90	V2	35.259		
RC	77.186	GL	61.94	GP	-72.22	ZAL	87.93	ZAP	88.22	ETS	183.68	ZAE	70.90	ETE	77.76	ZAC	15.45	ETC	324.76	CLP	84.16		

PLANETOCENTRIC CONIC

C3	442.643	VHL	21.039	DLA	42.36	RAL	244.06	RAD	6572.2	VEL	23.747	PTH	3.30	VHP	28.513	DPA	-54.19	RAP	70.08	ECC	8.2848		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
57.08		21 7 22		4815.78		-2.18		220.71		151.67		47.69		22 27 38		4215.8		-7.55		215.17			
122.92		4 20 11		3486.86		-2.17		118.74		151.66		47.69		5 18 18		2886.9		-7.53		113.19			
57.08		21 7 22		4815.78		-2.18		220.71		151.67		47.69		22 27 38		4215.8		-7.55		215.17			
122.92		4 20 11		3486.86		-2.17		118.74		151.66		47.69		5 18 18		2886.9		-7.53		113.19			
57.08		21 7 22		4815.78		-2.18		220.71		151.67		47.69		22 27 38		4215.8		-7.55		215.17			
122.92		4 20 11		3486.86		-2.17		118.74		151.66		47.69		5 18 18		2886.9		-7.53		113.19			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.3734	TRA	-.6466	TC3	-.0706	BAU	1.4382	SGT	994.5	SGR	3902.1	SG3	70.2	ST	921.5	SR	2458.9	SS	1222.1
RDE	-8.3992	RRA	-8.1573	RC3	-.2325	FAU	-.02667	RRT	.8010	RRF	-.9995	RTF	-.7889	CRT	.9560	CRS	.9998	CST	.9507
FDE	1.6825	FRA	1.7188	FC3	.0522	BSP	12448	SGB	4026.8	R23	-.0500	R13	-.9985	LSA	2884.6	MSA	261.1	SSA	1.4
BDE	9.0513	BRA	8.1829	BC3	.2430	FSP	-226	SG1	3984.4	SG2	583.1	THA	78.21	EL1	2613.5	EL2	254.5	ALF	70.09

LAUNCH DATE AUG 5 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 411.146

RL 151.76 LAL .00 LOL 312.17 VL 26.929 GAL .39 AZL 171.88 HCA 182.85 SMA 129.63 ECC .17089 INC81.8784 V1 29.357
RP 107.48 LAP 2.82 LOP 132.57 VP 38.024 GAP .14 AZP 8.13 TAL 178.12 TAP .97 RCA 107.48 APO 151.78 V2 35.259
RC 79.396 GL -46.21 GP 52.59 ZAL 89.33 ZAP 90.11 ETS 184.32 ZAE 56.22 ETE 289.71 ZAC 133.30 ETC 287.87 CLP 90.18

PLANETOCENTRIC CONIC

C31363.736 VHL 36.929 DLA -58.27 RAL 196.22 RAD 6573.1 VEL 38.536 PTH 3.55 VHP 47.142 DPA 60.35 RAP 7.10 ECC23.4436

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.69	4 51 30	2397.43	-1.07	70.64	106.87	148.26	5 31 28	1797.4	5.73	66.84
143.31	14 14 23	749.02	-1.06	296.45	106.89	148.26	14 26 52	149.0	5.74	292.64
36.69	4 51 30	2397.43	-1.07	70.64	106.87	148.26	5 31 28	1797.4	5.73	66.84
143.31	14 14 23	749.02	-1.06	296.45	106.89	148.26	14 26 52	149.0	5.74	292.64
36.69	4 51 30	2397.43	-1.07	70.64	106.87	148.26	5 31 28	1797.4	5.73	66.84
143.31	14 14 23	749.02	-1.06	296.45	106.89	148.26	14 26 52	149.0	5.74	292.64

DIFFERENTIAL CORRECTIONS
TDE 7.4490 TRA 2.0289 TC3 -.1287 BAU 5.0013
RD-16.5163 RRA .0023 RC3 .2422 FAU-.08646
FDE-3.9654 FRA -.0419 FC3 .0549 BSP 10452
BDE18.1184 BRA 2.0289 BC3 .2743 FSP -195

MID-COURSE EXECUTION ACCURACY
SGT 1611.8 SGR 3125.3 SG3 63.7
RRT -.9255 RRF .9995 RTF -.9294
SGB 3516.4 R23 -.0662 R13 .9974
SG1 3473.3 SG2 549.2 THA 116.22

ORBIT DETERMINATION ACCURACY
ST 1169.9 SR 2563.1 SS 2506.5
CRT -.9881 CRS-1.0000 CST .9890
LSA 3767.3 MSA 168.1 SSA 2.5
EL1 2812.7 EL2 163.8 ALF 114.37

LAUNCH DATE AUG 5 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 415.960

RL 151.76 LAL .00 LOL 312.17 VL 26.932 GAL .72 AZL 128.71 HCA 184.68 SMA 129.65 ECC .17102 INC38.7079 V1 29.357
RP 107.48 LAP 2.92 LOP 135.82 VP 38.025 GAP .17 AZP 51.39 TAL 176.50 TAP 1.18 RCA 107.48 APO 151.82 V2 35.258
RC 81.621 GL -63.59 GP 78.01 ZAL 88.21 ZAP 90.23 ETS 191.24 ZAE 80.94 ETE 292.60 ZAC 157.05 ETC 306.21 CLP 91.12

PLANETOCENTRIC CONIC

C3 353.530 VHL 18.802 DLA -71.70 RAL 168.63 RAD 6571.9 VEL 21.791 PTH 3.23 VHP 23.333 DPA 70.97 RAP 307.35 ECC 6.8182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.90	2 24 48	2367.01	4.49	77.81	77.13	161.64	3 4 15	1767.0	12.08	75.66
159.10	13 1 2	603.49	4.50	285.71	77.16	161.64	13 11 5	3.5	12.08	283.56
20.90	2 24 48	2367.01	4.49	77.81	77.13	161.64	3 4 15	1767.0	12.08	75.66
159.10	13 1 2	603.49	4.50	285.71	77.16	161.64	13 11 5	3.5	12.08	283.56
20.90	2 24 48	2367.01	4.49	77.81	77.13	161.64	3 4 15	1767.0	12.08	75.66
159.10	13 1 2	603.49	4.50	285.71	77.16	161.64	13 11 5	3.5	12.08	283.56

DIFFERENTIAL CORRECTIONS
TDE 5.5139 TRA 1.6191 TC3 -.1160 BAU 1.1484
RDE-9.9700 RRA-1.8532 RC3 .2135 FAU-.01953
FDE-2.6327 FRA -.5058 FC3 .0478 BSP 13429
BDE11.3932 BRA 2.4608 BC3 .2430 FSP -259

MID-COURSE EXECUTION ACCURACY
SGT 2341.3 SGR 3620.5 SG3 82.7
RRT -.9768 RRF .9993 RTF -.9802
SGB 4311.6 R23 -.0439 R13 .9985
SG1 4290.8 SG2 423.1 THA 122.64

ORBIT DETERMINATION ACCURACY
ST 1745.1 SR 3085.7 SS 1644.4
CRT -.9952 CRS-1.0000 CST .9958
LSA 3904.9 MSA 150.7 SSA 1.8
EL1 3541.9 EL2 148.4 ALF 119.43

LAUNCH DATE AUG 5 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 421.901

RL 151.76 LAL .00 LOL 312.17 VL 26.932 GAL .85 AZL 113.67 HCA 187.53 SMA 129.65 ECC .17118 INC23.6698 V1 29.357
RP 107.48 LAP 3.02 LOP 139.08 VP 38.024 GAP .50 AZP 66.51 TAL 175.86 TAP 3.39 RCA 107.46 APO 151.85 V2 35.256
RC 83.861 GL -66.34 GP 88.81 ZAL 86.85 ZAP 91.19 ETS 230.66 ZAE 92.71 ETE 330.47 ZAC 166.32 ETC 7.35 CLP-177.01

PLANETOCENTRIC CONIC

C3 139.320 VHL 11.803 DLA -74.30 RAL 162.32 RAD 6570.5 VEL 16.145 PTH 2.84 VHP 14.203 DPA 66.38 RAP 275.89 ECC 3.2929

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.90	1 53 23	2237.89	13.44	77.55	68.45	163.85	2 30 41	1637.9	21.12	75.59
162.10	12 42 2	5749.04	13.45	260.29	68.47	163.85	14 17 51	5149.0	21.12	258.33
17.90	1 53 23	2237.89	13.44	77.55	68.45	163.85	2 30 41	1637.9	21.12	75.59
162.10	12 42 2	5749.04	13.45	260.29	68.47	163.85	14 17 51	5149.0	21.12	258.33
17.90	1 53 23	2237.89	13.44	77.55	68.45	163.85	2 30 41	1637.9	21.12	75.59
162.10	12 42 2	5749.04	13.45	260.29	68.47	163.85	14 17 51	5149.0	21.12	258.33

DIFFERENTIAL CORRECTIONS
TDE 6.8875 TRA 1.6271 TC3 -.0450 BAU .1088
RDE-1.3698 RRA -.1989 RC3 .0373 FAU .00004
FDE-2.3136 FRA -.4852 FC3 -.0002 BSP 14133
BDE 7.0224 BRA 1.6393 BC3 .0584 FSP -388

MID-COURSE EXECUTION ACCURACY
SGT 4440.0 SGR 759.8 SG3 122.8
RRT -.9707 RRF .9794 RTF -.9980
SGB 4504.6 R23 -.0379 R13 .9983
SG1 4500.9 SG2 180.2 THA 170.55

ORBIT DETERMINATION ACCURACY
ST 3456.2 SR 673.5 SS 1415.0
CRT -.9953 CRS -.9976 CST .9996
LSA 3794.2 MSA 71.2 SSA 2.2
EL1 3520.6 EL2 63.8 ALF 169.02

LAUNCH DATE AUG 5 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 428.077

RL 151.76 LAL .00 LOL 312.17 VL 26.930 GAL .95 AZL 107.07 HCA 190.61 SMA 129.64 ECC .17148 INC17.0736 V1 29.357
RP 107.49 LAP 3.10 LOP 142.33 VP 38.020 GAP .88 AZP 73.20 TAL 175.39 TAP 6.00 RCA 107.41 APO 151.87 V2 35.254
RC 86.111 GL -65.02 GP 81.59 ZAL 85.43 ZAP 93.01 ETS 359.01 ZAE 100.27 ETE 98.00 ZAC 168.61 ETC 168.31 CLP-111.02

PLANETOCENTRIC CONIC

C3 76.060 VHL 8.721 DLA -74.99 RAL 168.63 RAD 6569.5 VEL 14.050 PTH 2.56 VHP 10.213 DPA 61.15 RAP 261.92 ECC 2.2518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.10	2 16 58	2111.87	21.85	76.16	72.45	163.80	2 52 10	1511.9	29.51	74.02
162.90	13 8 52	5619.87	21.86	258.11	72.48	163.80	14 42 32	5019.9	29.52	255.97
17.10	2 16 58	2111.87	21.85	76.16	72.45	163.80	2 52 10	1511.9	29.51	74.02
162.90	13 8 52	5619.87	21.86	258.11	72.48	163.80	14 42 32	5019.9	29.52	255.97
17.10	2 16 58	2111.87	21.85	76.16	72.45	163.80	2 52 10	1511.9	29.51	74.02
162.90	13 8 52	5619.87	21.86	258.11	72.48	163.80	14 42 32	5019.9	29.52	255.97

DIFFERENTIAL CORRECTIONS
TDE .6154 TRA -.3913 TC3 -.0973 BAU .2271
RDE 5.6514 RRA .9527 RC3 .2010 FAU .01241
FDE-2.7342 FRA -.4233 FC3 -.1412 BSP 14404
BDE 5.6848 BRA 1.0299 BC3 .2233 FSP -576

MID-COURSE EXECUTION ACCURACY
SGT 1085.3 SGR 4444.2 SG3 182.1
RRT -.1987 RRF -.9985 RTF .1669
SGB 4574.8 R23 .0443 R13 -.9981
SG1 4449.8 SG2 1062.3 THA 92.95

ORBIT DETERMINATION ACCURACY
ST 502.2 SR 3783.0 SS 1610.4
CRT .6764 CRS .9999 CST .6877
LSA 4125.6 MSA 368.5 SSA 2.3
EL1 3798.4 EL2 368.4 ALF 84.82

LAUNCH DATE AUG 5 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 434.315

```
RL  151.76 LAL    .00 LOL 312.17 VL  26.925 GAL   1.05 AZL 103.45 HCA 193.77 SMA 129.60 ECC .17194 INC13.4475 V1  29.357
RP  107.50 LAP   3.17 LOP 145.58 VP  38.014 GAP   1.27 AZP  76.93 TAL 174.94 TAP   8.71 RCA 107.32 APO 151.89 V2  35.251
RC  88.372 GL  -62.50 GP   75.00 ZAL  83.98 ZAP  95.58 ETS  10.17 ZAE 106.12 ETE 109.00 ZAC 166.36 ETC 205.15 CLP-112.04
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PLANETOCENTRIC CONIC

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C3  49.813 VHL  7.058 DLA -74.76 RAL 178.99 RAD 6568.8 VEL 13.083 PTH   2.39 VHP  8.091 DPA  56.29 RAP 253.26 ECC 1.8198
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.38	2 58 49	2008.99	28.49	74.12	80.47	162.60	3 32 18	1409.0	36.09	71.58
162.62	13 49 37	5518.04	28.50	256.34	80.50	162.59	15 21 35	4918.0	36.10	253.80
17.38	2 58 49	2008.99	28.49	74.12	80.47	162.60	3 32 18	1409.0	36.09	71.58
162.62	13 49 37	5518.04	28.50	256.34	80.50	162.59	15 21 35	4918.0	36.10	253.80
17.38	2 58 49	2008.99	28.49	74.12	80.47	162.60	3 32 18	1409.0	36.09	71.58
162.62	13 49 37	5518.04	28.50	256:34	80.50	162.59	15 21 35	4918.0	36.10	253.80

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1453 TRA -.4102 TC3 -.3134 BAU  .3683   SGT 1632.4 SGR 4307.1 SG3  255.9      ST  1004.5 SR  4018.9 SS  1919.6
RDE 4.9202 RRA  .4784 RC3  .4556 FAU .02406   RRT -.8349 RRF -.9987 RTF  .8370     CRT -.9617 CRS 1.0000 CST -.9610
FDE-3.3628 FRA -.3187 FC3 -.4181 BSP  14580   SGB 4606.0 R23  .0562 R13 -.9971     LSA 4557.7 MSA  269.5 SSA    3.0
BDE 5.0518 BRA  .6302 BC3  .5530 FSP   -811   SG1 4525.9 SG2  855.1 THA 108.23     EL1 4133.8 EL2  267.6 ALF 103.57
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LAUNCH DATE AUG 5 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 440.570

```
RL  151.76 LAL    .00 LOL 312.17 VL  26.918 GAL   1.15 AZL 101.16 HCA 196.96 SMA 129.55 ECC .17256 INC11.1593 V1  29.357
RP  107.51 LAP   3.24 LOP 148.83 VP  38.006 GAP   1.67 AZP  79.31 TAL 174.47 TAP  11.43 RCA 107.20 APO 151.91 V2  35.247
RC  90.641 GL  -59.60 GP   69.08 ZAL  82.51 ZAP  98.75 ETS  16.00 ZAE 110.94 ETE 115.37 ZAC 162.23 ETC 223.76 CLP-115.23
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PLANETOCENTRIC CONIC

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C3  36.466 VHL  6.039 DLA -73.82 RAL 189.64 RAD 6568.4 VEL 12.563 PTH   2.28 VHP  6.824 DPA  51.70 RAP 246.90 ECC 1.6001
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.46	3 43 31	1928.28	33.40	71.37	88.59	160.50	4 15 40	1328.3	40.89	68.27
161.54	14 29 54	5441.74	33.41	254.68	88.62	160.50	16 0 35	4841.7	40.90	251.57
18.46	3 43 31	1928.28	33.40	71.37	88.59	160.50	4 15 40	1328.3	40.89	68.27
161.54	14 29 54	5441.74	33.41	254.68	88.62	160.50	16 0 35	4841.7	40.90	251.57
18.46	3 43 31	1928.28	33.40	71.37	88.59	160.50	4 15 40	1328.3	40.89	68.27
161.54	14 29 54	5441.74	33.41	254.68	88.62	160.50	16 0 35	4841.7	40.90	251.57

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8371 TRA -.3037 TC3 -.5952 BAU  .4424   SGT 2150.4 SGR 4083.3 SG3  336.8      ST  1770.6 SR  3953.3 SS  2196.6
RDE 4.1618 RRA  .1850 RC3  .6850 FAU .03547   RRT -.9258 RRF -.9982 RTF  .9295     CRT -.9918 CRS 1.0000 CST -.9914
FDE-3.9225 FRA -.1627 FC3 -.8421 BSP  14615   SGB 4614.9 R23  .0656 R13 -.9961     LSA 4852.2 MSA  212.6 SSA    4.0
BDE 4.5492 BRA  .3556 BC3  .9075 FSP  -1063   SG1 4557.1 SG2  728.6 THA 116.73     EL1 4326.7 EL2  207.2 ALF 114.01
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LAUNCH DATE AUG 5 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 446.822

```
RL  151.76 LAL    .00 LOL 312.17 VL  26.909 GAL   1.26 AZL  99.58 HCA 200.17 SMA 129.49 ECC .17335 INC 9.5801 V1  29.357
RP  107.53 LAP   3.29 LOP 152.08 VP  37.995 GAP   2.07 AZP  81.00 TAL 173.96 TAP  14.13 RCA 107.05 APO 151.94 V2  35.243
RC  92.917 GL  -56.61 GP   63.61 ZAL  80.99 ZAP 102.38 ETS  20.22 ZAE 114.98 ETE 120.84 ZAC 157.61 ETC 233.92 CLP-118.85
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PLANETOCENTRIC CONIC

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C3  28.753 VHL  5.362 DLA -72.39 RAL 199.14 RAD 6568.2 VEL 12.253 PTH   2.20 VHP  6.018 DPA  47.30 RAP 241.88 ECC 1.4732
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.10	4 24 50	1864.84	36.90	68.03	95.34	157.77	4 55 54	1264.8	44.23	64.23
159.90	15 4 23	5385.58	36.91	253.01	95.36	157.76	16 34 9	4785.6	44.24	249.21
20.10	4 24 50	1864.84	36.90	68.03	95.34	157.77	4 55 54	1264.8	44.23	64.23
159.90	15 4 23	5385.58	36.91	253.01	95.36	157.76	16 34 9	4785.6	44.24	249.21
20.10	4 24 50	1864.84	36.90	68.03	95.34	157.77	4 55 54	1264.8	44.23	64.23
159.90	15 4 23	5385.58	36.91	253.01	95.36	157.76	16 34 9	4785.6	44.24	249.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1879 TRA -.1777 TC3 -.9293 BAU  .4891   SGT 2617.6 SGR 3811.7 SG3  417.0      ST  2345.5 SR  3695.9 SS  2385.3
RDE 3.4588 RRA -.0110 RC3  .8689 FAU .04626   RRT -.9566 RRF -.9975 RTF  .9599     CRT -.9965 CRS 1.0000 CST -.9960
FDE-4.2930 FRA  .0387 FC3-1.3929 BSP  14669   SGB 4623.9 R23  .0736 R13 -.9950     LSA 4981.9 MSA  176.8 SSA    5.1
BDE 4.0927 BRA  .1780 BC3 1.2722 FSP  -1317   SG1 4580.1 SG2  635.0 THA 124.05     EL1 4374.3 EL2  165.6 ALF 122.36
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LAUNCH DATE AUG 5 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 453.064

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RL  151.76 LAL    .00 LOL 312.17 VL  26.898 GAL   1.38 AZL  98.42 HCA 203.38 SMA 129.42 ECC .17430 INC 8.4199 V1  29.357
RP  107.54 LAP   3.33 LOP 155.33 VP  37.983 GAP   2.47 AZP  82.26 TAL 173.42 TAP  16.80 RCA 106.86 APO 151.97 V2  35.238
RC  95.197 GL  -53.65 GP   58.49 ZAL  79.43 ZAP 106.31 ETS  23.47 ZAE 118.32 ETE 126.00 ZAC 152.97 ETC 240.05 CLP-122.50
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PLANETOCENTRIC CONIC

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C3  23.901 VHL  4.889 DLA -70.65 RAL 207.20 RAD 6568.0 VEL 12.053 PTH   2.15 VHP  5.489 DPA  43.06 RAP 237.79 ECC 1.3934
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.11	5 1 13	1814.16	39.29	64.27	100.49	154.65	5 31 27	1214.2	46.42	59.73
157.89	15 32 19	5344.75	39.30	251.33	100.51	154.65	17 1 24	4744.8	46.43	246.79
22.11	5 1 13	1814.16	39.29	64.27	100.49	154.65	5 31 27	1214.2	46.42	59.73
157.89	15 32 19	5344.75	39.30	251.33	100.51	154.65	17 1 24	4744.8	46.43	246.79
22.11	5 1 13	1814.16	39.29	64.27	100.49	154.65	5 31 27	1214.2	46.42	59.73
157.89	15 32 19	5344.75	39.30	251.33	100.51	154.65	17 1 24	4744.8	46.43	246.79

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3574 TRA -.0460 TC3-1.3001 BAU  .5238   SGT 3045.5 SGR 3507.5 SG3  489.5      ST  2763.4 SR  3333.8 SS  2480.0
RDE 2.8416 RRA -.1439 RC3  .9985 FAU .05590   RRT -.9697 RRF -.9968 RTF  .9728     CRT -.9980 CRS 1.0000 CST -.9974
FDE-4.4546 FRA  .2712 FC3-2.0246 BSP  14757   SGB 4645.2 R23  .0801 R13 -.9939     LSA 4987.7 MSA  154.9 SSA    6.2
BDE 3.6021 BRA  .1510 BC3 1.6393 FSP  -1551   SG1 4610.6 SG2  565.6 THA 130.84     EL1 4328.1 EL2  135.4 ALF 129.65
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LAUNCH DATE AUG 5 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 459.291

RL 151.76 LAL .00 LOL 312.17 VL 26.885 GAL 1.52 AZL 97.53 HCA 206.60 SMA 129.33 ECC .17541 INC 7.5269 V1 29.357
RP 107.56 LAP 3.36 LOP 158.58 VP 37.968 GAP 2.87 AZP 83.26 TAL 172.84 TAP 19.44 RCA 106.64 APO 152.02 V2 35.232
RC 97.481 GL -50.75 GP 53.70 ZAL 77.83 ZAP 110.38 ETS 26.00 ZAE 121.00 ETE 130.96 ZAC 148.51 ETC 244.05 CLP-126.03

PLANETOCENTRIC CONIC

C3 20.668 VHL 4.546 DLA -68.74 RAL 214.00 RAD 6567.8 VEL 11.918 PTH 2.12 VHP 5.142 DPA 38.99 RAP 234.46 ECC 1.3401

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.32	5 33 6	1772.87	40.84	60.30	104.34	151.37	6 2 38	1172.9	47.73	55.03
155.68	15 54 40	5315.62	40.84	249.70	104.36	151.36	17 23 16	4715.6	47.73	244.42
24.32	5 33 6	1772.87	40.84	60.30	104.34	151.37	6 2 38	1172.9	47.73	55.03
155.68	15 54 40	5315.62	40.84	249.70	104.36	151.36	17 23 16	4715.6	47.73	244.42
24.32	5 33 6	1772.87	40.84	60.30	104.34	151.37	6 2 38	1172.9	47.73	55.03
155.68	15 54 40	5315.62	40.84	249.70	104.36	151.36	17 23 16	4715.6	47.73	244.42

DIFFERENTIAL CORRECTIONS
TDE-2.4197 TRA .0895 TC3-1.6888 BAU .5524
RDE 2.3222 RRA -.2344 RC3 1.0696 FAU .06372
FDE-4.4318 FRA .5207 FC3-2.6692 BSP 14893
BDE 3.3537 BRA .2509 BC3 1.9990 FSP -1750

MID-COURSE EXECUTION ACCURACY
SGT 3428.5 SGR 3189.8 SG3 548.9
RRT -.9758 RRF -.9959 RTF .9789
SGB 4682.9 R23 .0850 R13 -.9928
SG1 4654.6 SG2 513.4 THA 137.12

ORBIT DETERMINATION ACCURACY
ST 3051.4 SR 2936.9 SS 2493.4
CRT -.9986 CRS .9999 CST -.9978
LSA 4912.5 MSA 142.3 SSA 7.4
EL1 4233.7 EL2 112.1 ALF 136.10

LAUNCH DATE AUG 5 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 465.501

RL 151.76 LAL .00 LOL 312.17 VL 26.870 GAL 1.66 AZL 96.81 HCA 209.83 SMA 129.23 ECC .17668 INC 6.8147 V1 29.357
RP 107.58 LAP 3.38 LOP 161.83 VP 37.952 GAP 3.26 AZP 84.08 TAL 172.21 TAP 22.04 RCA 106.40 APO 152.06 V2 35.226
RC 99.767 GL -47.94 GP 49.27 ZAL 76.17 ZAP 114.47 ETS 27.96 ZAE 123.07 ETE 135.72 ZAC 144.32 ETC 246.82 CLP-129.39

PLANETOCENTRIC CONIC

C3 18.429 VHL 4.293 DLA -66.75 RAL 219.80 RAD 6567.7 VEL 11.824 PTH 2.09 VHP 4.920 DPA 35.10 RAP 231.76 ECC 1.3033

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.64	6 1 20	1738.57	41.71	56.28	107.26	148.07	6 30 19	1138.6	48.34	50.34
153.36	16 12 41	5295.60	41.72	248.19	107.28	148.07	17 40 56	4695.6	48.35	242.25
26.64	6 1 20	1738.57	41.71	56.28	107.26	148.07	6 30 19	1138.6	48.34	50.34
153.36	16 12 41	5295.60	41.72	248.19	107.28	148.07	17 40 56	4695.6	48.35	242.25
26.64	6 1 20	1738.57	41.71	56.28	107.26	148.07	6 30 19	1138.6	48.34	50.34
153.36	16 12 41	5295.60	41.72	248.19	107.28	148.07	17 40 56	4695.6	48.35	242.25

DIFFERENTIAL CORRECTIONS
TDE-2.4176 TRA .2280 TC3-2.0799 BAU .5783
RDE 1.8962 RRA -.2944 RC3 1.0877 FAU .06947
FDE-4.2631 FRA .7708 FC3-3.2634 BSP 15071
BDE 3.0725 BRA .3724 BC3 2.3471 FSP -1902

MID-COURSE EXECUTION ACCURACY
SGT 3767.5 SGR 2875.3 SG3 592.4
RRT -.9786 RRF -.9946 RTF .9821
SGB 4739.4 R23 .0880 R13 -.9917
SG1 4715.7 SG2 473.0 THA 142.81

ORBIT DETERMINATION ACCURACY
ST 3235.3 SR 2548.5 SS 2441.7
CRT -.9989 CRS .9998 CST -.9979
LSA 4786.0 MSA 135.7 SSA 8.5
EL1 4117.5 EL2 92.5 ALF 141.78

LAUNCH DATE AUG 5 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 471.692

RL 151.76 LAL .00 LOL 312.17 VL 26.854 GAL 1.82 AZL 96.23 HCA 213.06 SMA 129.12 ECC .17811 INC 6.2303 V1 29.357
RP 107.60 LAP 3.39 LOP 165.07 VP 37.934 GAP 3.65 AZP 84.77 TAL 171.55 TAP 24.60 RCA 106.12 APO 152.12 V2 35.218
RC 102.053 GL -45.21 GP 45.18 ZAL 74.45 ZAP 118.48 ETS 29.47 ZAE 124.59 ETE 140.21 ZAC 140.46 ETC 248.82 CLP-132.57

PLANETOCENTRIC CONIC

C3 16.844 VHL 4.104 DLA -64.71 RAL 224.84 RAD 6567.7 VEL 11.757 PTH 2.08 VHP 4.789 DPA 31.43 RAP 229.62 ECC 1.2772

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.03	6 26 52	1709.47	42.08	52.32	109.58	144.87	6 55 22	1109.5	48.42	45.81
150.97	16 27 21	5282.94	42.08	246.88	109.60	144.86	17 55 24	4682.9	48.43	240.36
29.03	6 26 52	1709.47	42.08	52.32	109.58	144.87	6 55 22	1109.5	48.42	45.81
150.97	16 27 21	5282.94	42.08	246.88	109.60	144.86	17 55 24	4682.9	48.43	240.36
29.03	6 26 52	1709.47	42.08	52.32	109.58	144.87	6 55 22	1109.5	48.42	45.81
150.97	16 27 21	5282.94	42.08	246.88	109.60	144.86	17 55 24	4682.9	48.43	240.36

DIFFERENTIAL CORRECTIONS
TDE-2.3736 TRA .3731 TC3-2.4520 BAU .6012
RDE 1.5503 RRA -.3356 RC3 1.0558 FAU .07274
FDE-3.9848 FRA 1.0173 FC3-3.7386 BSP 15188
BDE 2.8351 BRA .5019 BC3 2.6697 FSP -1987

MID-COURSE EXECUTION ACCURACY
SGT 4064.3 SGR 2576.6 SG3 619.5
RRT -.9792 RRF -.9930 RTF .9836
SGB 4812.2 R23 .0901 R13 -.9905
SG1 4791.7 SG2 443.7 THA 147.86

ORBIT DETERMINATION ACCURACY
ST 3334.4 SR 2189.4 SS 2338.6
CRT -.9991 CRS .9996 CST -.9977
LSA 4622.0 MSA 134.2 SSA 9.5
EL1 3988.2 EL2 75.8 ALF 146.72

LAUNCH DATE AUG 5 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 477.863

RL 151.76 LAL .00 LOL 312.17 VL 26.837 GAL 1.99 AZL 95.74 HCA 216.28 SMA 129.00 ECC .17970 INC 5.7392 V1 29.357
RP 107.63 LAP 3.39 LOP 168.32 VP 37.914 GAP 4.04 AZP 85.37 TAL 170.84 TAP 27.12 RCA 105.82 APO 152.19 V2 35.211
RC 104.339 GL -42.58 GP 41.45 ZAL 72.69 ZAP 122.35 ETS 30.61 ZAE 125.64 ETE 144.39 ZAC 136.95 ETC 250.30 CLP-135.55

PLANETOCENTRIC CONIC

C3 15.713 VHL 3.964 DLA -62.67 RAL 229.30 RAD 6567.6 VEL 11.709 PTH 2.06 VHP 4.725 DPA 27.99 RAP 227.97 ECC 1.2586

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.43	6 50 20	1684.37	42.03	48.49	111.52	141.83	7 18 24	1084.4	48.10	41.51
148.57	16 39 28	5276.33	42.04	245.81	111.54	141.82	18 7 24	4676.3	48.10	238.83
31.43	6 50 20	1684.37	42.03	48.49	111.52	141.83	7 18 24	1084.4	48.10	41.51
148.57	16 39 28	5276.33	42.04	245.81	111.54	141.82	18 7 24	4676.3	48.10	238.83
31.43	6 50 20	1684.37	42.03	48.49	111.52	141.83	7 18 24	1084.4	48.10	41.51
148.57	16 39 28	5276.33	42.04	245.81	111.54	141.82	18 7 24	4676.3	48.10	238.83

DIFFERENTIAL CORRECTIONS
TDE-2.3078 TRA .5182 TC3-2.8082 BAU .6262
RDE 1.2771 RRA -.3579 RC3 1.0001 FAU .07448
FDE-3.6503 FRA 1.2341 FC3-4.1034 BSP 15473
BDE 2.6376 BRA .6298 BC3 2.9810 FSP -2044

MID-COURSE EXECUTION ACCURACY
SGT 4329.6 SGR 2303.5 SG3 632.1
RRT -.9788 RRF -.9909 RTF .9845
SGB 4904.3 R23 .0888 R13 -.9895
SG1 4886.4 SG2 418.5 THA 152.27

ORBIT DETERMINATION ACCURACY
ST 3372.1 SR 1876.8 SS 2206.1
CRT -.9993 CRS .9993 CST -.9974
LSA 4443.2 MSA 134.6 SSA 10.5
EL1 3858.8 EL2 59.3 ALF 150.91

LAUNCH DATE AUG 5 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 484.012
RL 151.76 LAL .00 LOL 312.17 VL 26.818 GAL 2.18 AZL 95.32 HCA 219.51 SMA 128.88 ECC .18146 INC 5.3184 V1 29.357
RP 107.65 LAP 3.38 LOP 171.56 VP 37.893 GAP 4.43 AZP 85.89 TAL 170.10 TAP 29.61 RCA 105.49 APO 152.26 V2 35.202
RC 106.624 GL -40.03 GP 38.07 ZAL 70.87 ZAP 126.02 ETS 31.48 ZAE 126.29 ETE 148.20 ZAC 133.79 ETC 251.43 CLP-138.34

PLANETOCENTRIC CONIC
C3 14.915 VHL 3.862 DLA -60.64 RAL 233.31 RAO 6567.6 VEL 11.675 PTH 2.05 VHP 4.713 DPA 24.77 RAP 226.74 ECC 1.2455

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.85	7 12 15	1662.35	41.66	44.83	113.26	138.98	7 39 57	1062.4	47.45	37.48
146.15	16 49 36	5274.90	41.67	245.02	113.28	138.97	18 17 31	4674.9	47.46	237.67
33.85	7 12 15	1662.35	41.66	44.83	113.26	138.98	7 39 57	1062.4	47.45	37.48
146.15	16 49 36	5274.90	41.67	245.02	113.28	138.97	18 17 31	4674.9	47.46	237.67
33.85	7 12 15	1662.35	41.66	44.83	113.26	138.98	7 39 57	1062.4	47.45	37.48
146.15	16 49 36	5274.90	41.67	245.02	113.28	138.97	18 17 31	4674.9	47.46	237.67

DIFFERENTIAL CORRECTIONS
TDE-2.2262 TRA .6684 TC3-3.1285 BAU .6503
RDE .0607 RRA -.3701 RC3 .9212 FAU .07444
FDE-3.2839 FRA 1.4272 FC3-4.3210 BSP 15781
BDE 2.4660 BRA .7640 BC3 3.2613 FSP -2060

MID-COURSE EXECUTION ACCURACY
SGT 4564.9 SGR 2058.3 SG3 632.1
RRT -.9772 RRF -.9880 RTF .9848
SGB 5007.5 R23 .0855 R13 -.9885
SG1 4991.5 SG2 399.7 THA 156.06

ORBIT DETERMINATION ACCURACY
ST 3358.8 SR 1609.2 SS 2053.1
CRT -.9996 CRS .9987 CST -.9969
LSA 4250.6 MSA 137.4 SSA 11.4
EL1 3724.2 EL2 43.3 ALF 154.41

LAUNCH DATE AUG 5 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 490.139
RL 151.76 LAL .00 LOL 312.17 VL 26.798 GAL 2.37 AZL 94.95 HCA 222.74 SMA 128.74 ECC .18339 INC 4.9517 V1 29.357
RP 107.68 LAP 3.36 LOP 174.80 VP 37.871 GAP 4.82 AZP 86.36 TAL 169.32 TAP 32.05 RCA 105.13 APO 152.35 V2 35.193
RC 108.906 GL -37.56 GP 35.03 ZAL 69.02 ZAP 129.49 ETS 32.14 ZAE 126.63 ETE 151.62 ZAC 130.98 ETC 252.33 CLP-140.95

PLANETOCENTRIC CONIC
C3 14.372 VHL 3.791 DLA -58.62 RAL 236.98 RAO 6567.6 VEL 11.651 PTH 2.05 VHP 4.741 DPA 21.78 RAP 225.90 ECC 1.2365

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.26	7 32 59	1642.71	41.04	41.35	114.90	136.35	8 0 22	1042.7	46.56	33.74
143.74	16 58 6	5278.04	41.05	244.51	114.92	136.34	18 26 4	4678.0	46.57	236.90
36.26	7 32 59	1642.71	41.04	41.35	114.90	136.35	8 0 22	1042.7	46.56	33.74
143.74	16 58 6	5278.04	41.05	244.51	114.92	136.34	18 26 4	4678.0	46.57	236.90
36.26	7 32 59	1642.71	41.04	41.35	114.90	136.35	8 0 22	1042.7	46.56	33.74
143.74	16 58 6	5278.04	41.05	244.51	114.92	136.34	18 26 4	4678.0	46.57	236.90

DIFFERENTIAL CORRECTIONS
TDE-2.1354 TRA .8226 TC3-3.4099 BAU .6744
RDE .8909 RRA -.3745 RC3 .8315 FAU .07314
FDE-2.9125 FRA 1.5914 FC3-4.4061 BSP 16125
BDE 2.3137 BRA .9038 BC3 3.5098 FSP -2046

MID-COURSE EXECUTION ACCURACY
SGT 4775.1 SGR 1841.8 SG3 622.3
RRT -.9746 RRF -.9841 RTF .9849
SGB 5118.0 R23 .0800 R13 -.9876
SG1 5103.4 SG2 386.0 THA 159.27

ORBIT DETERMINATION ACCURACY
ST 3306.7 SR 1385.5 SS 1890.8
CRT -.9998 CRS .9977 CST -.9963
LSA 4050.8 MSA 142.1 SSA 12.3
EL1 3585.2 EL2 27.6 ALF 157.27

LAUNCH DATE AUG 5 1970 FLIGHT TIME 178.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 496.242
RL 151.76 LAL .00 LOL 312.17 VL 26.777 GAL 2.59 AZL 94.63 HCA 225.97 SMA 128.60 ECC .18549 INC 4.6273 V1 29.357
RP 107.71 LAP 3.32 LOP 178.04 VP 37.847 GAP 5.20 AZP 86.78 TAL 168.50 TAP 34.47 RCA 104.75 APO 152.46 V2 35.184
RC 111.186 GL -35.18 GP 32.30 ZAL 67.13 ZAP 132.73 ETS 32.66 ZAE 126.72 ETE 154.65 ZAC 128.49 ETC 253.04 CLP-143.40

PLANETOCENTRIC CONIC
C3 14.033 VHL 3.746 DLA -56.64 RAL 240.36 RAO 6567.6 VEL 11.637 PTH 2.04 VHP 4.802 DPA 19.02 RAP 225.40 ECC 1.2309

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.66	7 52 52	1624.87	40.21	38.06	116.52	133.93	8 19 57	1024.9	45.48	30.26
141.34	17 5 13	5285.35	40.22	244.32	116.54	133.92	18 33 18	4685.3	45.49	236.51
38.66	7 52 52	1624.87	40.21	38.06	116.52	133.93	8 19 57	1024.9	45.48	30.26
141.34	17 5 13	5285.35	40.22	244.32	116.54	133.92	18 33 18	4685.3	45.49	236.51
38.66	7 52 52	1624.87	40.21	38.06	116.52	133.93	8 19 57	1024.9	45.48	30.26
141.34	17 5 13	5285.35	40.22	244.32	116.54	133.92	18 33 18	4685.3	45.49	236.51

DIFFERENTIAL CORRECTIONS
TDE-2.0435 TRA .9760 TC3-3.6618 BAU .7011
RDE .7607 RRA -.3717 RC3 .7454 FAU .07139
FDE-2.5630 FRA 1.7183 FC3-4.4042 BSP 16623
BDE 2.1805 BRA 1.0444 BC3 3.7369 FSP -2028

MID-COURSE EXECUTION ACCURACY
SGT 4966.2 SGR 1653.5 SG3 605.4
RRT -.9711 RRF -.9791 RTF .9851
SGB 5234.2 R23 .0713 R13 -.9870
SG1 5220.8 SG2 375.4 THA 161.99

ORBIT DETERMINATION ACCURACY
ST 3230.9 SR 1204.2 SS 1732.2
CRT -.9999 CRS .9959 CST -.9954
LSA 3855.8 MSA 147.1 SSA 13.0
EL1 3448.0 EL2 14.5 ALF 159.56

LAUNCH DATE AUG 5 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 502.323
RL 151.76 LAL .00 LOL 312.17 VL 26.755 GAL 2.82 AZL 94.34 HCA 229.19 SMA 128.46 ECC .18776 INC 4.3366 V1 29.357
RP 107.74 LAP 3.28 LOP 181.28 VP 37.822 GAP 5.59 AZP 87.16 TAL 167.65 TAP 36.84 RCA 104.34 APO 152.58 V2 35.174
RC 113.462 GL -32.87 GP 29.86 ZAL 65.21 ZAP 135.75 ETS 33.08 ZAE 126.65 ETE 157.31 ZAC 126.31 ETC 253.64 CLP-145.69

PLANETOCENTRIC CONIC
C3 13.865 VHL 3.724 DLA -54.68 RAL 243.51 RAO 6567.5 VEL 11.630 PTH 2.04 VHP 4.889 DPA 16.45 RAP 225.20 ECC 1.2282

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.06	8 12 5	1608.35	39.22	34.95	118.16	131.73	8 38 54	1008.4	44.26	27.03
138.94	17 11 8	5296.53	39.23	244.43	118.17	131.72	18 39 24	4696.5	44.27	236.50
41.06	8 12 5	1608.35	39.22	34.95	118.16	131.73	8 38 54	1008.4	44.26	27.03
138.94	17 11 8	5296.53	39.23	244.43	118.17	131.72	18 39 24	4696.5	44.27	236.50
41.06	8 12 5	1608.35	39.22	34.95	118.16	131.73	8 38 54	1008.4	44.26	27.03
138.94	17 11 8	5296.53	39.23	244.43	118.17	131.72	18 39 24	4696.5	44.27	236.50

DIFFERENTIAL CORRECTIONS
TDE-1.9384 TRA 1.1452 TC3-3.8391 BAU .7217
RDE .6552 RRA -.3707 RC3 .6472 FAU .06804
FDE-2.2156 FRA 1.8404 FC3-4.2487 BSP 16882
BDE 2.0462 BRA 1.2037 BC3 3.8933 FSP -1955

MID-COURSE EXECUTION ACCURACY
SGT 5134.1 SGR 1490.6 SG3 583.6
RRT -.9659 RRF -.9727 RTF .9845
SGB 5346.1 R23 .0648 R13 -.9860
SG1 5333.2 SG2 371.8 THA 164.26

ORBIT DETERMINATION ACCURACY
ST 3120.9 SR 1050.9 SS 1568.5
CRT -.9998 CRS .9926 CST -.9940
LSA 3644.1 MSA 157.0 SSA 13.7
EL1 3293.0 EL2 18.1 ALF 161.39

LAUNCH DATE AUG 5 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 508.379
RL 151.76 LAL .00 LOL 312.17 VL 26.732 GAL 3.06 AZL 94.07 HCA 232.42 SMA 128.30 ECC .19023 INC 4.0731 V1 29.357
RP 107.77 LAP 3.23 LOP 184.52 VP 37.796 GAP 5.98 AZP 87.51 TAL 166.77 TAP 39.19 RCA 103.90 APO 152.71 V2 35.164
RC 115.736 GL -30.63 GP 27.68 ZAL 63.27 ZAP 138.57 ETS 33.45 ZAE 126.44 ETE 159.63 ZAC 124.40 ETC 254.15 CLP-147.84
PLANETOCENTRIC CONIC
C3 13.847 VHL 3.721 DLA -52.75 RAL 246.46 RAD 6567.5 VEL 11.629 PTH 2.04 VHP 4.998 DPA 14.08 RAP 225.25 ECC 1.2279

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.44	8 30 47	1593.02	38.10	32.01	119.84	129.72	8 57 20	993.0	42.92	24.02
136.56	17 15 58	5311.34	38.11	244.83	119.86	129.71	18 44 29	4711.3	42.93	236.84
43.44	8 30 47	1593.02	38.10	32.01	119.84	129.72	8 57 20	993.0	42.92	24.02
136.56	17 15 58	5311.34	38.11	244.83	119.86	129.71	18 44 29	4711.3	42.93	236.84
43.44	8 30 47	1593.02	38.10	32.01	119.84	129.72	8 57 20	993.0	42.92	24.02
136.56	17 15 58	5311.34	38.11	244.83	119.86	129.71	18 44 29	4711.3	42.93	236.84

DIFFERENTIAL CORRECTIONS
TDE-1.8338 TRA 1.3174 TC3-3.9740 BAU .7429
RDE .5748 RRA -.3668 RC3 .5574 FAU .06447
FDE-1.9020 FRA 1.9355 FC3-4.0305 BSP 17224
BDE 1.9218 BRA 1.3675 BC3 4.0129 FSP -1882

MID-COURSE EXECUTION ACCURACY
SGT 5286.8 SGR 1351.3 SG3 558.7
RRT -.9592 RRF -.9648 RTF .9840
SGB 5456.8 R23 .0573 R13 -.9851
SG1 5444.2 SG2 370.9 THA 166.16

ORBIT DETERMINATION ACCURACY
ST 2998.6 SR 928.3 SS 1416.8
CRT -.9992 CRS .9870 CST -.9922
LSA 3439.8 MSA 168.2 SSA 14.2
EL1 3138.8 EL2 34.8 ALF 162.81

LAUNCH DATE AUG 5 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 514.408
RL 151.76 LAL .00 LOL 312.17 VL 26.708 GAL 3.32 AZL 93.83 HCA 235.64 SMA 128.15 ECC .19289 INC 3.8316 V1 29.357
RP 107.80 LAP 3.16 LOP 187.75 VP 37.769 GAP 6.37 AZP 87.84 TAL 165.86 TAP 41.50 RCA 103.43 APO 152.86 V2 35.153
RC 118.005 GL -28.48 GP 25.73 ZAL 61.33 ZAP 141.18 ETS 33.80 ZAE 126.16 ETE 161.64 ZAC 122.73 ETC 254.59 CLP-149.87
PLANETOCENTRIC CONIC
C3 13.965 VHL 3.737 DLA -50.86 RAL 249.23 RAD 6567.5 VEL 11.634 PTH 2.04 VHP 5.126 DPA 11.87 RAP 225.54 ECC 1.2298

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.81	8 49 7	1578.31	36.88	29.22	121.59	127.90	9 15 26	978.3	41.51	21.21
134.19	17 19 45	5329.76	36.89	245.55	121.60	127.89	18 48 35	4729.8	41.51	237.53
45.81	8 49 7	1578.31	36.88	29.22	121.59	127.90	9 15 26	978.3	41.51	21.21
134.19	17 19 45	5329.76	36.89	245.55	121.60	127.89	18 48 35	4729.8	41.51	237.53
45.81	8 49 7	1578.31	36.88	29.22	121.59	127.90	9 15 26	978.3	41.51	21.21
134.19	17 19 45	5329.76	36.89	245.55	121.60	127.89	18 48 35	4729.8	41.51	237.53

DIFFERENTIAL CORRECTIONS
TDE-1.7285 TRA 1.4956 TC3-4.0633 BAU .7638
RDE .5133 RRA -.3623 RC3 .4766 FAU .06075
FDE-1.6203 FRA 2.0116 FC3-3.7663 BSP 17577
BDE 1.8031 BRA 1.5389 BC3 4.0911 FSP -1805

MID-COURSE EXECUTION ACCURACY
SGT 5426.2 SGR 1233.2 SG3 532.4
RRT -.9511 RRF -.9551 RTF .9835
SGB 5564.6 R23 .0495 R13 -.9843
SG1 5552.1 SG2 372.2 THA 167.75

ORBIT DETERMINATION ACCURACY
ST 2867.0 SR 830.2 SS 1277.9
CRT -.9976 CRS .9780 CST -.9898
LSA 3241.7 MSA 181.4 SSA 14.6
EL1 2984.2 EL2 55.1 ALF 163.88

LAUNCH DATE AUG 5 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 520.411
RL 151.76 LAL .00 LOL 312.17 VL 26.683 GAL 3.59 AZL 93.61 HCA 238.86 SMA 127.98 ECC .19575 INC 3.6081 V1 29.357
RP 107.84 LAP 3.09 LOP 190.98 VP 37.741 GAP 6.77 AZP 88.13 TAL 164.92 TAP 43.78 RCA 102.93 APO 153.04 V2 35.141
RC 120.271 GL -26.40 GP 23.99 ZAL 59.39 ZAP 143.61 ETS 34.15 ZAE 125.82 ETE 163.38 ZAC 121.29 ETC 254.99 CLP-151.78
PLANETOCENTRIC CONIC
C3 14.210 VHL 3.770 DLA -49.01 RAL 251.85 RAD 6567.6 VEL 11.645 PTH 2.04 VHP 5.270 DPA 9.82 RAP 226.04 ECC 1.2339

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.16	9 7 10	1564.14	35.58	26.57	123.40	126.25	9 33 14	964.1	40.03	18.56
131.84	17 22 36	5351.61	35.60	246.55	123.41	126.23	18 51 48	4751.6	40.04	238.54
48.16	9 7 10	1564.14	35.58	26.57	123.40	126.25	9 33 14	964.1	40.03	18.56
131.84	17 22 36	5351.61	35.60	246.55	123.41	126.23	18 51 48	4751.6	40.04	238.54
48.16	9 7 10	1564.14	35.58	26.57	123.40	126.25	9 33 14	964.1	40.03	18.56
131.84	17 22 36	5351.61	35.60	246.55	123.41	126.23	18 51 48	4751.6	40.04	238.54

DIFFERENTIAL CORRECTIONS
TDE-1.6222 TRA 1.6808 TC3-4.1046 BAU .7836
RDE .4666 RRA -.3579 RC3 .4042 FAU .05691
FDE-1.3691 FRA 2.0722 FC3-3.4672 BSP 17922
BDE 1.6880 BRA 1.7185 BC3 4.1244 FSP -1724

MID-COURSE EXECUTION ACCURACY
SGT 5552.1 SGR 1133.0 SG3 505.4
RRT -.9414 RRF -.9437 RTF .9829
SGB 5666.6 R23 .0421 R13 -.9835
SG1 5654.1 SG2 375.3 THA 169.08

ORBIT DETERMINATION ACCURACY
ST 2730.1 SR 751.7 SS 1152.9
CRT -.9942 CRS .9641 CST -.9868
LSA 3051.0 MSA 196.6 SSA 14.9
EL1 2830.6 EL2 77.7 ALF 164.68

LAUNCH DATE AUG 5 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 526.385
RL 151.76 LAL .00 LOL 312.17 VL 26.658 GAL 3.89 AZL 93.40 HCA 242.08 SMA 127.82 ECC .19883 INC 3.3994 V1 29.357
RP 107.87 LAP 3.00 LOP 194.21 VP 37.713 GAP 7.17 AZP 88.41 TAL 163.95 TAP 46.04 RCA 102.40 APO 153.23 V2 35.130
RC 122.531 GL -24.40 GP 22.44 ZAL 57.46 ZAP 145.88 ETS 34.53 ZAE 125.45 ETE 164.88 ZAC 120.03 ETC 255.36 CLP-153.59
PLANETOCENTRIC CONIC
C3 14.580 VHL 3.818 DLA -47.21 RAL 254.33 RAD 6567.6 VEL 11.660 PTH 2.05 VHP 5.428 DPA 7.91 RAP 226.71 ECC 1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.51	9 25 3	1550.15	34.23	24.02	125.28	124.75	9 50 53	950.2	38.51	16.04
129.49	17 24 28	5376.99	34.24	247.86	125.29	124.74	18 54 5	4777.0	38.52	239.87
50.51	9 25 3	1550.15	34.23	24.02	125.28	124.75	9 50 53	950.2	38.51	16.04
129.49	17 24 28	5376.99	34.24	247.86	125.29	124.74	18 54 5	4777.0	38.52	239.87
50.51	9 25 3	1550.15	34.23	24.02	125.28	124.75	9 50 53	950.2	38.51	16.04
129.49	17 24 28	5376.99	34.24	247.86	125.29	124.74	18 54 5	4777.0	38.52	239.87

DIFFERENTIAL CORRECTIONS
TDE-1.5150 TRA 1.8747 TC3-4.0998 BAU .8019
RDE .4315 RRA -.3545 RC3 .3402 FAU .05301
FDE-1.1461 FRA 2.1219 FC3-3.1478 BSP 18254
BDE 1.5753 BRA 1.9079 BC3 4.1139 FSP -1643

MID-COURSE EXECUTION ACCURACY
SGT 5667.1 SGR 1048.7 SG3 478.7
RRT -.9301 RRF -.9306 RTF .9822
SGB 5763.4 R23 .0354 R13 -.9827
SG1 5750.8 SG2 379.7 THA 170.19

ORBIT DETERMINATION ACCURACY
ST 2592.2 SR 688.8 SS 1042.4
CRT -.9882 CRS .9434 CST -.9829
LSA 2869.6 MSA 214.1 SSA 15.1
EL1 2680.3 EL2 102.3 ALF 165.27

LAUNCH DATE AUG 5 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 532.330

RL 151.76 LAL .00 LOL 312.17 VL 26.632 GAL 4.20 AZL 93.20 HCA 245.30 SMA 127.65 ECC .20214 INC 3.2030 V1 29.357
RP 107.91 LAP 2.91 LOP 197.44 VP 37.683 GAP 7.57 AZP 88.66 TAL 162.97 TAP 48.27 RCA 101.84 APO 153.45 V2 35.118
RC 124.786 GL -22.47 GP 21.05 ZAL 55.55 ZAP 147.99 ETS 34.97 ZAE 125.06 ETE 166.18 ZAC 118.95 ETC 255.71 CLP-155.31

PLANETOCENTRIC CONIC

C3 15.075 VHL 3.883 DLA -45.45 RAL 256.68 RAD 6567.6 VEL 11.682 PTH 2.05 VHP 5.601 DPA 6.13 RAP 227.55 ECC 1.2481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.83	9 42 50	1536.17	32.83	21.57	127.23	123.39	10 8 26	936.2	36.96	13.62
127.17	17 25 24	5405.85	32.84	249.45	127.23	123.38	18 55 30	4805.9	36.97	241.50
52.83	9 42 50	1536.17	32.83	21.57	127.23	123.39	10 8 26	936.2	36.96	13.62
127.17	17 25 24	5405.85	32.84	249.45	127.23	123.38	18 55 30	4805.9	36.97	241.50
52.83	9 42 50	1536.17	32.83	21.57	127.23	123.39	10 8 26	936.2	36.96	13.62
127.17	17 25 24	5405.85	32.84	249.45	127.23	123.38	18 55 30	4805.9	36.97	241.50

DIFFERENTIAL CORRECTIONS
TDE-1.4075 TRA 2.0765 TC3-4.0544 BAU .8191
RDE .4057 RRA -.3520 RC3 .2851 FAU .04918
FDE -.9499 FRA 2.1614 FC3-2.8246 BSP 18570
BDE 1.4649 BRA 2.1061 BC3 4.0644 FSP -1562

MID-COURSE EXECUTION ACCURACY
SGT 5771.1 SGR 977.7 SG3 452.6
RRT -.9172 RRF -.9160 RTF .9815
SGB 5853.3 R23 .0293 R13 -.9819
SG1 5840.7 SG2 384.8 THA 171.13

ORBIT DETERMINATION ACCURACY
ST 2457.7 SR 638.7 SS 947.0
CRT -.9782 CRS .9143 CST -.9783
LSA 2700.0 MSA 233.5 SSA 15.2
EL1 2536.1 EL2 128.6 ALF 165.70

LAUNCH DATE AUG 5 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 538.242

RL 151.76 LAL .00 LOL 312.17 VL 26.606 GAL 4.53 AZL 93.02 HCA 248.52 SMA 127.47 ECC .20570 INC 3.0166 V1 29.357
RP 107.95 LAP 2.81 LOP 200.66 VP 37.653 GAP 7.99 AZP 88.89 TAL 161.96 TAP 50.47 RCA 101.25 APO 153.70 V2 35.105
RC 127.036 GL -20.63 GP 19.81 ZAL 53.66 ZAP 149.96 ETS 35.47 ZAE 124.68 ETE 167.30 ZAC 118.02 ETC 256.05 CLP-156.95

PLANETOCENTRIC CONIC

C3 15.697 VHL 3.962 DLA -43.74 RAL 258.90 RAD 6567.6 VEL 11.708 PTH 2.06 VHP 5.786 DPA 4.45 RAP 228.53 ECC 1.2583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.15	10 0 36	1521.98	31.41	19.19	129.24	122.17	10 25 58	922.0	35.40	11.30
124.85	17 25 24	5438.25	31.42	251.33	129.25	122.15	18 56 2	4838.3	35.41	243.44
55.15	10 0 36	1521.98	31.41	19.19	129.24	122.17	10 25 58	922.0	35.40	11.30
124.85	17 25 24	5438.25	31.42	251.33	129.25	122.15	18 56 2	4838.3	35.41	243.44
55.15	10 0 36	1521.98	31.41	19.19	129.24	122.17	10 25 58	922.0	35.40	11.30
124.85	17 25 24	5438.25	31.42	251.33	129.25	122.15	18 56 2	4838.3	35.41	243.44

DIFFERENTIAL CORRECTIONS
TDE-1.3075 TRA 2.2795 TC3-3.9923 BAU .8393
RDE .3890 RRA -.3494 RC3 .2426 FAU .04592
FDE -.7876 FRA 2.1845 FC3-2.5327 BSP 19064
BDE 1.3642 BRA 2.3061 BC3 3.9996 FSP -1503

MID-COURSE EXECUTION ACCURACY
SGT 5865.4 SGR 917.8 SG3 427.2
RRT -.9033 RRF -.9000 RTF .9812
SGB 5936.8 R23 .0229 R13 -.9815
SG1 5923.9 SG2 390.0 THA 171.92

ORBIT DETERMINATION ACCURACY
ST 2336.3 SR 600.4 SS 869.0
CRT -.9634 CRS .8779 CST -.9739
LSA 2551.4 MSA 252.4 SSA 15.2
EL1 2407.1 EL2 156.2 ALF 166.03

LAUNCH DATE AUG 5 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 544.122

RL 151.76 LAL .00 LOL 312.17 VL 26.579 GAL 4.88 AZL 92.84 HCA 251.73 SMA 127.30 ECC .20952 INC 2.8384 V1 29.357
RP 107.99 LAP 2.70 LOP 203.88 VP 37.622 GAP 8.41 AZP 89.11 TAL 160.93 TAP 52.66 RCA 100.63 APO 153.97 V2 35.093
RC 129.278 GL -18.86 GP 18.70 ZAL 51.81 ZAP 151.81 ETS 36.05 ZAE 124.30 ETE 168.27 ZAC 117.21 ETC 256.39 CLP-158.51

PLANETOCENTRIC CONIC

C3 16.453 VHL 4.056 DLA -42.09 RAL 261.01 RAD 6567.7 VEL 11.740 PTH 2.07 VHP 5.984 DPA 2.88 RAP 229.64 ECC 1.2708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.46	10 18 27	1507.27	29.97	16.85	131.32	121.05	10 43 34	907.3	33.84	9.02
122.54	17 24 24	5474.37	29.98	253.51	131.33	121.04	18 55 39	4874.4	33.85	245.67
57.46	10 18 27	1507.27	29.97	16.85	131.32	121.05	10 43 34	907.3	33.84	9.02
122.54	17 24 24	5474.37	29.98	253.51	131.33	121.04	18 55 39	4874.4	33.85	245.67
57.46	10 18 27	1507.27	29.97	16.85	131.32	121.05	10 43 34	907.3	33.84	9.02
122.54	17 24 24	5474.37	29.98	253.51	131.33	121.04	18 55 39	4874.4	33.85	245.67

DIFFERENTIAL CORRECTIONS
TDE-1.1926 TRA 2.5071 TC3-3.8609 BAU .8504
RDE .3750 RRA -.3509 RC3 .1993 FAU .04194
FDE -.6283 FRA 2.2184 FC3-2.2067 BSP 19185
BDE 1.2502 BRA 2.5315 BC3 3.8660 FSP -1409

MID-COURSE EXECUTION ACCURACY
SGT 5951.3 SGR 867.6 SG3 403.6
RRT -.8881 RRF -.8832 RTF .9802
SGB 6014.2 R23 .0192 R13 -.9804
SG1 6001.2 SG2 395.5 THA 172.59

ORBIT DETERMINATION ACCURACY
ST 2212.7 SR 566.3 SS 800.1
CRT -.9413 CRS .8262 CST -.9676
LSA 2404.2 MSA 276.7 SSA 15.2
EL1 2276.5 EL2 185.8 ALF 166.36

LAUNCH DATE AUG 5 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 549.965

RL 151.76 LAL .00 LOL 312.17 VL 26.551 GAL 5.25 AZL 92.67 HCA 254.94 SMA 127.12 ECC .21362 INC 2.6668 V1 29.357
RP 108.03 LAP 2.58 LOP 207.10 VP 37.591 GAP 8.84 AZP 89.31 TAL 159.88 TAP 54.83 RCA 99.97 APO 154.28 V2 35.080
RC 131.513 GL -17.18 GP 17.69 ZAL 50.01 ZAP 153.54 ETS 36.74 ZAE 123.92 ETE 169.12 ZAC 116.52 ETC 256.72 CLP-160.01

PLANETOCENTRIC CONIC

C3 17.352 VHL 4.166 DLA -40.49 RAL 263.02 RAD 6567.7 VEL 11.779 PTH 2.08 VHP 6.194 DPA 1.41 RAP 230.87 ECC 1.2856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.76	10 36 28	1491.79	28.53	14.54	133.46	120.04	11 1 20	891.8	32.28	6.76
120.24	17 22 23	5514.31	28.54	255.98	133.46	120.03	18 54 18	4914.3	32.30	248.21
59.76	10 36 28	1491.79	28.53	14.54	133.46	120.04	11 1 20	891.8	32.28	6.76
120.24	17 22 23	5514.31	28.54	255.98	133.46	120.03	18 54 18	4914.3	32.30	248.21
59.76	10 36 28	1491.79	28.53	14.54	133.46	120.04	11 1 20	891.8	32.28	6.76
120.24	17 22 23	5514.31	28.54	255.98	133.46	120.03	18 54 18	4914.3	32.30	248.21

DIFFERENTIAL CORRECTIONS
TDE-1.0824 TRA 2.7396 TC3-3.7148 BAU .8626
RDE .3668 RRA -.3528 RC3 .1655 FAU .03840
FDE -.4947 FRA 2.2417 FC3-1.9157 BSP 19413
BDE 1.1429 BRA 2.7622 BC3 3.7185 FSP -1332

MID-COURSE EXECUTION ACCURACY
SGT 6028.4 SGR 825.1 SG3 381.0
RRT -.8724 RRF -.8658 RTF .9795
SGB 6084.6 R23 .0154 R13 -.9796
SG1 6071.5 SG2 400.4 THA 173.16

ORBIT DETERMINATION ACCURACY
ST 2105.8 SR 539.7 SS 746.2
CRT -.9117 CRS .7658 CST -.9621
LSA 2278.7 MSA 300.0 SSA 15.1
EL1 2163.2 EL2 215.9 ALF 166.71

LAUNCH DATE AUG 5 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 555.770

RL 151.76 LAL .00 LOL 312.17 VL 26.524 GAL 5.65 AZL 92.50 HCA 258.15 SMA 126.94 ECC .21803 INC 2.5005 V1 29.357
RP 108.07 LAP 2.45 LOP 210.31 VP 37.559 GAP 9.28 AZP 89.49 TAL 158.82 TAP 56.97 RCA 99.27 APO 154.62 V2 35.067
RC 133.740 GL -15.57 GP 16.79 ZAL 48.25 ZAP 155.17 ETS 37.54 ZAE 123.56 ETE 169.85 ZAC 115.92 ETC 257.06 CLP-161.44

PLANETOCENTRIC CONIC

C3 18.404 VHL 4.290 DLA -38.94 RAL 264.92 RAD 6567.7 VEL 11.823 PTH 2.09 VHP 6.416 DPA .02 RAP 232.20 ECC 1.3029

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.07	10 54 45	1475.24	27.08	12.22	135.65	119.12	11 19 20	875.2	30.74	4.50
117.93	17 19 18	5558.28	27.10	258.77	135.66	119.11	18 51 56	4958.3	30.75	251.05
62.07	10 54 45	1475.24	27.08	12.22	135.65	119.12	11 19 20	875.2	30.74	4.50
117.93	17 19 18	5558.28	27.10	258.77	135.66	119.11	18 51 56	4958.3	30.75	251.05
62.07	10 54 45	1475.24	27.08	12.22	135.65	119.12	11 19 20	875.2	30.74	4.50
117.93	17 19 18	5558.28	27.10	258.77	135.66	119.11	18 51 56	4958.3	30.75	251.05

DIFFERENTIAL CORRECTIONS
TDE -.9728 TRA 2.9821 TC3-3.5495 BAU .8740
RDE .3627 RRA -.3560 RC3 .1379 FAU .03509
FDE -.3792 FRA 2.2607 FC3-1.6506 BSP 19657
BDE 1.0383 BRA 3.0033 BC3 3.5522 FSP -1262

MID-COURSE EXECUTION ACCURACY
SGT 6097.9 SGR 788.9 SG3 359.7
RRT -.8564 RRF -.8483 RTF .9788
SGB 6148.8 R23 .0121 R13 -.9790
SG1 6135.4 SG2 404.8 THA 173.65

ORBIT DETERMINATION ACCURACY
ST 2014.1 SR 518.0 SS 704.4
CRT -.8737 CRS .6974 CST -.9577
LSA 2171.8 MSA 322.8 SSA 15.0
EL1 2065.0 EL2 245.8 ALF 167.15

LAUNCH DATE AUG 5 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 561.532

RL 151.76 LAL .00 LOL 312.17 VL 26.496 GAL 6.07 AZL 92.34 HCA 261.36 SMA 126.76 ECC .22277 INC 2.3381 V1 29.357
RP 108.11 LAP 2.31 LOP 213.52 VP 37.527 GAP 9.73 AZP 89.65 TAL 157.75 TAP 59.11 RCA 98.52 APO 155.00 V2 35.054
RC 135.957 GL -14.04 GP 15.98 ZAL 46.54 ZAP 156.71 ETS 38.48 ZAE 123.22 ETE 170.48 ZAC 115.41 ETC 257.41 CLP-162.83

PLANETOCENTRIC CONIC

C3 19.624 VHL 4.430 DLA -37.46 RAL 266.73 RAD 6567.8 VEL 11.875 PTH 2.11 VHP 6.652 DPA -1.29 RAP 233.62 ECC 1.3230

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.39	11 13 27	1457.13	25.65	9.85	137.89	118.28	11 37 44	857.1	29.22	2.20
115.61	17 15 2	5606.66	25.67	261.88	137.90	118.27	18 48 28	5006.7	29.23	254.22
64.39	11 13 27	1457.13	25.65	9.85	137.89	118.28	11 37 44	857.1	29.22	2.20
115.61	17 15 2	5606.66	25.67	261.88	137.90	118.27	18 48 28	5006.7	29.23	254.22
64.39	11 13 27	1457.13	25.65	9.85	137.89	118.28	11 37 44	857.1	29.22	2.20
115.61	17 15 2	5606.66	25.67	261.88	137.90	118.27	18 48 28	5006.7	29.23	254.22

DIFFERENTIAL CORRECTIONS
TDE -.8627 TRA 3.2363 TC3-3.3666 BAU .8837
RDE .3617 RRA -.3606 RC3 .1150 FAU .03193
FDE -.2783 FRA 2.2773 FC3-1.4088 BSP 19879
BDE .9354 BRA 3.2564 BC3 3.3685 FSP -1194

MID-COURSE EXECUTION ACCURACY
SGT 6160.0 SGR 757.9 SG3 339.7
RRT -.8405 RRF -.8309 RTF .9782
SGB 6206.5 R23 .0093 R13 -.9783
SG1 6193.0 SG2 408.4 THA 174.07

ORBIT DETERMINATION ACCURACY
ST 1937.9 SR 499.9 SS 672.7
CRT -.8269 CRS .6233 CST -.9549
LSA 2083.0 MSA 344.5 SSA 14.8
EL1 1982.4 EL2 274.8 ALF 167.72

LAUNCH DATE AUG 5 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 567.248

RL 151.76 LAL .00 LOL 312.17 VL 26.467 GAL 6.51 AZL 92.18 HCA 264.57 SMA 126.58 ECC .22788 INC 2.1786 V1 29.357
RP 108.15 LAP 2.17 LOP 216.73 VP 37.495 GAP 10.20 AZP 89.79 TAL 156.67 TAP 61.23 RCA 97.74 APO 155.43 V2 35.041
RC 138.166 GL -12.59 GP 15.24 ZAL 44.89 ZAP 158.16 ETS 39.58 ZAE 122.88 ETE 171.04 ZAC 114.97 ETC 257.76 CLP-164.16

PLANETOCENTRIC CONIC

C3 21.030 VHL 4.586 DLA -36.03 RAL 268.45 RAD 6567.9 VEL 11.934 PTH 2.12 VHP 6.901 DPA -2.53 RAP 235.12 ECC 1.3461

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.73	11 32 42	1437.01	24.24	7.40	140.18	117.51	11 56 39	837.0	27.72	359.80
113.27	17 9 28	5659.79	24.25	265.34	140.19	117.50	18 43 47	5059.8	27.73	257.74
66.73	11 32 42	1437.01	24.24	7.40	140.18	117.51	11 56 39	837.0	27.72	359.80
113.27	17 9 28	5659.79	24.25	265.34	140.19	117.50	18 43 47	5059.8	27.73	257.74
66.73	11 32 42	1437.01	24.24	7.40	140.18	117.51	11 56 39	837.0	27.72	359.80
113.27	17 9 28	5659.79	24.25	265.34	140.19	117.50	18 43 47	5059.8	27.73	257.74

DIFFERENTIAL CORRECTIONS
TDE -.7515 TRA 3.5031 TC3-3.1702 BAU .8917
RDE .3630 RRA -.3667 RC3 .0961 FAU .02894
FDE -.1898 FRA 2.2922 FC3-1.1912 BSP 20084
BDE .8346 BRA 3.5222 BC3 3.1716 FSP -1130

MID-COURSE EXECUTION ACCURACY
SGT 6214.9 SGR 731.0 SG3 320.9
RRT -.8250 RRF -.8141 RTF .9777
SGB 6257.7 R23 .0070 R13 -.9778
SG1 6244.2 SG2 411.2 THA 174.43

ORBIT DETERMINATION ACCURACY
ST 1877.6 SR 484.3 SS 649.4
CRT -.7719 CRS .5464 CST -.9539
LSA 2012.2 MSA 364.1 SSA 14.6
EL1 1915.4 EL2 301.8 ALF 168.45

LAUNCH DATE AUG 5 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 572.913

RL 151.76 LAL .00 LOL 312.17 VL 26.439 GAL 6.99 AZL 92.02 HCA 267.77 SMA 126.40 ECC .23337 INC 2.0208 V1 29.357
RP 108.19 LAP 2.02 LOP 219.94 VP 37.462 GAP 10.69 AZP 89.92 TAL 155.58 TAP 63.34 RCA 96.90 APO 155.90 V2 35.028
RC 140.364 GL -11.21 GP 14.57 ZAL 43.31 ZAP 159.52 ETS 40.86 ZAE 122.56 ETE 171.52 ZAC 114.60 ETC 258.12 CLP-165.46

PLANETOCENTRIC CONIC

C3 22.642 VHL 4.758 DLA -34.66 RAL 270.07 RAD 6567.9 VEL 12.001 PTH 2.14 VHP 7.165 DPA -3.70 RAP 236.70 ECC 1.3726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.13	11 52 45	1414.14	22.84	4.81	142.52	116.80	12 16 19	814.1	26.25	357.26
110.87	17 2 24	5718.34	22.86	269.20	142.53	116.79	18 37 42	5118.3	26.26	261.66
69.13	11 52 45	1414.14	22.84	4.81	142.52	116.80	12 16 19	814.1	26.25	357.26
110.87	17 2 24	5718.34	22.86	269.20	142.53	116.79	18 37 42	5118.3	26.26	261.66
69.13	11 52 45	1414.14	22.84	4.81	142.52	116.80	12 16 19	814.1	26.25	357.26
110.87	17 2 24	5718.34	22.86	269.20	142.53	116.79	18 37 42	5118.3	26.26	261.66

DIFFERENTIAL CORRECTIONS
TDE -.6396 TRA 3.7828 TC3-2.9652 BAU .8979
RDE .3664 RRA -.3739 RC3 .0806 FAU .02610
FDE -.1127 FRA 2.3060 FC3 -.9981 BSP 20283
BDE .7371 BRA 3.8012 BC3 2.9663 FSP -1070

MID-COURSE EXECUTION ACCURACY
SGT 6262.5 SGR 707.2 SG3 303.2
RRT -.8100 RRF -.7980 RTF .9772
SGB 6302.3 R23 .0051 R13 -.9773
SG1 6288.8 SG2 413.0 THA 174.75

ORBIT DETERMINATION ACCURACY
ST 1833.0 SR 470.7 SS 632.8
CRT -.7101 CRS .4702 CST -.9550
LSA 1958.8 MSA 380.6 SSA 14.4
EL1 1864.3 EL2 325.9 ALF 169.34

LAUNCH DATE AUG 5 1970 FLIGHT TIME 206.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 578.522

RL 151.76 LAL .00 LOL 312.17 VL 26.410 GAL 7.49 AZL 91.86 HCA 270.97 SMA 126.22 ECC .23929 INC 1.8639 V1 29.357
RP 108.23 LAP 1.86 LOP 223.14 VP 37.430 GAP 11.20 AZP 90.03 TAL 154.48 TAP 65.45 RCA 96.01 APO 156.42 V2 35.014
RC 142.552 GL -9.91 GP 13.97 ZAL 41.78 ZAP 160.82 ETS 42.34 ZAE 122.25 ETE 171.95 ZAC 114.27 ETC 258.50 CLP-166.72

PLANETOCENTRIC CONIC

C3 24.485 VHL 4.948 DLA -33.35 RAL 271.62 RAD 6568.0 VEL 12.077 PTH 2.16 VHP 7.445 DPA -4.80 RAP 238.35 ECC 1.4030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.61	12 13 53	1387.49	21.47	1.99	144.89	116.15	12 37 1	787.5	24.80	354.50
108.39	16 53 33	5783.25	21.48	273.53	144.90	116.14	18 29 57	5183.3	24.82	266.03
71.61	12 13 53	1387.49	21.47	1.99	144.89	116.15	12 37 1	787.5	24.80	354.50
108.39	16 53 33	5783.25	21.48	273.53	144.90	116.14	18 29 57	5183.3	24.82	266.03
110.00	16 6 10	640.59	16.23	303.90	141.91	120.51	16 16 50	40.6	20.16	296.98
110.00	18 0 28	5578.16	26.92	260.27	147.56	111.91	19 33 26	4978.2	29.65	252.14

DIFFERENTIAL CORRECTIONS
TDE -.5273 TRA 4.0762 TC3-2.7562 BAU .9025
RDE .3714 RRA -.3824 RC3 .0678 FAU .02345
FDE -.0456 FRA 2.3192 FC3 -.8291 BSP 20491
BDE .6450 BRA 4.0941 BC3 2.7570 FSP -1016

MID-COURSE EXECUTION ACCURACY
SGT 6303.6 SGR 685.8 SG3 286.7
RRT -.7958 RRF -.7829 RTF .9769
SGB 6340.8 R23 .0035 R13 -.9769
SG1 6327.3 SG2 413.8 THA 175.03

ORBIT DETERMINATION ACCURACY
ST 1803.5 SR 458.5 SS 621.5
CRT -.6437 CRS .3975 CST -.9578
LSA 1922.0 MSA 393.5 SSA 14.2
EL1 1828.4 EL2 346.1 ALF 170.36

LAUNCH DATE AUG 5 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 584.069

RL 151.76 LAL .00 LOL 312.17 VL 26.381 GAL 8.03 AZL 91.71 HCA 274.17 SMA 126.04 ECC .24569 INC 1.7069 V1 29.357
RP 108.27 LAP 1.70 LOP 226.34 VP 37.397 GAP 11.73 AZP 90.12 TAL 153.39 TAP 67.55 RCA 95.07 APO 157.00 V2 35.001
RC 144.730 GL -8.68 GP 13.42 ZAL 40.32 ZAP 162.04 ETS 44.06 ZAE 121.95 ETE 172.32 ZAC 114.00 ETC 258.89 CLP-167.95

PLANETOCENTRIC CONIC

C3 26.590 VHL 5.157 DLA -32.09 RAL 273.08 RAD 6568.1 VEL 12.164 PTH 2.18 VHP 7.742 DPA -5.84 RAP 240.05 ECC 1.4376

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.22	12 36 42	1355.23	20.12	358.82	147.31	115.54	12 59 17	755.2	23.39	351.37
105.78	16 42 24	5856.25	20.14	278.43	147.31	115.53	18 20 0	5256.2	23.41	270.98
74.22	12 36 42	1355.23	20.12	358.82	147.31	115.54	12 59 17	755.2	23.39	351.37
105.78	16 42 24	5856.25	20.14	278.43	147.31	115.53	18 20 0	5256.2	23.41	270.98
110.00	15 39 6	764.45	11.83	310.80	142.55	122.31	15 51 51	164.4	16.01	304.19
110.00	18 39 10	5495.02	28.90	254.61	151.26	109.10	20 10 45	4895.0	31.23	246.18

DIFFERENTIAL CORRECTIONS
TDE -.4146 TRA 4.3839 TC3-2.5464 BAU .9055
RDE .3778 RRA -.3918 RC3 .0573 FAU .02097
FDE .0127 FRA 2.3320 FC3 -.6827 BSP 20712
BDE .5609 BRA 4.4013 BC3 2.5471 FSP -965

MID-COURSE EXECUTION ACCURACY
SGT 6337.8 SGR 666.2 SG3 271.2
RRT -.7824 RRF -.7688 RTF .9767
SGB 6372.7 R23 .0022 R13 -.9767
SG1 6359.3 SG2 413.5 THA 175.28

ORBIT DETERMINATION ACCURACY
ST 1787.1 SR 447.2 SS 614.0
CRT -.5748 CRS .3303 CST -.9619
LSA 1899.6 MSA 402.3 SSA 13.9
EL1 1806.3 EL2 362.1 ALF 171.47

LAUNCH DATE AUG 5 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 589.546

RL 151.76 LAL .00 LOL 312.17 VL 26.352 GAL 8.60 AZL 91.55 HCA 277.36 SMA 125.85 ECC .25260 INC 1.5486 V1 29.357
RP 108.31 LAP 1.54 LOP 229.54 VP 37.364 GAP 12.28 AZP 90.20 TAL 152.29 TAP 69.66 RCA 94.06 APO 157.64 V2 34.988
RC 146.899 GL -7.51 GP 12.92 ZAL 38.93 ZAP 163.19 ETS 46.06 ZAE 121.66 ETE 172.65 ZAC 113.76 ETC 259.29 CLP-169.16

PLANETOCENTRIC CONIC

C3 28.993 VHL 5.385 DLA -30.90 RAL 274.46 RAD 6568.2 VEL 12.262 PTH 2.21 VHP 8.058 DPA -6.82 RAP 241.81 ECC 1.4772

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.09	13 2 5	1314.37	18.81	355.07	149.75	114.98	13 24 0	714.4	22.02	347.67
102.91	16 28 2	652.17	18.82	306.22	149.76	114.96	16 38 54	52.2	22.03	298.81
77.09	13 2 5	1314.37	18.81	355.07	149.75	114.98	13 24 0	714.4	22.02	347.67
102.91	16 28 2	652.17	18.82	306.22	149.76	114.96	16 38 54	52.2	22.03	298.81
110.00	15 22 5	858.90	8.34	315.90	143.77	123.27	15 36 24	258.9	12.67	309.47
110.00	19 7 13	5443.68	29.99	251.01	154.48	107.22	20 37 57	4843.7	32.06	242.41

DIFFERENTIAL CORRECTIONS
TDE -.3005 TRA 4.7078 TC3-2.3372 BAU .9061
RDE .3852 RRA -.4023 RC3 .0485 FAU .01862
FDE .0640 FRA 2.3457 FC3 -.5559 BSP 20926
BDE .4886 BRA 4.7249 BC3 2.3377 FSP -918

MID-COURSE EXECUTION ACCURACY
SGT 6365.4 SGR 647.8 SG3 256.7
RRT -.7700 RRF -.7558 RTF .9766
SGB 6398.3 R23 .0012 R13 -.9766
SG1 6385.0 SG2 412.1 THA 175.50

ORBIT DETERMINATION ACCURACY
ST 1781.9 SR 436.4 SS 609.5
CRT -.5058 CRS .2688 CST -.9666
LSA 1889.8 MSA 407.3 SSA 13.7
EL1 1796.2 EL2 373.5 ALF 172.62

LAUNCH DATE AUG 5 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 594.944

RL 151.76 LAL .00 LOL 312.17 VL 26.324 GAL 9.22 AZL 91.39 HCA 280.56 SMA 125.67 ECC .26009 INC 1.3882 V1 29.357
RP 108.35 LAP 1.36 LOP 232.73 VP 37.332 GAP 12.87 AZP 90.25 TAL 151.21 TAP 71.76 RCA 92.99 APO 158.36 V2 34.975
RC 149.057 GL -6.42 GP 12.46 ZAL 37.61 ZAP 164.28 ETS 48.37 ZAE 121.37 ETE 172.94 ZAC 113.55 ETC 259.70 CLP-170.34

PLANETOCENTRIC CONIC

C3 31.737 VHL 5.634 DLA -29.76 RAL 275.77 RAD 6568.3 VEL 12.374 PTH 2.23 VHP 8.395 DPA -7.75 RAP 243.62 ECC 1.5223

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.45	13 32 15	1257.71	17.52	350.22	152.22	114.44	13 53 13	657.7	20.67	342.85
99.55	16 8 17	754.19	17.54	313.21	152.23	114.43	16 20 51	154.2	20.69	305.85
100.00	15 47 49	819.62	15.39	317.02	151.18	115.94	16 1 28	219.6	18.76	309.84
100.00	16 35 25	667.52	19.69	307.77	153.23	112.95	16 46 32	67.5	22.63	300.21
110.00	15 9 33	940.40	5.28	320.21	145.28	123.82	15 25 13	340.4	9.68	313.89
110.00	19 30 10	5407.54	30.69	248.43	157.50	105.84	21 0 18	4807.5	32.56	239.71

DIFFERENTIAL CORRECTIONS
TDE -.1850 TRA 5.0489 TC3-2.1312 BAU .9044
RDE .3936 RRA -.4136 RC3 .0410 FAU .01641
FDE .1087 FRA 2.3602 FC3 -.4476 BSP 21157
BDE .4349 BRA 5.0658 BC3 2.1316 FSP -875

MID-COURSE EXECUTION ACCURACY
SGT 6386.6 SGR 630.2 SG3 243.0
RRT -.7584 RRF -.7440 RTF .9767
SGB 6417.6 R23 .0004 R13 -.9767
SG1 6404.5 SG2 409.6 THA 175.70

ORBIT DETERMINATION ACCURACY
ST 1785.9 SR 425.9 SS 607.1
CRT -.4384 CRS .2142 CST -.9715
LSA 1890.0 MSA 408.6 SSA 13.4
EL1 1796.1 EL2 380.6 ALF 173.75

LAUNCH DATE AUG 5 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 600.252

RL 151.76 LAL .00 LOL 312.17 VL 26.295 GAL 9.87 AZL 91.22 HCA 283.75 SMA 125.49 ECC .26822 INC 1.2245 V1 29.357
RP 108.39 LAP 1.19 LOP 235.92 VP 37.300 GAP 13.49 AZP 90.29 TAL 150.13 TAP 73.88 RCA 91.83 APO 159.15 V2 34.962
RC 151.205 GL -5.38 GP 12.05 ZAL 36.36 ZAP 165.30 ETS 51.04 ZAE 121.08 ETE 173.20 ZAC 113.37 ETC 260.12 CLP-171.51

PLANETOCENTRIC CONIC

C3 34.873 VHL 5.905 DLA -28.67 RAL 277.00 RAD 6568.4 VEL 12.500 PTH 2.26 VHP 8.755 DPA -8.61 RAP 245.46 ECC 1.5739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.30	14 15 50	1157.10	16.27	342.21	154.72	113.94	14 35 7	557.1	19.37	334.88
94.70	15 34 31	902.31	16.29	323.55	154.73	113.93	15 49 34	302.3	19.38	316.22
100.00	15 4 55	997.76	9.84	327.33	151.48	118.37	15 21 33	397.8	13.56	320.51
100.00	17 28 7	5824.93	22.93	277.33	157.55	109.72	19 5 12	5224.9	25.41	269.41
110.00	14 59 41	1014.22	2.47	324.08	146.99	124.10	15 16 35	414.2	6.93	317.83
110.00	19 49 51	5381.23	31.17	246.53	160.42	104.81	21 19 32	4781.2	32.88	237.73

DIFFERENTIAL CORRECTIONS
TDE -.0672 TRA 5.4097 TC3-1.9290 BAU .8995
RDE .4025 RRA -.4257 RC3 .0344 FAU .01429
FDE .1487 FRA 2.3767 FC3 -.3548 BSP 21375
BDE .4080 BRA 5.4264 BC3 1.9293 FSP -834

MID-COURSE EXECUTION ACCURACY
SGT 6401.7 SGR 613.0 SG3 230.3
RRT -.7477 RRF -.7332 RTF .9769
SGB 6431.0 R23 -.0002 R13 -.9769
SG1 6418.2 SG2 406.0 THA 175.89

ORBIT DETERMINATION ACCURACY
ST 1797.2 SR 415.2 SS 606.4
CRT -.3738 CRS .1653 CST -.9763
LSA 1898.6 MSA 406.6 SSA 13.1
EL1 1804.2 EL2 383.6 ALF 174.83

LAUNCH DATE AUG 5 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 605.457

RL 151.76 LAL .00 LOL 312.17 VL 26.266 GAL 10.58 AZL 91.06 HCA 286.93 SMA 125.31 ECC .27706 INC 1.0564 V1 29.357
RP 108.43 LAP 1.01 LOP 239.11 VP 37.267 GAP 14.14 AZP 90.31 TAL 149.08 TAP 76.01 RCA 90.59 APO 160.03 V2 34.949
RC 153.343 GL -4.40 GP 11.67 ZAL 35.18 ZAP 166.25 ETS 54.13 ZAE 120.80 ETE 173.43 ZAC 113.20 ETC 260.56 CLP-172.67

PLANETOCENTRIC CONIC

C3 38.463 VHL 6.202 DLA -27.64 RAL 278.15 RAD 6568.5 VEL 12.642 PTH 2.29 VHP 9.141 DPA -9.42 RAP 247.34 ECC 1.6330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 5 30	1231.20	10.25	344.71	154.94	116.54	14 26 1	631.2	13.73	337.76
90.00	15 54 5	877.73	19.98	323.34	159.32	110.49	16 8 43	277.7	22.59	315.64
100.00	14 43 59	1106.82	6.26	333.44	152.80	119.29	15 2 26	506.8	10.12	326.78
100.00	17 58 17	5765.39	24.25	273.40	160.92	108.04	19 34 22	5165.4	26.48	265.31
110.00	14 51 37	1082.84	-.16	327.66	148.83	124.18	15 9 40	482.8	4.33	321.45
110.00	20 7 8	5362.12	31.49	245.13	163.28	104.04	21 36 31	4762.1	33.10	236.28

DIFFERENTIAL CORRECTIONS
TDE .0538 TRA 5.7924 TC3-1.7321 BAU .8908
RDE .4118 RRA -.4384 RC3 .0285 FAU .01225
FDE .1845 FRA 2.3958 FC3 -.2758 BSP 21580
BDE .4153 BRA 5.8090 BC3 1.7323 FSP -796

MID-COURSE EXECUTION ACCURACY
SGT 6411.6 SGR 595.9 SG3 218.4
RRT -.7379 RRF -.7235 RTF .9772
SGB 6439.2 R23 -.0006 R13 -.9772
SG1 6426.7 SG2 401.2 THA 176.06

ORBIT DETERMINATION ACCURACY
ST 1814.0 SR 404.4 SS 607.2
CRT -.3131 CRS .1221 CST -.9806
LSA 1913.5 MSA 401.7 SSA 12.8
EL1 1818.7 EL2 383.1 ALF 175.82

LAUNCH DATE AUG 5 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 610.544

RL 151.76 LAL .00 LOL 312.17 VL 26.237 GAL 11.34 AZL 90.88 HCA 290.12 SMA 125.13 ECC .28669 INC .8827 V1 29.357
RP 108.47 LAP .83 LOP 242.29 VP 37.236 GAP 14.84 AZP 90.30 TAL 148.04 TAP 78.16 RCA 89.26 APO 161.01 V2 34.937
RC 155.470 GL -3.48 GP 11.32 ZAL 34.07 ZAP 167.12 ETS 57.71 ZAE 120.50 ETE 173.64 ZAC 113.06 ETC 261.00 CLP-173.83

PLANETOCENTRIC CONIC

C3 42.584 VHL 6.526 DLA -26.66 RAL 279.24 RAD 6568.6 VEL 12.804 PTH 2.33 VHP 9.557 DPA -10.18 RAP 249.25 ECC 1.7008

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 39 13	1358.17	6.30	351.95	156.12	117.66	14 1 52	758.2	9.96	345.18
90.00	16 29 0	802.14	21.71	318.47	162.88	108.64	16 42 23	202.1	24.05	310.59
100.00	14 29 13	1196.72	3.24	338.41	154.44	119.73	14 49 9	596.7	7.18	331.83
100.00	18 21 42	5726.87	25.03	270.81	164.04	106.89	19 57 9	5126.9	27.11	262.62
110.00	14 44 50	1147.65	-2.63	331.04	150.79	124.09	15 3 58	547.7	1.86	324.84
110.00	20 22 34	5348.70	31.71	244.15	166.10	103.49	21 51 43	4748.7	33.24	235.25

DIFFERENTIAL CORRECTIONS
TDE .1795 TRA 6.2004 TC3-1.5402 BAU .8769
RDE .4214 RRA -.4517 RC3 .0231 FAU .01026
FDE .2175 FRA 2.4186 FC3 -.2086 BSP 21737
BDE .4581 BRA 6.2168 BC3 1.5404 FSP -757

MID-COURSE EXECUTION ACCURACY
SGT 6416.7 SGR 578.6 SG3 207.3
RRT -.7287 RRF -.7146 RTF .9777
SGB 6442.7 R23 -.0009 R13 -.9777
SG1 6430.6 SG2 395.4 THA 176.23

ORBIT DETERMINATION ACCURACY
ST 1835.3 SR 393.3 SS 609.4
CRT -.2564 CRS .0835 CST -.9844
LSA 1933.5 MSA 394.5 SSA 12.5
EL1 1838.2 EL2 379.5 ALF 176.72

LAUNCH DATE AUG 5 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 615.492

RL 151.76 LAL .00 LOL 312.17 VL 26.209 GAL 12.16 AZL 90.70 HCA 293.30 SMA 124.96 ECC .29721 INC .7018 V1 29.357
RP 108.51 LAP .64 LOP 245.48 VP 37.204 GAP 15.59 AZP 90.28 TAL 147.03 TAP 80.33 RCA 87.82 APO 162.10 V2 34.925
RC 157.587 GL -2.61 GP 11.00 ZAL 33.03 ZAP 167.92 ETS 61.83 ZAE 120.20 ETE 173.83 ZAC 112.93 ETC 261.45 CLP-174.98

PLANETOCENTRIC CONIC

C3 47.326 VHL 6.879 DLA -25.73 RAL 280.25 RAD 6568.8 VEL 12.988 PTH 2.37 VHP 10.005 DPA -10.88 RAP 251.18 ECC 1.7789

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 22 9	1455.74	3.19	357.43	157.73	118.15	13 46 25	855.7	6.93	350.75
90.00	16 54 8	757.64	22.65	315.55	166.07	107.47	17 6 46	157.6	24.83	307.55
100.00	14 17 43	1276.36	.54	342.79	156.26	119.89	14 38 59	676.4	4.52	336.25
100.00	18 41 16	5700.31	25.55	269.00	167.03	106.07	20 16 16	5100.3	27.50	260.74
110.00	14 39 1	1209.48	-4.99	334.28	152.83	123.86	14 59 11	609.5	-.50	328.06
110.00	20 36 27	5339.95	31.85	243.50	168.90	103.13	22 5 27	4739.9	33.32	234.58

DIFFERENTIAL CORRECTIONS
TDE .3111 TRA 6.6369 TC3-1.3542 BAU .8569
RDE .4312 RRA -.4654 RC3 .0180 FAU .00828
FDE .2484 FRA 2.4456 FC3 -.1515 BSP 21833
BDE .5317 BRA 6.6532 BC3 1.3543 FSP -719

MID-COURSE EXECUTION ACCURACY
SGT 6417.9 SGR 561.0 SG3 197.0
RRT -.7202 RRF -.7065 RTF .9783
SGB 6442.4 R23 -.0010 R13 -.9783
SG1 6430.6 SG2 388.4 THA 176.38

ORBIT DETERMINATION ACCURACY
ST 1859.8 SR 381.6 SS 613.1
CRT -.2037 CRS .0490 CST -.9876
LSA 1957.5 MSA 385.3 SSA 12.2
EL1 1861.5 EL2 373.3 ALF 177.51

LAUNCH DATE AUG 6 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 15 1970

HELIOCENTRIC CONIC DISTANCE 145.097

RL	151.74	LAL	.00	LOL	313.13	VL	19.516	GAL	9.57	AZL	94.05	HCA	52.37	SMA	96.99	ECC	.58098	INC	4.0538	V1	29.361
RP	108.64	LAP	-3.21	LOP	5.43	VP	32.786	GAP	-34.93	AZP	92.48	TAL	172.94	TAP	225.31	RCA	40.64	APO	153.34	V2	34.883
RC	53.989	GL	-7.21	GP	-4.74	ZAL	71.16	ZAP	23.89	ETS	166.92	ZAE	153.83	ETE	169.85	ZAC	91.12	ETC	256.23	CLP	23.44

PLANETOCENTRIC CONIC

C3	117.410	VHL	10.836	DLA	-27.65	RAL	238.42	RAD	6570.2	VEL	15.451	PTH	2.76	VHP	20.320	DPA	-13.10	RAP	205.86	ECC	2.9323

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 23 30	1491.63	2.04	359.44	131.13	118.25	11 48 22	891.6	5.80	352.78
90.00	13 11 16	1140.85	12.94	339.44	136.68	115.41	13 30 17	540.8	16.26	332.33
100.00	12 1 48	1367.86	-2.56	347.81	128.58	119.79	12 24 35	767.9	1.43	341.29
100.00	15 15 39	739.85	17.71	312.23	138.98	114.48	15 27 59	139.8	20.87	304.86
110.00	12 9 20	1344.20	-10.04	341.45	124.01	122.85	12 31 44	744.2	-5.64	335.12
110.00	17 24 37	5624.32	25.71	263.31	142.79	113.34	18 58 21	5024.3	28.64	255.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2731	TRA	-1.2776	TC3	-.1049	BAU	.1670	SGT	808.8	SGR	449.8	SG3	35.8	ST	270.6	SR	445.2	SS	242.8
RDE	-.8414	RRA	-.0904	RC3	.0176	FAU	.01453	RRT	-.0873	RRF	.0884	RTF	-.6328	CRT	-.5026	CRS	-.6730	CST	.9746
FDE	-.1830	FRA	.5505	FC3	-.1071	BSP	2054	SGB	925.5	R23	-.0089	R13	.6336	LSA	514.2	MSA	256.5	SSA	13.9
BDE	.8846	BRA	1.2808	BC3	.1064	FSP	-74	SG1	810.2	SG2	447.3	THA	176.00	EL1	471.9	EL2	220.7	ALF	112.05

LAUNCH DATE AUG 6 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 17 1970

HELIOCENTRIC CONIC DISTANCE 151.294

RL	151.74	LAL	.00	LOL	313.13	VL	20.099	GAL	9.18	AZL	93.81	HCA	55.55	SMA	98.65	ECC	.55468	INC	3.8129	V1	29.361
RP	108.60	LAP	-3.14	LOP	8.62	VP	33.148	GAP	-33.25	AZP	92.16	TAL	172.46	TAP	228.01	RCA	43.93	APO	153.37	V2	34.894
RC	52.249	GL	-7.39	GP	-4.91	ZAL	70.27	ZAP	22.41	ETS	165.61	ZAE	155.11	ETE	169.74	ZAC	91.28	ETC	256.33	CLP	21.89

PLANETOCENTRIC CONIC

C3	105.172	VHL	10.255	DLA	-28.01	RAL	239.37	RAD	6570.0	VEL	15.050	PTH	2.71	VHP	19.440	DPA	-13.89	RAP	207.32	ECC	2.7309

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 44 40	1412.11	4.59	354.99	131.66	117.97	12 8 13	812.1	8.30	348.27
90.00	12 57 39	1175.10	11.94	341.45	135.42	115.87	13 17 14	575.1	15.32	334.41
100.00	12 13 40	1318.33	-.88	345.09	128.63	119.88	12 35 39	718.3	3.10	338.56
100.00	15 11 20	744.12	17.59	312.49	138.17	114.57	15 23 44	144.1	20.76	305.13
110.00	12 17 25	1306.57	-8.64	339.43	123.86	123.20	12 39 11	706.6	-4.21	333.14
110.00	17 24 5	5616.68	25.92	262.81	142.13	113.11	18 57 42	5016.7	28.81	254.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2668	TRA	-1.2687	TC3	-.1081	BAU	.1541	SGT	846.1	SGR	454.6	SG3	39.0	ST	283.3	SR	450.8	SS	252.1
RDE	-.8066	RRA	-.0748	RC3	.0183	FAU	.01486	RRT	-.0973	RRF	.0988	RTF	-.6528	CRT	-.4990	CRS	-.6682	CST	.9753
FDE	-.1857	FRA	.5698	FC3	-.1224	BSP	2191	SGB	960.6	R23	-.0100	R13	.6537	LSA	525.3	MSA	266.4	SSA	14.1
BDE	.8495	BRA	1.2709	BC3	.1096	FSP	-82	SG1	847.8	SG2	451.6	THA	175.82	EL1	479.9	EL2	230.6	ALF	113.01

LAUNCH DATE AUG 6 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 19 1970

HELIOCENTRIC CONIC DISTANCE 157.562

RL	151.74	LAL	.00	LOL	313.13	VL	20.642	GAL	8.78	AZL	93.59	HCA	58.72	SMA	100.30	ECC	.52933	INC	3.5895	V1	29.361
RP	108.57	LAP	-3.07	LOP	11.80	VP	33.492	GAP	-31.65	AZP	91.87	TAL	172.02	TAP	230.74	RCA	47.21	APO	153.39	V2	34.905
RC	50.589	GL	-7.56	GP	-5.09	ZAL	69.46	ZAP	20.95	ETS	164.11	ZAE	156.55	ETE	169.67	ZAC	91.42	ETC	256.44	CLP	20.35

PLANETOCENTRIC CONIC

C3	94.245	VHL	9.708	DLA	-28.34	RAL	240.25	RAD	6569.8	VEL	14.683	PTH	2.66	VHP	18.594	DPA	-14.70	RAP	208.80	ECC	2.5510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.76	12 14 8	1304.24	9.05	349.44	133.04	116.97	12 35 52	704.2	12.60	342.56
91.24	12 35 10	1236.02	9.07	344.46	133.05	116.97	12 55 46	636.0	12.62	337.57
100.00	12 25 18	1268.01	.83	342.33	128.58	119.88	12 46 26	668.0	4.80	335.79
100.00	15 6 42	747.48	17.49	312.69	137.23	114.63	15 19 9	147.5	20.67	305.34
110.00	12 24 58	1269.06	-7.24	337.43	123.60	123.50	12 46 7	669.1	-2.78	331.17
110.00	17 23 31	5607.24	26.17	262.19	141.33	112.82	18 56 58	5007.2	29.02	254.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2611	TRA	-1.2598	TC3	-.1103	BAU	.1410	SGT	885.0	SGR	458.9	SG3	42.5	ST	296.7	SR	455.9	SS	261.5
RDE	-.7721	RRA	-.0600	RC3	.0187	FAU	.01523	RRT	-.1084	RRF	.1104	RTF	-.6721	CRT	-.4967	CRS	-.6637	CST	.9761
FDE	-.1885	FRA	.5894	FC3	-.1399	BSP	2331	SGB	996.9	R23	-.0114	R13	.6731	LSA	536.5	MSA	276.1	SSA	14.3
BDE	.8151	BRA	1.2612	BC3	.1119	FSP	-92	SG1	886.9	SG2	455.2	THA	175.63	EL1	487.8	EL2	240.6	ALF	114.14

LAUNCH DATE AUG 6 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 21 1970

HELIOCENTRIC CONIC DISTANCE 163.896

RL	151.74	LAL	.00	LOL	313.13	VL	21.147	GAL	8.38	AZL	93.38	HCA	61.90	SMA	101.93	ECC	.50496	INC	3.3805	V1	29.361
RP	108.53	LAP	-2.98	LOP	14.99	VP	33.818	GAP	-30.12	AZP	91.59	TAL	171.61	TAP	233.51	RCA	50.46	APO	153.40	V2	34.917
RC	49.017	GL	-7.71	GP	-5.30	ZAL	68.72	ZAP	19.53	ETS	162.35	ZAE	158.16	ETE	169.65	ZAC	91.53	ETC	256.57	CLP	18.82

PLANETOCENTRIC CONIC

C3	84.481	VHL	9.191	DLA	-28.64	RAL	241.05	RAD	6569.7	VEL	14.347	PTH	2.61	VHP	17.781	DPA	-15.53	RAP	210.30	ECC	2.3904

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.52	11 50 21	1367.31	9.90	354.49	132.40	117.01	12 13 8	767.3	13.44	347.59
94.48	13 5 21	1124.43	9.91	336.72	132.41	117.01	13 24 5	524.4	13.46	329.81
100.00	12 36 38	1217.05	2.55	339.53	128.41	119.79	12 56 55	617.0	6.50	332.97
100.00	15 1 45	749.93	17.42	312.84	136.15	114.68	15 14 15	149.9	20.61	305.49
110.00	12 31 56	1231.83	-5.83	335.46	123.22	123.74	12 52 27	631.8	-1.36	329.23
110.00	17 22 56	5595.95	26.46	261.45	140.39	112.47	18 56 12	4995.9	29.27	253.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2563	TRA	-1.2503	TC3	-.1113	BAU	.1275	SGT	925.2	SGR	462.6	SG3	46.4	ST	310.7	SR	460.3	SS	271.3
RDE	-.7382	RRA	-.0458	RC3	.0188	FAU	.01564	RRT	-.1208	RRF	.1234	RTF	-.6908	CRT	-.4960	CRS	-.6599	CST	.9771
FDE	-.1914	FRA	.6095	FC3	-.1602	BSP	2478	SGB	1034.4	R23	-.0129	R13	.6918	LSA	548.0	MSA	285.4	SSA	14.6
BDE	.7814	BRA	1.2512	BC3	.1129	FSP	-102	SG1	927.5	SG2	458.1	THA	175.43	EL1	495.6	EL2	250.6	ALF	115.45

LAUNCH DATE AUG 6 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 23 1970

HELIOCENTRIC CONIC DISTANCE 170.291

RL	151.74	LAL	.00	LOL	313.13	VL	21.617	GAL	7.97	AZL	93.18	HCA	65.08	SMA	103.53	ECC	.48160	INC	3.1835	V1	29.361
RP	108.49	LAP	-2.89	LOP	18.18	VP	34.126	GAP	-28.67	AZP	91.34	TAL	171.24	TAP	236.32	RCA	53.67	APO	153.39	V2	34.929
RC	47.541	GL	-7.85	GP	-5.52	ZAL	68.06	ZAP	18.13	ETS	160.28	ZAE	159.94	ETE	169.72	ZAC	91.63	ETC	256.70	CLP	17.30

PLANETOCENTRIC CONIC

C3	75.752	VHL	8.704	DLA	-28.90	RAL	241.77	RAD	6569.5	VEL	14.039	PTH	2.56	VHP	16.998	DPA	-16.36	RAP	211.80	ECC	2.2467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.95	11 40 22	1383.88	10.75	356.16	131.63	116.99	12 3 26	783.9	14.29	349.22
96.05	13 21 6	1057.93	10.77	332.28	131.64	116.98	13 38 44	457.9	14.31	325.34
100.00	12 47 36	1165.70	4.29	336.70	128.12	119.61	13 7 2	565.7	8.20	330.10
100.00	14 56 33	751.35	17.38	312.93	134.93	114.71	15 9 4	151.3	20.57	305.58
110.00	12 38 15	1195.12	-4.44	333.53	122.72	123.93	12 58 10	595.1	.04	327.32
110.00	17 22 23	5582.73	26.80	260.57	139.32	112.05	18 55 26	4982.7	29.55	252.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2525	TRA	-1.2402	TC3	-.1107	BAU	.1137	SGT	966.7	SGR	465.7	SG3	50.6	ST	325.5	SR	464.0	SS	281.3
RDE	-.7048	RRA	-.0324	RC3	.0184	FAU	.01609	RRT	-.1346	RRF	.1378	RTF	-.7087	CRT	-.4972	CRS	-.6566	CST	.9784
FDE	-.1945	FRA	.6301	FC3	-.1839	BSP	2636	SGB	1073.1	R23	-.0145	R13	.7098	LSA	560.1	MSA	294.1	SSA	14.8
BDE	.7487	BRA	1.2406	BC3	.1122	FSP	-113	SG1	969.4	SG2	460.2	THA	175.21	EL1	503.5	EL2	260.3	ALF	116.97

LAUNCH DATE AUG 6 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 176.742

RL	151.74	LAL	.00	LOL	313.13	VL	22.055	GAL	7.57	AZL	93.00	HCA	68.27	SMA	105.10	ECC	.45926	INC	2.9962	V1	29.361
RP	108.45	LAP	-2.78	LOP	21.37	VP	34.418	GAP	-27.28	AZP	91.11	TAL	170.90	TAP	239.17	RCA	56.83	APO	153.36	V2	34.942
RC	46.171	GL	-7.97	GP	-5.76	ZAL	67.47	ZAP	16.77	ETS	157.83	ZAE	161.88	ETE	169.92	ZAC	91.70	ETC	256.85	CLP	15.78

PLANETOCENTRIC CONIC

C3	67.943	VHL	8.243	DLA	-29.13	RAL	242.42	RAD	6569.3	VEL	13.758	PTH	2.51	VHP	16.244	DPA	-17.22	RAP	213.31	ECC	2.1182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.85	11 34 8	1386.65	11.63	356.81	130.73	116.90	11 57 15	786.7	15.14	349.84
97.15	13 32 29	1004.01	11.64	328.75	130.74	116.89	13 49 13	404.0	15.16	321.78
100.00	12 58 6	1114.39	6.01	333.86	127.69	119.34	13 16 40	514.4	9.87	327.21
100.00	14 51 12	751.50	17.38	312.94	133.60	114.71	15 3 43	151.5	20.57	305.59
110.00	12 43 52	1159.19	-3.07	331.65	122.10	124.06	13 3 11	559.2	1.42	325.44
110.00	17 21 55	5567.50	27.19	259.55	138.13	111.56	18 54 43	4967.5	29.87	251.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2493	TRA	-1.2298	TC3	-.1083	BAU	.0997	SGT	1009.8	SGR	468.3	SG3	55.3	ST	341.0	SR	467.2	SS	291.6
RDE	-.6720	RRA	-.0196	RC3	.0175	FAU	.01659	RRT	-.1499	RRF	.1538	RTF	-.7259	CRT	-.4997	CRS	-.6539	CST	.9797
FDE	-.1977	FRA	.6512	FC3	-.2115	BSP	2794	SGB	1113.1	R23	-.0164	R13	.7271	LSA	572.7	MSA	302.3	SSA	15.0
BDE	.7168	BRA	1.2299	BC3	.1097	FSP	-125	SG1	1012.8	SG2	461.6	THA	174.98	EL1	511.6	EL2	269.7	ALF	118.68

LAUNCH DATE AUG 6 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 183.244

RL	151.74	LAL	.00	LOL	313.13	VL	22.462	GAL	7.17	AZL	92.82	HCA	71.45	SMA	106.63	ECC	.43795	INC	2.8169	V1	29.361
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.693	GAP	-25.96	AZP	90.90	TAL	170.62	TAP	242.07	RCA	59.93	APO	153.32	V2	34.954
RC	44.918	GL	-8.06	GP	-6.02	ZAL	66.95	ZAP	15.46	ETS	154.88	ZAE	164.00	ETE	170.30	ZAC	91.74	ETC	257.01	CLP	14.27

PLANETOCENTRIC CONIC

C3	60.956	VHL	7.807	DLA	-29.32	RAL	242.98	RAD	6569.1	VEL	13.502	PTH	2.47	VHP	15.519	DPA	-18.08	RAP	214.83	ECC	2.0032

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.05	11 30 3	1380.94	12.50	356.84	129.71	116.74	11 53 4	780.9	15.99	349.83
97.95	13 41 4	957.53	12.52	325.77	129.72	116.73	13 57 2	357.5	16.01	318.76
100.00	13 7 54	1063.88	7.68	331.05	127.13	118.98	13 25 38	463.9	11.49	324.33
100.00	14 45 54	749.82	17.43	312.84	132.17	114.68	14 58 24	149.8	20.61	305.49
110.00	12 48 42	1124.35	-1.74	329.83	121.34	124.14	13 7 26	524.4	2.75	323.62
110.00	17 21 36	5550.15	27.62	258.39	136.80	110.99	18 54 6	4950.2	30.21	250.16

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2467	TRA	-1.2187	TC3	-.1038	BAU	.0856	SGT	1054.2	SGR	470.3	SG3	60.3	ST	357.1	SR	469.6	SS	302.2
RDE	-.6400	RRA	-.0073	RC3	.0159	FAU	.01715	RRT	-.1668	RRF	.1717	RTF	-.7423	CRT	-.5036	CRS	-.6517	CST	.9812
FDE	-.2011	FRA	.6731	FC3	-.2436	BSP	2955	SGB	1154.3	R23	-.0187	R13	.7436	LSA	585.9	MSA	309.6	SSA	15.2
BDE	.6859	BRA	1.2187	BC3	.1050	FSP	-139	SG1	1057.8	SG2	462.2	THA	174.74	EL1	520.0	EL2	278.6	ALF	120.57

LAUNCH DATE AUG 6 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 189.791

RL	151.74	LAL	.00	LOL	313.13	VL	22.841	GAL	6.77	AZL	92.64	HCA	74.64	SMA	108.12	ECC	.41765	INC	2.6442	V1	29.361
RP	108.38	LAP	-2.55	LOP	27.76	VP	34.952	GAP	-24.69	AZP	90.70	TAL	170.37	TAP	245.02	RCA	62.96	APO	153.27	V2	34.967
RC	43.790	GL	-8.13	GP	-6.31	ZAL	66.52	ZAP	14.20	ETS	151.32	ZAE	166.28	ETE	170.99	ZAC	91.75	ETC	257.18	CLP	12.75

PLANETOCENTRIC CONIC

C3	54.704	VHL	7.396	DLA	-29.47	RAL	243.47	RAD	6569.0	VEL	13.269	PTH	2.42	VHP	14.820	DPA	-18.97	RAP	216.35	ECC	1.9003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.48	11 27 27	1368.94	13.37	356.40	128.57	116.51	11 50 16	768.9	16.82	349.34
98.52	13 47 32	916.53	13.39	323.19	128.58	116.50	14 2 48	316.5	16.84	316.13
100.00	13 16 38	1015.45	9.27	328.33	126.40	118.55	13 33 34	415.5	13.01	321.54
100.00	14 41 2	745.26	17.56	312.56	130.65	114.59	14 53 27	145.3	20.73	305.20
110.00	12 52 40	1090.95	-.47	328.09	120.46	124.18	13 10 51	491.0	4.02	321.88
110.00	17 21 29	5530.56	28.09	257.06	135.36	110.33	18 53 40	4930.6	30.59	248.75

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2450	TRA	-1.2070	TC3	-.0963	BAU	.0711	SGT	1099.9	SGR	472.0	SG3	65.9	ST	374.0	SR	471.5	SS	313.2
RDE	-.6087	RRA	.0044	RC3	.0133	FAU	.01777	RRT	-.1858	RRF	.1918	RTF	-.7580	CRT	-.5097	CRS	-.6505	CST	.9829
FDE	-.2049	FRA	.6959	FC3	-.2812	BSP	3127	SGB	1196.9	R23	-.0211	R13	.7595	LSA	600.2	MSA	315.9	SSA	15.4
BDE	.6562	BRA	1.2071	BC3	.0972	FSP	-154	SG1	1104.2	SG2	462.0	THA	174.47	EL1	529.2	EL2	286.7	ALF	122.67

LAUNCH DATE AUG 6 1970 FLIGHT TIME 86.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 196.380

RL	151.74	LAL	.00	LOL	313.13	VL	23.194	GAL	6.38	AZL	92.48	HCA	77.83	SMA	109.57	ECC	.39838	INC	2.4764	V1	29.361
RP	108.34	LAP	-2.42	LOP	30.95	VP	35.196	GAP	-23.47	AZP	90.52	TAL	170.18	TAP	248.01	RCA	65.92	APO	153.21	V2	34.980
RC	42.797	GL	-8.17	GP	-6.64	ZAL	66.16	ZAP	13.02	ETS	146.98	ZAE	168.72	ETE	172.25	ZAC	91.72	ETC	257.36	CLP	11.23

PLANETOCENTRIC CONIC

C3	49.110	VHL	7.008	DLA	-29.57	RAL	243.87	RAD	6568.8	VEL	13.057	PTH	2.38	VHP	14.147	DPA	-19.87	RAP	217.87	ECC	1.8082

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.10	11 26 10	1351.46	14.22	355.54	127.32	116.20	11 48 41	751.5	17.63	348.43
98.90	13 52 2	880.45	14.24	320.95	127.32	116.19	14 6 42	280.4	17.64	313.84
100.00	13 23 38	971.32	10.69	325.83	125.46	118.08	13 39 49	371.3	14.37	318.97
100.00	14 37 15	735.81	17.82	311.98	129.09	114.40	14 49 30	135.8	20.97	304.60
110.00	12 55 42	1059.38	.74	326.44	119.44	124.18	13 13 21	459.4	5.22	320.22
110.00	17 21 40	5508.57	28.60	255.55	133.81	109.57	18 53 29	4908.6	30.99	247.17

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2438	TRA	-1.1945	TC3	-.0857	BAU	.0566	SGT	1146.8	SGR	473.2	SG3	72.0	ST	391.4	SR	472.8	SS	324.5
RDE	-.5783	RRA	.0156	RC3	.0095	FAU	.01846	RRT	-.2070	RRF	.2142	RTF	-.7729	CRT	-.5173	CRS	-.6498	CST	.9846
FDE	-.2087	FRA	.7195	FC3	-.3254	BSP	3302	SGB	1240.6	R23	-.0239	R13	.7745	LSA	615.3	MSA	321.2	SSA	15.6
BDE	.6276	BRA	1.1946	BC3	.0863	FSP	-171	SG1	1151.7	SG2	461.0	THA	174.18	EL1	538.9	EL2	293.9	ALF	124.91

LAUNCH DATE AUG 6 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 203.004

RL	151.74	LAL	.00	LOL	313.13	VL	23.521	GAL	6.00	AZL	92.31	HCA	81.03	SMA	110.97	ECC	.38011	INC	2.3126	V1	29.361
RP	108.29	LAP	-2.28	LOP	34.15	VP	35.426	GAP	-22.30	AZP	90.36	TAL	170.03	TAP	251.06	RCA	68.79	APO	153.15	V2	34.993
RC	41.950	GL	-8.17	GP	-6.99	ZAL	65.88	ZAP	11.93	ETS	141.68	ZAE	171.28	ETE	174.62	ZAC	91.65	ETC	257.55	CLP	9.70

PLANETOCENTRIC CONIC

C3	44.106	VHL	6.641	DLA	-29.62	RAL	244.19	RAD	6568.7	VEL	12.864	PTH	2.34	VHP	13.499	DPA	-20.80	RAP	219.39	ECC	1.7259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.92	11 26 2	1328.97	15.05	354.29	125.94	115.82	11 48 11	729.0	18.40	347.12
99.08	13 54 42	849.04	15.07	319.04	125.95	115.81	14 8 51	249.0	18.41	311.87
100.00	13 27 53	934.80	11.86	323.74	124.29	117.64	13 43 28	334.8	15.46	316.81
100.00	14 35 32	718.45	18.31	310.92	127.52	114.05	14 47 30	118.4	21.40	303.49
110.00	12 57 41	1030.04	1.86	324.91	118.28	124.14	13 14 51	430.0	6.33	318.67
110.00	17 22 14	5484.01	29.15	253.85	132.15	108.70	18 53 38	4884.0	31.42	245.38

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2432	TRA	-1.1816	TC3	-.0715	BAU	.0423	SGT	1195.0	SGR	474.2	SG3	78.7	ST	409.6	SR	473.5	SS	336.1
RDE	-.5488	RRA	.0265	RC3	.0043	FAU	.01922	RRT	-.2307	RRF	.2394	RTF	-.7870	CRT	-.5265	CRS	-.6497	CST	.9864
FDE	-.2128	FRA	.7444	FC3	-.3773	BSP	3479	SGB	1285.7	R23	-.0271	R13	.7888	LSA	631.6	MSA	325.3	SSA	15.8
BDE	.6003	BRA	1.1819	BC3	.0717	FSP	-190	SG1	1200.9	SG2	459.2	THA	173.87	EL1	549.5	EL2	300.1	ALF	127.28

LAUNCH DATE AUG 6 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 209.660

RL	151.74	LAL	.00	LOL	313.13	VL	23.825	GAL	5.63	AZL	92.15	HCA	84.22	SMA	112.32	ECC	.36283	INC	2.1515	V1	29.361
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.642	GAP	-21.18	AZP	90.22	TAL	169.94	TAP	254.16	RCA	71.57	APO	153.07	V2	35.007
RC	41.257	GL	-8.13	GP	-7.38	ZAL	65.67	ZAP	10.98	ETS	135.23	ZAE	173.93	ETE	179.69	ZAC	91.54	ETC	257.75	CLP	8.16

PLANETOCENTRIC CONIC

C3	39.632	VHL	6.295	DLA	-29.61	RAL	244.42	RAD	6568.5	VEL	12.689	PTH	2.31	VHP	12.875	DPA	-21.75	RAP	220.89	ECC	1.6522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.95	11 27 10	1301.38	15.84	352.64	124.46	115.35	11 48 52	701.4	19.12	345.41
99.05	13 55 27	822.68	15.85	317.48	124.46	115.34	14 9 9	222.7	19.14	310.24
100.00	13 28 24	909.21	12.66	322.27	122.83	117.31	13 43 33	309.2	16.22	315.28
100.00	14 36 54	690.08	19.09	309.17	126.00	113.45	14 48 24	90.1	22.10	301.67
110.00	12 58 31	1003.40	2.88	323.52	116.99	124.08	13 15 14	403.4	7.33	317.26
110.00	17 23 16	5456.69	29.73	251.93	130.38	107.71	18 54 13	4856.7	31.86	243.37

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2432	TRA	-1.1677	TC3	-.0526	BAU	.0279	SGT	1244.1	SGR	475.1	SG3	86.2	ST	428.3	SR	473.7	SS	348.0
RDE	-.5203	RRA	.0371	RC3	-.0028	FAU	.02008	RRT	-.2573	RRF	.2677	RTF	-.8005	CRT	-.5376	CRS	-.6506	CST	.9883
FDE	-.2172	FRA	.7704	FC3	-.4386	BSP	3666	SGB	1331.7	R23	-.0307	R13	.8024	LSA	648.9	MSA	328.1	SSA	16.0
BDE	.5743	BRA	1.1683	BC3	.0527	FSP	-211	SG1	1251.0	SG2	456.6	THA	173.52	EL1	561.2	EL2	304.9	ALF	129.69

LAUNCH DATE AUG 6 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 216.343

RL	151.74	LAL	.00	LOL	313.13	VL	24.107	GAL	5.28	AZL	91.99	HCA	87.42	SMA	113.62	ECC	.34652	INC	1.9920	V1	29.361
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.844	GAP	-20.10	AZP	90.09	TAL	169.89	TAP	257.31	RCA	74.25	APO	152.99	V2	35.020
RC	40.727	GL	-8.04	GP	-7.81	ZAL	65.55	ZAP	10.22	ETS	127.47	ZAE	176.52	ETE	193.87	ZAC	91.37	ETC	257.96	CLP	6.61

PLANETOCENTRIC CONIC

C3	35.633	VHL	5.969	DLA	-29.54	RAL	244.57	RAD	6568.4	VEL	12.530	PTH	2.27	VHP	12.274	DPA	-22.72	RAP	222.39	ECC	1.5864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.20	11 29 45	1268.17	16.58	350.54	122.87	114.81	11 50 53	668.2	19.79	343.24
98.80	13 54 5	802.13	16.59	316.32	122.87	114.80	14 7 27	202.1	19.80	309.02
100.00	13 24 54	895.52	13.09	321.47	121.11	117.12	13 39 49	295.5	16.62	314.46
100.00	14 41 37	650.01	20.15	306.68	124.52	112.56	14 52 27	50.0	23.03	299.07
110.00	12 58 8	979.89	3.78	322.29	115.56	124.00	13 14 27	379.9	8.21	316.01
110.00	17 24 53	5426.44	30.34	249.79	128.51	106.57	18 55 19	4826.4	32.30	241.12

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2434	TRA	-1.1532	TC3	-.0288	BAU	.0149	SGT	1294.0	SGR	476.1	SG3	94.3	ST	447.5	SR	473.3	SS	360.1
RDE	-.4928	RRA	.0476	RC3	-.0121	FAU	.02102	RRT	-.2870	RRF	.2992	RTF	-.8132	CRT	-.5502	CRS	-.6515	CST	.9902
FDE	-.2215	FRA	.7982	FC3	-.5107	BSP	3851	SGB	1378.8	R23	-.0346	R13	.8154	LSA	667.1	MSA	329.6	SSA	16.2
BDE	.5497	BRA	1.1541	BC3	.0312	FSP	-234	SG1	1302.2	SG2	453.2	THA	173.14	EL1	573.8	EL2	308.2	ALF	132.10

LAUNCH DATE AUG 6 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 223.049

RL	151.74	LAL	.00	LOL	313.13	VL	24.369	GAL	4.93	AZL	91.83	HCA	90.62	SMA	114.87	ECC	.33116	INC	1.8333	V1	29.361
RP	108.17	LAP	-1.83	LOP	43.75	VP	36.033	GAP	-19.06	AZP	89.98	TAL	169.89	TAP	260.52	RCA	76.83	APO	152.91	V2	35.033
RC	40.367	GL	-7.88	GP	-8.29	ZAL	65.50	ZAP	9.69	ETS	118.42	ZAE	178.11	ETE	250.78	ZAC	91.15	ETC	258.18	CLP	5.04

PLANETOCENTRIC CONIC

C3	32.061	VHL	5.662	DLA	-29.40	RAL	244.65	RAD	6568.3	VEL	12.387	PTH	2.24	VHP	11.696	DPA	-23.72	RAP	223.87	ECC	1.5276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.74	11 34 14	1228.07	17.25	347.89	121.18	114.18	11 54 42	628.1	20.37	340.53
98.26	13 50 10	788.95	17.27	315.66	121.18	114.17	14 3 19	188.9	20.39	308.29
100.00	13 18 1	891.91	13.20	321.26	119.16	117.07	13 32 53	291.9	16.72	314.25
100.00	14 49 3	600.34	21.42	303.53	123.03	111.37	14 59 4	.3	24.13	295.78
110.00	12 56 25	959.97	4.53	321.24	114.01	123.92	13 12 25	360.0	8.96	314.95
110.00	17 27 9	5393.08	30.96	247.39	126.54	105.27	18 57 2	4793.1	32.74	238.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2437	TRA	-1.1382	TC3	.0010	BAU	.0104	SGT	1344.7	SGR	477.5	SG3	103.4	ST	467.0	SR	472.4	SS	372.4
RDE	-.4664	RRA	.0580	RC3	-.0242	FAU	.02207	RRT	-.3199	RRF	.3344	RTF	-.8253	CRT	-.5638	CRS	-.6531	CST	.9920
FDE	-.2258	FRA	.8277	FC3	-.5959	BSP	4042	SGB	1427.0	R23	-.0393	R13	.8277	LSA	686.1	MSA	330.0	SSA	16.4
BDE	.5262	BRA	1.1396	BC3	.0243	FSP	-260	SG1	1354.5	SG2	449.2	THA	172.71	EL1	587.4	EL2	310.2	ALF	134.42

LAUNCH DATE AUG 6 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 229.774

RL	151.74	LAL	.00	LOL	313.13	VL	24.612	GAL	4.59	AZL	91.67	HCA	93.83	SMA	116.06	ECC	.31673	INC	1.6742	V1	29.361
RP	108.13	LAP	-1.67	LOP	46.96	VP	36.211	GAP	-18.06	AZP	89.89	TAL	169.95	TAP	263.78	RCA	79.30	APO	152.82	V2	35.046
RC	40.182	GL	-7.67	GP	-8.82	ZAL	65.54	ZAP	9.46	ETS	108.36	ZAE	176.46	ETE	307.50	ZAC	90.87	ETC	258.40	CLP	3.44

PLANETOCENTRIC CONIC

C3	28.873	VHL	5.373	DLA	-29.18	RAL	244.64	RAD	6568.2	VEL	12.258	PTH	2.21	VHP	11.141	DPA	-24.76	RAP	225.32	ECC	1.4752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.66	11 41 26	1178.56	17.85	344.51	119.39	113.47	12 1 5	578.6	20.87	337.08
97.34	13 42 54	785.90	17.87	315.71	119.40	113.46	13 55 59	185.9	20.89	308.28
100.00	13 8 38	895.86	13.07	321.49	117.05	117.12	13 23 34	295.9	16.61	314.48
100.00	14 58 23	5831.87	22.77	277.79	121.48	109.90	16 35 35	5231.9	25.28	269.88
110.00	12 53 19	944.06	5.14	320.41	112.33	123.84	13 9 3	344.1	9.55	314.09
110.00	17 30 11	5356.44	31.58	244.72	124.48	103.81	18 59 27	4756.4	33.16	235.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2440	TRA	-1.1226	TC3	.0372	BAU	.0211	SGT	1396.1	SGR	479.6	SG3	113.4	ST	486.7	SR	470.9	SS	384.7
RDE	-.4410	RRA	.0685	RC3	-.0399	FAU	.02323	RRT	-.3565	RRF	.3736	RTF	-.8366	CRT	-.5788	CRS	-.6546	CST	.9938
FDE	-.2299	FRA	.8594	FC3	-.6965	BSP	4233	SGB	1476.1	R23	-.0446	R13	.8393	LSA	705.7	MSA	329.1	SSA	16.6
BDE	.5040	BRA	1.1247	BC3	.0545	FSP	-289	SG1	1407.7	SG2	444.4	THA	172.24	EL1	601.8	EL2	310.5	ALF	136.63

LAUNCH DATE AUG 6 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 236.513

RL	151.74	LAL	.00	LOL	313.13	VL	24.836	GAL	4.27	AZL	91.51	HCA	97.03	SMA	117.20	ECC	.30321	INC	1.5138	V1	29.361
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.376	GAP	-17.10	AZP	89.81	TAL	170.05	TAP	267.09	RCA	81.66	APO	152.73	V2	35.060
RC	40.174	GL	-7.37	GP	-9.41	ZAL	65.65	ZAP	9.58	ETS	97.90	ZAE	173.71	ETE	321.46	ZAC	90.51	ETC	258.63	CLP	1.82

PLANETOCENTRIC CONIC

C3	26.031	VHL	5.102	DLA	-28.86	RAL	244.55	RAD	6568.1	VEL	12.141	PTH	2.18	VHP	10.607	DPA	-25.83	RAP	226.74	ECC	1.4284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.17	11 53 16	1113.61	18.35	339.95	117.53	112.67	12 11 49	513.6	21.27	332.45
95.83	13 30 23	799.29	18.37	316.92	117.53	112.66	13 43 43	199.3	21.28	309.42
100.00	12 57 21	905.64	12.77	322.06	114.83	117.26	13 12 26	305.6	16.32	315.07
100.00	15 9 0	5770.54	24.14	273.74	119.84	108.19	16 45 10	5170.5	26.40	265.67
110.00	12 48 47	932.55	5.57	319.80	110.54	123.78	13 4 20	332.5	9.97	313.47
110.00	17 34 2	5316.39	32.20	241.75	122.31	102.15	19 2 38	4716.4	33.54	232.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2439	TRA	-1.1063	TC3	.0808	BAU	.0350	SGT	1447.2	SGR	482.8	SG3	124.4	ST	506.1	SR	469.0	SS	396.9
RDE	-.4168	RRA	.0792	RC3	-.0598	FAU	.02453	RRT	-.3969	RRF	.4169	RTF	-.8471	CRT	-.5947	CRS	-.6561	CST	.9954
FDE	-.2336	FRA	.8935	FC3	-.8158	BSP	4435	SGB	1525.6	R23	-.0507	R13	.8502	LSA	725.5	MSA	327.2	SSA	16.8
BDE	.4829	BRA	1.1092	BC3	.1005	FSP	-321	SG1	1461.1	SG2	438.9	THA	171.70	EL1	616.7	EL2	309.4	ALF	138.65

LAUNCH DATE AUG 6 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 243.264

RL	151.74	LAL	.00	LOL	313.13	VL	25.044	GAL	3.96	AZL	91.35	HCA	100.24	SMA	118.28	ECC	.29056	INC	1.3511	V1	29.361
RP	108.05	LAP	-1.33	LOP	53.37	VP	36.531	GAP	-16.17	AZP	89.76	TAL	170.20	TAP	270.45	RCA	83.91	APO	152.65	V2	35.073
RC	40.345	GL	-6.98	GP	-10.07	ZAL	65.83	ZAP	10.07	ETS	87.82	ZAE	170.81	ETE	326.22	ZAC	90.07	ETC	258.86	CLP	.17

PLANETOCENTRIC CONIC

C3	23.500	VHL	4.848	DLA	-28.44	RAL	244.40	RAD	6568.0	VEL	12.037	PTH	2.15	VHP	10.095	DPA	-26.96	RAP	228.13	ECC	1.3868

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.19	12 17 35	1007.85	18.74	332.36	115.59	111.79	12 34 22	407.9	21.54	324.79
92.81	13 4 50	854.74	18.76	321.16	115.59	111.78	13 19 4	254.7	21.55	313.59
100.00	12 44 32	920.32	12.31	322.91	112.53	117.46	12 59 53	320.3	15.89	315.95
100.00	15 20 33	5705.55	25.45	269.36	118.08	106.24	16 55 38	5105.5	27.43	261.12
110.00	12 42 48	925.81	5.83	319.44	108.65	123.74	12 58 13	325.8	10.22	313.11
110.00	17 38 47	5272.82	32.78	238.49	120.05	100.30	19 6 40	4672.8	33.85	229.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.2468	TRA	-1.0886	TC3	.1317	BAU	.0492	SGT	1497.5	SGR	487.8	SG3	136.7	ST	527.1	SR	466.6	SS	408.7
RDE	-.3936	RRA	.0904	RC3	-.0848	FAU	.02596	RRT	-.4436	RRF	.4643	RTF	-.8570	CRT	-.6168	CRS	-.6573	CST	.9972
FDE	-.2364	FRA	.9304	FC3	-.9564	BSP	4663	SGB	1575.0	R23	-.0554	R13	.8603	LSA	747.0	MSA	322.9	SSA	17.1
BDE	.4645	BRA	1.0924	BC3	.1567	FSP	-357	SG1	1514.5	SG2	432.3	THA	171.04	EL1	634.3	EL2	305.2	ALF	140.60

LAUNCH DATE AUG 6 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 250.022

RL	151.74	LAL	.00	LOL	313.13	VL	25.235	GAL	3.67	AZL	91.19	HCA	103.45	SMA	119.31	ECC	.27876	INC	1.1849	V1	29.361
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.675	GAP	-15.27	AZP	89.72	TAL	170.40	TAP	273.86	RCA	86.05	APO	152.56	V2	35.086
RC	40.692	GL	-6.49	GP	-10.81	ZAL	66.09	ZAP	10.91	ETS	78.76	ZAE	167.92	ETE	328.14	ZAC	89.55	ETC	259.09	CLP	-1.52

PLANETOCENTRIC CONIC

C3	21.250	VHL	4.610	DLA	-27.91	RAL	244.17	RAD	6567.9	VEL	11.943	PTH	2.13	VHP	9.604	DPA	-28.13	RAP	229.47	ECC	1.3497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 58 7	1044.01	15.70	333.66	112.16	113.87	12 15 31	444.0	18.79	326.35
90.00	13 22 30	769.76	22.40	316.35	114.86	107.79	13 35 20	169.8	24.62	308.38
100.00	12 30 26	939.52	11.71	324.01	110.18	117.70	12 46 6	339.5	15.32	317.09
100.00	15 32 52	5637.53	26.66	264.66	116.19	104.05	17 6 50	5037.5	28.33	256.26
110.00	12 35 19	924.17	5.89	319.36	106.68	123.73	12 50 44	324.2	10.28	313.02
110.00	17 44 29	5225.64	33.29	234.90	117.70	98.24	19 11 34	4625.6	34.07	225.75

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2425	TRA	-1.0727	TC3	.1941	BAU	.0643	SGT	1548.9	SGR	495.2	SG3	150.2	ST	543.8	SR	463.6	SS	420.0
RDE	-.3714	RRA	.1023	RC3	-.1163	FAU	.02755	RRT	-.4894	RRF	.5156	RTF	-.8668	CRT	-.6294	CRS	-.6575	CST	.9980
FDE	-.2380	FRA	.9708	FC3	-1.1226	BSP	4828	SGB	1626.2	R23	-.0649	R13	.8707	LSA	764.4	MSA	320.2	SSA	17.3
BDE	.4435	BRA	1.0776	BC3	.2262	FSP	-397	SG1	1569.3	SG2	426.3	THA	170.39	EL1	647.4	EL2	302.6	ALF	142.14

LAUNCH DATE AUG 6 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 256.785

RL	151.74	LAL	.00	LOL	313.13	VL	25.412	GAL	3.39	AZL	91.01	HCA	106.67	SMA	120.27	ECC	.26777	INC	1.0141	V1	29.361
RP	107.97	LAP	-.97	LOP	59.80	VP	36.809	GAP	-14.40	AZP	89.71	TAL	170.64	TAP	277.31	RCA	88.07	APO	152.48	V2	35.098
RC	41.209	GL	-5.87	GP	-11.64	ZAL	66.42	ZAP	12.07	ETS	71.04	ZAE	165.09	ETE	328.81	ZAC	88.92	ETC	259.31	CLP	-3.25

PLANETOCENTRIC CONIC

C3	19.252	VHL	4.388	DLA	-27.24	RAL	243.89	RAD	6567.8	VEL	11.859	PTH	2.10	VHP	9.134	DPA	-29.38	RAP	230.75	ECC	1.3168

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 30 44	1106.73	13.93	337.42	109.32	114.90	11 49 11	506.7	17.18	330.25
90.00	13 47 39	659.95	24.49	308.98	113.34	104.68	13 58 39	59.9	26.27	300.77
100.00	12 15 10	963.18	10.95	325.37	107.80	117.99	12 31 13	363.2	14.61	318.49
100.00	15 45 54	5566.78	27.73	259.68	114.18	101.64	17 18 41	4966.8	29.05	251.13
110.00	12 26 24	927.93	5.75	319.56	104.66	123.75	12 41 51	327.9	10.14	313.22
110.00	17 51 10	5174.78	33.72	230.99	115.26	95.96	19 17 25	4574.8	34.18	221.78

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2401	TRA	-1.0556	TC3	.2636	BAU	.0788	SGT	1598.6	SGR	506.2	SG3	165.2	ST	561.0	SR	460.0	SS	430.4
RDE	-.3501	RRA	.1151	RC3	-.1555	FAU	.02931	RRT	-.5401	RRF	.5701	RTF	-.8754	CRT	-.6470	CRS	-.6566	CST	.9986
FDE	-.2377	FRA	1.0148	FC3	-1.3182	BSP	5023	SGB	1676.8	R23	-.0740	R13	.8799	LSA	782.0	MSA	315.7	SSA	17.6
BDE	.4245	BRA	1.0619	BC3	.3061	FSP	-441	SG1	1623.5	SG2	419.5	THA	169.59	EL1	661.7	EL2	297.3	ALF	143.58

LAUNCH DATE AUG 6 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 263.548

RL	151.74	LAL	.00	LOL	313.13	VL	25.575	GAL	3.12	AZL	90.84	HCA	109.88	SMA	121.19	ECC	.25758	INC	.8372	V1	29.361
RP	107.93	LAP	-.79	LOP	63.01	VP	36.934	GAP	-13.57	AZP	89.72	TAL	170.93	TAP	280.81	RCA	89.97	APO	152.40	V2	35.111
RC	41.891	GL	-5.12	GP	-12.57	ZAL	66.83	ZAP	13.52	ETS	64.70	ZAE	162.34	ETE	328.77	ZAC	88.17	ETC	259.54	CLP	-5.03

PLANETOCENTRIC CONIC

C3	17.483	VHL	4.181	DLA	-26.42	RAL	243.56	RAD	6567.7	VEL	11.784	PTH	2.08	VHP	8.685	DPA	-30.70	RAP	231.97	ECC	1.2877

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 7 8	1158.36	12.43	340.47	106.67	115.65	11 26 27	558.4	15.78	333.40
90.00	14 8 37	5851.23	25.99	280.20	111.50	101.65	15 46 8	5251.2	27.34	271.79
100.00	11 58 49	991.44	10.05	326.97	105.43	118.30	12 15 21	391.4	13.75	320.14
100.00	15 59 37	5493.37	28.63	254.41	112.04	99.00	17 31 11	4893.4	29.57	245.73
110.00	12 16 2	937.41	5.39	320.06	102.60	123.81	12 31 39	337.4	9.79	313.73
110.00	17 58 54	5120.17	34.03	226.76	112.73	93.48	19 24 14	4520.2	34.13	217.52

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2363	TRA	-1.0384	TC3	.3432	BAU	.0933	SGT	1646.8	SGR	521.8	SG3	181.8	ST	576.4	SR	455.6	SS	439.7
RDE	-.3296	RRA	.1292	RC3	-.2041	FAU	.03125	RRT	-.5928	RRF	.6266	RTF	-.8835	CRT	-.6649	CRS	-.6536	CST	.9986
FDE	-.2348	FRA	1.0633	FC3	-1.5475	BSP	5218	SGB	1727.5	R23	-.0841	R13	.8888	LSA	797.6	MSA	310.7	SSA	17.9
BDE	.4056	BRA	1.0464	BC3	.3993	FSP	-490	SG1	1677.5	SG2	412.5	THA	168.67	EL1	674.7	EL2	290.7	ALF	144.82

LAUNCH DATE AUG 6 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 270.311

RL	151.74	LAL	.00	LOL	313.13	VL	25.725	GAL	2.86	AZL	90.65	HCA	113.10	SMA	122.04	ECC	.24814	INC	.6529	V1	29.361
RP	107.89	LAP	-.60	LOP	66.23	VP	37.049	GAP	-12.76	AZP	89.74	TAL	171.24	TAP	284.34	RCA	91.76	APO	152.32	V2	35.123
RC	42.728	GL	-4.21	GP	-13.62	ZAL	67.30	ZAP	15.22	ETS	59.60	ZAE	159.70	ETE	328.25	ZAC	87.30	ETC	259.75	CLP	-6.86

PLANETOCENTRIC CONIC

C3	15.921	VHL	3.990	DLA	-25.44	RAL	243.19	RAD	6567.6	VEL	11.718	PTH	2.06	VHP	8.258	DPA	-32.11	RAP	233.10	ECC	1.2620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 44 36	1208.17	10.95	343.37	104.13	116.28	11 4 44	608.2	14.39	336.39
90.00	14 28 14	5758.47	27.10	273.64	109.47	98.54	16 4 12	5158.5	28.00	265.09
100.00	11 41 27	1024.60	8.97	328.85	103.09	118.63	11 58 31	424.6	12.73	322.07
100.00	16 14 3	5417.27	29.31	248.86	109.79	96.16	17 44 21	4817.3	29.85	240.09
110.00	12 4 18	952.91	4.80	320.87	100.54	123.88	12 20 11	352.9	9.22	314.57
110.00	18 7 42	5061.73	34.18	222.20	110.14	90.78	19 32 3	4461.7	33.91	212.97

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2306	TRA	-1.0211	TC3	.4326	BAU	.1079	SGT	1692.7	SGR	543.5	SG3	200.0	ST	589.1	SR	450.2	SS	447.2
RDE	-.3097	RRA	.1449	RC3	-.2641	FAU	.03339	RRT	-.6460	RRF	.6836	RTF	-.8911	CRT	-.6826	CRS	-.6473	CST	.9976
FDE	-.2278	FRA	1.1169	FC3	-1.8157	BSP	5412	SGB	1777.8	R23	-.0954	R13	.8972	LSA	810.0	MSA	305.4	SSA	18.2
BDE	.3862	BRA	1.0314	BC3	.5068	FSP	-545	SG1	1730.9	SG2	405.7	THA	167.59	EL1	685.4	EL2	282.8	ALF	145.87

LAUNCH DATE AUG 6 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 277.069

RL	151.74	LAL	.00	LOL	313.13	VL	25.862	GAL	2.63	AZL	90.46	HCA	116.32	SMA	122.84	ECC	.23943	INC	.4593	V1	29.361		
RP	107.86	LAP	-.41	LOP	69.45	VP	37.156	GAP	-11.98	AZP	89.80	TAL	171.59	TAP	287.91	RCA	93.43	APO	152.25	V2	35.135		
RC	43.711	GL	-3.11	GP	-14.81	ZAL	67.83	ZAP	17.16	ETS	55.54	ZAE	157.18	ETE	327.35	ZAC	86.27	ETC	259.96	CLP	-8.76		

PLANETOCENTRIC CONIC

C3	14.546	VHL	3.814	DLA	-24.26	RAL	242.80	RAD	6567.6	VEL	11.659	PTH	2.05	VHP	7.853	DPA	-33.63	RAP	234.14	ECC	1.2394		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 14	1259.50	9.38	346.34	101.70	116.84	10 43 14	659.5	12.91	339.43
90.00	14 47 27	5666.61	27.86	267.02	107.29	95.31	16 21 54	5066.6	28.30	258.39
100.00	11 23 6	1063.02	7.71	331.00	100.80	118.97	11 40 49	463.0	11.52	324.28
100.00	16 29 17	5338.32	29.74	243.03	107.45	93.12	17 58 15	4738.3	29.86	234.23
110.00	11 51 14	974.76	3.97	322.02	98.50	123.98	12 7 29	374.8	8.41	315.74
110.00	18 17 37	4999.34	34.13	217.33	107.49	87.90	19 40 57	4399.3	33.46	208.15

DIFFERENTIAL CORRECTIONS

TDE	.2228	TRA	-1.0041	TC3	.5310	BAU	.1224
RDE	-.2902	RRA	.1628	RC3	-.3376	FAU	.03573
FDE	-.2158	FRA	1.1763	FC3	-2.1263	BSP	5607
BDE	.3658	BRA	1.0172	BC3	.6292	FSP	-606

MID-COURSE EXECUTION ACCURACY

SGT	1735.9	SGR	573.0	SG3	220.1		
RRT	-.6978	RRF	.7391	RTF	-.8981		
SGB	1828.0	R23	-.1078	R13	.9053		
SG1	1783.8	SG2	399.4	THA	166.33		

ORBIT DETERMINATION ACCURACY

ST	598.8	SR	443.3	SS	452.9
CRT	-.7005	CRS	-.6369	CST	.9950
LSA	818.4	MSA	300.1	SSA	18.5
EL1	693.1	EL2	273.4	ALF	146.77

LAUNCH DATE AUG 6 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 283.820

RL	151.74	LAL	.00	LOL	313.13	VL	25.988	GAL	2.40	AZL	90.25	HCA	119.54	SMA	123.59	ECC	.23141	INC	.2544	V1	29.361		
RP	107.82	LAP	-.22	LOP	72.67	VP	37.254	GAP	-11.23	AZP	89.87	TAL	171.97	TAP	291.51	RCA	94.99	APO	152.19	V2	35.146		
RC	44.829	GL	-1.81	GP	-16.16	ZAL	68.43	ZAP	19.32	ETS	52.33	ZAE	154.78	ETE	326.11	ZAC	85.06	ETC	260.15	CLP	-10.74		

PLANETOCENTRIC CONIC

C3	13.345	VHL	3.653	DLA	-22.87	RAL	242.40	RAD	6567.5	VEL	11.607	PTH	2.03	VHP	7.470	DPA	-35.27	RAP	235.05	ECC	1.2196		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 40	1314.22	7.69	349.46	99.39	117.34	10 21 34	714.2	11.29	342.64
90.00	15 6 49	5574.01	28.26	260.28	105.01	91.95	16 39 43	4974.0	28.23	251.62
100.00	11 3 48	1107.22	6.24	333.47	98.61	119.29	11 22 15	507.2	10.10	326.80
100.00	16 45 22	5256.25	29.89	236.93	105.04	89.91	18 12 58	4656.3	29.56	228.14
110.00	11 36 55	1003.38	2.88	323.52	96.53	124.08	11 53 38	403.4	7.33	317.26
110.00	18 28 44	4932.86	33.84	212.16	104.83	84.85	19 50 57	4332.9	32.76	203.09

DIFFERENTIAL CORRECTIONS

TDE	.2123	TRA	-.9872	TC3	.6371	BAU	.1369
RDE	-.2705	RRA	.1835	RC3	-.4275	FAU	.03827
FDE	-.1968	FRA	1.2421	FC3	-2.4826	BSP	5799
BDE	.3438	BRA	1.0041	BC3	.7672	FSP	-673

MID-COURSE EXECUTION ACCURACY

SGT	1775.2	SGR	612.4	SG3	242.2		
RRT	-.7464	RRF	.7910	RTF	-.9044		
SGB	1877.9	R23	-.1215	R13	.9130		
SG1	1836.1	SG2	394.1	THA	164.85		

ORBIT DETERMINATION ACCURACY

ST	604.3	SR	434.6	SS	456.6
CRT	-.7182	CRS	-.6209	CST	.9900
LSA	821.6	MSA	295.2	SSA	18.9
EL1	696.6	EL2	262.3	ALF	147.53

LAUNCH DATE AUG 6 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 290.563

RL	151.74	LAL	.00	LOL	313.13	VL	26.103	GAL	2.19	AZL	90.04	HCA	122.76	SMA	124.28	ECC	.22406	INC	.0313	V1	29.361		
RP	107.79	LAP	-.03	LOP	75.89	VP	37.345	GAP	-10.49	AZP	89.98	TAL	172.37	TAP	295.13	RCA	96.44	APO	152.13	V2	35.158		
RC	46.073	GL	-.27	GP	-17.70	ZAL	69.08	ZAP	21.71	ETS	49.79	ZAE	152.48	ETE	324.57	ZAC	83.66	ETC	260.32	CLP	-12.79		

PLANETOCENTRIC CONIC

C3	12.302	VHL	3.507	DLA	-21.23	RAL	242.00	RAD	6567.5	VEL	11.562	PTH	2.02	VHP	7.111	DPA	-37.07	RAP	235.83	ECC	1.2025		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 39	1373.72	5.81	352.83	97.24	117.76	9 59 33	773.7	9.48	346.07
90.00	15 26 40	5479.58	28.28	253.37	102.68	88.49	16 57 59	4879.6	27.77	244.75
100.00	10 43 34	1157.79	4.55	336.27	96.55	119.58	11 2 52	557.8	8.46	329.66
100.00	17 2 26	5170.74	29.71	230.58	102.61	86.58	18 28 37	4570.7	28.92	221.87
110.00	11-21 24	1039.23	1.51	325.39	94.66	124.15	11 38 43	439.2	5.98	319.16
110.00	18 41 6	4862.07	33.27	206.71	102.18	81.68	20 2 8	4262.1	31.77	197.81

DIFFERENTIAL CORRECTIONS

TDE	.1990	TRA	-.9705	TC3	.7483	BAU	.1514
RDE	-.2502	RRA	.2075	RC3	-.5364	FAU	.04100
FDE	-.1691	FRA	1.3146	FC3	-2.8855	BSP	5989
BDE	.3197	BRA	.9924	BC3	.9206	FSP	-747

MID-COURSE EXECUTION ACCURACY

SGT	1809.4	SGR	664.0	SG3	266.0		
RRT	-.7898	RRF	.8375	RTF	-.9101		
SGB	1927.4	R23	-.1360	R13	.9205		
SG1	1887.5	SG2	390.4	THA	163.09		

ORBIT DETERMINATION ACCURACY

ST	605.2	SR	423.2	SS	458.9
CRT	-.7369	CRS	-.5981	CST	.9811
LSA	819.1	MSA	291.0	SSA	19.3
EL1	695.3	EL2	249.1	ALF	148.19

LAUNCH DATE AUG 6 1970 FLIGHT TIME 116.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 297.295

RL	151.74	LAL	.00	LOL	313.13	VL	26.208	GAL	2.00	AZL	89.80	HCA	125.99	SMA	124.92	ECC	.21734	INC	.1975	V1	29.361		
RP	107.76	LAP	.16	LOP	79.12	VP	37.429	GAP	-9.79	AZP	90.12	TAL	172.78	TAP	298.76	RCA	97.77	APO	152.08	V2	35.168		
RC	47.431	GL	1.54	GP	-19.45	ZAL	69.79	ZAP	24.34	ETS	47.79	ZAE	150.26	ETE	322.71	ZAC	82.03	ETC	260.46	CLP	-14.94		

PLANETOCENTRIC CONIC

C3	11.407	VHL	3.377	DLA	-19.32	RAL	241.63	RAD	6567.4	VEL	11.524	PTH	2.01	VHP	6.777	DPA	-39.05	RAP	236.43	ECC	1.1877		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 4	1439.21	3.72	356.51	95.28	118.09	9 37 4	839.2	7.45	349.81
90.00	15 47 17	5382.39	27.90	246.29	100.37	84.96	17 17 0	4782.4	26.91	237.77
100.00	10 22 25	1215.47	2.61	339.44	94.67	119.79	10 42 40	615.5	6.55	332.88
100.00	17 20 38	5081.38	29.17	224.00	100.22	83.15	18 45 20	4481.4	27.91	215.42
110.00	11 4 43	1082.90	-.16	327.66	92.94	124.18	11 22 46	482.9	4.33	321.45
110.00	18 54 49	4786.71	32.39	201.01	99.61	78.41	20 14 36	4186.7	30.45	192.33

DIFFERENTIAL CORRECTIONS

TDE	.1822	TRA	-.9547	TC3	.8607	BAU	.1661
RDE	-.2284	RRA	.2361	RC3	-.6671	FAU	.04389
FDE	-.1294	FRA	1.3952	FC3	-3.3310	BSP	6168
BDE	.2922	BRA	.9834	BC3	1.0890	FSP	-826

MID-COURSE EXECUTION ACCURACY

SGT	1838.2	SGR	730.3	SG3	291.7		
RRT	-.8270	RRF	.8773	RTF	-.9152		
SGB	1977.9	R23	-.1507	R13	.9278		
SG1	1939.3	SG2	389.2	THA	161.02		

ORBIT DETERMINATION ACCURACY

ST	600.8	SR	408.1	SS	460.7
CRT	-.7569	CRS	-.5663	CST	.9657
LSA	810.1	MSA	288.4	SSA	19.6
EL1	687.9	EL2	232.9	ALF	148.82

LAUNCH DATE AUG 6 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 304.014

RL	151.74	LAL	.00	LOL	313.13	VL	26.304	GAL	1.81	AZL	89.55	HCA	129.21	SMA	125.52	ECC	.21122	INC	.4530	V1	29.361
RP	107.72	LAP	.35	LOP	82.34	VP	37.505	GAP	-9.10	AZP	90.29	TAL	173.19	TAP	302.41	RCA	99.01	APO	152.03	V2	35.179
RC	48.893	GL	3.65	GP	-21.45	ZAL	70.55	ZAP	27.23	ETS	46.22	ZAE	148.08	ETE	320.54	ZAC	80.13	ETC	260.57	CLP	-17.18

PLANETOCENTRIC CONIC

C3	10.654	VHL	3.264	DLA	-17.10	RAL	241.31	RAD	6567.4	VEL	11.491	PTH	2.00	VHP	6.471	DPA	-41.23	RAP	236.82	ECC	1.1753

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 47	1511.92	1.38	.57	93.56	118.29	9 13 59	911.9	5.15	353.92
90.00	16 8 58	5281.64	27.09	239.03	98.13	81.41	17 37 0	4681.6	25.62	230.67
100.00	10 0 19	1281.14	.38	343.05	93.01	119.89	10 21 40	681.1	4.36	336.52
100.00	17 40 8	4987.65	28.22	217.20	97.91	79.70	19 3 16	4387.7	26.50	208.81
110.00	10 46 55	1135.10	-2.15	330.39	91.42	124.12	11 5 50	535.1	2.34	324.18
110.00	19 10 1	4706.45	31.13	195.09	97.16	75.12	20 28 27	4106.4	28.78	186.68

DIFFERENTIAL CORRECTIONS

TDE	.1620	TRA	-.9389	TC3	.9706	BAU	.1812
RDE	-.2042	RRA	.2703	RC3	-.8225	FAU	.04689
FDE	-.0754	FRA	1.4831	FC3	-3.8104	BSP	6350
BDE	.2606	BRA	.9771	BC3	1.2722	FSP	-911

MID-COURSE EXECUTION ACCURACY

SGT	1859.0	SGR	814.3	SG3	318.9		
RRT	-.8575	RRF	.9100	RTF	-.9197		
SGB	2029.5	R23	-.1644	R13	.9351		
SG1	1991.5	SG2	391.1	THA	158.55		

ORBIT DETERMINATION ACCURACY

ST	590.7	SR	388.4	SS	464.7
CRT	-.7814	CRS	-.5276	CST	.9407
LSA	795.2	MSA	287.8	SSA	19.8
EL1	674.3	EL2	212.3	ALF	149.46

LAUNCH DATE AUG 6 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 310.719

RL	151.74	LAL	.00	LOL	313.13	VL	26.390	GAL	1.65	AZL	89.27	HCA	132.44	SMA	126.06	ECC	.20566	INC	.7328	V1	29.361
RP	107.69	LAP	.54	LOP	85.57	VP	37.575	GAP	-8.44	AZP	90.49	TAL	173.61	TAP	306.05	RCA	100.13	APO	151.99	V2	35.188
RC	50.451	GL	6.11	GP	-23.74	ZAL	71.36	ZAP	30.38	ETS	44.96	ZAE	145.90	ETE	318.05	ZAC	77.94	ETC	260.64	CLP	-19.54

PLANETOCENTRIC CONIC

C3	10.040	VHL	3.169	DLA	-14.55	RAL	241.05	RAD	6567.4	VEL	11.464	PTH	1.99	VHP	6.194	DPA	-43.65	RAP	236.95	ECC	1.1652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 23 40	1593.17	-1.24	5.10	92.14	118.29	8 50 13	993.2	2.55	358.47
90.00	16 32 1	5176.47	25.80	231.61	96.04	77.90	17 58 18	4576.5	23.87	223.47
100.00	9 37 13	1355.88	-2.15	347.15	91.63	119.82	9 59 49	755.9	1.83	340.63
100.00	18 1 10	4888.99	26.82	210.20	95.77	76.27	19 22 39	4289.0	24.66	202.06
110.00	10 28 1	1196.75	-4.50	333.61	90.17	123.92	10 47 58	596.7	-.02	327.40
110.00	19 26 51	4620.89	29.48	188.98	94.91	71.85	20 43 52	4020.9	26.71	180.88

DIFFERENTIAL CORRECTIONS

TDE	.1381	TRA	-.9237	TC3	1.0688	BAU	.1968
RDE	-.1758	RRA	.3115	RC3	-1.0034	FAU	.04988
FDE	-.0032	FRA	1.5781	FC3	-4.3009	BSP	6520
BDE	.2236	BRA	.9748	BC3	1.4660	FSP	-997

MID-COURSE EXECUTION ACCURACY

SGT	1870.4	SGR	918.7	SG3	346.9		
RRT	-.8812	RRF	.9355	RTF	-.9234		
SGB	2083.8	R23	-.1757	R13	.9424		
SG1	2045.6	SG2	397.2	THA	155.62		

ORBIT DETERMINATION ACCURACY

ST	575.1	SR	363.1	SS	475.3
CRT	-.8147	CRS	-.4893	CST	.9023
LSA	777.1	MSA	290.5	SSA	19.8
EL1	654.5	EL2	185.0	ALF	150.16

LAUNCH DATE AUG 6 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 317.408

RL	151.74	LAL	.00	LOL	313.13	VL	26.468	GAL	1.49	AZL	88.96	HCA	135.67	SMA	126.56	ECC	.20064	INC	1.0433	V1	29.361
RP	107.67	LAP	.73	LOP	88.80	VP	37.639	GAP	-7.79	AZP	90.75	TAL	174.02	TAP	309.69	RCA	101.16	APO	151.95	V2	35.198
RC	52.096	GL	8.96	GP	-26.35	ZAL	72.22	ZAP	33.83	ETS	43.93	ZAE	143.65	ETE	315.23	ZAC	75.40	ETC	260.65	CLP	-22.03

PLANETOCENTRIC CONIC

C3	9.567	VHL	3.093	DLA	-11.61	RAL	240.88	RAD	6567.3	VEL	11.444	PTH	1.99	VHP	5.951	DPA	-46.35	RAP	236.76	ECC	1.1574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 57 33	1684.50	-4.18	10.21	91.08	118.03	8 25 38	1084.5	-.39	3.57
90.00	16 56 46	5066.02	24.00	224.02	94.19	74.51	18 21 12	4466.0	21.64	216.14
100.00	9 13 1	1441.03	-5.02	351.84	90.61	119.51	9 37 2	841.0	-1.06	345.30
100.00	18 23 59	4784.72	24.93	203.03	93.89	72.95	19 43 44	4184.7	22.36	195.18
110.00	10 7 58	1268.94	-7.23	337.42	89.25	123.50	10 29 7	668.9	-2.78	331.17
110.00	19 45 32	4529.58	27.37	182.71	92.94	68.68	21 1 1	3929.6	24.23	174.95

DIFFERENTIAL CORRECTIONS

TDE	.1110	TRA	-.9085	TC3	1.1486	BAU	.2134
RDE	-.1413	RRA	.3616	RC3	-1.2099	FAU	.05274
FDE	.0898	FRA	1.6787	FC3	-4.7725	BSP	6732
BDE	.1797	BRA	.9778	BC3	1.6683	FSP	-1088

MID-COURSE EXECUTION ACCURACY

SGT	1870.6	SGR	1047.1	SG3	374.8		
RRT	-.8989	RRF	.9548	RTF	-.9264		
SGB	2143.7	R23	-.1828	R13	.9499		
SG1	2104.5	SG2	407.8	THA	152.15		

ORBIT DETERMINATION ACCURACY

ST	555.4	SR	333.3	SS	499.2
CRT	-.8646	CRS	-.4754	CST	.8505
LSA	761.8	MSA	296.7	SSA	19.3
EL1	630.7	EL2	147.5	ALF	150.82

LAUNCH DATE AUG 6 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 324.080

RL	151.74	LAL	.00	LOL	313.13	VL	26.538	GAL	1.36	AZL	88.61	HCA	138.90	SMA	127.01	ECC	.19612	INC	1.3921	V1	29.361
RP	107.64	LAP	.92	LOP	92.03	VP	37.696	GAP	-7.17	AZP	91.05	TAL	174.42	TAP	313.32	RCA	102.10	APO	151.92	V2	35.206
RC	53.818	GL	12.24	GP	-29.34	ZAL	73.13	ZAP	37.60	ETS	43.06	ZAE	141.25	ETE	312.11	ZAC	72.48	ETC	260.59	CLP	-24.65

PLANETOCENTRIC CONIC

C3	9.244	VHL	3.040	DLA	-8.25	RAL	240.81	RAD	6567.3	VEL	11.429	PTH	1.98	VHP	5.748	DPA	-49.36	RAP	236.15	ECC	1.1521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 12	1787.74	-7.45	16.03	90.47	117.40	8 0 0	1187.7	-3.72	9.33
90.00	17 23 38	4949.35	21.66	216.27	92.68	71.30	18 46 7	4349.3	18.91	208.67
100.00	8 47 33	1538.21	-8.25	357.25	90.04	118.83	9 13 11	938.2	-4.34	350.64
100.00	18 48 58	4674.11	22.52	195.70	92.36	69.81	20 6 52	4074.1	19.57	188.15
110.00	9 46 41	1353.06	-10.36	341.92	88.77	122.76	10 9 14	753.1	-5.97	335.58
110.00	20 6 19	4432.03	24.80	176.30	91.34	65.68	21 20 11	3832.0	21.30	168.89

DIFFERENTIAL CORRECTIONS

TDE	.0811	TRA	-.8940	TC3	1.2025	BAU	.2317
RDE	-.0980	RRA	.4232	RC3	-1.4387	FAU	.05531
FDE	.2063	FRA	1.7822	FC3	-5.1798	BSP	6944
BDE	.1272	BRA	.9891	BC3	1.8751	FSP	-1173

MID-COURSE EXECUTION ACCURACY

SGT	1859.1	SGR	1203.6	SG3	401.5		
RRT	-.9115	RRF	.9688	RTF	-.9286		
SGB	2214.8	R23	-.1838	R13	.9577		
SG1	2173.9	SG2	423.3	THA	148.10		

ORBIT DETERMINATION ACCURACY

ST	533.6	SR	305.3	SS	543.3
CRT	-.9347	CRS	-.5295	CST	.7927
LSA	761.0	MSA	305.8	SSA	18.2
EL1	607.3	EL2	95.4	ALF	151.08

LAUNCH DATE AUG 6 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 330.733

RL	151.74	LAL	.00	LOL	313.13	VL	26.601	GAL	1.23	AZL	88.21	HCA	142.13	SMA	127.42	ECC	.19208	INC	1.7891	V1	29.361
RP	107.61	LAP	1.10	LOP	95.27	VP	37.748	GAP	-6.56	AZP	91.41	TAL	174.80	TAP	316.93	RCA	102.94	APO	151.89	V2	35.214
RC	55.612	GL	15.99	GP	-32.74	ZAL	74.09	ZAP	41.69	ETS	42.24	ZAE	138.61	ETE	308.72	ZAC	69.14	ETC	260.43	CLP	-27.41

PLANETOCENTRIC CONIC

C3	9.090	VHL	3.015	DLA	-4.45	RAL	240.89	RAD	6567.3	VEL	11.423	PTH	1.98	VHP	5.591	DPA	-52.71	RAP	235.00	ECC	1.1496		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 17	1905.15	-11.06	22.76	90.45	116.23	7 33 2	1305.1	-7.44	15.95
90.00	17 53 8	4825.44	18.75	208.35	91.64	68.38	19 13 33	4225.4	15.65	201.04
100.00	8 20 32	1649.48	-11.84	3.56	90.04	117.65	8 48 2	1049.5	-8.05	356.83
100.00	19 16 34	4556.34	19.56	188.20	91.29	66.93	20 32 30	3956.3	16.27	180.96
110.00	9 24 0	1450.81	-13.91	347.28	88.84	121.55	9 48 10	850.8	-9.63	340.79
110.00	20 29 35	4327.78	21.71	169.77	90.21	62.93	21 41 43	3727.8	17.91	162.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0488	TRA	-.8789	TC3	1.2137	BAU	.2515	SGT	1830.5	SGR	1390.2	SG3	424.2	ST	511.5	SR	297.6	SS	612.5
RDE	-.0416	RRA	.4989	RC3	-1.6768	FAU	.05718	RRT	-.9197	RRF	.9788	RTF	-.9296	CRT	-.9944	CRS	-.6832	CST	.7429
FDE	.3485	FRA	1.8829	FC3	-5.4462	BSP	7208	SGB	2298.6	R23	-.1780	R13	.9654	LSA	791.5	MSA	314.0	SSA	16.4
BDE	.0642	BRA	1.0106	BC3	2.0699	FSP	-1250	SG1	2255.5	SG2	443.1	THA	143.43	EL1	591.2	EL2	27.2	ALF	149.88

LAUNCH DATE AUG 6 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 337.366

RL	151.74	LAL	.00	LOL	313.13	VL	26.658	GAL	1.12	AZL	87.75	HCA	145.35	SMA	127.78	ECC	.18849	INC	2.2485	V1	29.361		
RP	107.59	LAP	1.28	LOP	98.51	VP	37.795	GAP	-5.97	AZP	91.85	TAL	175.16	TAP	320.51	RCA	103.70	APO	151.87	V2	35.222		
RC	57.469	GL	20.24	GP	-36.60	ZAL	75.12	ZAP	46.13	ETS	41.40	ZAE	135.65	ETE	305.09	ZAC	65.33	ETC	260.16	CLP	-30.32		

PLANETOCENTRIC CONIC

C3	9.141	VHL	3.023	DLA	-.15	RAL	241.11	RAD	6567.3	VEL	11.425	PTH	1.98	VHP	5.490	DPA	-56.42	RAP	233.12	ECC	1.1504		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 30 14	2039.59	-14.97	30.70	91.16	114.32	7 4 14	1439.6	-11.57	23.68
90.00	18 25 59	4693.16	15.24	200.22	91.20	65.84	19 44 13	4093.2	11.85	193.19
100.00	7 51 31	1777.44	-15.76	11.04	90.78	115.73	8 21 8	1177.4	-12.17	4.09
100.00	19 47 24	4430.55	16.03	180.53	90.83	64.42	21 1 15	3830.5	12.45	173.56
110.00	8 59 35	1564.33	-17.85	353.72	89.64	119.65	9 25 40	964.3	-13.76	346.98
110.00	20 55 49	4216.41	18.12	163.14	89.69	60.50	22 6 5	3616.4	14.05	156.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0147	TRA	-.8633	TC3	1.1735	BAU	.2734	SGT	1783.6	SGR	1609.6	SG3	440.4	ST	492.1	SR	344.5	SS	707.8
RDE	.0335	RRA	.5925	RC3	-1.9044	FAU	.05801	RRT	-.9239	RRF	.9857	RTF	-.9293	CRT	-.9692	CRS	-.8626	CST	.7158
FDE	.5164	FRA	1.9734	FC3	-5.4945	BSP	7517	SGB	2402.5	R23	-.1651	R13	.9730	LSA	872.9	MSA	315.7	SSA	14.0
BDE	.0365	BRA	1.0471	BC3	2.2369	FSP	-1307	SG1	2356.9	SG2	466.0	THA	138.17	EL1	596.6	EL2	70.0	ALF	145.29

LAUNCH DATE AUG 6 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 343.978

RL	151.74	LAL	.00	LOL	313.13	VL	26.707	GAL	1.03	AZL	87.21	HCA	148.58	SMA	128.11	ECC	.18531	INC	2.7897	V1	29.361		
RP	107.57	LAP	1.45	LOP	101.74	VP	37.836	GAP	-5.40	AZP	92.38	TAL	175.48	TAP	324.06	RCA	104.37	APO	151.85	V2	35.229		
RC	59.382	GL	25.00	GP	-40.93	ZAL	76.22	ZAP	50.88	ETS	40.43	ZAE	132.27	ETE	301.32	ZAC	61.03	ETC	259.73	CLP	-33.37		

PLANETOCENTRIC CONIC

C3	9.457	VHL	3.075	DLA	4.63	RAL	241.52	RAD	6567.3	VEL	11.439	PTH	1.98	VHP	5.461	DPA	-60.48	RAP	230.19	ECC	1.1556		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 56 14	2194.93	-19.09	40.24	92.83	111.32	6 32 49	1594.9	-16.02	32.91
90.00	19 3 15	4551.07	11.12	191.83	91.55	63.79	20 19 6	3951.1	7.50	185.01
100.00	7 19 45	1925.54	-19.91	20.08	92.48	112.77	7 51 51	1325.5	-16.65	12.80
100.00	20 22 25	4295.68	11.91	172.64	91.14	62.38	21 34 0	3695.7	8.12	165.90
110.00	8 32 59	1696.34	-22.10	1.59	91.39	116.77	9 1 15	1096.3	-18.33	354.49
110.00	21 25 40	4097.65	14.01	156.39	89.92	58.50	22 33 58	3497.7	9.74	149.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0187	TRA	-.8460	TC3	1.0746	BAU	.2972	SGT	1714.3	SGR	1862.8	SG3	446.7	ST	476.1	SR	471.1	SS	822.5
RDE	.1342	RRA	.7085	RC3	-2.0909	FAU	.05738	RRT	-.9247	RRF	.9904	RTF	-.9273	CRT	-.8828	CRS	-.9579	CST	.7122
FDE	.7034	FRA	2.0427	FC3	-5.2524	BSP	7893	SGB	2531.6	R23	-.1459	R13	.9800	LSA	1014.3	MSA	310.0	SSA	11.5
BDE	.1355	BRA	1.1035	BC3	2.3508	FSP	-1336	SG1	2483.8	SG2	489.5	THA	132.43	EL1	649.8	EL2	162.1	ALF	135.35

LAUNCH DATE AUG 6 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 350.568

RL	151.74	LAL	.00	LOL	313.13	VL	26.751	GAL	.94	AZL	86.56	HCA	151.81	SMA	128.40	ECC	.18253	INC	3.4413	V1	29.361		
RP	107.55	LAP	1.62	LOP	104.98	VP	37.873	GAP	-4.85	AZP	93.03	TAL	175.76	TAP	327.57	RCA	104.96	APO	151.83	V2	35.235		
RC	61.346	GL	30.27	GP	-45.74	ZAL	77.39	ZAP	55.90	ETS	39.25	ZAE	128.40	ETE	297.47	ZAC	56.25	ETC	259.08	CLP	-36.55		

PLANETOCENTRIC CONIC

C3	10.144	VHL	3.185	DLA	9.89	RAL	242.13	RAD	6567.4	VEL	11.469	PTH	1.99	VHP	5.522	DPA	-64.83	RAP	225.70	ECC	1.1669		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 17 47	2376.85	-23.15	52.03	95.74	106.78	5 57 24	1776.8	-20.63	44.26
90.00	19 46 31	4396.91	6.35	183.01	92.94	62.35	20 59 48	3796.9	2.60	176.34
100.00	6 44 1	2098.75	-24.06	31.26	95.43	108.29	7 19 0	1498.8	-21.34	23.52
100.00	21 2 59	4150.24	7.20	164.41	92.48	60.91	22 12 9	3550.2	3.26	157.83
110.00	8 3 21	1850.46	-26.48	11.41	94.43	112.45	8 34 12	1250.5	-23.21	3.79
110.00	22 0 7	3971.29	9.41	149.49	91.13	56.98	23 6 19	3371.3	5.00	143.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0469	TRA	-.8252	TC3	.9247	BAU	.3237	SGT	1620.2	SGR	2149.3	SG3	439.8	ST	460.2	SR	674.1	SS	941.9
RDE	.2694	RRA	.8519	RC3	-2.2006	FAU	.05500	RRT	-.9220	RRF	.9935	RTF	-.9228	CRT	-.8141	CRS	-.9884	CST	.7173
FDE	.8956	FRA	2.0767	FC3	-4.6939	BSP	8363	SGB	2691.6	R23	-.1225	R13	.9861	LSA	1209.3	MSA	301.4	SSA	9.1
BDE	.2734	BRA	1.1860	BC3	2.3870	FSP	-1325	SG1	2642.8	SG2	510.2	THA	126.37	EL1	783.1	EL2	230.0	ALF	122.17

LAUNCH DATE AUG 6 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 357.134

RL	151.74	LAL	.00	LOL	313.13	VL	26.789	GAL	.88	AZL	85.75	HCA	155.03	SMA	128.65	ECC	.18011	INC	4.2462	V1	29.361
RP	107.53	LAP	1.79	LOP	108.22	VP	37.905	GAP	-4.31	AZP	93.85	TAL	176.00	TAP	331.03	RCA	105.48	APO	151.82	V2	35.240
RC	63.355	GL	36.00	GP	-51.02	ZAL	78.64	ZAP	61.10	ETS	37.73	ZAE	123.98	ETE	293.64	ZAC	51.00	ETC	258.13	CLP	-39.80

PLANETOCENTRIC CONIC

C3	11.388	VHL	3.375	DLA	15.58	RAL	242.95	RAD	6567.4	VEL	11.523	PTH	2.01	VHP	5.703	DPA	-69.35	RAP	218.64	ECC	1.1874		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 32 6	2595.05	-26.62	67.05	100.23	100.04	5 15 21	1995.1	-24.96	58.78
90.00	20 38 47	4225.85	.87	173.42	95.74	61.70	21 49 13	3625.8	-2.92	166.79
100.00	6 2 1	2305.10	-27.72	45.49	99.99	101.67	6 40 26	1705.1	-25.83	37.20
100.00	21 51 33	3991.03	1.85	155.62	95.19	60.16	22 58 4	3391.0	-2.13	149.09
110.00	7 29 19	2031.95	-30.58	23.94	99.18	106.08	8 3 11	1432.0	-28.07	15.64
110.00	22 40 45	3836.95	4.36	142.37	93.63	56.06	23 44 42	3236.9	-.13	136.15

DIFFERENTIAL CORRECTIONS

TDE	-.0757	TRA	-.8102	TC3	.6887	BAU	.3446
RDE	.4596	RRA	1.0389	RC3	-2.1560	FAU	.04965
FDE	1.0921	FRA	2.0807	FC3	-3.7743	BSP	8654
BDE	.4658	BRA	1.3175	BC3	2.2634	FSP	-1235

MID-COURSE EXECUTION ACCURACY

SGT	1507.3	SGR	2465.8	SG3	417.7		
RRT	-.9126	RRF	.9956	RTF	-.9138		
SGB	2890.0	R23	-.0965	R13	.9910		
SG1	2840.0	SG2	535.0	THA	120.35		

ORBIT DETERMINATION ACCURACY

ST	447.5	SR	955.4	SS	1063.0
CRT	-.7866	CRS	-.9969	CST	.7363
LSA	1469.6	MSA	288.3	SSA	7.1
EL1	1022.9	EL2	258.0	ALF	111.68

LAUNCH DATE AUG 6 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 363.672

RL	151.74	LAL	.00	LOL	313.13	VL	26.822	GAL	.82	AZL	84.73	HCA	158.25	SMA	128.87	ECC	.17803	INC	5.2729	V1	29.361		
RP	107.52	LAP	1.95	LOP	111.47	VP	37.932	GAP	-3.79	AZP	94.90	TAL	176.19	TAP	334.44	RCA	105.93	APO	151.81	V2	35.245		
RC	65.403	GL	42.07	GP	-56.73	ZAL	79.98	ZAP	66.36	ETS	35.79	ZAE	119.01	ETE	289.89	ZAC	45.34	ETC	256.76	CLP	-43.05		

PLANETOCENTRIC CONIC

C3	13.533	VHL	3.679	DLA	21.58	RAL	244.00	RAD	6567.5	VEL	11.615	PTH	2.04	VHP	6.049	DPA	-73.74	RAP	207.05	ECC	1.2227		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 32 9	2872.12	-28.32	87.10	106.40	90.17	4 20 1	2272.1	-27.99	78.44
90.00	21 47 4	4022.21	-5.67	162.03	100.62	62.21	22 54 6	3422.2	-9.35	155.28
100.00	5 8 28	2561.57	-29.83	64.22	106.36	92.07	5 51 9	1961.6	-29.22	55.46
100.00	22 53 27	3808.00	-4.34	145.56	99.89	60.40	23 56 55	3208.0	-8.25	138.96
110.00	6 48 4	2249.95	-33.56	40.20	106.02	96.90	7 25 34	1649.9	-32.24	31.22
110.00	23 30 20	3692.38	-1.16	134.82	97.91	55.83	24 31 52	3092.4	-5.64	128.59

DIFFERENTIAL CORRECTIONS

TDE	-.0720	TRA	-.7739	TC3	.4895	BAU	.3722
RDE	.7021	RRA	1.2609	RC3	-1.9983	FAU	.04328
FDE	1.2294	FRA	2.0046	FC3	-2.7688	BSP	9420
BDE	.7058	BRA	1.4794	BC3	2.0573	FSP	-1140

MID-COURSE EXECUTION ACCURACY

SGT	1350.0	SGR	2795.9	SG3	377.5		
RRT	-.8980	RRF	.9970	RTF	-.8987		
SGB	3104.8	R23	-.0721	R13	.9944		
SG1	3056.9	SG2	543.2	THA	114.26		

ORBIT DETERMINATION ACCURACY

ST	404.9	SR	1264.6	SS	1131.2
CRT	-.7218	CRS	-.9991	CST	.6929
LSA	1721.1	MSA	283.5	SSA	5.4
EL1	1299.5	EL2	272.7	ALF	103.62

LAUNCH DATE AUG 6 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 370.180

RL	151.74	LAL	.00	LOL	313.13	VL	26.850	GAL	.79	AZL	83.36	HCA	161.47	SMA	129.06	ECC	.17627	INC	6.6366	V1	29.361		
RP	107.51	LAP	2.11	LOP	114.71	VP	37.956	GAP	-3.28	AZP	96.30	TAL	176.32	TAP	337.78	RCA	106.31	APO	151.81	V2	35.249		
RC	67.486	GL	48.30	GP	-62.81	ZAL	81.38	ZAP	71.51	ETS	33.40	ZAE	113.49	ETE	286.31	ZAC	39.32	ETC	254.78	CLP	-46.05		

PLANETOCENTRIC CONIC

C3	17.268	VHL	4.155	DLA	27.73	RAL	245.26	RAD	6567.7	VEL	11.775	PTH	2.08	VHP	6.634	DPA	-77.37	RAP	187.22	ECC	1.2842		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 37 20	3336.87	-23.90	120.17	112.63	74.35	2 32 57	2736.9	-25.82	112.02
90.00	23 51 57	3666.99	-16.27	141.34	109.74	66.50	24 53 4	3067.0	-19.31	133.98
100.00	3 43 14	2931.00	-27.61	91.31	113.64	78.08	4 32 5	2331.0	-28.98	82.78
100.00	0 32 39	3548.09	-12.82	130.92	108.05	62.76	1 31 47	2948.1	-16.37	123.93
110.00	5 52 56	2525.08	-33.76	61.60	114.75	84.29	6 35 2	1925.1	-34.18	52.38
110.00	0 39 27	3526.77	-7.45	126.12	104.86	56.54	1 38 13	2926.8	-11.80	119.73

DIFFERENTIAL CORRECTIONS

TDE	-.0406	TRA	-.7290	TC3	.2871	BAU	.3917
RDE	1.0331	RRA	1.5462	RC3	-1.6724	FAU	.03482
FDE	1.3143	FRA	1.8739	FC3	-1.7459	BSP	10184
BDE	1.0339	BRA	1.7095	BC3	1.6969	FSP	-990

MID-COURSE EXECUTION ACCURACY

SGT	1161.7	SGR	3124.4	SG3	322.2		
RRT	-.8669	RRF	.9979	RTF	-.8684		
SGB	3333.4	R23	-.0489	R13	.9967		
SG1	3287.6	SG2	550.4	THA	108.40		

ORBIT DETERMINATION ACCURACY

ST	345.3	SR	1597.8	SS	1153.9
CRT	-.5912	CRS	-.9998	CST	.5756
LSA	1981.4	MSA	278.9	SSA	4.0
EL1	1611.2	EL2	276.2	ALF	97.50

LAUNCH DATE AUG 6 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 376.652

RL	151.74	LAL	.00	LOL	313.13	VL	26.873	GAL	.76	AZL	81.45	HCA	164.66	SMA	129.22	ECC	.17481	INC	8.5475	V1	29.361		
RP	107.50	LAP	2.25	LOP	117.96	VP	37.976	GAP	-2.79	AZP	98.25	TAL	176.39	TAP	341.05	RCA	106.63	APO	151.81	V2	35.253		
RC	69.600	GL	54.44	GP	-69.23	ZAL	82.83	ZAP	76.34	ETS	30.60	ZAE	107.42	ETE	283.01	ZAC	33.03	ETC	251.82	CLP	-48.22		

PLANETOCENTRIC CONIC

C3	24.100	VHL	4.909	DLA	33.76	RAL	246.68	RAD	6568.0	VEL	12.061	PTH	2.16	VHP	7.593	DPA	-78.91	RAP	156.39	ECC	1.3966		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.81	22 23 43	4042.33	-21.85	171.98	119.84	63.60	23 31 6	3442.3	-25.21	164.48
109.19	3 16 54	3120.63	-21.83	103.32	119.83	63.59	4 8 55	2520.6	-25.20	95.82
70.81	22 23 43	4042.33	-21.85	171.98	119.84	63.60	23 31 6	3442.3	-25.21	164.48
109.19	3 16 54	3120.63	-21.83	103.32	119.83	63.59	4 8 55	2520.6	-25.20	95.82
110.00	4 2 42	2980.66	-25.70	94.38	121.79	66.65	4 52 23	2380.7	-28.63	86.43
110.00	2 41 2	3230.29	-18.08	109.73	117.71	60.48	3 34 52	2630.3	-21.87	102.65

DIFFERENTIAL CORRECTIONS

TDE	.0392	TRA	-.6712	TC3	.1249	BAU	.3952
RDE	1.4959	RRA	1.9302	RC3	-1.2203	FAU	.02510
FDE	1.3362	FRA	1.7017	FC3	-.9018	BSP	10925
BDE	1.4965	BRA	2.0436	BC3	1.2267	FSP	-803

MID-COURSE EXECUTION ACCURACY

SGT	951.3	SGR	3438.9	SG3	258.1		
RRT	-.8009	RRF	.9985	RTF	-.8052		
SGB	3568.1	R23	-.0266	R13	.9982		
SG1	3524.5	SG2	555.8	THA	102.82		

ORBIT DETERMINATION ACCURACY

ST	286.4	SR	1926.3	SS	1126.1
CRT	-.2718	CRS	-1.0000	CST	.2670
LSA	2232.6	MSA	275.6	SSA	3.1
EL1	1927.9	EL2	275.4	ALF	92.36

LAUNCH DATE AUG 6 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 383.074

RL	151.74	LAL	.00	LOL	313.13	VL	26.892	GAL	.76	AZL	78.57	HCA	167.84	SMA	129.35	ECC	.17363	INC	11.4321	V1	29.361
RP	107.49	LAP	2.39	LOP	121.20	VP	37.992	GAP	-2.32	AZP	101.18	TAL	176.37	TAP	344.21	RCA	106.89	APO	151.81	V2	35.255
RC	71.740	GL	60.09	GP	-76.02	ZAL	84.29	ZAP	80.64	ETS	27.84	ZAE	100.72	ETE	280.41	ZAC	26.51	ETC	247.28	CLP	-47.68

PLANETOCENTRIC CONIC

C3	37.805	VHL	6.149	DLA	39.31	RAL	248.10	RAD	6568.5	VEL	12.616	PTH	2.29	VHP	9.193	DPA	-77.13	RAP	123.89	ECC	1.6222		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.51	21 39 14	4303.77	-20.96	192.43	130.23	55.95	22 50 58	3703.8	-25.28	185.53
118.49	4 12 44	3084.47	-20.94	99.86	130.22	55.94	5 4 8	2484.5	-25.26	92.95
61.51	21 39 14	4303.77	-20.96	192.43	130.23	55.95	22 50 58	3703.8	-25.28	185.53
118.49	4 12 44	3084.47	-20.94	99.86	130.22	55.94	5 4 8	2484.5	-25.26	92.95
61.51	21 39 14	4303.77	-20.96	192.43	130.23	55.95	22 50 58	3703.8	-25.28	185.53
118.49	4 12 44	3084.47	-20.94	99.86	130.22	55.94	5 4 8	2484.5	-25.26	92.95

DIFFERENTIAL CORRECTIONS

TOE	.2062	TRA	-.5953	TC3	.0278	BAU	.3623
RDE	2.1705	RRA	2.4825	RC3	-.7163	FAU	.01496
FDE	1.3000	FRA	1.5133	FC3	-.3427	BSP	11570
BDE	2.1802	BRA	2.5529	BC3	.7168	FSP	-604

MID-COURSE EXECUTION ACCURACY

SGT	743.0	SGR	3715.6	SG3	192.6		
RRT	-.6466	RRF	.9988	RTF	-.6572		
SGB	3789.2	R23	-.0048	R13	.9989		
SG1	3747.3	SG2	562.0	THA	97.54		

ORBIT DETERMINATION ACCURACY

ST	288.4	SR	2212.7	SS	1055.7		
CRT	.3066	CRS	-1.0000	CST	-.3003		
LSA	2453.2	MSA	274.5	SSA	2.4		
EL1	2214.5	EL2	274.3	ALF	87.68		

LAUNCH DATE AUG 6 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 389.419

RL	151.74	LAL	.00	LOL	313.13	VL	26.907	GAL	.78	AZL	73.71	HCA	170.96	SMA	129.45	ECC	.17273	INC	16.2944	V1	29.361		
RP	107.48	LAP	2.53	LOP	124.45	VP	38.004	GAP	-1.87	AZP	106.10	TAL	176.26	TAP	347.22	RCA	107.09	APO	151.81	V2	35.257		
RC	73.903	GL	64.56	GP	-83.10	ZAL	85.74	ZAP	84.22	ETS	28.10	ZAE	93.04	ETE	281.37	ZAC	19.78	ETC	240.96	CLP	-33.06		

PLANETOCENTRIC CONIC

C3	69.875	VHL	8.359	DLA	43.78	RAL	249.07	RAD	6569.3	VEL	13.829	PTH	2.53	VHP	12.060	DPA	-72.40	RAP	100.32	ECC	2.1500		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.10	21 15 23	4532.09	-16.37	208.47	141.24	48.81	22 30 55	3932.1	-21.53	202.42
124.90	4 44 16	3159.92	-16.35	102.64	141.22	48.80	5 36 56	2559.9	-21.51	96.60
55.10	21 15 23	4532.09	-16.37	208.47	141.24	48.81	22 30 55	3932.1	-21.53	202.42
124.90	4 44 16	3159.92	-16.35	102.64	141.22	48.80	5 36 56	2559.9	-21.51	96.60
55.10	21 15 23	4532.09	-16.37	208.47	141.24	48.81	22 30 55	3932.1	-21.53	202.42
124.90	4 44 16	3159.92	-16.35	102.64	141.22	48.80	5 36 56	2559.9	-21.51	96.60

DIFFERENTIAL CORRECTIONS

TOE	.4989	TRA	-.5336	TC3	.0021	BAU	.2398
RDE	3.2662	RRA	3.3671	RC3	-.2567	FAU	.00502
FDE	1.2516	FRA	1.3581	FC3	-.0622	BSP	12161
BDE	3.3041	BRA	3.4091	BC3	.2567	FSP	-426

MID-COURSE EXECUTION ACCURACY

SGT	611.2	SGR	3926.1	SG3	134.1		
RRT	-.3564	RRF	.9988	RTF	-.3796		
SGB	3973.4	R23	.0171	R13	.9990		
SG1	3932.3	SG2	570.2	THA	93.24		

ORBIT DETERMINATION ACCURACY

ST	374.2	SR	2435.5	SS	980.6		
CRT	.6801	CRS	-.9998	CST	-.6662		
LSA	2637.8	MSA	274.3	SSA	1.9		
EL1	2449.0	EL2	272.8	ALF	83.96		

LAUNCH DATE AUG 6 1970 FLIGHT TIME 146.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 395.596

RL	151.74	LAL	.00	LOL	313.13	VL	26.919	GAL	.84	AZL	63.93	HCA	173.96	SMA	129.53	ECC	.17211	INC	26.0648	V1	29.361		
RP	107.48	LAP	2.65	LOP	127.70	VP	38.013	GAP	-1.48	AZP	115.94	TAL	175.96	TAP	349.92	RCA	107.23	APO	151.82	V2	35.258		
RC	76.087	GL	66.18	GP	-83.69	ZAL	87.12	ZAP	86.92	ETS	172.91	ZAE	83.11	ETE	67.14	ZAC	13.66	ETC	1.65	CLP	60.78		

PLANETOCENTRIC CONIC

C3	167.141	VHL	12.928	DLA	45.70	RAL	248.30	RAD	6570.8	VEL	16.984	PTH	2.92	VHP	17.986	DPA	-64.67	RAP	83.11	ECC	3.7507		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.50	21 2 25	4738.09	-8.40	219.65	150.04	44.91	22 21 23	4138.1	-14.01	214.26
127.50	4 51 10	3313.95	-8.38	109.07	150.02	44.91	5 46 24	2713.9	-14.00	103.67
52.50	21 2 25	4738.09	-8.40	219.65	150.04	44.91	22 21 23	4138.1	-14.01	214.26
127.50	4 51 10	3313.95	-8.38	109.07	150.02	44.91	5 46 24	2713.9	-14.00	103.67
52.50	21 2 25	4738.09	-8.40	219.65	150.04	44.91	22 21 23	4138.1	-14.01	214.26
127.50	4 51 10	3313.95	-8.38	109.07	150.02	44.91	5 46 24	2713.9	-14.00	103.67

DIFFERENTIAL CORRECTIONS

TOE	-1.8613	TRA	-.3141	TC3	-.0320	BAU	.2047
RDE	-5.2179	RRA	-5.1387	RC3	-.0858	FAU	-.00690
FDE	1.3281	FRA	1.3605	FC3	.0357	BSP	12287
BDE	5.5399	BRA	5.1483	BC3	.0916	FSP	-284

MID-COURSE EXECUTION ACCURACY

SGT	852.7	SGR	4003.7	SG3	90.6		
RRT	.7545	RRF	-.9993	RTF	-.7438		
SGB	4093.4	R23	-.0378	R13	-.9987		
SG1	4056.0	SG2	552.3	THA	80.70		

ORBIT DETERMINATION ACCURACY

ST	827.1	SR	2510.9	SS	999.3		
CRT	.9467	CRS	.9999	CST	.9420		
LSA	2814.4	MSA	257.5	SSA	1.6		
EL1	2631.3	EL2	254.1	ALF	72.51		

LAUNCH DATE AUG 6 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 401.213

RL	151.74	LAL	.00	LOL	313.13	VL	26.927	GAL	1.01	AZL	38.22	HCA	176.48	SMA	129.58	ECC	.17189	INC	51.7823	V1	29.361		
RP	107.48	LAP	2.77	LOP	130.95	VP	38.019	GAP	-1.23	AZP	141.73	TAL	175.12	TAP	351.60	RCA	107.31	APO	151.86	V2	35.259		
RC	78.289	GL	58.97	GP	-67.35	ZAL	88.31	ZAP	88.59	ETS	184.11	ZAE	65.90	ETE	78.52	ZAC	18.33	ETC	312.83	CLP	86.35		

PLANETOCENTRIC CONIC

C3	609.359	VHL	24.685	DLA	39.61	RAL	242.53	RAD	6572.6	VEL	27.031	PTH	3.39	VHP	33.193	DPA	-49.49	RAP	67.11	ECC	11.0285		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.06	21 14 52	4792.45	-.97	217.65	151.37	50.40	22 34 44	4192.4	-6.05	211.87
118.94	3 52 37	3561.03	-.95	124.05	151.36	50.40	4 51 58	2961.0	-6.03	118.28
61.06	21 14 52	4792.45	-.97	217.65	151.37	50.40	22 34 44	4192.4	-6.05	211.87
118.94	3 52 37	3561.03	-.95	124.05	151.36	50.40	4 51 58	2961.0	-6.03	118.28
61.06	21 14 52	4792.45	-.97	217.65	151.37	50.40	22 34 44	4192.4	-6.05	211.87
118.94	3 52 37	3561.03	-.95	124.05	151.36	50.40	4 51 58	2961.0	-6.03	118.28

DIFFERENTIAL CORRECTIONS

TOE	-4.0092	TRA	-.7526	TC3	-.0790	BAU	2.1342
RDE	-9.6416	RRA	-9.2971	RC3	-.2498	FAU	-.03737
FDE	1.8823	FRA	1.9149	FC3	.0531	BSP	11749
BDE	10.4420	BRA	9.3275	BC3	.2620	FSP	-208

MID-COURSE EXECUTION ACCURACY

SGT	1034.3	SGR	3791.4	SG3	66.5		
RRT	.8158	RRF	-.9996	RTF	-.8035		
SGB	3930.0	R23	-.0547	R13	-.9983		
SG1	3886.4	SG2	583.6	THA	77.16		

ORBIT DETERMINATION ACCURACY

ST	933.1	SR	2390.7	SS	1347.9		
CRT	.9593	CRS	.9998	CST	.9541		
LSA	2887.6	MSA	255.0	SSA	1.3		
EL1	2554.5	EL2	246.6	ALF	69.27		

LAUNCH DATE AUG 6 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 411.379

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RL  151.74 LAL    .00 LOL 313.13 VL  26.932 GAL    .35 AZL 159.59 HCA 183.07 SMA 129.61 ECC .17082 INC69.5909 V1  29.361
RP  107.48 LAP   2.87 LOP 134.20 VP  38.022 GAP    .20 AZP  20.43 TAL 178.30 TAP   1.37 RCA 107.47 APO 151.76 V2  35.258
RC  80.507 GL  -51.65 GP   59.34 ZAL  89.25 ZAP  90.17 ETS 185.08 ZAE  62.70 ETE 288.55 ZAC 139.61 ETC 290.05 CLP  90.33
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PLANETOCENTRIC CONIC

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C31036.029 VHL 32.187 DLA -63.12 RAL 190.95 RAD 6573.0 VEL 34.019 PTH   3.51 VHP 40.913 DPA  65.62 RAP 357.53 ECC18.0504
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.90	4 12 9	2412.68	-.47	73.77	101.17	153.12	4 52 21	1812.7	6.66	70.55
149.10	14 3 51	712.29	-.46	292.56	101.20	153.12	14 15 43	112.3	6.67	289.35
30.90	4 12 9	2412.68	-.47	73.77	101.17	153.12	4 52 21	1812.7	6.66	70.55
149.10	14 3 51	712.29	-.46	292.56	101.20	153.12	14 15 43	112.3	6.67	289.35
30.90	4 12 9	2412.68	-.47	73.77	101.17	153.12	4 52 21	1812.7	6.66	70.55
149.10	14 3 51	712.29	-.46	292.56	101.20	153.12	14 15 43	112.3	6.67	289.35

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 7.1986 TRA 1.9469 TC3 -.1285 BAU 3.9464   SGT 1707.1 SGR 3354.0 SG3   65.6     ST  1302.1 SR  2905.8 SS  2357.8
RD-16.3095 RRA -.9530 RC3  .2543 FAU-.06521   RRT -.9365 RRF  .9994 RTF -.9404     CRT -.9904 CRS-1.0000 CST  .9911
FDE-3.7431 FRA -.2485 FC3  .0545 BSP  10831   SGB 3763.4 R23 -.0580 R13  .9978     LSA 3958.6 MSA  168.1 SSA    2.3
BDE17.8275 BRA 2.1677 BC3  .2849 FSP   -193   SG1 3724.6 SG2  538.9 THA 116.07     EL1 3179.9 EL2  164.6 ALF 114.00
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 416.575

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.933 GAL    .62 AZL 124.56 HCA 185.24 SMA 129.63 ECC .17093 INC34.5623 V1  29.361
RP  107.48 LAP   2.97 LOP 137.45 VP  38.022 GAP    .33 AZP  55.55 TAL 177.00 TAP   2.24 RCA 107.47 APO 151.78 V2  35.257
RC  82.739 GL  -64.76 GP   80.89 ZAL  88.15 ZAP  90.52 ETS 192.96 ZAE  83.75 ETE 293.46 ZAC 159.38 ETC 310.89 CLP  93.31
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PLANETOCENTRIC CONIC

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C3 285.310 VHL 16.891 DLA -72.72 RAL 166.05 RAD 6571.7 VEL 20.165 PTH   3.15 VHP 20.864 DPA  70.73 RAP 298.37 ECC 5.6955
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.72	2 8 6	2345.13	6.12	78.10	74.13	162.62	2 47 11	1745.1	13.75	76.06
160.28	12 49 16	5864.10	6.13	262.69	74.15	162.62	14 27 0	5264.1	13.75	260.66
19.72	2 8 6	2345.13	6.12	78.10	74.13	162.62	2 47 11	1745.1	13.75	76.06
160.28	12 49 16	5864.10	6.13	262.69	74.15	162.62	14 27 0	5264.1	13.75	260.66
19.72	2 8 6	2345.13	6.12	78.10	74.13	162.62	2 47 11	1745.1	13.75	76.06
160.28	12 49 16	5864.10	6.13	262.69	74.15	162.62	14 27 0	5264.1	13.75	260.66

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.1874 TRA 1.5280 TC3 -.1059 BAU  .8205   SGT 2503.9 SGR 3553.3 SG3   88.0     ST  1835.9 SR  2951.7 SS  1523.3
RDE-8.5263 RRA-1.7205 RC3  .1873 FAU-.01409   RRT -.9828 RRF  .9993 RTF -.9855     CRT -.9961 CRS-1.0000 CST  .9966
FDE-2.4384 FRA -.5051 FC3  .0427 BSP  13410   SGB 4346.9 R23 -.0428 R13  .9985     LSA 3792.6 MSA  139.9 SSA    1.8
BDE 9.9803 BRA 2.3011 BC3  .2151 FSP   -274   SG1 4330.3 SG2  379.0 THA 125.01     EL1 3473.3 EL2  137.3 ALF 121.84
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 422.583

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.932 GAL    .74 AZL 112.08 HCA 188.16 SMA 129.62 ECC .17113 INC22.0777 V1  29.361
RP  107.49 LAP   3.06 LOP 140.70 VP  38.020 GAP    .67 AZP  68.12 TAL 176.40 TAP   4.56 RCA 107.44 APO 151.80 V2  35.255
RC  84.985 GL  -66.29 GP   87.62 ZAL  86.87 ZAP  91.74 ETS 276.80 ZAE  94.24 ETE  15.97 ZAC 166.98 ETC  58.48 CLP-136.84
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PLANETOCENTRIC CONIC

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C3 122.224 VHL 11.056 DLA -74.63 RAL 162.94 RAD 6570.3 VEL 15.606 PTH   2.78 VHP 13.265 DPA  65.58 RAP 272.23 ECC 3.0115
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.53	1 51 10	2213.44	15.12	77.43	68.66	164.06	2 28 4	1613.4	22.79	75.47
162.47	12 41 20	5723.11	15.12	259.80	68.69	164.06	14 16 43	5123.1	22.80	257.85
17.53	1 51 10	2213.44	15.12	77.43	68.66	164.06	2 28 4	1613.4	22.79	75.47
162.47	12 41 20	5723.11	15.12	259.80	68.69	164.06	14 16 43	5123.1	22.80	257.85
17.53	1 51 10	2213.44	15.12	77.43	68.66	164.06	2 28 4	1613.4	22.79	75.47
162.47	12 41 20	5723.11	15.12	259.80	68.69	164.06	14 16 43	5123.1	22.80	257.85

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.3013 TRA 1.2614 TC3 -.0134 BAU  .0332   SGT 4092.1 SGR 1895.8 SG3  131.1     ST  3348.4 SR  1053.5 SS  1407.4
RDE 1.7938 RRA  .8451 RC3  .0153 FAU .00273   RRT  .9162 RRF -.9226 RTF -.9993     CRT  .9646 CRS  .9664 CST 1.0000
FDE-2.3073 FRA -.4770 FC3 -.0193 BSP  14157   SGB 4510.0 R23  .0506 R13 -.9981     LSA 3772.5 MSA  266.7 SSA    1.7
BDE 6.5516 BRA 1.5183 BC3  .0203 FSP   -414   SG1 4455.7 SG2  697.6 THA  23.61     EL1 3500.1 EL2  265.9 ALF  16.98
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 428.770

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.929 GAL    .84 AZL 106.27 HCA 191.26 SMA 129.60 ECC .17149 INC16.2748 V1  29.361
RP  107.50 LAP   3.14 LOP 143.95 VP  38.015 GAP   1.05 AZP  74.02 TAL 175.92 TAP   7.18 RCA 107.37 APO 151.82 V2  35.253
RC  87.241 GL  -64.66 GP   80.30 ZAL  85.53 ZAP  93.78 ETS   4.55 ZAE 101.33 ETE 103.06 ZAC 168.26 ETC 178.35 CLP-113.01
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PLANETOCENTRIC CONIC

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C3  69.707 VHL  8.349 DLA -75.08 RAL 170.29 RAD 6569.3 VEL 13.822 PTH   2.52 VHP  9.772 DPA  60.38 RAP 259.80 ECC 2.1472
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.01	2 19 26	2091.61	23.19	75.91	73.72	163.73	2 54 18	1491.6	30.85	73.72
162.99	13 11 42	5599.25	23.20	257.76	73.74	163.73	14 45 2	4999.3	30.86	255.57
17.01	2 19 26	2091.61	23.19	75.91	73.72	163.73	2 54 18	1491.6	30.85	73.72
162.99	13 11 42	5599.25	23.20	257.76	73.74	163.73	14 45 2	4999.3	30.86	255.57
17.01	2 19 26	2091.61	23.19	75.91	73.72	163.73	2 54 18	1491.6	30.85	73.72
162.99	13 11 42	5599.25	23.20	257.76	73.74	163.73	14 45 2	4999.3	30.86	255.57

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.1234 TRA -.4620 TC3 -.1422 BAU  .2673   SGT 1256.7 SGR 4401.0 SG3  192.0     ST   379.0 SR  3814.3 SS  1633.9
RDE 5.4697 RRA  .8479 RC3  .2491 FAU .01472   RRT -.5784 RRF -.9989 RTF  .5690     CRT -.3932 CRS 1.0000 CST -.3866
FDE-2.7784 FRA -.4131 FC3 -.1828 BSP  14426   SGB 4576.9 R23  .0501 R13 -.9977     LSA 4152.2 MSA  348.6 SSA    2.4
BDE 5.4711 BRA  .9656 BC3  .2868 FSP   -609   SG1 4463.9 SG2 1010.8 THA  99.89     EL1 3817.3 EL2  348.2 ALF  92.26
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 435.007

RL	151.74	LAL	.00	LOL	313.13	VL	26.923	GAL	.94	AZL	102.97	HCA	194.43	SMA	129.56	ECC	.17200	INC	12.9720	VI	29.361
RP	107.51	LAP	3.21	LOP	147.20	VP	38.008	GAP	1.45	AZP	77.42	TAL	175.45	TAP	9.88	RCA	107.27	APO	151.84	V2	35.249
RC	89.506	GL	-62.06	GP	73.89	ZAL	84.15	ZAP	96.52	ETS	13.07	ZAE	106.91	ETE	111.58	ZAC	165.57	ETC	209.71	CLP	-114.17

PLANETOCENTRIC CONIC

C3	46.786	VHL	6.840	DLA	-74.69	RAL	180.79	RAD	6568.7	VEL	12.967	PTH	2.36	VHP	7.857	DPA	55.55	RAP	251.77	ECC	1.7700

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.45	3 2 15	1993.15	29.50	73.74	81.87	162.34	3 35 29	1393.2	37.09	71.12
162.55	13 52 43	5502.53	29.50	256.04	81.89	162.34	15 24 25	4902.5	37.09	253.42
17.45	3 2 15	1993.15	29.50	73.74	81.87	162.34	3 35 29	1393.2	37.09	71.12
162.55	13 52 43	5502.53	29.50	256.04	81.89	162.34	15 24 25	4902.5	37.09	253.42
17.45	3 2 15	1993.15	29.50	73.74	81.87	162.34	3 35 29	1393.2	37.09	71.12
162.55	13 52 43	5502.53	29.50	256.04	81.89	162.34	15 24 25	4902.5	37.09	253.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4381	TRA	-.4148	TC3	-.3765	BAU	.3901	SGT	1857.1	SGR	4208.1	SG3	265.4	ST	1267.8	SR	3949.3
RDE	4.6899	RRA	.4243	RC3	.4972	FAU	.02613	RRT	-.8771	RRF	-.9985	RTF	.8816	CRT	-.9771	CRS	1.0000
FDE	-3.3924	FRA	-.3030	FC3	-.4835	BSP	14517	SGB	4599.6	R23	.0616	R13	-.9967	LSA	4571.3	MSA	259.9
BDE	4.9055	BRA	.5934	BC3	.6237	FSP	-839	SG1	4524.2	SG2	829.6	THA	111.94	EL1	4139.8	EL2	257.3

SS	1939.0	CST	-.9768	SSA	3.2
ALF	107.49				

LAUNCH DATE AUG 6 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 441.255

RL	151.74	LAL	.00	LOL	313.13	VL	26.915	GAL	1.05	AZL	100.84	HCA	197.62	SMA	129.50	ECC	.17268	INC	10.8421	VI	29.361
RP	107.52	LAP	3.26	LOP	150.45	VP	37.998	GAP	1.84	AZP	79.66	TAL	174.96	TAP	12.58	RCA	107.14	APO	151.86	V2	35.245
RC	91.778	GL	-59.15	GP	68.08	ZAL	82.72	ZAP	99.83	ETS	18.17	ZAE	111.55	ETE	117.40	ZAC	161.35	ETC	226.06	CLP	-117.23

PLANETOCENTRIC CONIC

C3	34.769	VHL	5.897	DLA	-73.65	RAL	191.28	RAD	6568.4	VEL	12.496	PTH	2.26	VHP	6.694	DPA	50.98	RAP	245.77	ECC	1.5722

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.64	3 46 32	1915.85	34.14	70.89	89.80	160.12	4 18 28	1315.8	41.61	67.68
161.36	14 32 8	5430.10	34.15	254.39	89.82	160.12	16 2 38	4830.1	41.62	251.18
18.64	3 46 32	1915.85	34.14	70.89	89.80	160.12	4 18 28	1315.8	41.61	67.68
161.36	14 32 8	5430.10	34.15	254.39	89.82	160.12	16 2 38	4830.1	41.62	251.18
18.64	3 46 32	1915.85	34.14	70.89	89.80	160.12	4 18 28	1315.8	41.61	67.68
161.36	14 32 8	5430.10	34.15	254.39	89.82	160.12	16 2 38	4830.1	41.62	251.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0055	TRA	-.2979	TC3	-.6756	BAU	.4585	SGT	2343.2	SGR	3973.2	SG3	344.6	ST	1973.1	SR	3847.4
RDE	3.9559	RRA	.1567	RC3	.7187	FAU	.03735	RRT	-.9369	RRF	-.9979	RTF	.9412	CRT	-.9934	CRS	1.0000
FDE	-3.9128	FRA	-.1444	FC3	-.9300	BSP	14601	SGB	4612.7	R23	.0712	R13	-.9956	LSA	4847.2	MSA	208.3
BDE	4.4352	BRA	.3366	BC3	.9864	FSP	-1088	SG1	4557.0	SG2	714.3	THA	119.73	EL1	4319.1	EL2	201.7

SS	2200.8	CST	-.9931	SSA	4.2
ALF	117.06				

LAUNCH DATE AUG 6 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 447.500

RL	151.74	LAL	.00	LOL	313.13	VL	26.905	GAL	1.17	AZL	99.35	HCA	200.83	SMA	129.43	ECC	.17352	INC	9.3502	VI	29.361
RP	107.53	LAP	3.31	LOP	153.70	VP	37.987	GAP	2.24	AZP	81.25	TAL	174.43	TAP	15.26	RCA	106.97	APO	151.89	V2	35.240
RC	94.056	GL	-56.16	GP	62.67	ZAL	81.23	ZAP	103.55	ETS	21.98	ZAE	115.43	ETE	122.61	ZAC	156.75	ETC	235.23	CLP	-120.69

PLANETOCENTRIC CONIC

C3	27.686	VHL	5.262	DLA	-72.17	RAL	200.56	RAD	6568.1	VEL	12.209	PTH	2.19	VHP	5.948	DPA	46.57	RAP	241.01	ECC	1.4556

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.36	4 27 7	1854.82	37.44	67.47	96.29	157.31	4 58 1	1254.8	44.74	63.55
159.64	15 5 37	5376.74	37.45	252.71	96.31	157.31	16 35 13	4776.7	44.75	248.79
20.36	4 27 7	1854.82	37.44	67.47	96.29	157.31	4 58 1	1254.8	44.74	63.55
159.64	15 5 37	5376.74	37.45	252.71	96.31	157.31	16 35 13	4776.7	44.75	248.79
20.36	4 27 7	1854.82	37.44	67.47	96.29	157.31	4 58 1	1254.8	44.74	63.55
159.64	15 5 37	5376.74	37.45	252.71	96.31	157.31	16 35 13	4776.7	44.75	248.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2920	TRA	-.1685	TC3	-1.0240	BAU	.5031	SGT	2783.7	SGR	3698.0	SG3	421.9	ST	2502.4	SR	3575.5
RDE	3.2834	RRA	-.0236	RC3	.8940	FAU	.04787	RRT	-.9604	RRF	-.9973	RTF	.9640	CRT	-.9969	CRS	1.0000
FDE	-4.2409	FRA	.0558	FC3	-1.4969	BSP	14673	SGB	4628.6	R23	.0787	R13	-.9944	LSA	4964.7	MSA	175.0
BDE	4.0042	BRA	.1701	BC3	1.3593	FSP	-1333	SG1	4586.2	SG2	625.1	THA	126.66	EL1	4361.2	EL2	162.1

SS	2373.4	CST	-.9964	SSA	5.2
ALF	124.96				

LAUNCH DATE AUG 6 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 453.733

RL	151.74	LAL	.00	LOL	313.13	VL	26.893	GAL	1.29	AZL	98.24	HCA	204.04	SMA	129.35	ECC	.17452	INC	8.2422	VI	29.361
RP	107.55	LAP	3.35	LOP	156.95	VP	37.973	GAP	2.63	AZP	82.46	TAL	173.86	TAP	17.91	RCA	106.78	APO	151.93	V2	35.235
RC	96.339	GL	-53.20	GP	57.62	ZAL	79.69	ZAP	107.52	ETS	24.95	ZAE	118.62	ETE	127.59	ZAC	152.16	ETC	240.88	CLP	-124.19

PLANETOCENTRIC CONIC

C3	23.172	VHL	4.814	DLA	-70.40	RAL	208.45	RAD	6567.9	VEL	12.023	PTH	2.15	VHP	5.456	DPA	42.33	RAP	237.15	ECC	1.3813

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.40	5 2 54	1805.82	39.69	63.66	101.25	154.16	5 32 59	1205.8	46.78	59.00
157.60	15 32 45	5337.94	39.69	251.03	101.27	154.15	17 1 43	4737.9	46.79	246.36
22.40	5 2 54	1805.82	39.69	63.66	101.25	154.16	5 32 59	1205.8	46.78	59.00
157.60	15 32 45	5337.94	39.69	251.03	101.27	154.15	17 1 43	4737.9	46.79	246.36
22.40	5 2 54	1805.82	39.69	63.66	101.25	154.16	5 32 59	1205.8	46.78	59.00
157.60	15 32 45	5337.94	39.69	251.03	101.27	154.15	17 1 43	4737.9	46.79	246.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4216	TRA	-.0353	TC3	-1.4044	BAU	.5361	SGT	3186.2	SGR	3392.0	SG3	490.2	ST	2882.9	SR	3211.1
RDE	2.6945	RRA	-.1467	RC3	1.0115	FAU	.05698	RRT	-.9712	RRF	-.9965	RTF	.9744	CRT	-.9981	CRS	1.0000
FDE	-4.3628	FRA	.2845	FC3	-2.1289	BSP	14769	SGB	4653.7	R23	.0846	R13	-.9933	LSA	4961.2	MSA	154.4
BDE	3.6228	BRA	.1509	BC3	1.7307	FSP	-1554	SG1	4620.2	SG2	557.7	THA	133.16	EL1	4313.3	EL2	132.7

SS	2452.4	CST	-.9975	SSA	6.4
ALF	131.91				

LAUNCH DATE AUG 6 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 459.951

RL 151.74 LAL .00 LOL 313.13 VL 26.879 GAL 1.43 AZL 97.38 HCA 207.27 SMA 129.26 ECC .17568 INC 7.3826 VI 29.361
RP 107.57 LAP 3.37 LOP 160.20 VP 37.958 GAP 3.03 AZP 83.43 TAL 173.26 TAP 20.52 RCA 106.55 APO 151.97 V2 35.229
RC 98.624 GL -50.30 GP 52.90 ZAL 78.09 ZAP 111.59 ETS 27.26 ZAE 121.18 ETE 132.40 ZAC 147.77 ETC 244.62 CLP-127.59

PLANETOCENTRIC CONIC

C3 20.136 VHL 4.487 DLA -68.47 RAL 215.13 RAD 6567.8 VEL 11.896 PTH 2.11 VHP 5.134 DPA 38.26 RAP 234.01 ECC 1.3314

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.64	5 34 22	1765.72	41.11	59.67	104.98	150.85	6 3 48	1165.7	47.97	54.28
155.36	15 54 34	5310.32	41.12	249.40	105.00	150.85	17 23 5	4710.3	47.97	244.00
24.64	5 34 22	1765.72	41.11	59.67	104.98	150.85	6 3 48	1165.7	47.97	54.28
155.36	15 54 34	5310.32	41.12	249.40	105.00	150.85	17 23 5	4710.3	47.97	244.00
24.64	5 34 22	1765.72	41.11	59.67	104.98	150.85	6 3 48	1165.7	47.97	54.28
155.36	15 54 34	5310.32	41.12	249.40	105.00	150.85	17 23 5	4710.3	47.97	244.00

DIFFERENTIAL CORRECTIONS
TDE-2.4580 TRA .1007 TC3-1.8014 BAU .5645
RDE 2.2014 RRA -.2313 RC3 1.0735 FAU .06432
FDE-4.3096 FRA .5282 FC3-2.7655 BSP 14932
BDE 3.2997 BRA .2523 BC3 2.0970 FSP -1740

MID-COURSE EXECUTION ACCURACY
SGT 3547.7 SGR 3078.4 SG3 545.2
RRT -.9762 RRF -.9955 RTF .9795
SGB 4697.1 R23 .0890 R13 -.9921
SG1 4669.6 SG2 507.4 THA 139.15

ORBIT DETERMINATION ACCURACY
ST 3140.6 SR 2821.3 SS 2453.5
CRT -.9986 CRS .9999 CST -.9978
LSA 4880.8 MSA 142.8 SSA 7.6
EL1 4220.3 EL2 110.1 ALF 138.07

LAUNCH DATE AUG 6 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 466.151

RL 151.74 LAL .00 LOL 313.13 VL 26.864 GAL 1.58 AZL 96.69 HCA 210.49 SMA 129.15 ECC .17700 INC 6.6926 VI 29.361
RP 107.59 LAP 3.39 LOP 163.45 VP 37.940 GAP 3.42 AZP 84.23 TAL 172.61 TAP 23.10 RCA 106.29 APO 152.01 V2 35.222
RC 100.910 GL -47.49 GP 48.53 ZAL 76.43 ZAP 115.66 ETS 29.04 ZAE 123.15 ETE 137.00 ZAC 143.67 ETC 247.22 CLP-130.83

PLANETOCENTRIC CONIC

C3 18.022 VHL 4.245 DLA -66.46 RAL 220.86 RAD 6567.7 VEL 11.807 PTH 2.09 VHP 4.930 DPA 34.39 RAP 231.49 ECC 1.2966

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.98	6 2 24	1732.24	41.90	55.63	107.84	147.55	6 31 16	1132.2	48.49	49.58
153.02	16 12 14	5291.48	41.91	247.91	107.85	147.54	17 40 25	4691.5	48.49	241.85
26.98	6 2 24	1732.24	41.90	55.63	107.84	147.55	6 31 16	1132.2	48.49	49.58
153.02	16 12 14	5291.48	41.91	247.91	107.85	147.54	17 40 25	4691.5	48.49	241.85
26.98	6 2 24	1732.24	41.90	55.63	107.84	147.55	6 31 16	1132.2	48.49	49.58
153.02	16 12 14	5291.48	41.91	247.91	107.85	147.54	17 40 25	4691.5	48.49	241.85

DIFFERENTIAL CORRECTIONS
TDE-2.4377 TRA .2400 TC3-2.1977 BAU .5905
RDE 1.7982 RRA -.2882 RC3 1.0847 FAU .06960
FDE-4.1208 FRA .7721 FC3-3.3434 BSP 15129
BDE 3.0292 BRA .3751 BC3 2.4508 FSP -1880

MID-COURSE EXECUTION ACCURACY
SGT 3868.4 SGR 2772.5 SG3 584.7
RRT -.9784 RRF -.9942 RTF .9821
SGB 4759.3 R23 .0915 R13 -.9910
SG1 4736.2 SG2 468.3 THA 144.56

ORBIT DETERMINATION ACCURACY
ST 3299.5 SR 2444.5 SS 2392.7
CRT -.9989 CRS .9998 CST -.9978
LSA 4750.7 MSA 137.0 SSA 8.6
EL1 4105.4 EL2 91.0 ALF 143.47

LAUNCH DATE AUG 6 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 472.333

RL 151.74 LAL .00 LOL 313.13 VL 26.847 GAL 1.75 AZL 96.12 HCA 213.72 SMA 129.04 ECC .17847 INC 6.1233 VI 29.361
RP 107.61 LAP 3.39 LOP 166.70 VP 37.922 GAP 3.80 AZP 84.90 TAL 171.92 TAP 25.63 RCA 106.01 APO 152.07 V2 35.215
RC 103.196 GL -44.77 GP 44.52 ZAL 74.70 ZAP 119.62 ETS 30.40 ZAE 124.58 ETE 141.34 ZAC 139.89 ETC 249.11 CLP-133.88

PLANETOCENTRIC CONIC

C3 16.521 VHL 4.065 DLA -64.42 RAL 225.86 RAD 6567.7 VEL 11.743 PTH 2.07 VHP 4.812 DPA 30.74 RAP 229.51 ECC 1.2719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.37	6 27 50	1703.76	42.19	51.67	110.13	144.35	6 56 14	1103.8	48.49	45.05
150.63	16 26 42	5279.77	42.20	246.62	110.14	144.34	17 54 42	4679.8	48.50	240.00
29.37	6 27 50	1703.76	42.19	51.67	110.13	144.35	6 56 14	1103.8	48.49	45.05
150.63	16 26 42	5279.77	42.20	246.62	110.14	144.34	17 54 42	4679.8	48.50	240.00
29.37	6 27 50	1703.76	42.19	51.67	110.13	144.35	6 56 14	1103.8	48.49	45.05
150.63	16 26 42	5279.77	42.20	246.62	110.14	144.34	17 54 42	4679.8	48.50	240.00

DIFFERENTIAL CORRECTIONS
TDE-2.3798 TRA .3858 TC3-2.5700 BAU .6128
RDE 1.4705 RRA -.3272 RC3 1.0458 FAU .07234
FDE-3.8296 FRA 1.0104 FC3-3.7906 BSP 15244
BDE 2.7974 BRA .5059 BC3 2.7746 FSP -1952

MID-COURSE EXECUTION ACCURACY
SGT 4147.8 SGR 2482.0 SG3 608.0
RRT -.9786 RRF -.9924 RTF .9833
SGB 4833.7 R23 .0929 R13 -.9898
SG1 4813.7 SG2 439.7 THA 149.36

ORBIT DETERMINATION ACCURACY
ST 3376.4 SR 2097.6 SS 2282.0
CRT -.9991 CRS .9996 CST -.9976
LSA 4581.3 MSA 135.8 SSA 9.7
EL1 3974.2 EL2 74.3 ALF 148.16

LAUNCH DATE AUG 6 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 478.494

RL 151.74 LAL .00 LOL 313.13 VL 26.828 GAL 1.92 AZL 95.64 HCA 216.94 SMA 128.92 ECC .18011 INC 5.6430 VI 29.361
RP 107.64 LAP 3.39 LOP 169.94 VP 37.901 GAP 4.19 AZP 85.48 TAL 171.19 TAP 28.13 RCA 105.70 APO 152.13 V2 35.207
RC 105.482 GL -42.13 GP 40.86 ZAL 72.92 ZAP 123.43 ETS 31.44 ZAE 125.56 ETE 145.37 ZAC 136.46 ETC 250.53 CLP-136.76

PLANETOCENTRIC CONIC

C3 15.450 VHL 3.931 DLA -62.36 RAL 230.31 RAD 6567.6 VEL 11.698 PTH 2.06 VHP 4.758 DPA 27.32 RAP 228.00 ECC 1.2543

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.80	6 51 19	1679.06	42.09	47.83	112.07	141.31	7 19 18	1079.1	48.10	40.76
148.20	16 38 41	5274.02	42.10	245.58	112.08	141.31	18 6 35	4674.0	48.11	238.51
31.80	6 51 19	1679.06	42.09	47.83	112.07	141.31	7 19 18	1079.1	48.10	40.76
148.20	16 38 41	5274.02	42.10	245.58	112.08	141.31	18 6 35	4674.0	48.11	238.51
31.80	6 51 19	1679.06	42.09	47.83	112.07	141.31	7 19 18	1079.1	48.10	40.76
148.20	16 38 41	5274.02	42.10	245.58	112.08	141.31	18 6 35	4674.0	48.11	238.51

DIFFERENTIAL CORRECTIONS
TDE-2.3049 TRA .5310 TC3-2.9272 BAU .6381
RDE 1.2137 RRA -.3482 RC3 .9878 FAU .07377
FDE-3.4951 FRA 1.2185 FC3-4.1337 BSP 15556
BDE 2.6050 BRA .6350 BC3 3.0894 FSP -2004

MID-COURSE EXECUTION ACCURACY
SGT 4400.8 SGR 2220.4 SG3 618.1
RRT -.9780 RRF -.9901 RTF .9841
SGB 4929.3 R23 .0907 R13 -.9888
SG1 4911.8 SG2 415.1 THA 153.53

ORBIT DETERMINATION ACCURACY
ST 3397.6 SR 1799.5 SS 2147.1
CRT -.9993 CRS .9993 CST -.9973
LSA 4401.5 MSA 136.2 SSA 10.7
EL1 3844.3 EL2 57.8 ALF 152.10

LAUNCH DATE AUG 6 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 484.634

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.809 GAL   2.11 AZL  95.23 HCA 220.17 SMA 128.78 ECC .18191 INC 5.2299 VI  29.361
RP  107.66 LAP   3.37 LOP 173.18 VP  37.879 GAP   4.58 AZP  86.00 TAL 170.42 TAP  30.59 RCA 105.36 APO 152.21 V2  35.198
RC 107.765 GL  -39.57 GP   37.55 ZAL  71.09 ZAP 127.04 ETS  32.22 ZAE 126.17 ETE 149.03 ZAC 133.39 ETC 251.62 CLP-139.45
```

PLANETOCENTRIC CONIC

C3 14.697 VHL 3.834 DLA -60.31 RAL 234.32 RAD 6567.6 VEL 11.665 PTH 2.05 VHP 4.753 DPA 24.13 RAP 226.91 ECC 1.2419

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.23	7 13 19	1657.30	41.67	44.16	113.83	138.47	7 40 56	1057.3	47.41	36.74
145.77	16 48 43	5273.37	41.68	244.82	113.84	138.47	18 16 37	4673.4	47.41	237.40
34.23	7 13 19	1657.30	41.67	44.16	113.83	138.47	7 40 56	1057.3	47.41	36.74
145.77	16 48 43	5273.37	41.68	244.82	113.84	138.47	18 16 37	4673.4	47.41	237.40
34.23	7 13 19	1657.30	41.67	44.16	113.83	138.47	7 40 56	1057.3	47.41	36.74
145.77	16 48 43	5273.37	41.68	244.82	113.84	138.47	18 16 37	4673.4	47.41	237.40

DIFFERENTIAL CORRECTIONS
```
TDE-2.2155 TRA  .6815 TC3-3.2458 BAU  .6622
RDE 1.0098 RRA -.3599 RC3  .9076 FAU .07348
FDE-3.1316 FRA 1.4038 FC3-4.3287 BSP  15852
BDE 2.4347 BRA  .7707 BC3 3.3703 FSP  -2010
```

MID-COURSE EXECUTION ACCURACY
```
SGT 4624.6 SGR 1985.4 SG3  616.2
RRT -.9762 RRF -.9869 RTF  .9844
SGB 5032.8 R23  .0866 R13 -.9879
SG1 5017.1 SG2  397.1 THA 157.11
```

ORBIT DETERMINATION ACCURACY
```
ST  3369.0 SR  1544.1 SS  1992.1
CRT -.9996 CRS  .9986 CST -.9967
LSA 4205.1 MSA  139.1 SSA   11.6
EL1 3705.7 EL2   41.7 ALF 155.38
```

LAUNCH DATE AUG 6 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 490.751

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.788 GAL   2.32 AZL  94.87 HCA 223.40 SMA 128.65 ECC .18387 INC 4.8687 VI  29.361
RP  107.69 LAP   3.34 LOP 176.42 VP  37.856 GAP   4.96 AZP  86.46 TAL 169.62 TAP  33.01 RCA 104.99 APO 152.30 V2  35.189
RC 110.046 GL  -37.09 GP   34.58 ZAL  69.21 ZAP 130.44 ETS  32.82 ZAE 126.48 ETE 152.32 ZAC 130.66 ETC 252.48 CLP-141.98
```

PLANETOCENTRIC CONIC

C3 14.188 VHL 3.767 DLA -58.28 RAL 237.99 RAD 6567.6 VEL 11.644 PTH 2.04 VHP 4.787 DPA 21.17 RAP 226.19 ECC 1.2335

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.67	7 34 11	1637.82	40.99	40.68	115.49	135.85	8 1 28	1037.8	46.47	33.01
143.33	16 57 9	5277.25	41.01	244.36	115.51	135.84	18 25 7	4677.3	46.48	236.68
36.67	7 34 11	1637.82	40.99	40.68	115.49	135.85	8 1 28	1037.8	46.47	33.01
143.33	16 57 9	5277.25	41.01	244.36	115.51	135.84	18 25 7	4677.3	46.48	236.68
36.67	7 34 11	1637.82	40.99	40.68	115.49	135.85	8 1 28	1037.8	46.47	33.01
143.33	16 57 9	5277.25	41.01	244.36	115.51	135.84	18 25 7	4677.3	46.48	236.68

DIFFERENTIAL CORRECTIONS
```
TDE-2.1189 TRA  .8356 TC3-3.5247 BAU  .6864
RDE  .8502 RRA -.3644 RC3  .8184 FAU .07205
FDE-2.7684 FRA 1.5610 FC3-4.3963 BSP  16209
BDE 2.2831 BRA  .9116 BC3 3.6184 FSP  -1994
```

MID-COURSE EXECUTION ACCURACY
```
SGT 4825.4 SGR 1778.8 SG3  605.4
RRT -.9733 RRF -.9828 RTF  .9844
SGB 5142.8 R23  .0805 R13 -.9870
SG1 5128.5 SG2  384.1 THA 160.15
```

ORBIT DETERMINATION ACCURACY
```
ST  3304.6 SR  1331.5 SS  1830.1
CRT -.9998 CRS  .9974 CST -.9960
LSA 4002.7 MSA  143.9 SSA   12.4
EL1 3562.7 EL2   26.1 ALF 158.06
```

LAUNCH DATE AUG 6 1970 FLIGHT TIME 178.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 496.845

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.766 GAL   2.54 AZL  94.55 HCA 226.62 SMA 128.50 ECC .18601 INC 4.5483 VI  29.361
RP  107.72 LAP   3.30 LOP 179.66 VP  37.832 GAP   5.35 AZP  86.87 TAL 168.78 TAP  35.40 RCA 104.60 APO 152.40 V2  35.179
RC 112.324 GL  -34.69 GP   31.91 ZAL  67.29 ZAP 133.61 ETS  33.29 ZAE 126.56 ETE 155.23 ZAC 128.25 ETC 253.18 CLP-144.34
```

PLANETOCENTRIC CONIC

C3 13.878 VHL 3.725 DLA -56.28 RAL 241.39 RAD 6567.5 VEL 11.630 PTH 2.04 VHP 4.852 DPA 18.44 RAP 225.79 ECC 1.2284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.10	7 54 13	1620.01	40.12	37.38	117.14	133.45	8 21 13	1020.0	45.35	29.53
140.90	17 4 11	5285.34	40.13	244.21	117.16	133.44	18 32 17	4685.3	45.35	236.36
39.10	7 54 13	1620.01	40.12	37.38	117.14	133.45	8 21 13	1020.0	45.35	29.53
140.90	17 4 11	5285.34	40.13	244.21	117.16	133.44	18 32 17	4685.3	45.35	236.36
39.10	7 54 13	1620.01	40.12	37.38	117.14	133.45	8 21 13	1020.0	45.35	29.53
140.90	17 4 11	5285.34	40.13	244.21	117.16	133.44	18 32 17	4685.3	45.35	236.36

DIFFERENTIAL CORRECTIONS
```
TDE-2.0209 TRA  .9913 TC3-3.7688 BAU  .7123
RDE  .7275 RRA -.3630 RC3  .7314 FAU .07009
FDE-2.4267 FRA 1.6866 FC3-4.3722 BSP  16688
BDE 2.1479 BRA 1.0557 BC3 3.8391 FSP  -1972
```

MID-COURSE EXECUTION ACCURACY
```
SGT 5008.8 SGR 1600.0 SG3  588.4
RRT -.9695 RRF -.9774 RTF  .9845
SGB 5258.1 R23  .0717 R13 -.9863
SG1 5244.8 SG2  374.6 THA 162.70
```

ORBIT DETERMINATION ACCURACY
```
ST  3216.6 SR  1159.0 SS  1671.9
CRT -.9999 CRS  .9953 CST -.9950
LSA 3802.9 MSA  149.6 SSA   13.2
EL1 3419.0 EL2   14.0 ALF 160.19
```

LAUNCH DATE AUG 6 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 502.915

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.744 GAL   2.77 AZL  94.26 HCA 229.85 SMA 128.35 ECC .18833 INC 4.2604 VI  29.361
RP  107.75 LAP   3.26 LOP 182.90 VP  37.806 GAP   5.73 AZP  87.25 TAL 167.91 TAP  37.76 RCA 104.18 APO 152.52 V2  35.169
RC 114.599 GL  -32.37 GP   29.52 ZAL  65.35 ZAP 136.57 ETS  33.68 ZAE 126.48 ETE 157.78 ZAC 126.13 ETC 253.77 CLP-146.57
```

PLANETOCENTRIC CONIC

C3 13.736 VHL 3.706 DLA -54.30 RAL 244.55 RAD 6567.5 VEL 11.624 PTH 2.04 VHP 4.943 DPA 15.90 RAP 225.68 ECC 1.2261

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.52	8 13 37	1603.53	39.09	34.26	118.82	131.25	8 40 20	1003.5	44.08	26.30
138.48	17 10 1	5297.29	39.10	244.37	118.83	131.24	18 38 18	4697.3	44.09	236.41
41.52	8 13 37	1603.53	39.09	34.26	118.82	131.25	8 40 20	1003.5	44.08	26.30
138.48	17 10 1	5297.29	39.10	244.37	118.83	131.24	18 38 18	4697.3	44.09	236.41
41.52	8 13 37	1603.53	39.09	34.26	118.82	131.25	8 40 20	1003.5	44.08	26.30
138.48	17 10 1	5297.29	39.10	244.37	118.83	131.24	18 38 18	4697.3	44.09	236.41

DIFFERENTIAL CORRECTIONS
```
TDE-1.9118 TRA 1.1610 TC3-3.9398 BAU  .7328
RDE  .6287 RRA -.3625 RC3  .6349 FAU .06674
FDE-2.0912 FRA 1.8045 FC3-4.2062 BSP  16952
BDE 2.0126 BRA 1.2163 BC3 3.9907 FSP  -1899
```

MID-COURSE EXECUTION ACCURACY
```
SGT 5169.7 SGR 1445.2 SG3  566.8
RRT -.9639 RRF -.9706 RTF  .9839
SGB 5367.9 R23  .0649 R13 -.9853
SG1 5355.1 SG2  371.6 THA 164.84
```

ORBIT DETERMINATION ACCURACY
```
ST  3097.6 SR  1013.9 SS  1510.9
CRT -.9998 CRS  .9916 CST -.9934
LSA 3588.9 MSA  159.8 SSA   13.8
EL1 3259.2 EL2   19.6 ALF 161.88
```

LAUNCH DATE AUG 6 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 508.961

RL 151.74 LAL .00 LOL 313.13 VL 26.720 GAL 3.02 AZL 94.00 HCA 233.07 SMA 128.19 ECC .19083 INC 3.9989 V1 29.361
RP 107.79 LAP 3.20 LOP 186.14 VP 37.779 GAP 6.12 AZP 87.59 TAL 167.01 TAP 40.08 RCA 103.73 APO 152.66 V2 35.158
RC 116.871 GL -30.13 GP 27.39 ZAL 63.38 ZAP 139.31 ETS 34.03 ZAE 126.29 ETE 160.00 ZAC 124.28 ETC 254.27 CLP-148.66

PLANETOCENTRIC CONIC

C3 13.740 VHL 3.707 DLA -52.36 RAL 247.51 RAD 6567.5 VEL 11.624 PTH 2.04 VHP 5.055 DPA 13.55 RAP 225.82 ECC 1.2261

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.93	8 32 30	1588.03	37.94	31.31	120.54	129.25	8 58 58	988.0	42.71	23.29
136.07	17 14 45	5312.94	37.95	244.84	120.55	129.24	18 43 18	4712.9	42.72	236.82
43.93	8 32 30	1588.03	37.94	31.31	120.54	129.25	8 58 58	988.0	42.71	23.29
136.07	17 14 45	5312.94	37.95	244.84	120.55	129.24	18 43 18	4712.9	42.72	236.82
43.93	8 32 30	1588.03	37.94	31.31	120.54	129.25	8 58 58	988.0	42.71	23.29
136.07	17 14 45	5312.94	37.95	244.84	120.55	129.24	18 43 18	4712.9	42.72	236.82

DIFFERENTIAL CORRECTIONS
TDE-1.8033 TRA 1.3344 TC3-4.0672 BAU .7539
RDE .5534 RRA -.3595 RC3 .5473 FAU .06320
FDE-1.7892 FRA 1.8972 FC3-3.9822 BSP 17284
BDE 1.8863 BRA 1.3820 BC3 4.1038 FSP -1828

MID-COURSE EXECUTION ACCURACY
SGT 5316.7 SGR 1313.1 SG3 542.5
RRT -.9569 RRF -.9622 RTF .9834
SGB 5476.4 R23 .0569 R13 -.9844
SG1 5463.9 SG2 371.0 THA 166.64

ORBIT DETERMINATION ACCURACY
ST 2967.2 SR 898.0 SS 1362.3
CRT -.9991 CRS .9853 CST -.9914
LSA 3381.8 MSA 171.3 SSA 14.4
EL1 3099.8 EL2 37.1 ALF 163.17

LAUNCH DATE AUG 6 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 514.980

RL 151.74 LAL .00 LOL 313.13 VL 26.696 GAL 3.28 AZL 93.76 HCA 236.30 SMA 128.03 ECC .19353 INC 3.7587 V1 29.361
RP 107.82 LAP 3.13 LOP 189.37 VP 37.752 GAP 6.51 AZP 87.91 TAL 166.08 TAP 42.37 RCA 103.25 APO 152.81 V2 35.147
RC 119.138 GL -27.97 GP 25.49 ZAL 61.41 ZAP 141.87 ETS 34.37 ZAE 126.01 ETE 161.93 ZAC 122.66 ETC 254.71 CLP-150.63

PLANETOCENTRIC CONIC

C3 13.880 VHL 3.726 DLA -50.45 RAL 250.30 RAD 6567.5 VEL 11.630 PTH 2.04 VHP 5.185 DPA 11.37 RAP 226.19 ECC 1.2284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.32	8 51 3	1573.15	36.69	28.50	122.32	127.44	9 17 17	973.2	41.26	20.47
133.68	17 18 25	5332.24	36.70	245.62	122.33	127.43	18 47 17	4732.2	41.27	237.58
46.32	8 51 3	1573.15	36.69	28.50	122.32	127.44	9 17 17	973.2	41.26	20.47
133.68	17 18 25	5332.24	36.70	245.62	122.33	127.43	18 47 17	4732.2	41.27	237.58
46.32	8 51 3	1573.15	36.69	28.50	122.32	127.44	9 17 17	973.2	41.26	20.47
133.68	17 18 25	5332.24	36.70	245.62	122.33	127.43	18 47 17	4732.2	41.27	237.58

DIFFERENTIAL CORRECTIONS
TDE-1.6948 TRA 1.5134 TC3-4.1475 BAU .7745
RDE .4961 RRA -.3558 RC3 .4682 FAU .05953
FDE-1.5191 FRA 1.9713 FC3-3.7128 BSP 17640
BDE 1.7659 BRA 1.5547 BC3 4.1738 FSP -1754

MID-COURSE EXECUTION ACCURACY
SGT 5450.4 SGR 1200.9 SG3 516.8
RRT -.9484 RRF -.9520 RTF .9828
SGB 5581.2 R23 .0489 R13 -.9836
SG1 5568.7 SG2 372.6 THA 168.14

ORBIT DETERMINATION ACCURACY
ST 2829.4 SR 805.4 SS 1227.2
CRT -.9972 CRS .9751 CST -.9887
LSA 3182.1 MSA 184.8 SSA 14.8
EL1 2941.2 EL2 58.1 ALF 164.15

LAUNCH DATE AUG 6 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 520.973

RL 151.74 LAL .00 LOL 313.13 VL 26.671 GAL 3.56 AZL 93.54 HCA 239.52 SMA 127.87 ECC .19644 INC 3.5361 V1 29.361
RP 107.86 LAP 3.05 LOP 192.60 VP 37.723 GAP 6.90 AZP 88.20 TAL 165.12 TAP 44.63 RCA 102.75 APO 152.99 V2 35.136
RC 121.402 GL -25.88 GP 23.79 ZAL 59.45 ZAP 144.25 ETS 34.73 ZAE 125.69 ETE 163.61 ZAC 121.26 ETC 255.11 CLP-152.49

PLANETOCENTRIC CONIC

C3 14.146 VHL 3.761 DLA -48.59 RAL 252.92 RAD 6567.6 VEL 11.642 PTH 2.04 VHP 5.331 DPA 9.34 RAP 226.75 ECC 1.2328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.71	9 9 20	1558.70	35.36	25.83	124.17	125.80	9 35 19	958.7	39.75	17.80
131.29	17 21 6	5355.06	35.37	246.70	124.18	125.79	18 50 21	4755.1	39.76	238.67
48.71	9 9 20	1558.70	35.36	25.83	124.17	125.80	9 35 19	958.7	39.75	17.80
131.29	17 21 6	5355.06	35.37	246.70	124.18	125.79	18 50 21	4755.1	39.76	238.67
48.71	9 9 20	1558.70	35.36	25.83	124.17	125.80	9 35 19	958.7	39.75	17.80
131.29	17 21 6	5355.06	35.37	246.70	124.18	125.79	18 50 21	4755.1	39.76	238.67

DIFFERENTIAL CORRECTIONS
TDE-1.5851 TRA 1.7004 TC3-4.1785 BAU .7938
RDE .4525 RRA -.3525 RC3 .3973 FAU .05573
FDE-1.2776 FRA 2.0319 FC3-3.4105 BSP 17971
BDE 1.6484 BRA 1.7366 BC3 4.1973 FSP -1675

MID-COURSE EXECUTION ACCURACY
SGT 5571.9 SGR 1106.0 SG3 490.8
RRT -.9383 RRF -.9401 RTF .9822
SGB 5680.6 R23 .0413 R13 -.9828
SG1 5668.1 SG2 376.0 THA 169.40

ORBIT DETERMINATION ACCURACY
ST 2686.9 SR 731.1 SS 1105.8
CRT -.9933 CRS .9594 CST -.9852
LSA 2989.4 MSA 200.7 SSA 15.0
EL1 2783.4 EL2 81.3 ALF 164.86

LAUNCH DATE AUG 6 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 526.937

RL 151.74 LAL .00 LOL 313.13 VL 26.645 GAL 3.86 AZL 93.33 HCA 242.74 SMA 127.70 ECC .19956 INC 3.3278 V1 29.361
RP 107.89 LAP 2.96 LOP 195.83 VP 37.694 GAP 7.30 AZP 88.47 TAL 164.14 TAP 46.87 RCA 102.21 APO 153.18 V2 35.124
RC 123.660 GL -23.87 GP 22.27 ZAL 57.49 ZAP 146.46 ETS 35.12 ZAE 125.34 ETE 165.05 ZAC 120.05 ETC 255.48 CLP-154.25

PLANETOCENTRIC CONIC

C3 14.537 VHL 3.813 DLA -46.77 RAL 255.41 RAD 6567.6 VEL 11.659 PTH 2.05 VHP 5.491 DPA 7.45 RAP 227.49 ECC 1.2392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.08	9 27 28	1544.37	33.98	23.26	126.08	124.31	9 53 12	944.4	38.20	15.26
128.92	17 22 48	5381.46	33.99	248.08	126.09	124.30	18 52 30	4781.5	38.21	240.08
51.08	9 27 28	1544.37	33.98	23.26	126.08	124.31	9 53 12	944.4	38.20	15.26
128.92	17 22 48	5381.46	33.99	248.08	126.09	124.30	18 52 30	4781.5	38.21	240.08
51.08	9 27 28	1544.37	33.98	23.26	126.08	124.31	9 53 12	944.4	38.20	15.26
128.92	17 22 48	5381.46	33.99	248.08	126.09	124.30	18 52 30	4781.5	38.21	240.08

DIFFERENTIAL CORRECTIONS
TDE-1.4749 TRA 1.8954 TC3-4.1644 BAU .8120
RDE .4198 RRA -.3500 RC3 .3351 FAU .05191
FDE-1.0635 FRA 2.0816 FC3-3.0915 BSP 18295
BDE 1.5335 BRA 1.9275 BC3 4.1779 FSP -1596

MID-COURSE EXECUTION ACCURACY
SGT 5682.4 SGR 1026.0 SG3 465.0
RRT -.9266 RRF -.9266 RTF .9816
SGB 5774.2 R23 .0345 R13 -.9820
SG1 5761.7 SG2 380.5 THA 170.46

ORBIT DETERMINATION ACCURACY
ST 2545.1 SR 671.6 SS 999.3
CRT -.9865 CRS .9362 CST -.9809
LSA 2807.0 MSA 218.9 SSA 15.2
EL1 2630.1 EL2 106.5 ALF 165.38

LAUNCH DATE AUG 6 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 532.868

RL	151.74	LAL	.00	LOL	313.13	VL	26.618	GAL	4.18	AZL	93.13	HCA	245.95	SMA	127.53	ECC	.20292	INC	3.1314
RP	107.93	LAP	2.86	LOP	199.05	VP	37.664	GAP	7.71	AZP	88.72	TAL	163.13	TAP	49.08	RCA	101.65	APO	153.40
RC	125.912	GL	-21.95	GP	20.92	ZAL	55.56	ZAP	148.53	ETS	35.56	ZAE	124.97	ETE	166.30	ZAC	119.00	ETC	255.84

V1	29.361	V2	35.112	CLP	-155.93														

PLANETOCENTRIC CONIC

C3	15.053	VHL	3.880	DLA	-45.00	RAL	257.76	RAD	6567.6	VEL	11.681	PTH	2.05	VHP	5.665	DPA	5.68	RAP	228.38
ECC	1.2477																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.44	9 45 30	1529.96	32.56	20.78	128.06	122.97	10 11 0	930.0	36.64	12.83
126.56	17 23 32	5411.42	32.57	249.75	128.07	122.96	18 53 43	4811.4	36.65	241.80
53.44	9 45 30	1529.96	32.56	20.78	128.06	122.97	10 11 0	930.0	36.64	12.83
126.56	17 23 32	5411.42	32.57	249.75	128.07	122.96	18 53 43	4811.4	36.65	241.80
53.44	9 45 30	1529.96	32.56	20.78	128.06	122.97	10 11 0	930.0	36.64	12.83
126.56	17 23 32	5411.42	32.57	249.75	128.07	122.96	18 53 43	4811.4	36.65	241.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3887	TRA	2.0748	TC3	-4.1723	BAU	.8418	SGT	5784.6	SGR	958.7	SG3	438.9	ST	2429.9	SR	630.8
RDE	.4015	RRA	-.3436	RC3	.2960	FAU	.04960	RRT	-.9139	RRF	-.9115	RTF	.9819	CRT	-.9762	CRS	.9101
FDE	-.9070	FRA	2.0937	FC3	-2.8523	BSP	19187	SGB	5863.5	R23	.0249	R13	-.9822	LSA	2663.0	MSA	232.3
BDE	1.4456	BRA	2.1030	BC3	4.1828	FSP	-1582	SG1	5850.8	SG2	384.7	THA	171.35	EL1	2507.0	EL2	132.6

SS	918.2	CST	-.9780	SSA	15.1	ALF	165.74

LAUNCH DATE AUG 6 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 538.772

RL	151.74	LAL	.00	LOL	313.13	VL	26.591	GAL	4.52	AZL	92.94	HCA	249.17	SMA	127.35	ECC	.20653	INC	2.9448
RP	107.97	LAP	2.75	LOP	202.27	VP	37.634	GAP	8.12	AZP	88.95	TAL	162.11	TAP	51.27	RCA	101.05	APO	153.65
RC	128.158	GL	-20.10	GP	19.70	ZAL	53.66	ZAP	150.46	ETS	36.08	ZAE	124.60	ETE	167.39	ZAC	118.09	ETC	256.19

V1	29.361	V2	35.099	CLP	-157.53														

PLANETOCENTRIC CONIC

C3	15.699	VHL	3.962	DLA	-43.28	RAL	259.99	RAD	6567.6	VEL	11.708	PTH	2.06	VHP	5.852	DPA	4.03	RAP	229.41
ECC	1.2584																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.79	10 3 35	1515.15	31.11	18.36	130.12	121.75	10 28 51	915.2	35.06	10.46
124.21	17 23 15	5445.14	31.12	251.73	130.12	121.74	18 54 0	4845.1	35.07	243.83
55.79	10 3 35	1515.15	31.11	18.36	130.12	121.75	10 28 51	915.2	35.06	10.46
124.21	17 23 15	5445.14	31.12	251.73	130.12	121.74	18 54 0	4845.1	35.07	243.83
55.79	10 3 35	1515.15	31.11	18.36	130.12	121.75	10 28 51	915.2	35.06	10.46
124.21	17 23 15	5445.14	31.12	251.73	130.12	121.74	18 54 0	4845.1	35.07	243.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2613	TRA	2.3050	TC3	-4.0341	BAU	.8482	SGT	5874.3	SGR	902.1	SG3	415.5	ST	2285.2	SR	588.0
RDE	.3806	RRA	-.3469	RC3	.2394	FAU	.04489	RRT	-.8992	RRF	-.8953	RTF	.9805	CRT	-.9588	CRS	.8631
FDE	-.7196	FRA	2.1477	FC3	-2.4756	BSP	19063	SGB	5943.1	R23	.0223	R13	-.9807	LSA	2489.4	MSA	258.9
BDE	1.3175	BRA	2.3310	BC3	4.0412	FSP	-1459	SG1	5930.3	SG2	390.9	THA	172.10	EL1	2354.1	EL2	162.1

SS	834.5	CST	-.9707	SSA	15.3	ALF	166.07

LAUNCH DATE AUG 6 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 544.641

RL	151.74	LAL	.00	LOL	313.13	VL	26.564	GAL	4.87	AZL	92.77	HCA	252.38	SMA	127.17	ECC	.21040	INC	2.7661
RP	108.01	LAP	2.64	LOP	205.49	VP	37.602	GAP	8.54	AZP	89.16	TAL	161.06	TAP	53.44	RCA	100.42	APO	153.93
RC	130.397	GL	-18.34	GP	18.61	ZAL	51.79	ZAP	152.27	ETS	36.69	ZAE	124.24	ETE	168.32	ZAC	117.31	ETC	256.53

V1	29.361	V2	35.086	CLP	-159.06														

PLANETOCENTRIC CONIC

C3	16.480	VHL	4.060	DLA	-41.61	RAL	262.11	RAD	6567.7	VEL	11.742	PTH	2.07	VHP	6.051	DPA	2.48	RAP	230.57
ECC	1.2712																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.13	10 21 45	1499.79	29.65	15.98	132.23	120.65	10 46 45	899.8	33.48	8.15
121.87	17 21 59	5482.60	29.67	254.01	132.24	120.63	18 53 21	4882.6	33.49	246.17
58.13	10 21 45	1499.79	29.65	15.98	132.23	120.65	10 46 45	899.8	33.48	8.15
121.87	17 21 59	5482.60	29.67	254.01	132.24	120.63	18 53 21	4882.6	33.49	246.17
58.13	10 21 45	1499.79	29.65	15.98	132.23	120.65	10 46 45	899.8	33.48	8.15
121.87	17 21 59	5482.60	29.67	254.01	132.24	120.63	18 53 21	4882.6	33.49	246.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.1450	TRA	2.5334	TC3	-3.8948	BAU	.8592	SGT	5956.7	SGR	854.3	SG3	392.7	ST	2163.1	SR	556.0
RDE	.3682	RRA	-.3490	RC3	.1975	FAU	.04103	RRT	-.8839	RRF	-.8783	RTF	.9796	CRT	-.9344	CRS	.8071
FDE	-.5686	FRA	2.1814	FC3	-2.1554	BSP	19203	SGB	6017.7	R23	.0185	R13	-.9798	LSA	2345.5	MSA	283.4
BDE	1.2028	BRA	2.5573	BC3	3.8998	FSP	-1371	SG1	6004.6	SG2	396.4	THA	172.74	EL1	2225.1	EL2	192.5

SS	770.7	CST	-.9642	SSA	15.3	ALF	166.39

LAUNCH DATE AUG 6 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 550.472

RL	151.74	LAL	.00	LOL	313.13	VL	26.536	GAL	5.25	AZL	92.59	HCA	255.59	SMA	126.99	ECC	.21456	INC	2.5938
RP	108.05	LAP	2.51	LOP	208.71	VP	37.571	GAP	8.97	AZP	89.35	TAL	160.00	TAP	55.59	RCA	99.75	APO	154.24
RC	132.627	GL	-16.66	GP	17.63	ZAL	49.97	ZAP	153.96	ETS	37.41	ZAE	123.89	ETE	169.14	ZAC	116.63	ETC	256.88

V1	29.361	V2	35.074	CLP	-160.52														

PLANETOCENTRIC CONIC

C3	17.406	VHL	4.172	DLA	-40.00	RAL	264.12	RAD	6567.7	VEL	11.781	PTH	2.08	VHP	6.262	DPA	1.02	RAP	231.83
ECC	1.2865																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.47	10 40 8	1483.46	28.19	13.61	134.40	119.64	11 4 51	883.5	31.91	5.84
119.53	17 19 37	5524.08	28.21	256.60	134.41	119.63	18 51 41	4924.1	31.92	248.82
60.47	10 40 8	1483.46	28.19	13.61	134.40	119.64	11 4 51	883.5	31.91	5.84
119.53	17 19 37	5524.08	28.21	256.60	134.41	119.63	18 51 41	4924.1	31.92	248.82
60.47	10 40 8	1483.46	28.19	13.61	134.40	119.64	11 4 51	883.5	31.91	5.84
119.53	17 19 37	5524.08	28.21	256.60	134.41	119.63	18 51 41	4924.1	31.92	248.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.0324	TRA	2.7679	TC3	-3.7404	BAU	.8712	SGT	6031.4	SGR	813.9	SG3	371.0	ST	2058.0	SR	530.7
RDE	.3611	RRA	-.3517	RC3	.1647	FAU	.03759	RRT	-.8681	RRF	-.8608	RTF	.9789	CRT	-.9019	CRS	.7420
FDE	-.4410	FRA	2.2060	FC3	-1.8695	BSP	19424	SGB	6086.1	R23	.0147	R13	-.9790	LSA	2223.2	MSA	307.2
BDE	1.0937	BRA	2.7902	BC3	3.7440	FSP	-1297	SG1	6072.8	SG2	401.3	THA	173.29	EL1	2113.6	EL2	223.3

SS	721.2	CST	-.9585	SSA	15.2	ALF	166.76

LAUNCH DATE AUG 6 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 556.264
RL 151.74 LAL .00 LOL 313.13 VL 26.508 GAL 5.65 AZL 92.43 HCA 258.80 SMA 126.81 ECC .21903 INC 2.4265 V1 29.361
RP 108.09 LAP 2.38 LOP 211.92 VP 37.539 GAP 9.41 AZP 89.53 TAL 158.92 TAP 57.72 RCA 99.04 APO 154.59 V2 35.061
RC 134.850 GL -15.06 GP 16.74 ZAL 48.20 ZAP 155.56 ETS 38.25 ZAE 123.54 ETE 169.85 ZAC 116.05 ETC 257.23 CLP-161.93
PLANETOCENTRIC CONIC
C3 18.488 VHL 4.300 DLA -38.45 RAL 266.02 RAD 6567.7 VEL 11.827 PTH 2.09 VHP 6.486 DPA -.36 RAP 233.20 ECC 1.3043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.82	10 58 50	1465.85	26.74	11.23	136.63	118.73	11 23 16	865.9	30.35	3.51
117.18	17 16 7	5569.80	26.75	259.51	136.63	118.72	18 48 57	4969.8	30.36	251.79
62.82	10 58 50	1465.85	26.74	11.23	136.63	118.73	11 23 16	865.9	30.35	3.51
117.18	17 16 7	5569.80	26.75	259.51	136.63	118.72	18 48 57	4969.8	30.36	251.79
62.82	10 58 50	1465.85	26.74	11.23	136.63	118.73	11 23 16	865.9	30.35	3.51
117.18	17 16 7	5569.80	26.75	259.51	136.63	118.72	18 48 57	4969.8	30.36	251.79

DIFFERENTIAL CORRECTIONS
TDE -.9206 TRA 3.0128 TC3-3.5670 BAU .8823
RDE .3577 RRA -.3557 RC3 .1377 FAU .03434
FDE -.3304 FRA 2.2268 FC3-1.6079 BSP 19655
BDE .9876 BRA 3.0337 BC3 3.5696 FSP -1228

MID-COURSE EXECUTION ACCURACY
SGT 6098.7 SGR 779.4 SG3 350.6
RRT -.8521 RRF -.8432 RTF .9782
SGB 6148.3 R23 .0115 R13 -.9783
SG1 6134.9 SG2 405.6 THA 173.76

ORBIT DETERMINATION ACCURACY
ST 1969.4 SR 510.1 SS 683.6
CRT -.8603 CRS .6693 CST -.9542
LSA 2120.5 MSA 330.2 SSA 15.0
EL1 2018.5 EL2 253.7 ALF 167.23

LAUNCH DATE AUG 6 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 562.014
RL 151.74 LAL .00 LOL 313.13 VL 26.480 GAL 6.08 AZL 92.26 HCA 262.01 SMA 126.63 ECC .22383 INC 2.2630 V1 29.361
RP 108.13 LAP 2.24 LOP 215.13 VP 37.507 GAP 9.87 AZP 89.69 TAL 157.84 TAP 59.84 RCA 98.29 APO 154.97 V2 35.047
RC 137.063 GL -13.53 GP 15.94 ZAL 46.49 ZAP 157.07 ETS 39.23 ZAE 123.21 ETE 170.46 ZAC 115.55 ETC 257.58 CLP-163.29
PLANETOCENTRIC CONIC
C3 19.741 VHL 4.443 DLA -36.96 RAL 267.83 RAD 6567.8 VEL 11.879 PTH 2.11 VHP 6.724 DPA -1.65 RAP 234.65 ECC 1.3249

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.18	11 18 1	1446.46	25.30	8.77	138.90	117.90	11 42 7	846.5	28.82	1.12
114.82	17 11 21	5620.16	25.31	262.77	138.91	117.89	18 45 1	5020.2	28.83	255.11
65.18	11 18 1	1446.46	25.30	8.77	138.90	117.90	11 42 7	846.5	28.82	1.12
114.82	17 11 21	5620.16	25.31	262.77	138.91	117.89	18 45 1	5020.2	28.83	255.11
65.18	11 18 1	1446.46	25.30	8.77	138.90	117.90	11 42 7	846.5	28.82	1.12
114.82	17 11 21	5620.16	25.31	262.77	138.91	117.89	18 45 1	5020.2	28.83	255.11

DIFFERENTIAL CORRECTIONS
TDE -.8076 TRA 3.2696 TC3-3.3755 BAU .8914
RDE .3572 RRA -.3610 RC3 .1151 FAU .03123
FDE -.2336 FRA 2.2451 FC3-1.3696 BSP 19867
BDE .8831 BRA 3.2895 BC3 3.3775 FSP -1163

MID-COURSE EXECUTION ACCURACY
SGT 6158.5 SGR 749.7 SG3 331.3
RRT -.8362 RRF -.8259 RTF .9776
SGB 6203.9 R23 .0088 R13 -.9777
SG1 6190.4 SG2 409.0 THA 174.16

ORBIT DETERMINATION ACCURACY
ST 1897.0 SR 492.7 SS 655.6
CRT -.8096 CRS .5914 CST -.9518
LSA 2036.5 MSA 351.9 SSA 14.9
EL1 1939.5 EL2 282.9 ALF 167.86

LAUNCH DATE AUG 6 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 567.717
RL 151.74 LAL .00 LOL 313.13 VL 26.451 GAL 6.53 AZL 92.10 HCA 265.21 SMA 126.45 ECC .22900 INC 2.1022 V1 29.361
RP 108.17 LAP 2.09 LOP 218.34 VP 37.474 GAP 10.34 AZP 89.82 TAL 156.74 TAP 61.95 RCA 97.49 APO 155.40 V2 35.034
RC 139.266 GL -12.09 GP 15.22 ZAL 44.83 ZAP 158.48 ETS 40.37 ZAE 122.89 ETE 171.00 ZAC 115.12 ETC 257.95 CLP-164.61
PLANETOCENTRIC CONIC
C3 21.184 VHL 4.603 DLA -35.53 RAL 269.54 RAD 6567.9 VEL 11.940 PTH 2.12 VHP 6.975 DPA -2.88 RAP 236.19 ECC 1.3486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.58	11 37 49	1424.81	23.87	6.22	141.22	117.13	12 1 34	824.8	27.31	358.63
112.42	17 5 13	5675.52	23.89	266.39	141.23	117.12	18 39 49	5075.5	27.33	258.80
67.58	11 37 49	1424.81	23.87	6.22	141.22	117.13	12 1 34	824.8	27.31	358.63
112.42	17 5 13	5675.52	23.89	266.39	141.23	117.12	18 39 49	5075.5	27.33	258.80
67.58	11 37 49	1424.81	23.87	6.22	141.22	117.13	12 1 34	824.8	27.31	358.63
112.42	17 5 13	5675.52	23.89	266.39	141.23	117.12	18 39 49	5075.5	27.33	258.80

DIFFERENTIAL CORRECTIONS
TDE -.6944 TRA 3.5385 TC3-3.1738 BAU .8993
RDE .3591 RRA -.3675 RC3 .0967 FAU .02832
FDE -.1491 FRA 2.2615 FC3-1.1572 BSP 20076
BDE .7818 BRA 3.5575 BC3 3.1752 FSP -1102

MID-COURSE EXECUTION ACCURACY
SGT 6211.3 SGR 723.8 SG3 313.2
RRT -.8207 RRF -.8092 RTF .9771
SGB 6253.4 R23 .0065 R13 -.9772
SG1 6239.8 SG2 411.6 THA 174.51

ORBIT DETERMINATION ACCURACY
ST 1841.7 SR 477.8 SS 635.6
CRT -.7506 CRS .5121 CST -.9516
LSA 1971.4 MSA 370.9 SSA 14.7
EL1 1877.3 EL2 309.7 ALF 168.67

LAUNCH DATE AUG 6 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 573.368
RL 151.74 LAL .00 LOL 313.13 VL 26.422 GAL 7.02 AZL 91.94 HCA 268.41 SMA 126.26 ECC .23457 INC 1.9430 V1 29.361
RP 108.21 LAP 1.94 LOP 221.54 VP 37.441 GAP 10.83 AZP 89.95 TAL 155.64 TAP 64.05 RCA 96.65 APO 155.88 V2 35.021
RC 141.459 GL -10.72 GP 14.56 ZAL 43.24 ZAP 159.83 ETS 41.70 ZAE 122.58 ETE 171.48 ZAC 114.75 ETC 258.32 CLP-165.88
PLANETOCENTRIC CONIC
C3 22.839 VHL 4.779 DLA -34.16 RAL 271.17 RAD 6567.9 VEL 12.009 PTH 2.14 VHP 7.241 DPA -4.03 RAP 237.79 ECC 1.3759

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.04	11 58 35	1399.83	22.48	3.49	143.59	116.43	12 21 54	799.8	25.84	355.94
109.96	16 57 25	5736.87	22.49	270.46	143.59	116.42	18 33 2	5136.9	25.85	262.91
70.04	11 58 35	1399.83	22.48	3.49	143.59	116.43	12 21 54	799.8	25.84	355.94
109.96	16 57 25	5736.87	22.49	270.46	143.59	116.42	18 33 2	5136.9	25.85	262.91
110.00	16 48 29	5764.13	21.64	272.13	143.13	117.13	18 24 33	5164.1	25.10	264.68
110.00	17 6 42	5708.61	23.33	268.69	144.04	115.73	18 41 51	5108.6	26.59	261.05

DIFFERENTIAL CORRECTIONS
TDE -.5804 TRA 3.8209 TC3-2.9632 BAU .9051
RDE .3629 RRA -.3753 RC3 .0814 FAU .02555
FDE -.0756 FRA 2.2770 FC3 -.9684 BSP 20273
BDE .6845 BRA 3.8393 BC3 2.9643 FSP -1045

MID-COURSE EXECUTION ACCURACY
SGT 6257.4 SGR 700.8 SG3 296.2
RRT -.8059 RRF -.7933 RTF .9767
SGB 6296.5 R23 .0046 R13 -.9768
SG1 6282.9 SG2 413.3 THA 174.82

ORBIT DETERMINATION ACCURACY
ST 1802.7 SR 464.7 SS 622.0
CRT -.6851 CRS .4349 CST -.9536
LSA 1924.3 MSA 386.6 SSA 14.4
EL1 1831.6 EL2 333.2 ALF 169.64

LAUNCH DATE AUG 6 1970 FLIGHT TIME 206.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 578.962

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RL  151.74 LAL    .00 LOL 313.13 VL  26.393 GAL   7.53 AZL  91.78 HCA 271.61 SMA 126.08 ECC .24057 INC 1.7844 V1  29.361
RP  108.25 LAP   1.78 LOP 224.74 VP  37.408 GAP  11.34 AZP  90.05 TAL 154.53 TAP  66.14 RCA  95.75 APO 156.41 V2  35.008
RC 143.643 GL   -9.43 GP   13.97 ZAL  41.71 ZAP 161.09 ETS  43.24 ZAE 122.28 ETE 171.89 ZAC 114.44 ETC 258.71 CLP-167.13
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PLANETOCENTRIC CONIC

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C3  24.730 VHL  4.973 DLA -32.85 RAL 272.71 RAD 6568.0 VEL 12.087 PTH   2.16 VHP  7.523 DPA  -5.11 RAP 239.47 ECC 1.4070
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.61	12 20 41	1370.29	21.10	.47	145.99	115.78	12 43 31	770.3	24.39	352.98
107.39	16 47 36	5805.34	21.11	275.03	146.00	115.77	18 24 22	5205.3	24.40	267.54
72.61	12 20 41	1370.29	21.10	.47	145.99	115.78	12 43 31	770.3	24.39	352.98
107.39	16 47 36	5805.34	21.11	275.03	146.00	115.77	18 24 22	5205.3	24.40	267.54
110.00	15 51 43	689.46	14.52	306.66	142.24	121.29	16 3 12	89.5	18.56	299.87
110.00	18 15 45	5534.17	28.00	257.30	149.23	110.46	19 47 59	4934.2	30.52	249.01

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.4657 TRA 4.1167 TC3-2.7496 BAU  .9093   SGT 6296.3 SGR  679.9 SG3  280.2      ST  1778.6 SR   452.8 SS   613.1
 RDE  .3683 RRA -.3842 RC3  .0688 FAU .02294   RRT -.7917 RRF -.7783 RTF  .9764      CRT -.6154 CRS  .3619 CST -.9572
 FDE -.0112 FRA 2.2916 FC3 -.8032 BSP  20478   SGB 6332.9 R23  .0031 R13 -.9764      LSA 1893.6 MSA  398.3 SSA   14.2
 BDE  .5937 BRA 4.1346 BC3 2.7505 FSP   -992   SG1 6319.4 SG2  413.8 THA 175.09      EL1 1801.2 EL2  352.4 ALF 170.74
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 584.493

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RL  151.74 LAL    .00 LOL 313.13 VL  26.364 GAL   8.07 AZL  91.63 HCA 274.81 SMA 125.90 ECC .24706 INC 1.6254 V1  29.361
RP  108.29 LAP   1.62 LOP 227.94 VP  37.376 GAP  11.87 AZP  90.14 TAL 153.43 TAP  68.23 RCA  94.79 APO 157.00 V2  34.995
RC 145.816 GL   -8.21 GP   13.43 ZAL  40.25 ZAP 162.29 ETS  45.03 ZAE 121.99 ETE 172.26 ZAC 114.16 ETC 259.11 CLP-168.34
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PLANETOCENTRIC CONIC

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C3  26.890 VHL  5.186 DLA -31.60 RAL 274.16 RAD 6568.1 VEL 12.176 PTH   2.19 VHP  7.823 DPA  -6.14 RAP 241.20 ECC 1.4425
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.35	12 44 45	1334.09	19.75	357.03	148.43	115.18	13 6 59	734.1	22.98	349.58
104.65	16 35 9	5882.95	19.77	280.27	148.44	115.17	18 13 12	5282.9	23.00	272.82
75.35	12 44 45	1334.09	19.75	357.03	148.43	115.18	13 6 59	734.1	22.98	349.58
104.65	16 35 9	5882.95	19.77	280.27	148.44	115.17	18 13 12	5282.9	23.00	272.82
110.00	15 29 34	799.16	10.56	312.69	143.17	122.70	15 42 53	199.2	14.80	306.15
110.00	18 49 31	5465.87	29.54	252.58	152.69	108.04	20 20 37	4865.9	31.71	244.05

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.3502 TRA 4.4274 TC3-2.5357 BAU  .9118   SGT 6328.9 SGR  660.7 SG3  265.2      ST  1767.7 SR   441.7 SS   607.8
 RDE  .3749 RRA -.3941 RC3  .0583 FAU .02050   RRT -.7785 RRF -.7644 RTF  .9762      CRT -.5439 CRS  .2949 CST -.9619
 FDE  .0450 FRA 2.3064 FC3 -.6601 BSP  20692   SGB 6363.3 R23  .0018 R13 -.9762      LSA 1877.3 MSA  405.9 SSA   13.9
 BDE  .5130 BRA 4.4449 BC3 2.5364 FSP   -944   SG1 6349.8 SG2  413.3 THA 175.33      EL1 1784.7 EL2  367.1 ALF 171.92
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 589.952

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.335 GAL   8.66 AZL  91.47 HCA 278.00 SMA 125.71 ECC .25407 INC 1.4651 V1  29.361
RP  108.33 LAP   1.45 LOP 231.13 VP  37.343 GAP  12.43 AZP  90.20 TAL 152.32 TAP  70.32 RCA  93.77 APO 157.66 V2  34.982
RC 147.979 GL   -7.06 GP   12.94 ZAL  38.86 ZAP 163.42 ETS  47.10 ZAE 121.71 ETE 172.58 ZAC 113.92 ETC 259.52 CLP-169.53
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PLANETOCENTRIC CONIC

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C3  29.365 VHL  5.418 DLA -30.41 RAL 275.54 RAD 6568.2 VEL 12.277 PTH   2.21 VHP  8.142 DPA  -7.10 RAP 242.98 ECC 1.4831
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.43	13 12 15	1286.51	18.44	352.80	150.90	114.61	13 33 41	686.5	21.61	345.40
101.57	16 18 39	686.24	18.45	308.59	150.90	114.61	16 30 5	86.2	21.62	301.19
78.43	13 12 15	1286.51	18.44	352.80	150.90	114.61	13 33 41	686.5	21.61	345.40
101.57	16 18 39	686.24	18.45	308.59	150.90	114.61	16 30 5	86.2	21.62	301.19
110.00	15 14 29	888.26	7.24	317.46	144.54	123.50	15 29 18	288.3	11.60	311.07
110.00	19 15 34	5420.53	30.45	249.36	155.81	106.34	20 45 55	4820.5	32.39	240.68

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.2338 TRA 4.7541 TC3-2.3235 BAU  .9121   SGT 6354.6 SGR  642.6 SG3  251.2      ST  1767.8 SR   431.1 SS   604.9
 RDE  .3825 RRA -.4048 RC3  .0494 FAU .01820   RRT -.7661 RRF -.7516 RTF  .9762      CRT -.4731 CRS  .2347 CST -.9671
 FDE  .0939 FRA 2.3214 FC3 -.5368 BSP  20914   SGB 6387.0 R23  .0008 R13 -.9762      LSA 1873.2 MSA  409.4 SSA   13.7
 BDE  .4483 BRA 4.7713 BC3 2.3240 FSP   -899   SG1 6373.7 SG2  411.7 THA 175.55      EL1 1780.1 EL2  377.1 ALF 173.11
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 595.330

```
RL  151.74 LAL    .00 LOL 313.13 VL  26.306 GAL   9.28 AZL  91.30 HCA 281.19 SMA 125.53 ECC .26168 INC 1.3023 V1  29.361
RP  108.37 LAP   1.28 LOP 234.33 VP  37.310 GAP  13.02 AZP  90.25 TAL 151.23 TAP  72.42 RCA  92.68 APO 158.38 V2  34.969
RC 150.132 GL   -5.97 GP   12.49 ZAL  37.54 ZAP 164.48 ETS  49.49 ZAE 121.43 ETE 172.87 ZAC 113.71 ETC 259.94 CLP-170.71
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PLANETOCENTRIC CONIC

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C3  32.171 VHL  5.672 DLA -29.27 RAL 276.84 RAD 6568.3 VEL 12.391 PTH   2.24 VHP  8.482 DPA  -8.01 RAP 244.80 ECC 1.5295
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.26	13 46 44	1215.88	17.16	346.95	153.39	114.08	14 7 0	615.9	20.27	339.58
97.74	15 54 32	802.86	17.17	316.64	153.40	114.07	16 7 55	202.9	20.28	309.28
100.00	15 20 52	910.83	12.61	322.36	151.13	117.33	15 36 2	310.8	16.17	315.38
100.00	17 3 5	5871.18	21.84	280.33	155.45	110.93	18 40 56	5271.2	24.49	272.54
110.00	15 3 5	966.82	4.27	321.60	146.15	123.95	15 19 12	366.8	8.70	315.31
110.00	19 37 21	5387.96	31.05	247.02	158.79	105.07	21 7 9	4788.0	32.80	238.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1157 TRA 5.0986 TC3-2.1152 BAU  .9099   SGT 6374.3 SGR  625.1 SG3  238.0      ST  1776.6 SR   420.6 SS   603.8
 RDE  .3910 RRA -.4164 RC3  .0418 FAU .01603   RRT -.7546 RRF -.7399 RTF  .9763      CRT -.4048 CRS  .1814 CST -.9724
 FDE  .1370 FRA 2.3377 FC3 -.4314 BSP  21140   SGB 6404.9 R23  .0001 R13 -.9763      LSA 1878.9 MSA  409.3 SSA   13.4
 BDE  .4078 BRA 5.1156 BC3 2.1156 FSP   -857   SG1 6391.8 SG2  409.0 THA 175.75      EL1 1785.1 EL2  382.8 ALF 174.26
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LAUNCH DATE AUG 6 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 600.617

RL 151.74 LAL .00 LOL 313.13 VL 26.277 GAL 9.95 AZL 91.14 HCA 284.38 SMA 125.35 ECC .26993 INC 1.1360 V1 29.361
RP 108.41 LAP 1.10 LOP 237.51 VP 37.278 GAP 13.64 AZP 90.28 TAL 150.15 TAP 74.53 RCA 91.52 APO 159.19 V2 34.956
RC 152.275 GL -4.95 GP 12.08 ZAL 36.29 ZAP 165.47 ETS 52.25 ZAE 121.15 ETE 173.12 ZAC 113.53 ETC 260.37 CLP-171.87

PLANETOCENTRIC CONIC

C3 35.391 VHL 5.949 DLA -28.19 RAL 278.07 RAD 6568.4 VEL 12.520 PTH 2.27 VHP 8.846 DPA -8.85 RAP 246.67 ECC 1.5824

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 32 10	1109.17	13.86	337.57	154.96	114.94	14 50 39	509.2	17.11	330.40
90.00	15 18 52	957.69	18.00	328.37	156.83	112.24	15 34 49	357.7	20.86	320.87
100.00	14 52 22	1043.80	8.34	329.93	152.11	118.81	15 9 46	443.8	12.12	323.18
100.00	17 41 21	5786.33	23.80	274.79	159.15	108.64	19 17 47	5186.3	26.12	266.76
110.00	14 53 58	1038.77	1.53	325.36	147.92	124.15	15 11 17	438.8	6.00	319.13
110.00	19 56 14	5364.13	31.46	245.28	161.69	104.12	21 25 38	4764.1	33.08	236.43

DIFFERENTIAL CORRECTIONS
TDE .0053 TRA 5.4630 TC3-1.9109 BAU .9043
RDE .4000 RRA -.4287 RC3 .0351 FAU .01394
FDE .1755 FRA 2.3558 FC3 -.3410 BSP 21355
BDE .4001 BRA 5.4798 BC3 1.9113 FSP -818

MID-COURSE EXECUTION ACCURACY
SGT 6388.0 SGR 607.9 SG3 225.6
RRT -.7440 RRF -.7292 RTF .9765
SGB 6416.9 R23 -.0004 R13 -.9765
SG1 6404.0 SG2 405.2 THA 175.93

ORBIT DETERMINATION ACCURACY
ST 1792.2 SR 410.1 SS 604.3
CRT -.3399 CRS .1339 CST -.9772
LSA 1892.2 MSA 406.0 SSA 13.1
EL1 1797.9 EL2 384.5 ALF 175.34

LAUNCH DATE AUG 6 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 605.798

RL 151.74 LAL .00 LOL 313.13 VL 26.248 GAL 10.67 AZL 90.97 HCA 287.57 SMA 125.17 ECC .27890 INC .9650 V1 29.361
RP 108.45 LAP .92 LOP 240.70 VP 37.245 GAP 14.30 AZP 90.29 TAL 149.08 TAP 76.65 RCA 90.26 APO 160.08 V2 34.943
RC 154.408 GL -3.99 GP 11.70 ZAL 35.12 ZAP 166.40 ETS 55.44 ZAE 120.87 ETE 173.35 ZAC 113.37 ETC 260.82 CLP-173.02

PLANETOCENTRIC CONIC

C3 39.079 VHL 6.251 DLA -27.17 RAL 279.22 RAD 6568.5 VEL 12.667 PTH 2.30 VHP 9.237 DPA -9.65 RAP 248.56 ECC 1.6431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 49 18	1289.62	8.45	348.06	155.46	117.13	14 10 48	689.6	12.02	341.20
90.00	16 10 54	827.33	21.15	320.11	161.07	109.28	16 24 41	227.3	23.59	312.29
100.00	14 34 36	1143.26	5.04	335.46	153.61	119.50	14 53 40	543.3	8.93	328.84
100.00	18 8 17	5736.97	24.83	271.49	162.39	107.20	19 43 54	5137.0	26.95	263.33
110.00	14 46 27	1106.08	-1.04	328.87	149.83	124.17	15 4 53	506.1	3.45	322.67
110.00	20 12 56	5346.92	31.74	244.02	164.53	103.42	21 42 3	4746.9	33.26	235.12

DIFFERENTIAL CORRECTIONS
TDE .1297 TRA 5.8501 TC3-1.7121 BAU .8946
RDE .4095 RRA -.4415 RC3 .0290 FAU .01193
FDE .2103 FRA 2.3768 FC3 -.2642 BSP 21548
BDE .4295 BRA 5.8667 BC3 1.7123 FSP -780

MID-COURSE EXECUTION ACCURACY
SGT 6396.6 SGR 590.8 SG3 214.1
RRT -.7341 RRF -.7194 RTF .9769
SGB 6423.8 R23 -.0008 R13 -.9769
SG1 6411.4 SG2 400.2 THA 176.11

ORBIT DETERMINATION ACCURACY
ST 1813.0 SR 399.3 SS 606.1
CRT -.2792 CRS .0920 CST -.9816
LSA 1911.5 MSA 400.1 SSA 12.8
EL1 1816.6 EL2 382.7 ALF 176.32

LAUNCH DATE AUG 6 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 610.856

RL 151.74 LAL .00 LOL 313.13 VL 26.219 GAL 11.44 AZL 90.79 HCA 290.75 SMA 124.99 ECC .28869 INC .7880 V1 29.361
RP 108.49 LAP .74 LOP 243.89 VP 37.214 GAP 15.01 AZP 90.28 TAL 148.04 TAP 78.79 RCA 88.91 APO 161.08 V2 34.931
RC 156.530 GL -3.08 GP 11.36 ZAL 34.01 ZAP 167.24 ETS 59.12 ZAE 120.58 ETE 173.56 ZAC 113.22 ETC 261.27 CLP-174.16

PLANETOCENTRIC CONIC

C3 43.314 VHL 6.581 DLA -26.19 RAL 280.29 RAD 6568.6 VEL 12.833 PTH 2.34 VHP 9.657 DPA -10.39 RAP 250.49 ECC 1.7128

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 28 18	1400.04	4.98	354.31	156.90	117.91	13 51 38	800.0	8.67	347.58
90.00	16 40 30	768.85	22.42	316.29	164.43	107.77	16 53 18	168.8	24.64	308.32
100.00	14 21 26	1228.46	2.17	340.16	155.35	119.82	14 41 54	628.5	6.12	333.60
100.00	18 30 3	5703.69	25.48	269.23	165.45	106.18	20 5 7	5103.7	27.46	260.98
110.00	14 40 5	1169.89	-3.48	332.21	151.84	124.03	14 59 35	569.9	1.01	326.00
110.00	20 27 53	5335.03	31.92	243.14	167.35	102.93	21 56 48	4735.0	33.37	234.21

DIFFERENTIAL CORRECTIONS
TDE .2590 TRA 6.2626 TC3-1.5191 BAU .8798
RDE .4191 RRA -.4548 RC3 .0234 FAU .00995
FDE .2425 FRA 2.4013 FC3 -.1988 BSP 21699
BDE .4927 BRA 6.2790 BC3 1.5193 FSP -743

MID-COURSE EXECUTION ACCURACY
SGT 6400.5 SGR 573.4 SG3 203.4
RRT -.7249 RRF -.7106 RTF .9775
SGB 6426.1 R23 -.0010 R13 -.9775
SG1 6414.0 SG2 394.2 THA 176.27

ORBIT DETERMINATION ACCURACY
ST 1837.7 SR 388.2 SS 609.2
CRT -.2230 CRS .0547 CST -.9853
LSA 1935.2 MSA 391.9 SSA 12.4
EL1 1839.8 EL2 377.9 ALF 177.18

LAUNCH DATE AUG 6 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 615.773

RL 151.74 LAL .00 LOL 313.13 VL 26.191 GAL 12.28 AZL 90.60 HCA 293.94 SMA 124.82 ECC .29939 INC .6036 V1 29.361
RP 108.53 LAP .55 LOP 247.07 VP 37.182 GAP 15.77 AZP 90.24 TAL 147.03 TAP 80.96 RCA 87.45 APO 162.19 V2 34.919
RC 158.641 GL -2.23 GP 11.05 ZAL 32.99 ZAP 168.01 ETS 63.36 ZAE 120.28 ETE 173.75 ZAC 113.08 ETC 261.73 CLP-175.31

PLANETOCENTRIC CONIC

C3 48.191 VHL 6.942 DLA -25.27 RAL 281.30 RAD 6568.8 VEL 13.021 PTH 2.38 VHP 10.112 DPA -11.07 RAP 252.43 ECC 1.7931

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 13 24	1490.96	2.06	359.40	158.64	118.25	13 38 15	891.0	5.82	352.74
90.00	17 3 24	731.49	23.17	313.81	167.53	106.75	17 15 35	131.5	25.25	305.75
100.00	14 10 56	1305.22	-.43	344.37	157.25	119.89	14 32 41	705.2	3.55	337.84
100.00	18 48 33	5680.51	25.91	267.64	168.40	105.45	20 23 14	5080.5	27.78	259.34
110.00	14 34 37	1230.93	-5.80	335.41	153.92	123.75	14 55 8	630.9	-1.32	329.18
110.00	20 41 22	5327.56	32.03	242.58	170.15	102.62	22 10 9	4727.6	33.44	233.64

DIFFERENTIAL CORRECTIONS
TDE .3949 TRA 6.7043 TC3-1.3322 BAU .8584
RDE .4289 RRA -.4684 RC3 .0182 FAU .00798
FDE .2729 FRA 2.4303 FC3 -.1434 BSP 21778
BDE .5830 BRA 6.7207 BC3 1.3323 FSP -705

MID-COURSE EXECUTION ACCURACY
SGT 6400.7 SGR 555.6 SG3 193.4
RRT -.7163 RRF -.7024 RTF .9781
SGB 6424.8 R23 -.0011 R13 -.9782
SG1 6413.1 SG2 387.0 THA 176.43

ORBIT DETERMINATION ACCURACY
ST 1865.2 SR 376.5 SS 613.8
CRT -.1710 CRS .0212 CST -.9885
LSA 1962.6 MSA 381.9 SSA 12.1
EL1 1866.4 EL2 370.7 ALF 177.94

LAUNCH DATE AUG 7 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 16 1970

HELIOCENTRIC CONIC DISTANCE 145.811

RL 151.72 LAL .00 LOL 314.09 VL 19.677 GAL 9.08 AZL 93.98 HCA 53.00 SMA 97.42 ECC .57256 INC 3.9799 V1 29.366
RP 108.62 LAP -3.18 LOP 7.02 VP 32.884 GAP -34.38 AZP 92.40 TAL 173.08 TAP 226.08 RCA 41.64 APO 153.20 V2 34.888
RC 53.110 GL -7.30 GP -4.87 ZAL 71.52 ZAP 23.49 ETS 166.36 ZAE 154.80 ETE 169.80 ZAC 91.23 ETC 256.30 CLP 23.01

PLANETOCENTRIC CONIC

C3 112.772 VHL 10.619 DLA -27.86 RAL 239.06 RAD 6570.1 VEL 15.301 PTH 2.74 VHP 20.031 DPA -13.67 RAP 206.89 ECC 2.8559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 31 11	1453.75	3.26	357.32	131.77	118.14	11 55 25	853.7	7.00	350.64
90.00	13 0 49	1162.38	12.31	340.71	136.40	115.70	13 20 11	562.4	15.67	333.64
100.00	12 4 56	1344.64	-1.77	346.53	128.98	119.84	12 27 21	744.6	2.21	340.01
100.00	15 9 45	746.72	17.52	312.65	138.93	114.62	15 22 12	146.7	20.69	305.29
110.00	12 10 23	1327.53	-9.42	340.55	124.29	123.01	12 32 30	727.5	-5.01	334.24
110.00	17 20 47	5624.64	25.70	263.33	142.84	113.35	18 54 32	5024.6	28.63	255.38

DIFFERENTIAL CORRECTIONS
TOE .2640 TRA-1.2537 TC3 -.1033 BAU .1579
RDE -.8247 RRA -.0828 RC3 .0174 FAU .01467
FDE -.1790 FRA .5448 FC3 -.1126 BSP 2056
BDE .8659 BRA 1.2565 BC3 .1047 FSP -75

MID-COURSE EXECUTION ACCURACY
SGT 808.6 SGR 449.3 SG3 36.4
RRT -.0904 RRF .0917 RTF -.6339
SGB 925.0 R23 -.0093 R13 .6348
SG1 810.0 SG2 446.7 THA 175.87

ORBIT DETERMINATION ACCURACY
ST 270.2 SR 445.2 SS 240.6
CRT -.4980 CRS -.6698 CST .9744
LSA 512.7 MSA 257.0 SSA 13.9
EL1 471.5 EL2 221.3 ALF 111.87

LAUNCH DATE AUG 7 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 18 1970

HELIOCENTRIC CONIC DISTANCE 152.030

RL 151.72 LAL .00 LOL 314.09 VL 20.252 GAL 8.71 AZL 93.74 HCA 56.18 SMA 99.09 ECC .54641 INC 3.7401 V1 29.366
RP 108.58 LAP -3.11 LOP 10.21 VP 33.243 GAP -32.71 AZP 92.08 TAL 172.62 TAP 228.80 RCA 44.95 APO 153.23 V2 34.900
RC 51.409 GL -7.47 GP -5.04 ZAL 70.66 ZAP 22.01 ETS 164.98 ZAE 156.15 ETE 169.71 ZAC 91.37 ETC 256.41 CLP 21.45

PLANETOCENTRIC CONIC

C3 100.927 VHL 10.046 DLA -28.20 RAL 239.98 RAD 6570.0 VEL 14.909 PTH 2.69 VHP 19.158 DPA -14.47 RAP 208.36 ECC 2.6610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 57 13	1357.72	6.32	351.93	132.50	117.66	12 19 51	757.7	9.97	345.15
90.00	12 42 7	1212.07	10.83	343.60	134.82	116.32	13 2 19	612.1	14.28	336.62
100.00	12 16 45	1294.50	-.07	343.78	128.98	119.89	12 38 20	694.5	3.91	337.25
100.00	15 5 16	750.53	17.41	312.88	138.05	114.69	15 17 46	150.5	20.59	305.53
110.00	12 18 14	1289.83	-8.01	338.53	124.09	123.34	12 39 44	689.8	-3.57	332.26
110.00	17 20 16	5615.99	25.93	262.76	142.11	113.09	18 53 52	5016.0	28.83	254.78

DIFFERENTIAL CORRECTIONS
TOE .2581 TRA-1.2445 TC3 -.1060 BAU .1450
RDE -.7901 RRA -.0677 RC3 .0180 FAU .01501
FDE -.1817 FRA .5638 FC3 -.1288 BSP 2192
BDE .8312 BRA 1.2464 BC3 .1075 FSP -84

MID-COURSE EXECUTION ACCURACY
SGT 846.0 SGR 454.2 SG3 39.7
RRT -.1007 RRF .1025 RTF -.6540
SGB 960.2 R23 -.0105 R13 .6549
SG1 847.7 SG2 450.9 THA 175.68

ORBIT DETERMINATION ACCURACY
ST 283.0 SR 450.8 SS 249.8
CRT -.4950 CRS -.6651 CST .9751
LSA 523.7 MSA 266.9 SSA 14.1
EL1 479.4 EL2 231.2 ALF 112.86

LAUNCH DATE AUG 7 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 20 1970

HELIOCENTRIC CONIC DISTANCE 158.319

RL 151.72 LAL .00 LOL 314.09 VL 20.786 GAL 8.32 AZL 93.52 HCA 59.35 SMA 100.74 ECC .52123 INC 3.5174 V1 29.366
RP 108.55 LAP -3.03 LOP 13.40 VP 33.583 GAP -31.13 AZP 91.79 TAL 172.20 TAP 231.55 RCA 48.23 APO 153.25 V2 34.911
RC 49.791 GL -7.63 GP -5.24 ZAL 69.88 ZAP 20.56 ETS 163.38 ZAE 157.66 ETE 169.66 ZAC 91.50 ETC 256.53 CLP 19.91

PLANETOCENTRIC CONIC

C3 90.361 VHL 9.506 DLA -28.51 RAL 240.83 RAD 6569.8 VEL 14.550 PTH 2.64 VHP 18.319 DPA -15.28 RAP 209.84 ECC 2.4871

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.50	11 53 37	1356.19	9.39	353.42	133.08	117.05	12 16 14	756.2	12.95	346.53
93.50	12 52 27	1165.59	9.41	339.48	133.09	117.04	13 11 53	565.6	12.96	332.59
100.00	12 28 18	1243.62	1.65	340.99	128.87	119.85	12 49 1	643.6	5.61	334.44
100.00	15 0 28	753.40	17.33	313.05	137.04	114.75	15 13 1	153.4	20.52	305.71
110.00	12 25 31	1252.33	-6.61	336.54	123.77	123.62	12 46 24	652.3	-2.14	330.30
110.00	17 19 44	5605.49	26.21	262.08	141.24	112.77	18 53 9	5005.5	29.06	254.05

DIFFERENTIAL CORRECTIONS
TOE .2527 TRA-1.2351 TC3 -.1076 BAU .1318
RDE -.7559 RRA -.0534 RC3 .0182 FAU .01540
FDE -.1844 FRA .5832 FC3 -.1475 BSP 2333
BDE .7971 BRA 1.2362 BC3 .1091 FSP -93

MID-COURSE EXECUTION ACCURACY
SGT 884.7 SGR 458.4 SG3 43.3
RRT -.1122 RRF .1144 RTF -.6734
SGB 996.5 R23 -.0119 R13 .6744
SG1 886.8 SG2 454.5 THA 175.49

ORBIT DETERMINATION ACCURACY
ST 296.4 SR 455.8 SS 259.2
CRT -.4932 CRS -.6607 CST .9761
LSA 534.9 MSA 276.5 SSA 14.4
EL1 487.2 EL2 241.2 ALF 114.01

LAUNCH DATE AUG 7 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 22 1970

HELIOCENTRIC CONIC DISTANCE 164.672

RL 151.72 LAL .00 LOL 314.09 VL 21.284 GAL 7.93 AZL 93.31 HCA 62.53 SMA 102.37 ECC .49706 INC 3.3087 V1 29.366
RP 108.51 LAP -2.94 LOP 16.58 VP 33.906 GAP -29.62 AZP 91.53 TAL 171.81 TAP 234.35 RCA 51.48 APO 153.25 V2 34.923
RC 48.266 GL -7.77 GP -5.45 ZAL 69.17 ZAP 19.14 ETS 161.51 ZAE 159.34 ETE 169.69 ZAC 91.60 ETC 256.66 CLP 18.38

PLANETOCENTRIC CONIC

C3 80.928 VHL 8.996 DLA -28.80 RAL 241.60 RAD 6569.6 VEL 14.222 PTH 2.59 VHP 17.512 DPA -16.10 RAP 211.34 ECC 2.3319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.54	11 40 36	1383.43	10.25	355.86	132.37	117.06	12 3 39	783.4	13.80	348.95
95.46	13 11 37	1088.82	10.27	334.28	132.38	117.05	13 29 45	488.8	13.81	327.37
100.00	12 39 30	1192.20	3.39	338.16	128.64	119.72	12 59 23	592.2	7.32	331.58
100.00	14 55 23	755.28	17.27	313.17	135.88	114.78	15 7 58	155.3	20.47	305.83
110.00	12 32 11	1215.23	-5.20	334.59	123.33	123.83	12 52 26	615.2	-.72	328.36
110.00	17 19 11	5593.06	26.54	261.26	140.23	112.38	18 52 25	4993.1	29.33	253.18

DIFFERENTIAL CORRECTIONS
TOE .2484 TRA-1.2251 TC3 -.1078 BAU .1183
RDE -.7223 RRA -.0397 RC3 .0181 FAU .01582
FDE -.1873 FRA .6030 FC3 -.1693 BSP 2481
BDE .7638 BRA 1.2257 BC3 .1093 FSP -104

MID-COURSE EXECUTION ACCURACY
SGT 924.9 SGR 462.1 SG3 47.2
RRT -.1249 RRF .1278 RTF -.6920
SGB 1033.9 R23 -.0135 R13 .6931
SG1 927.2 SG2 457.3 THA 175.28

ORBIT DETERMINATION ACCURACY
ST 310.5 SR 460.1 SS 268.9
CRT -.4932 CRS -.6569 CST .9772
LSA 546.4 MSA 285.8 SSA 14.6
EL1 495.1 EL2 251.0 ALF 115.36

LAUNCH DATE AUG 7 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 171.085

RL	151.72	LAL	.00	LOL	314.09	VL	21.747	GAL	7.54	AZL	93.11	HCA	65.72	SMA	103.96	ECC	.47391	INC	3.1116	V1	29.366
RP	108.47	LAP	-2.84	LOP	19.77	VP	34.211	GAP	-28.19	AZP	91.28	TAL	171.47	TAP	237.18	RCA	54.69	APO	153.23	V2	34.935
RC	46.842	GL	-7.90	GP	-5.68	ZAL	68.54	ZAP	17.75	ETS	159.31	ZAE	161.20	ETE	169.82	ZAC	91.68	ETC	256.80	CLP	16.85

PLANETOCENTRIC CONIC

C3	72.502	VHL	8.515	DLA	-29.04	RAL	242.28	RAD	6569.4	VEL	13.923	PTH	2.54	VHP	16.736	DPA	-16.94	RAP	212.84	ECC	2.1932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.27	11 33 5	1391.04	11.12	356.87	131.53	117.00	11 56 16	791.0	14.65	349.93
96.73	13 24 37	1030.31	11.14	330.43	131.54	116.99	13 41 47	430.3	14.67	323.48
100.00	12 50 18	1140.58	5.13	335.32	128.29	119.49	13 9 19	540.6	9.02	328.69
100.00	14 50 5	756.01	17.25	313.21	134.60	114.80	15 2 41	156.0	20.45	305.88
110.00	12 38 10	1178.76	-3.82	332.67	122.76	124.00	12 57 49	578.8	.67	326.46
110.00	17 18 43	5578.63	26.91	260.30	139.10	111.92	18 51 41	4978.6	29.64	252.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2448	TRA	-1.2146	TC3	-.1063	BAU	.1044	SGT	966.4	SGR	465.2	SG3	51.6	ST	325.3	SR	463.8	SS	278.9
RDE	-.6892	RRA	-.0267	RC3	.0175	FAU	.01630	RRT	-.1392	RRF	.1427	RTF	-.7099	CRT	-.4950	CRS	-.6538	CST	.9785
FDE	-.1903	FRA	.6233	FC3	-.1946	BSP	2638	SGB	1072.5	R23	-.0152	R13	.7112	LSA	558.4	MSA	294.4	SSA	14.8
BDE	.7314	BRA	1.2149	BC3	.1078	FSP	-115	SG1	969.2	SG2	459.3	THA	175.05	EL1	503.0	EL2	260.6	ALF	116.90

LAUNCH DATE AUG 7 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 177.552

RL	151.72	LAL	.00	LOL	314.09	VL	22.178	GAL	7.15	AZL	92.92	HCA	68.90	SMA	105.53	ECC	.45180	INC	2.9240	V1	29.366
RP	108.44	LAP	-2.73	LOP	22.97	VP	34.499	GAP	-26.82	AZP	91.05	TAL	171.16	TAP	240.06	RCA	57.85	APO	153.20	V2	34.948
RC	45.530	GL	-8.01	GP	-5.93	ZAL	67.99	ZAP	16.40	ETS	156.68	ZAE	163.22	ETE	170.10	ZAC	91.74	ETC	256.96	CLP	15.32

PLANETOCENTRIC CONIC

C3	64.973	VHL	8.061	DLA	-29.25	RAL	242.89	RAD	6569.2	VEL	13.650	PTH	2.49	VHP	15.989	DPA	-17.80	RAP	214.35	ECC	2.0693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.36	11 28 10	1388.61	12.00	357.15	130.57	116.87	11 51 19	788.6	15.51	350.17
97.64	13 34 23	980.68	12.02	327.22	130.58	116.87	13 50 44	380.7	15.53	320.24
100.00	13 0 31	1089.33	6.84	332.47	127.79	119.17	13 18 40	489.3	10.68	325.79
100.00	14 44 44	755.19	17.27	313.16	133.21	114.78	14 57 19	155.2	20.47	305.83
110.00	12 43 24	1143.23	-2.46	330.81	122.06	124.11	13 2 27	543.2	2.03	324.61
110.00	17 18 20	5562.10	27.32	259.19	137.83	111.39	18 51 2	4962.1	29.98	251.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2419	TRA	-1.2037	TC3	-.1029	BAU	.0905	SGT	1009.3	SGR	467.7	SG3	56.3	ST	340.8	SR	466.9	SS	289.2
RDE	-.6568	RRA	-.0144	RC3	.0163	FAU	.01682	RRT	-.1549	RRF	.1593	RTF	-.7271	CRT	-.4981	CRS	-.6512	CST	.9800
FDE	-.1935	FRA	.6442	FC3	-.2241	BSP	2793	SGB	1112.5	R23	-.0172	R13	.7284	LSA	571.0	MSA	302.4	SSA	15.0
BDE	.6999	BRA	1.2038	BC3	.1042	FSP	-128	SG1	1012.6	SG2	460.6	THA	174.82	EL1	511.1	EL2	269.9	ALF	118.64

LAUNCH DATE AUG 7 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 184.068

RL	151.72	LAL	.00	LOL	314.09	VL	22.578	GAL	6.76	AZL	92.74	HCA	72.09	SMA	107.05	ECC	.43072	INC	2.7442	V1	29.366
RP	108.40	LAP	-2.61	LOP	26.16	VP	34.771	GAP	-25.50	AZP	90.84	TAL	170.90	TAP	242.99	RCA	60.94	APO	153.16	V2	34.961
RC	44.337	GL	-8.09	GP	-6.20	ZAL	67.51	ZAP	15.11	ETS	153.52	ZAE	165.42	ETE	170.63	ZAC	91.76	ETC	257.13	CLP	13.80

PLANETOCENTRIC CONIC

C3	58.243	VHL	7.632	DLA	-29.41	RAL	243.42	RAD	6569.1	VEL	13.402	PTH	2.45	VHP	15.270	DPA	-18.67	RAP	215.86	ECC	1.9585

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.69	11 25 0	1379.00	12.88	356.89	129.48	116.68	11 47 59	779.0	16.36	349.87
98.31	13 41 45	937.27	12.89	324.47	129.49	116.67	13 57 22	337.3	16.37	317.44
100.00	13 9 51	1039.47	8.48	329.68	127.13	118.77	13 27 10	439.5	12.26	322.93
100.00	14 39 36	752.04	17.36	312.97	131.72	114.72	14 52 8	152.0	20.55	305.63
110.00	12 47 47	1108.95	-1.15	329.02	121.23	124.17	13 6 16	509.0	3.34	322.82
110.00	17 18 8	5543.36	27.78	257.93	136.44	110.77	18 50 32	4943.4	30.35	249.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2399	TRA	-1.1922	TC3	-.0969	BAU	.0763	SGT	1053.6	SGR	469.8	SG3	61.5	ST	357.0	SR	469.3	SS	299.7
RDE	-.6251	RRA	-.0026	RC3	.0142	FAU	.01741	RRT	-.1726	RRF	.1779	RTF	-.7435	CRT	-.5032	CRS	-.6494	CST	.9816
FDE	-.1969	FRA	.6657	FC3	-.2587	BSP	2959	SGB	1153.6	R23	-.0196	R13	.7449	LSA	584.4	MSA	309.6	SSA	15.2
BDE	.6696	BRA	1.1922	BC3	.0980	FSP	-142	SG1	1057.4	SG2	461.1	THA	174.56	EL1	519.7	EL2	278.6	ALF	120.59

LAUNCH DATE AUG 7 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 190.629

RL	151.72	LAL	.00	LOL	314.09	VL	22.951	GAL	6.38	AZL	92.57	HCA	75.28	SMA	108.54	ECC	.41068	INC	2.5706	V1	29.366
RP	108.36	LAP	-2.49	LOP	29.35	VP	35.027	GAP	-24.25	AZP	90.65	TAL	170.69	TAP	245.97	RCA	63.96	APO	153.11	V2	34.974
RC	43.276	GL	-8.14	GP	-6.51	ZAL	67.11	ZAP	13.87	ETS	149.69	ZAE	167.77	ETE	171.59	ZAC	91.75	ETC	257.30	CLP	12.27

PLANETOCENTRIC CONIC

C3	52.228	VHL	7.227	DLA	-29.54	RAL	243.86	RAD	6568.9	VEL	13.175	PTH	2.41	VHP	14.577	DPA	-19.56	RAP	217.38	ECC	1.8595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.23	11 23 11	1363.64	13.75	356.20	128.27	116.40	11 45 55	763.6	17.18	349.12
98.77	13 47 6	898.91	13.76	322.07	128.27	116.40	14 2 5	298.9	17.20	314.99
100.00	13 17 47	992.75	10.00	327.05	126.29	118.32	13 34 19	392.7	13.71	320.22
100.00	14 35 11	745.03	17.56	312.54	130.16	114.58	14 47 36	145.0	20.73	305.19
110.00	12 51 16	1076.31	.09	327.32	120.27	124.18	13 9 12	476.3	4.58	321.11
110.00	17 18 12	5522.27	28.28	256.49	134.92	110.05	18 50 14	4922.3	30.75	248.16

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2384	TRA	-1.1800	TC3	-.0880	BAU	.0619	SGT	1099.2	SGR	471.5	SG3	67.2	ST	373.9	SR	471.2	SS	310.6
RDE	-.5943	RRA	.0087	RC3	.0111	FAU	.01805	RRT	-.1922	RRF	.1987	RTF	-.7591	CRT	-.5099	CRS	-.6482	CST	.9834
FDE	-.2004	FRA	.6882	FC3	-.2993	BSP	3122	SGB	1196.0	R23	-.0221	R13	.7607	LSA	598.6	MSA	315.7	SSA	15.4
BDE	.6403	BRA	1.1801	BC3	.0887	FSP	-158	SG1	1103.7	SG2	460.8	THA	174.29	EL1	528.9	EL2	286.6	ALF	122.71

LAUNCH DATE AUG 7 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 197.229

RL	151.72	LAL	.00	LOL	314.09	VL	23.297	GAL	6.00	AZL	92.40	HCA	78.47	SMA	109.98	ECC	.39166	INC	2.4019	V1	29.366
RP	108.32	LAP	-2.35	LOP	32.55	VP	35.267	GAP	-23.04	AZP	90.48	TAL	170.52	TAP	248.99	RCA	66.90	APO	153.05	V2	34.987
RC	42.355	GL	-8.16	GP	-6.84	ZAL	66.80	ZAP	12.72	ETS	145.03	ZAE	170.26	ETE	173.35	ZAC	91.70	ETC	257.49	CLP	10.74

PLANETOCENTRIC CONIC

C3	46.851	VHL	6.845	DLA	-29.61	RAL	244.22	RAD	6568.8	VEL	12.970	PTH	2.36	VHP	13.911	DPA	-20.47	RAP	218.89	ECC	1.7711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.96	11 22 32	1343.21	14.59	355.12	126.93	116.05	11 44 55	743.2	17.98	347.98
99.04	13 50 37	865.13	14.61	320.00	126.94	116.05	14 5 2	265.1	17.99	312.87
100.00	13 23 27	952.03	11.31	324.73	125.22	117.86	13 39 19	352.0	14.95	317.83
100.00	14 32 23	731.54	17.94	311.72	128.57	114.32	14 44 34	131.5	21.08	304.33
110.00	12 53 44	1045.71	1.26	325.73	119.16	124.16	13 11 10	445.7	5.74	319.50
110.00	17 18 35	5498.67	28.82	254.87	133.30	109.23	18 50 13	4898.7	31.17	246.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2377	TRA	-1.1672	TC3	-.0756	BAU	.0475	SGT	1146.0	SGR	472.8	SG3	73.5	ST	391.5	SR	472.4	SS	321.8
RDE	-.5643	RRA	.0195	RC3	.0066	FAU	.01877	RRT	-.2142	RRF	.2221	RTF	-.7740	CRT	-.5185	CRS	-.6478	CST	.9852
FDE	-.2043	FRA	.7116	FC3	-.3469	BSP	3302	SGB	1239.7	R23	-.0251	R13	.7758	LSA	613.9	MSA	320.7	SSA	15.6
BDE	.6123	BRA	1.1674	BC3	.0759	FSP	-175	SG1	1151.3	SG2	459.7	THA	173.99	EL1	538.8	EL2	293.5	ALF	124.99

LAUNCH DATE AUG 7 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 203.864

RL	151.72	LAL	.00	LOL	314.09	VL	23.619	GAL	5.63	AZL	92.24	HCA	81.67	SMA	111.37	ECC	.37366	INC	2.2369	V1	29.366
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.494	GAP	-21.89	AZP	90.32	TAL	170.40	TAP	252.07	RCA	69.76	APO	152.98	V2	35.000
RC	41.583	GL	-8.13	GP	-7.21	ZAL	66.56	ZAP	11.67	ETS	139.34	ZAE	172.87	ETE	176.89	ZAC	91.61	ETC	257.69	CLP	9.21

PLANETOCENTRIC CONIC

C3	42.048	VHL	6.484	DLA	-29.63	RAL	244.49	RAD	6568.6	VEL	12.783	PTH	2.33	VHP	13.269	DPA	-21.39	RAP	220.40	ECC	1.6920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.89	11 23 4	1317.76	15.41	353.64	125.48	115.62	11 45 2	717.8	18.73	346.45
99.11	13 52 15	836.17	15.43	318.27	125.49	115.61	14 6 11	236.2	18.75	311.07
100.00	13 25 44	920.95	12.29	322.94	123.88	117.46	13 41 5	321.0	15.87	315.99
100.00	14 32 15	708.21	18.59	310.29	127.02	113.84	14 44 4	108.2	21.66	302.84
110.00	12 55 6	1017.58	2.34	324.26	117.91	124.11	13 12 3	417.6	6.80	318.01
110.00	17 19 23	5472.39	29.40	253.04	131.56	108.28	18 50 36	4872.4	31.61	244.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2373	TRA	-1.1536	TC3	-.0590	BAU	.0332	SGT	1193.7	SGR	474.0	SG3	80.4	ST	409.6	SR	473.1	SS	333.3
RDE	-.5353	RRA	.0300	RC3	.0005	FAU	.01958	RRT	-.2386	RRF	.2482	RTF	-.7882	CRT	-.5285	CRS	-.6479	CST	.9871
FDE	-.2083	FRA	.7361	FC3	-.4030	BSP	3481	SGB	1284.4	R23	-.0284	R13	.7901	LSA	630.1	MSA	324.6	SSA	15.8
BDE	.5855	BRA	1.1540	BC3	.0590	FSP	-195	SG1	1200.0	SG2	457.9	THA	173.66	EL1	549.5	EL2	299.3	ALF	127.35

LAUNCH DATE AUG 7 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 210.529

RL	151.72	LAL	.00	LOL	314.09	VL	23.917	GAL	5.27	AZL	92.07	HCA	84.87	SMA	112.71	ECC	.35665	INC	2.0744	V1	29.366
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.706	GAP	-20.78	AZP	90.19	TAL	170.34	TAP	255.20	RCA	72.51	APO	152.91	V2	35.013
RC	40.971	GL	-8.07	GP	-7.62	ZAL	66.40	ZAP	10.78	ETS	132.44	ZAE	175.51	ETE	185.56	ZAC	91.47	ETC	257.89	CLP	7.65

PLANETOCENTRIC CONIC

C3	37.758	VHL	6.145	DLA	-29.59	RAL	244.68	RAD	6568.5	VEL	12.615	PTH	2.29	VHP	12.651	DPA	-22.35	RAP	221.90	ECC	1.6214

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.04	11 24 58	1286.90	16.18	351.74	123.92	115.11	11 46 25	686.9	19.45	344.47
98.96	13 51 50	812.68	16.20	316.90	123.93	115.10	14 5 23	212.7	19.45	309.64
100.00	13 23 58	901.83	12.89	321.84	122.25	117.21	13 39 0	301.8	16.43	314.84
100.00	14 35 31	672.98	19.55	308.11	125.50	113.08	14 46 44	73.0	22.50	300.56
110.00	12 55 15	992.36	3.30	322.94	116.53	124.04	13 11 48	392.4	7.75	316.67
110.00	17 20 43	5443.25	30.00	250.98	129.72	107.21	18 51 26	4843.3	32.06	248.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2375	TRA	-1.1396	TC3	-.0378	BAU	.0195	SGT	1242.8	SGR	475.0	SG3	88.1	ST	428.3	SR	473.2	SS	345.0
RDE	-.5073	RRA	.0403	RC3	-.0076	FAU	.02046	RRT	-.2662	RRF	.2775	RTF	-.8016	CRT	-.5403	CRS	-.6487	CST	.9891
FDE	-.2125	FRA	.7621	FC3	-.4691	BSP	3662	SGB	1330.5	R23	-.0322	R13	.8037	LSA	647.4	MSA	327.2	SSA	16.0
BDE	.5601	BRA	1.1404	BC3	.0386	FSP	-216	SG1	1250.2	SG2	455.2	THA	173.30	EL1	561.3	EL2	303.8	ALF	129.77

LAUNCH DATE AUG 7 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 217.219

RL	151.72	LAL	.00	LOL	314.09	VL	24.194	GAL	4.93	AZL	91.91	HCA	88.07	SMA	114.00	ECC	.34062	INC	1.9135	V1	29.366
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.905	GAP	-19.71	AZP	90.06	TAL	170.32	TAP	258.39	RCA	75.17	APO	152.83	V2	35.027
RC	40.525	GL	-7.94	GP	-8.07	ZAL	66.33	ZAP	10.09	ETS	124.23	ZAE	177.80	ETE	217.51	ZAC	91.28	ETC	258.11	CLP	6.09

PLANETOCENTRIC CONIC

C3	33.929	VHL	5.825	DLA	-29.48	RAL	244.78	RAD	6568.3	VEL	12.462	PTH	2.25	VHP	12.057	DPA	-23.33	RAP	223.39	ECC	1.5584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.44	11 28 29	1249.90	16.90	349.34	122.26	114.52	11 49 19	649.9	20.07	342.01
98.56	13 49 8	795.66	16.91	315.99	122.26	114.51	14 2 23	195.7	20.08	308.66
100.00	13 18 27	893.86	13.14	321.38	120.38	117.09	13 33 21	293.9	16.67	314.36
100.00	14 41 51	626.93	20.75	305.22	124.01	112.01	14 52 17	26.9	23.55	297.55
110.00	12 54 8	970.52	4.13	321.79	115.01	123.96	13 10 18	370.5	8.56	315.51
110.00	17 22 40	5411.08	30.63	248.69	127.78	105.98	18 52 51	4811.1	32.51	239.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2378	TRA	-1.1247	TC3	-.0109	BAU	.0096	SGT	1292.2	SGR	476.3	SG3	96.5	ST	447.3	SR	472.7	SS	356.9
RDE	-.4803	RRA	.0504	RC3	-.0182	FAU	.02145	RRT	-.2968	RRF	.3101	RTF	-.8143	CRT	-.5534	CRS	-.6496	CST	.9910
FDE	-.2165	FRA	.7896	FC3	-.5473	BSP	3851	SGB	1377.2	R23	-.0364	R13	.8167	LSA	665.4	MSA	328.5	SSA	16.2
BDE	.5359	BRA	1.1258	BC3	.0212	FSP	-240	SG1	1301.0	SG2	451.8	THA	172.90	EL1	573.9	EL2	306.9	ALF	132.15

LAUNCH DATE AUG 7 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 223.932

RL	151.72	LAL	.00	LOL	314.09	VL	24.451	GAL	4.59	AZL	91.75	HCA	91.27	SMA	115.24	ECC	.32554	INC	1.7530	VI	29.366
RP	108.15	LAP	-1.75	LOP	45.36	VP	36.091	GAP	-18.68	AZP	89.96	TAL	170.36	TAP	261.63	RCA	77.72	APO	152.75	V2	35.040
RC	40.252	GL	-7.76	GP	-8.57	ZAL	66.33	ZAP	9.67	ETS	114.81	ZAE	177.46	ETE	293.80	ZAC	91.03	ETC	258.33	CLP	4.50

PLANETOCENTRIC CONIC

C3	30.513	VHL	5.524	DLA	-29.29	RAL	244.80	RAD	6568.2	VEL	12.324	PTH	2.22	VHP	11.486	DPA	-24.34	RAP	224.85	ECC	1.5022

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.16	11 34 16	1204.88	17.54	346.31	120.49	113.84	11 54 21	604.9	20.62	338.91
97.84	13 43 30	787.26	17.55	315.67	120.50	113.84	13 56 37	187.3	20.63	308.27
100.00	13 10 3	894.51	13.12	321.42	118.31	117.10	13 24 57	294.5	16.65	314.40
100.00	14 50 24	5860.90	22.09	279.67	122.47	110.67	16 28 5	5260.9	24.70	271.85
110.00	12 51 38	952.48	4.82	320.85	113.37	123.88	13 7 31	352.5	9.24	314.54
110.00	17 25 18	5375.70	31.26	246.13	125.73	104.58	18 54 54	4775.7	32.95	237.31

DIFFERENTIAL CORRECTIONS

TOE	.2381	TRA	-1.1095	TC3	.0220	BAU	.0158
RDE	-.4543	RRA	.0606	RC3	-.0320	FAU	.02254
FDE	-.2205	FRA	.8189	FC3	-.6396	BSP	4037
BDE	.5129	BRA	1.1111	BC3	.0388	FSP	-267

MID-COURSE EXECUTION ACCURACY

SGT	1342.7	SGR	478.0	SG3	105.8		
RRT	-.3307	RRF	.3465	RTF	-.8262		
SGB	1425.2	R23	-.0414	R13	.8289		
SG1	1353.1	SG2	447.6	THA	172.45		

ORBIT DETERMINATION ACCURACY

ST	466.6	SR	471.7	SS	368.8		
CRT	-.5676	CRS	-.6508	CST	.9928		
LSA	684.1	MSA	328.7	SSA	16.4		
EL1	587.4	EL2	308.5	ALF	134.45		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 230.661

RL	151.72	LAL	.00	LOL	314.09	VL	24.688	GAL	4.26	AZL	91.59	HCA	94.47	SMA	116.42	ECC	.31138	INC	1.5920	VI	29.366
RP	108.11	LAP	-1.59	LOP	48.56	VP	36.266	GAP	-17.69	AZP	89.88	TAL	170.45	TAP	264.92	RCA	80.17	APO	152.67	V2	35.053
RC	40.156	GL	-7.50	GP	-9.12	ZAL	66.41	ZAP	9.57	ETS	104.58	ZAE	174.91	ETE	318.29	ZAC	90.72	ETC	258.55	CLP	2.89

PLANETOCENTRIC CONIC

C3	27.470	VHL	5.241	DLA	-29.02	RAL	244.74	RAD	6568.1	VEL	12.200	PTH	2.19	VHP	10.937	DPA	-25.39	RAP	226.29	ECC	1.4521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.35	11 43 32	1148.06	18.10	342.37	118.64	113.08	12 2 40	548.1	21.07	334.91
96.65	13 33 45	791.54	18.11	316.24	118.64	113.08	13 46 57	191.5	21.08	308.77
100.00	12 59 30	901.61	12.90	321.83	116.11	117.20	13 14 32	301.6	16.44	314.83
100.00	15 0 28	5801.26	23.47	275.78	120.85	109.06	16 37 9	5201.3	25.85	267.79
110.00	12 47 44	938.65	5.34	320.12	111.60	123.81	13 3 22	338.7	9.75	313.80
110.00	17 28 43	5336.98	31.89	243.28	123.58	103.01	18 57 40	4737.0	33.35	234.36

DIFFERENTIAL CORRECTIONS

TOE	.2386	TRA	-1.0934	TC3	.0623	BAU	.0292
RDE	-.4295	RRA	.0708	RC3	-.0496	FAU	.02376
FDE	-.2242	FRA	.8503	FC3	-.7488	BSP	4227
BDE	.4913	BRA	1.0957	BC3	.0796	FSP	-296

MID-COURSE EXECUTION ACCURACY

SGT	1393.1	SGR	480.6	SG3	116.1		
RRT	-.3687	RRF	.3870	RTF	-.8376		
SGB	1473.7	R23	-.0468	R13	.8405		
SG1	1405.6	SG2	442.8	THA	171.95		

ORBIT DETERMINATION ACCURACY

ST	486.0	SR	470.2	SS	380.7		
CRT	-.5835	CRS	-.6522	CST	.9946		
LSA	703.4	MSA	327.5	SSA	16.7		
EL1	601.9	EL2	308.4	ALF	136.62		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 237.404

RL	151.72	LAL	.00	LOL	314.09	VL	24.908	GAL	3.95	AZL	91.43	HCA	97.68	SMA	117.54	ECC	.29814	INC	1.4294	VI	29.366
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.428	GAP	-16.74	AZP	89.81	TAL	170.59	TAP	268.27	RCA	82.50	APO	152.59	V2	35.066
RC	40.238	GL	-7.16	GP	-9.74	ZAL	66.58	ZAP	9.82	ETS	94.23	ZAE	172.05	ETE	325.31	ZAC	90.33	ETC	258.78	CLP	1.26

PLANETOCENTRIC CONIC

C3	24.760	VHL	4.976	DLA	-28.65	RAL	244.60	RAD	6568.0	VEL	12.089	PTH	2.16	VHP	10.409	DPA	-26.48	RAP	227.70	ECC	1.4075

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.42	11 59 46	1068.17	18.55	336.70	116.70	112.24	12 17 35	468.2	21.40	329.16
94.58	13 16 24	820.03	18.56	318.53	116.71	112.23	13 30 4	220.0	21.42	310.99
100.00	12 47 18	913.89	12.51	322.54	113.81	117.37	13 2 32	313.9	16.08	315.57
100.00	15 11 34	5737.57	24.82	271.53	119.12	107.22	16 47 12	5137.6	26.94	263.37
110.00	12 42 21	929.42	5.69	319.63	109.73	123.76	12 57 51	329.4	10.09	313.30
110.00	17 33 0	5294.81	32.50	240.14	121.34	101.24	19 1 14	4694.8	33.70	231.12

DIFFERENTIAL CORRECTIONS

TOE	.2384	TRA	-1.0772	TC3	.1111	BAU	.0438
RDE	-.4057	RRA	.0814	RC3	-.0720	FAU	.02512
FDE	-.2273	FRA	.8841	FC3	-.8784	BSP	4418
BDE	.4706	BRA	1.0803	BC3	.1324	FSP	-330

MID-COURSE EXECUTION ACCURACY

SGT	1444.1	SGR	484.5	SG3	127.5		
RRT	-.4103	RRF	.4317	RTF	-.8484		
SGB	1523.2	R23	-.0532	R13	.8516		
SG1	1459.1	SG2	437.3	THA	171.38		

ORBIT DETERMINATION ACCURACY

ST	505.2	SR	468.2	SS	392.4		
CRT	-.5996	CRS	-.6534	CST	.9961		
LSA	722.6	MSA	325.4	SSA	16.9		
EL1	616.6	EL2	307.0	ALF	138.61		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 244.157

RL	151.72	LAL	.00	LOL	314.09	VL	25.111	GAL	3.65	AZL	91.26	HCA	100.89	SMA	118.61	ECC	.28576	INC	1.2643	VI	29.366
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.580	GAP	-15.82	AZP	89.76	TAL	170.77	TAP	271.66	RCA	84.72	APO	152.50	V2	35.079
RC	40.497	GL	-6.72	GP	-10.43	ZAL	66.82	ZAP	10.44	ETS	84.51	ZAE	169.14	ETE	328.05	ZAC	89.85	ETC	259.01	CLP	-.42

PLANETOCENTRIC CONIC

C3	22.351	VHL	4.728	DLA	-28.18	RAL	244.39	RAD	6567.9	VEL	11.989	PTH	2.14	VHP	9.904	DPA	-27.62	RAP	229.07	ECC	1.3678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 12 26	999.59	16.90	330.96	113.85	113.06	12 29 6	399.6	19.88	323.55
90.00	13 2 4	838.59	20.90	320.84	115.49	109.56	13 16 2	238.6	23.37	313.04
100.00	12 33 42	930.78	11.98	323.51	111.44	117.59	12 49 13	330.8	15.58	316.57
100.00	15 23 29	5670.68	26.09	266.96	117.26	105.13	16 58 0	5070.7	27.91	258.64
110.00	12 35 30	925.12	5.86	319.41	107.77	123.74	12 50 56	325.1	10.25	313.07
110.00	17 38 10	5249.10	33.05	236.69	118.99	99.27	19 5 39	4649.1	33.98	227.57

DIFFERENTIAL CORRECTIONS

TOE	.2382	TRA	-1.0604	TC3	.1679	BAU	.0584
RDE	-.3829	RRA	.0925	RC3	-.1001	FAU	.02662
FDE	-.2294	FRA	.9212	FC3	-1.0311	BSP	4625
BDE	.4510	BRA	1.0644	BC3	.1955	FSP	-367

MID-COURSE EXECUTION ACCURACY

SGT	1494.6	SGR	490.4	SG3	140.2		
RRT	-.4561	RRF	.4805	RTF	-.8584		
SGB	1573.0	R23	-.0599	R13	.8621		
SG1	1512.8	SG2	431.2	THA	170.73		

ORBIT DETERMINATION ACCURACY

ST	524.1	SR	465.7	SS	403.6		
CRT	-.6174	CRS	-.6537	CST	.9974		
LSA	741.8	MSA	322.2	SSA	17.2		
EL1	631.8	EL2	303.9	ALF	140.43		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 250.917

RL	151.72	LAL	.00	LOL	314.09	VL	25.299	GAL	3.37	AZL	91.10	HCA	104.10	SMA	119.62	ECC	.27423	INC	1.0953	V1	29.366
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.721	GAP	-14.93	AZP	89.73	TAL	171.00	TAP	275.10	RCA	86.82	APO	152.42	V2	35.092
RC	40.930	GL	-6.17	GP	-11.21	ZAL	67.13	ZAP	11.40	ETS	75.95	ZAE	166.28	ETE	329.12	ZAC	89.28	ETC	259.24	CLP	-2.13

PLANETOCENTRIC CONIC

C3	20.213	VHL	4.496	DLA	-27.57	RAL	244.12	RAD	6567.8	VEL	11.899	PTH	2.11	VHP	9.420	DPA	-28.82	RAP	230.39	ECC	1.3327

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 39 13	1080.37	14.68	335.85	110.75	114.49	11 57 13	480.4	17.87	328.62
90.00	13 33 6	709.44	23.60	312.33	114.23	106.13	13 44 56	109.4	25.58	304.23
100.00	12 18 54	952.08	11.31	324.73	109.04	117.86	12 34 46	352.1	14.95	317.83
100.00	15 36 6	5601.00	27.24	262.10	115.27	102.82	17 9 27	5001.0	28.73	253.62
110.00	12 27 11	926.07	5.82	319.46	105.74	123.74	12 42 37	326.1	10.21	313.12
110.00	17 44 18	5199.78	33.53	232.92	116.55	97.09	19 10 58	4599.8	34.14	223.73

DIFFERENTIAL CORRECTIONS

TDE	.2363	TRA	-1.0432	TC3	.2331	BAU	.0728
RDE	-.3612	RRA	.1043	RC3	-.1352	FAU	.02828
FDE	-.2298	FRA	.9614	FC3	-1.2112	BSP	4821
BDE	.4316	BRA	1.0484	BC3	.2695	FSP	-408

MID-COURSE EXECUTION ACCURACY

SGT	1544.0	SGR	499.1	SG3	154.1		
RRT	-.5047	RRF	.5328	RTF	-.8675		
SG8	1622.7	R23	-.0684	R13	.8718		
SG1	1566.1	SG2	424.8	THA	169.99		

ORBIT DETERMINATION ACCURACY

ST	541.4	SR	462.5	SS	414.0		
CRT	-.6344	CRS	-.6527	CST	.9983		
LSA	759.5	MSA	318.4	SSA	17.4		
EL1	645.9	EL2	299.7	ALF	142.01		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 257.680

RL	151.72	LAL	.00	LOL	314.09	VL	25.471	GAL	3.09	AZL	90.92	HCA	107.32	SMA	120.57	ECC	.26352	INC	.9215	V1	29.366
RP	107.95	LAP	-.88	LOP	61.41	VP	36.852	GAP	-14.07	AZP	89.73	TAL	171.27	TAP	278.59	RCA	88.80	APO	152.35	V2	35.105
RC	41.530	GL	-5.48	GP	-12.07	ZAL	67.52	ZAP	12.67	ETS	68.75	ZAE	163.49	ETE	329.33	ZAC	88.61	ETC	259.47	CLP	-3.88

PLANETOCENTRIC CONIC

C3	18.319	VHL	4.280	DLA	-26.83	RAL	243.79	RAD	6567.7	VEL	11.820	PTH	2.09	VHP	8.957	DPA	-30.09	RAP	231.64	ECC	1.3015

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 23	1134.87	13.12	339.09	107.99	115.32	11 33 18	534.9	16.42	331.97
90.00	13 55 18	608.44	25.33	305.44	112.49	103.09	14 5 26	8.4	26.89	297.12
100.00	12 3 0	977.86	10.48	326.20	106.63	118.15	12 19 17	377.9	14.17	319.35
100.00	15 49 22	5528.73	28.22	256.96	113.15	100.29	17 21 31	4928.7	29.35	248.34
110.00	12 17 25	932.56	5.57	319.80	103.66	123.78	12 32 58	332.6	9.97	313.47
110.00	17 51 26	5146.79	33.90	228.83	114.03	94.69	19 17 13	4546.8	34.18	219.59

DIFFERENTIAL CORRECTIONS

TDE	.2334	TRA	-1.0258	TC3	.3091	BAU	.0874
RDE	-.3402	RRA	.1171	RC3	-.1788	FAU	.03012
FDE	-.2279	FRA	1.0053	FC3	-1.4234	BSP	5020
BDE	.4126	BRA	1.0324	BC3	.3571	FSP	-454

MID-COURSE EXECUTION ACCURACY

SGT	1592.4	SGR	511.6	SG3	169.6		
RRT	-.5561	RRF	.5879	RTF	-.8762		
SG8	1672.5	R23	-.0776	R13	.8811		
SG1	1619.4	SG2	418.1	THA	169.14		

ORBIT DETERMINATION ACCURACY

ST	557.5	SR	458.5	SS	423.3		
CRT	-.6520	CRS	-.6498	CST	.9986		
LSA	775.4	MSA	313.9	SSA	17.7		
EL1	659.2	EL2	294.0	ALF	143.40		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 264.442

RL	151.72	LAL	.00	LOL	314.09	VL	25.630	GAL	2.84	AZL	90.74	HCA	110.53	SMA	121.47	ECC	.25359	INC	.7413	V1	29.366
RP	107.91	LAP	-.69	LOP	64.62	VP	36.974	GAP	-13.25	AZP	89.74	TAL	171.59	TAP	282.12	RCA	90.67	APO	152.27	V2	35.117
RC	42.291	GL	-4.66	GP	-13.05	ZAL	67.99	ZAP	14.22	ETS	62.88	ZAE	160.81	ETE	329.00	ZAC	87.81	ETC	259.69	CLP	-5.69

PLANETOCENTRIC CONIC

C3	16.646	VHL	4.080	DLA	-25.93	RAL	243.41	RAD	6567.7	VEL	11.749	PTH	2.07	VHP	8.515	DPA	-31.44	RAP	232.82	ECC	1.2739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 51 27	1184.59	11.65	342.00	105.36	115.99	11 11 12	584.6	15.06	334.98
90.00	14 15 13	5802.37	26.62	276.76	110.50	100.03	15 51 56	5202.4	27.73	268.27
100.00	11 46 2	1008.33	9.50	327.93	104.24	118.48	12 2 51	408.3	13.23	321.13
100.00	16 3 19	5453.86	29.01	251.54	110.92	97.54	17 34 13	4853.9	29.75	242.81
110.00	12 6 15	944.88	5.11	320.45	101.56	123.85	12 22 0	344.9	9.52	314.14
110.00	17 59 36	5090.07	34.13	224.41	111.42	92.09	19 24 26	4490.1	34.04	215.17

DIFFERENTIAL CORRECTIONS

TDE	.2289	TRA	-1.0086	TC3	.3951	BAU	.1021
RDE	-.3200	RRA	.1312	RC3	-.2328	FAU	.03215
FDE	-.2230	FRA	1.0539	FC3	-1.6722	BSP	5213
BDE	.3935	BRA	1.0171	BC3	.4586	FSP	-505

MID-COURSE EXECUTION ACCURACY

SGT	1639.5	SGR	529.2	SG3	186.7		
RRT	-.6091	RRF	.6448	RTF	-.8843		
SG8	1722.8	R23	-.0880	R13	.8901		
SG1	1672.9	SG2	411.3	THA	168.15		

ORBIT DETERMINATION ACCURACY

ST	571.6	SR	453.6	SS	431.2		
CRT	-.6695	CRS	-.6444	CST	.9981		
LSA	789.0	MSA	309.1	SSA	18.1		
EL1	670.9	EL2	287.1	ALF	144.60		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 271.203

RL	151.72	LAL	.00	LOL	314.09	VL	25.776	GAL	2.59	AZL	90.55	HCA	113.75	SMA	122.31	ECC	.24441	INC	.5532	V1	29.366
RP	107.88	LAP	-.51	LOP	67.84	VP	37.087	GAP	-12.45	AZP	89.78	TAL	171.93	TAP	285.68	RCA	92.42	APO	152.20	V2	35.129
RC	43.202	GL	-3.66	GP	-14.16	ZAL	68.52	ZAP	16.01	ETS	58.17	ZAE	158.24	ETE	328.27	ZAC	86.87	ETC	259.90	CLP	-7.56

PLANETOCENTRIC CONIC

C3	15.172	VHL	3.895	DLA	-24.85	RAL	243.00	RAD	6567.6	VEL	11.686	PTH	2.06	VHP	8.096	DPA	-32.89	RAP	233.92	ECC	1.2497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 29 2	1234.49	10.15	344.90	102.85	116.58	10 49 37	634.5	13.64	337.96
90.00	14 34 22	5710.41	27.54	270.19	108.34	96.86	16 9 33	5110.4	28.20	261.59
100.00	11 28 6	1043.82	8.34	329.93	101.89	118.81	11 45 29	443.8	12.12	323.18
100.00	16 18 0	5376.31	29.57	245.84	108.57	94.59	17 47 36	4776.3	29.89	237.05
110.00	11 53 45	963.36	4.41	321.42	99.47	123.93	12 9 48	363.4	8.83	315.13
110.00	18 8 50	5029.54	34.18	219.69	108.76	89.29	19 32 40	4429.5	33.70	210.48

DIFFERENTIAL CORRECTIONS

TDE	.2221	TRA	-.9914	TC3	.4897	BAU	.1164
RDE	-.3002	RRA	.1472	RC3	-.2992	FAU	.03437
FDE	-.2133	FRA	1.1077	FC3	-1.9614	BSP	5397
BDE	.3735	BRA	1.0023	BC3	.5739	FSP	-561

MID-COURSE EXECUTION ACCURACY

SGT	1683.8	SGR	553.4	SG3	205.5		
RRT	-.6618	RRF	.7013	RTF	-.8917		
SG8	1772.4	R23	-.0999	R13	.8984		
SG1	1725.5	SG2	404.8	THA	167.00		

ORBIT DETERMINATION ACCURACY

ST	582.5	SR	447.4	SS	437.2		
CRT	-.6863	CRS	-.6345	CST	.9962		
LSA	798.6	MSA	304.2	SSA	18.4		
EL1	679.5	EL2	279.0	ALF	145.63		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 277.958

RL	151.72	LAL	.00	LOL	314.09	VL	25.910	GAL	2.36	AZL	90.36	HCA	116.97	SMA	123.09	ECC	.23596	INC	.3554	V1	29.366
RP	107.84	LAP	-.32	LOP	71.06	VP	37.191	GAP	-11.67	AZP	89.84	TAL	172.31	TAP	289.28	RCA	94.05	APO	152.14	V2	35.141
RC	44.254	GL	-2.47	GP	-15.40	ZAL	69.11	ZAP	18.03	ETS	54.42	ZAE	155.79	ETE	327.21	ZAC	85.77	ETC	260.10	CLP	-9.49

PLANETOCENTRIC CONIC

C3	13.880	VHL	3.726	DLA	-23.57	RAL	242.57	RAD	6567.5	VEL	11.630	PTH	2.04	VHP	7.698	DPA	-34.45	RAP	234.91	ECC	1.2284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 6 34	1286.93	8.54	347.91	100.44	117.10	10 28 1	686.9	12.10	341.04
90.00	14 53 24	5618.49	28.11	263.53	106.07	93.57	16 27 3	5018.5	28.31	254.87
100.00	11 9 12	1084.77	6.99	332.22	99.61	119.14	11 27 17	484.8	10.82	325.53
100.00	16 33 28	5295.88	29.86	239.88	106.15	91.46	18 1 44	4695.9	29.74	231.08
110.00	11 39 57	988.33	3.46	322.73	97.43	124.03	11 56 26	388.3	7.90	316.46
110.00	18 19 12	4965.09	34.01	214.66	106.06	86.32	19 41 57	4365.1	33.13	205.53

DIFFERENTIAL CORRECTIONS

TDE	.2133	TRA	-.9744	TC3	.5934	BAU	.1308		
RDE	-.2806	RRA	.1654	RC3	-.3805	FAU	.03680		
FDE	-.1981	FRA	1.1672	FC3	-2.2955	BSP	5587		
BDE	.3525	BRA	.9883	BC3	.7049	FSP	-624		

MID-COURSE EXECUTION ACCURACY

SGT	1725.0	SGR	586.2	SG3	226.2		
RRT	-.7126	RRF	.7558	RTF	-.8985		
SGB	1821.9	R23	-.1129	R13	.9065		
SG1	1777.7	SG2	399.0	THA	165.65		

ORBIT DETERMINATION ACCURACY

ST	590.2	SR	439.6	SS	441.5		
CRT	-.7035	CRS	-.6198	CST	.9924		
LSA	804.0	MSA	299.4	SSA	18.8		
EL1	684.9	EL2	269.2	ALF	146.51		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 284.706

RL	151.72	LAL	.00	LOL	314.09	VL	26.033	GAL	2.14	AZL	90.15	HCA	120.19	SMA	123.83	ECC	.22819	INC	.1455	V1	29.366
RP	107.81	LAP	-.13	LOP	74.28	VP	37.287	GAP	-10.93	AZP	89.93	TAL	172.71	TAP	292.90	RCA	95.57	APO	152.08	V2	35.152
RC	45.436	GL	-1.07	GP	-16.82	ZAL	69.76	ZAP	20.29	ETS	51.45	ZAE	153.46	ETE	325.83	ZAC	84.49	ETC	260.28	CLP	-11.51

PLANETOCENTRIC CONIC

C3	12.755	VHL	3.571	DLA	-22.06	RAL	242.14	RAD	6567.5	VEL	11.582	PTH	2.03	VHP	7.324	DPA	-36.14	RAP	235.77	ECC	1.2099

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 43 47	1343.43	6.77	351.12	98.18	117.56	10 6 11	743.4	10.41	344.33
90.00	15 12 45	5525.33	28.32	256.72	103.72	90.17	16 44 50	4925.3	28.04	248.07
100.00	10 49 23	1131.68	5.43	334.82	97.45	119.44	11 8 15	531.7	9.3[illegible]	328.19
100.00	16 49 49	5212.30	29.84	233.67	103.69	88.20	18 16 42	4612.3	29.27	224.91
110.00	11 24 57	1020.21	2.24	324.39	95.47	124.12	11 41 57	420.2	6.70	318.15
110.00	18 30 45	4896.55	33.58	209.36	103.36	83.21	19 52 21	4296.5	32.28	200.37

DIFFERENTIAL CORRECTIONS

TDE	.2021	TRA	-.9574	TC3	.7028	BAU	.1450		
RDE	-.2607	RRA	.1865	RC3	-.4790	FAU	.03942		
FDE	-.1756	FRA	1.2328	FC3	-2.6753	BSP	5777		
BDE	.3299	BRA	.9754	BC3	.8505	FSP	-693		

MID-COURSE EXECUTION ACCURACY

SGT	1761.7	SGR	629.5	SG3	248.7		
RRT	-.7596	RRF	.8061	RTF	-.9046		
SGB	1870.8	R23	-.1269	R13	.9141		
SG1	1828.7	SG2	394.4	THA	164.05		

ORBIT DETERMINATION ACCURACY

ST	593.8	SR	429.5	SS	444.0		
CRT	-.7213	CRS	-.5986	CST	.9851		
LSA	804.2	MSA	295.1	SSA	19.2		
EL1	686.1	EL2	257.4	ALF	147.28		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 291.444

RL	151.72	LAL	.00	LOL	314.09	VL	26.145	GAL	1.94	AZL	89.92	HCA	123.42	SMA	124.50	ECC	.22108	INC	.0763	V1	29.366
RP	107.77	LAP	.06	LOP	77.50	VP	37.376	GAP	-10.20	AZP	90.04	TAL	173.12	TAP	296.54	RCA	96.98	APO	152.03	V2	35.163
RC	46.738	GL	.59	GP	-18.44	ZAL	70.47	ZAP	22.77	ETS	49.10	ZAE	151.22	ETE	324.15	ZAC	83.01	ETC	260.44	CLP	-13.60

PLANETOCENTRIC CONIC

C3	11.785	VHL	3.433	DLA	-20.30	RAL	241.72	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	6.973	DPA	-38.00	RAP	236.48	ECC	1.1940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 30	1405.22	4.81	354.60	96.08	117.94	9 43 56	805.2	8.51	347.88
90.00	15 32 41	5429.99	28.14	249.75	101.35	86.68	17 3 11	4830.0	27.38	241.17
100.00	10 28 41	1185.21	3.63	337.78	95.43	119.69	10 48 26	585.2	7.56	331.19
100.00	17 7 12	5125.22	29.48	227.22	101.24	84.82	18 32 37	4525.2	28.45	218.57
110.00	11 8 48	1059.49	.74	326.44	93.63	124.18	11 26 27	459.5	5.22	320.22
110.00	18 43 34	4823.71	32.86	203.80	100.71	80.00	20 3 58	4223.7	31.13	195.00

DIFFERENTIAL CORRECTIONS

TDE	.1872	TRA	-.9412	TC3	.8173	BAU	.1596		
RDE	-.2398	RRA	.2114	RC3	-.5982	FAU	.04223		
FDE	-.1423	FRA	1.3062	FC3	-3.1026	BSP	5960		
BDE	.3042	BRA	.9647	BC3	1.0128	FSP	-768		

MID-COURSE EXECUTION ACCURACY

SGT	1793.8	SGR	685.8	SG3	273.2		
RRT	-.8011	RRF	.8505	RTF	-.9103		
SGB	1920.4	R23	-.1415	R13	.9218		
SG1	1880.1	SG2	391.6	THA	162.17		

ORBIT DETERMINATION ACCURACY

ST	591.9	SR	415.9	SS	445.5		
CRT	-.7388	CRS	-.5674	CST	.9726		
LSA	797.5	MSA	292.2	SSA	19.6		
EL1	681.2	EL2	243.5	ALF	147.99		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 298.171

RL	151.72	LAL	.00	LOL	314.09	VL	26.246	GAL	1.75	AZL	89.68	HCA	126.64	SMA	125.13	ECC	.21459	INC	.3186	V1	29.366
RP	107.74	LAP	.26	LOP	80.73	VP	37.457	GAP	-9.50	AZP	90.19	TAL	173.55	TAP	300.19	RCA	98.28	APO	151.98	V2	35.174
RC	48.150	GL	2.53	GP	-20.27	ZAL	71.24	ZAP	25.49	ETS	47.24	ZAE	149.06	ETE	322.17	ZAC	81.28	ETC	260.57	CLP	-15.80

PLANETOCENTRIC CONIC

C3	10.960	VHL	3.311	DLA	-18.26	RAL	241.33	RAD	6567.4	VEL	11.504	PTH	2.00	VHP	6.649	DPA	-40.04	RAP	237.00	ECC	1.1804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 56 37	1473.45	2.62	358.42	94.20	118.21	9 21 11	873.4	6.38	351.75
90.00	15 53 30	5331.65	27.54	242.62	99.03	83.15	17 22 22	4731.6	26.31	234.17
100.00	10 7 4	1246.11	1.57	341.13	93.62	119.86	10 27 50	646.1	5.53	334.58
100.00	17 25 44	5034.22	28.74	220.56	98.85	81.39	18 49 38	4434.2	27.25	212.07
110.00	10 51 32	1106.77	-1.07	328.91	91.97	124.17	11 9 59	506.8	3.42	322.70
110.00	18 57 45	4746.32	31.79	198.01	98.16	76.73	20 16 52	4146.3	29.64	189.46

DIFFERENTIAL CORRECTIONS

TDE	.1693	TRA	-.9254	TC3	.9306	BAU	.1742		
RDE	-.2170	RRA	.2408	RC3	-.7403	FAU	.04519		
FDE	-.0967	FRA	1.3866	FC3	-3.5695	BSP	6139		
BDE	.2752	BRA	.9562	BC3	1.1892	FSP	-849		

MID-COURSE EXECUTION ACCURACY

SGT	1819.3	SGR	757.6	SG3	299.3		
RRT	-.8360	RRF	.8880	RTF	-.9151		
SGB	1970.7	R23	-.1559	R13	.9292		
SG1	1931 4	SG2	391.5	THA	159.94		

ORBIT DETERMINATION ACCURACY

ST	585.0	SR	398.2	SS	447.8		
CRT	-.7595	CRS	-.5274	CST	.9515		
LSA	785.1	MSA	290.9	SSA	19.9		
EL1	670.6	EL2	226.0	ALF	148.71		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 304.885

RL	151.72	LAL	.00	LOL	314.09	VL	26.339	GAL	1.58	AZL	89.42	HCA	129.87	SMA	125.70	ECC	.20869	INC	.5813	V1	29.366
RP	107.71	LAP	.45	LOP	83.96	VP	37.531	GAP	-8.83	AZP	90.37	TAL	173.98	TAP	303.85	RCA	99.47	APO	151.94	V2	35.184
RC	49.661	GL	4.78	GP	-22.37	ZAL	72.05	ZAP	28.48	ETS	45.76	ZAE	146.92	ETE	319.87	ZAC	79.28	ETC	260.67	CLP	-18.10

PLANETOCENTRIC CONIC

C3	10.274	VHL	3.205	DLA	-15.90	RAL	241.00	RAD	6567.4	VEL	11.474	PTH	1.99	VHP	6.353	DPA	-42.30	RAP	237.30	ECC	1.1691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 1	1549.31	.18	2.66	92.59	118.32	8 57 50	949.3	3.96	356.02
90.00	16 15 29	5229.53	26.50	235.33	96.82	79.64	17 42 38	4629.5	24.80	227.08
100.00	9 44 32	1315.29	-.78	344.92	92.05	119.88	10 6 28	715.3	3.21	338.40
100.00	17 45 38	4938.79	27.57	213.71	96.58	77.97	19 7 57	4338.8	25.64	205.44
110.00	10 33 13	1162.81	-3.21	331.84	90.53	124.05	10 52 36	562.8	1.28	325.63
110.00	19 13 27	4664.03	30.35	192.03	95.77	73.46	20 31 11	4064.0	27.79	183.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1470	TRA	-.9098	TC3	1.0374	BAU	.1893	SGT	1836.1	SGR	847.7	SG3	326.7	ST	571.7	SR	374.8	SS	454.5
RDE	-.1909	RRA	.2762	RC3	-.9077	FAU	.04821	RRT	-.8640	RRF	.9183	RTF	-.9193	CRT	-.7847	CRS	-.4797	CST	.9184
FDE	-.0343	FRA	1.4742	FC3	-4.0629	BSP	6313	SGB	2022.3	R23	-.1690	R13	.9366	LSA	766.7	MSA	292.4	SSA	20.0
BDE	.2409	BRA	.9508	BC3	1.3785	FSP	-934	SG1	1983.3	SG2	395.1	THA	157.30	EL1	652.6	EL2	203.5	ALF	149.49

LAUNCH DATE AUG 7 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 311.583

RL	151.72	LAL	.00	LOL	314.09	VL	26.422	GAL	1.42	AZL	89.13	HCA	133.10	SMA	126.23	ECC	.20335	INC	.8700	V1	29.366
RP	107.68	LAP	.64	LOP	87.19	VP	37.599	GAP	-8.17	AZP	90.59	TAL	174.41	TAP	307.51	RCA	100.56	APO	151.90	V2	35.193
RC	51.263	GL	7.39	GP	-24.77	ZAL	72.90	ZAP	31.74	ETS	44.56	ZAE	144.75	ETE	317.26	ZAC	76.97	ETC	260.71	CLP	-20.51

PLANETOCENTRIC CONIC

C3	9.725	VHL	3.119	DLA	-13.19	RAL	240.75	RAD	6567.4	VEL	11.451	PTH	1.99	VHP	6.088	DPA	-44.82	RAP	237.31	ECC	1.1601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 33	1634.16	-2.56	7.39	91.29	118.21	8 33 47	1034.2	1.23	.76
90.00	16 38 54	5122.83	24.98	227.89	94.81	76.21	18 4 17	4522.8	22.84	219.88
100.00	9 21 2	1393.88	-3.44	349.24	90.81	119.71	9 44 15	793.9	.54	342.71
100.00	18 7 7	4838.35	25.95	206.69	94.53	74.62	19 27 46	4238.3	23.59	198.69
110.00	10 13 49	1228.53	-5.71	335.29	89.40	123.76	10 34 18	628.5	-1.23	329.06
110.00	19 30 49	4576.46	28.49	185.89	93.62	70.26	20 47 5	3976.5	25.54	177.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1228	TRA	-.8948	TC3	1.1335	BAU	.2056	SGT	1844.4	SGR	960.1	SG3	354.9	ST	554.9	SR	346.3	SS	471.3
RDE	-.1604	RRA	.3191	RC3	-1.1020	FAU	.05125	RRT	-.8861	RRF	.9418	RTF	-.9230	CRT	-.8244	CRS	-.4436	CST	.8706
FDE	.0453	FRA	1.5687	FC3	-4.5626	BSP	6509	SGB	2079.3	R23	-.1785	R13	.9442	LSA	749.2	MSA	297.0	SSA	19.8
BDE	.2020	BRA	.9500	BC3	1.5810	FSP	-1024	SG1	2040.0	SG2	402.4	THA	154.16	EL1	631.0	EL2	172.4	ALF	150.34

LAUNCH DATE AUG 7 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 318.265

RL	151.72	LAL	.00	LOL	314.09	VL	26.498	GAL	1.28	AZL	88.81	HCA	136.32	SMA	126.71	ECC	.19854	INC	1.1910	V1	29.366
RP	107.65	LAP	.82	LOP	90.42	VP	37.660	GAP	-7.53	AZP	90.86	TAL	174.83	TAP	311.16	RCA	101.56	APO	151.87	V2	35.202
RC	52.948	GL	10.39	GP	-27.50	ZAL	73.80	ZAP	35.30	ETS	43.57	ZAE	142.50	ETE	314.32	ZAC	74.31	ETC	260.70	CLP	-23.06

PLANETOCENTRIC CONIC

C3	9.319	VHL	3.053	DLA	-10.10	RAL	240.60	RAD	6567.3	VEL	11.433	PTH	1.98	VHP	5.858	DPA	-47.61	RAP	236.97	ECC	1.1534

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 4	1729.54	-5.61	12.74	90.40	117.80	8 8 54	1129.5	-1.85	6.08
90.00	17 4 9	5010.71	22.95	220.31	93.08	72.94	18 27 40	4410.7	20.39	212.56
100.00	8 56 25	1483.23	-6.43	354.18	89.95	119.25	9 21 8	883.2	-2.49	347.62
100.00	18 30 30	4732.25	23.84	199.52	92.77	71.41	19 49 22	4132.3	21.07	191.81
110.00	9 53 19	1305.07	-8.58	339.35	88.63	123.22	10 15 4	705.1	-4.15	333.06
110.00	19 50 5	4483.18	26.19	179.62	91.79	67.20	21 4 48	3883.2	22.87	172.04

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0946	TRA	-.8796	TC3	1.2032	BAU	.2225	SGT	1839.4	SGR	1096.8	SG3	382.3	ST	533.9	SR	313.9	SS	505.0
RDE	-.1225	RRA	.3712	RC3	-1.3196	FAU	.05405	RRT	-.9019	RRF	.9593	RTF	-.9256	CRT	-.8839	CRS	-.4494	CST	.8119
FDE	.1482	FRA	1.6676	FC3	-5.0209	BSP	6717	SGB	2141.5	R23	-.1836	R13	.9519	LSA	738.4	MSA	305.1	SSA	19.1
BDE	.1548	BRA	.9548	BC3	1.7858	FSP	-1112	SG1	2101.0	SG2	414.7	THA	150.46	EL1	605.7	EL2	129.4	ALF	151.09

LAUNCH DATE AUG 7 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 324.929

RL	151.72	LAL	.00	LOL	314.09	VL	26.565	GAL	1.15	AZL	88.45	HCA	139.55	SMA	127.15	ECC	.19422	INC	1.5525	V1	29.366
RP	107.63	LAP	1.01	LOP	93.65	VP	37.716	GAP	-6.91	AZP	91.18	TAL	175.24	TAP	314.79	RCA	102.45	APO	151.84	V2	35.210
RC	54.707	GL	13.83	GP	-30.62	ZAL	74.74	ZAP	39.18	ETS	42.68	ZAE	140.07	ETE	311.09	ZAC	71.25	ETC	260.60	CLP	-25.75

PLANETOCENTRIC CONIC

C3	9.067	VHL	3.011	DLA	-6.58	RAL	240.56	RAD	6567.3	VEL	11.422	PTH	1.98	VHP	5.670	DPA	-50.72	RAP	236.18	ECC	1.1492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 12 18	1837.34	-8.99	18.85	90.00	116.96	7 42 55	1237.3	-5.30	12.12
90.00	17 31 39	4892.27	20.37	212.58	91.75	69.90	18 53 12	4292.3	17.45	205.12
100.00	8 30 30	1585.04	-9.78	359.89	89.59	118.39	8 56 55	985.0	-5.91	353.23
100.00	18 56 8	4619.80	21.20	192.20	91.42	68.42	20 13 8	4019.8	18.08	184.79
110.00	9 31 34	1393.83	-11.86	344.14	88.35	122.30	9 54 48	793.8	-7.51	337.74
110.00	20 11 33	4383.77	23.41	173.24	90.37	64.35	21 24 37	3783.8	19.76	166.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0632	TRA	-.8649	TC3	1.2393	BAU	.2410	SGT	1821.0	SGR	1261.7	SG3	407.7	ST	511.8	SR	288.6	SS	562.3
RDE	-.0742	RRA	.4354	RC3	-1.5547	FAU	.05641	RRT	-.9128	RRF	.9720	RTF	-.9273	CRT	-.9609	CRS	-.5517	CST	.7556
FDE	.2760	FRA	1.7679	FC3	-5.3861	BSP	6948	SGB	2215.4	R23	-.1823	R13	.9598	LSA	750.2	MSA	313.5	SSA	17.7
BDE	.0975	BRA	.9683	BC3	1.9882	FSP	-1196	SG1	2172.9	SG2	431.8	THA	146.17	EL1	583.4	EL2	70.1	ALF	151.09

LAUNCH DATE AUG 7 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 331.574

RL	151.72	LAL	.00	LOL	314.09	VL	26.626	GAL	1.03	AZL	88.03	HCA	142.78	SMA	127.54	ECC	.19037	INC	1.9654	V1	29.366
RP	107.60	LAP	1.19	LOP	96.89	VP	37.765	GAP	-6.31	AZP	91.57	TAL	175.62	TAP	318.40	RCA	103.26	APO	151.82	V2	35.218
RC	56.533	GL	17.73	GP	-34.16	ZAL	75.73	ZAP	43.39	ETS	41.82	ZAE	137.38	ETE	307.59	ZAC	67.77	ETC	260.41	CLP	-28.58

PLANETOCENTRIC CONIC

C3	8.991	VHL	2.999	DLA	-2.62	RAL	240.67	RAD	6567.3	VEL	11.418	PTH	1.98	VHP	5.531	DPA	-54.17	RAP	234.78	ECC	1.1480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 42 51	1959.88	-12.69	25.96	90.24	115.53	7 15 31	1359.9	-9.15	19.07
90.00	18 1 59	4766.51	17.23	204.69	90.94	67.18	19 21 25	4166.5	13.99	197.51
100.00	8 2 58	1701.43	-13.46	6.56	89.85	116.94	8 31 20	1101.4	-9.74	359.75
100.00	19 24 33	4500.20	18.02	184.74	90.58	65.74	20 39 33	3900.2	14.60	177.62
110.00	9 8 25	1496.57	-15.52	349.84	88.67	120.85	9 33 21	896.6	-11.32	343.26
110.00	20 35 36	4277.82	20.14	166.76	89.48	61.77	21 46 54	3677.8	16.21	159.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0303	TRA	-.8503	TC3	1.2334	BAU	.2618	SGT	1787.6	SGR	1458.8	SG3	428.8	ST	491.8	SR	297.9
RDE	-.0111	RRA	-.5147	RC3	-1.7946	FAU	.05805	RRT	-.9198	RRF	.9810	RTF	-.9280	CRT	-.9969	CRS	-.7500
FDE	.4291	FRA	1.8650	FC3	-5.5895	BSP	7233	SGB	2307.3	R23	-.1736	R13	.9677	LSA	804.4	MSA	317.4
BDE	.0323	BRA	.9939	BC3	2.1776	FSP	-1268	SG1	2262.5	SG2	452.3	THA	141.27	EL1	574.7	EL2	20.1

SS	646.1	CST	.7172	SSA	15.6	ALF	148.84														

LAUNCH DATE AUG 7 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 338.199

RL	151.72	LAL	.00	LOL	314.09	VL	26.680	GAL	.93	AZL	87.56	HCA	146.01	SMA	127.89	ECC	.18695	INC	2.4449	V1	29.366
RP	107.58	LAP	1.37	LOP	100.12	VP	37.810	GAP	-5.73	AZP	92.03	TAL	175.97	TAP	321.98	RCA	103.98	APO	151.80	V2	35.225
RC	58.419	GL	22.12	GP	-38.14	ZAL	76.76	ZAP	47.93	ETS	40.90	ZAE	134.34	ETE	303.89	ZAC	63.82	ETC	260.08	CLP	-31.57

PLANETOCENTRIC CONIC

C3	9.134	VHL	3.022	DLA	1.81	RAL	240.95	RAD	6567.3	VEL	11.425	PTH	1.98	VHP	5.452	DPA	-57.97	RAP	232.57	ECC	1.1503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 11 7	2100.20	-16.64	34.37	91.28	113.25	6 46 7	1500.2	-13.35	27.23
90.00	18 35 55	4632.28	13.51	196.59	90.79	64.88	19 53 8	4032.3	10.02	189.66
100.00	7 33 18	1835.11	-17.43	14.50	90.91	114.67	8 3 53	1235.1	-13.96	7.43
100.00	19 56 26	4372.59	14.29	177.10	90.40	63.46	21 9 18	3772.6	10.62	170.24
110.00	8 43 29	1615.48	-19.54	356.71	89.79	118.62	9 10 24	1015.5	-15.57	349.85
110.00	21 2 45	4165.00	16.37	160.18	89.23	59.56	22 12 10	3565.0	12.21	153.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0040	TRA	-.8336	TC3	1.1671	BAU	.2840	SGT	1731.3	SGR	1687.0	SG3	442.0	ST	474.8	SR	376.8
RDE	.0733	RRA	.6121	RC3	-2.0117	FAU	.05844	RRT	-.9226	RRF	.9871	RTF	-.9269	CRT	-.9336	CRS	-.9113
FDE	.6066	FRA	1.9473	FC3	-5.5392	BSP	7530	SGB	2417.3	R23	-.1582	R13	.9752	LSA	915.3	MSA	312.6
BDE	.0734	BRA	1.0342	BC3	2.3257	FSP	-1313	SG1	2370.1	SG2	475.5	THA	135.81	EL1	596.6	EL2	107.5

SS	753.8	CST	.7060	SSA	13.2	ALF	142.02														

LAUNCH DATE AUG 7 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 344.802

RL	151.72	LAL	.00	LOL	314.09	VL	26.727	GAL	.84	AZL	86.99	HCA	149.24	SMA	128.21	ECC	.18394	INC	3.0120	V1	29.366
RP	107.56	LAP	1.54	LOP	103.36	VP	37.850	GAP	-5.17	AZP	92.59	TAL	176.28	TAP	325.52	RCA	104.62	APO	151.79	V2	35.232
RC	60.358	GL	27.00	GP	-42.60	ZAL	77.84	ZAP	52.76	ETS	39.82	ZAE	130.86	ETE	300.06	ZAC	59.39	ETC	259.58	CLP	-34.70

PLANETOCENTRIC CONIC

C3	9.565	VHL	3.093	DLA	6.70	RAL	241.41	RAD	6567.3	VEL	11.444	PTH	1.99	VHP	5.449	DPA	-62.09	RAP	229.16	ECC	1.1574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 36 6	2262.47	-20.70	44.54	93.35	109.76	6 13 49	1662.5	-17.82	37.05
90.00	19 14 39	4488.00	9.20	188.19	91.50	63.10	20 29 27	3888.0	5.51	181.44
100.00	7 0 39	1989.80	-21.55	24.14	93.01	111.23	7 33 49	1389.8	-18.47	16.70
100.00	20 32 48	4235.89	10.00	169.23	91.07	61.68	21 43 24	3635.9	6.14	162.57
110.00	8 16 12	1753.35	-23.81	5.14	91.96	115.29	8 45 25	1153.3	-20.20	357.85
110.00	21 33 44	4045.11	12.12	153.49	89.81	57.79	22 41 9	3445.1	7.78	147.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0347	TRA	-.8151	TC3	1.0452	BAU	.3087	SGT	1653.5	SGR	1949.1	SG3	444.6	ST	461.0	SR	536.4
RDE	.1853	RRA	.7330	RC3	-2.1761	FAU	.05730	RRT	-.9219	RRF	.9913	RTF	-.9238	CRT	-.8489	CRS	-.9750
FDE	.7966	FRA	2.0064	FC3	-5.1858	BSP	7962	SGB	2556.0	R23	-.1373	R13	.9821	LSA	1082.7	MSA	303.7
BDE	.1886	BRA	1.0962	BC3	2.4141	FSP	-1334	SG1	2507.0	SG2	498.0	THA	129.92	EL1	680.8	EL2	192.1

SS	874.2	CST	.7112	SSA	10.7	ALF	129.92														

LAUNCH DATE AUG 7 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 351.382

RL	151.72	LAL	.00	LOL	314.09	VL	26.769	GAL	.76	AZL	86.30	HCA	152.47	SMA	128.48	ECC	.18131	INC	3.6981	V1	29.366
RP	107.54	LAP	1.71	LOP	106.60	VP	37.884	GAP	-4.62	AZP	93.28	TAL	176.56	TAP	329.02	RCA	105.19	APO	151.78	V2	35.238
RC	62.346	GL	32.36	GP	-47.52	ZAL	78.97	ZAP	57.82	ETS	38.47	ZAE	126.88	ETE	296.18	ZAC	54.50	ETC	258.84	CLP	-37.95

PLANETOCENTRIC CONIC

C3	10.407	VHL	3.226	DLA	12.04	RAL	242.09	RAD	6567.4	VEL	11.480	PTH	2.00	VHP	5.542	DPA	-66.46	RAP	223.93	ECC	1.1713

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 56 3	2453.15	-24.55	57.18	96.75	104.57	5 36 56	1853.1	-22.31	49.23
90.00	20 0 5	4330.89	4.25	179.29	93.33	61.98	21 12 16	3730.9	.47	172.65
100.00	6 23 32	2171.01	-25.52	36.14	96.45	106.12	6 59 43	1571.0	-23.06	28.20
100.00	21 15 18	4088.26	5.13	160.97	92.85	60.51	22 23 26	3488.3	1.16	154.43
110.00	7 45 38	1914.08	-28.07	15:69	95.51	110.37	8 17 32	1314.1	-25.03	7.82
110.00	22 9 40	3917.95	7.42	146.64	91.44	56.54	23 14 58	3317.9	2.97	140.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0585	TRA	-.7929	TC3	.8718	BAU	.3354	SGT	1549.4	SGR	2241.8	SG3	433.0	ST	444.6	SR	766.2
RDE	.3350	RRA	.8826	RC3	-2.2474	FAU	.05426	RRT	-.9171	RRF	.9941	RTF	-.9175	CRT	-.7933	CRS	-.9931
FDE	.9858	FRA	2.0285	FC3	-4.5135	BSP	8473	SGB	2725.1	R23	-.1133	R13	.9877	LSA	1297.3	MSA	293.9
BDE	.3400	BRA	1.1865	BC3	2.4105	FSP	-1311	SG1	2675.5	SG2	517.6	THA	123.80	EL1	851.7	EL2	243.5

SS	992.4	CST	.7171	SSA	8.4	ALF	117.12														

LAUNCH DATE AUG 7 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 357.938

RL	151.72	LAL	.00	LOL	314.09	VL	26.805	GAL	.70	AZL	85.45	HCA	155.69	SMA	128.72	ECC	.17904	INC	4.5508
RP	107.53	LAP	1.87	LOP	109.85	VP	37.915	GAP	-4.09	AZP	94.15	TAL	176.78	TAP	332.47	RCA	105.68	APO	151.77
RC	64.375	GL	38.11	GP	-52.88	ZAL	80.14	ZAP	63.03	ETS	36.75	ZAE	122.36	ETE	292.32	ZAC	49.17	ETC	257.77

V1	29.366	V2	35.243	CLP	-41.27														

PLANETOCENTRIC CONIC

C3	11.875	VHL	3.446	DLA	17.74	RAL	242.99	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	5.765	DPA	-70.91	RAP	215.66
ECC	1.1954																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 7 22	2684.24	-27.52	73.43	101.75	96.97	4 52 6	2084.2	-26.26	64.98
90.00	20 55 57	4154.16	-1.44	169.42	96.73	61.72	22 5 12	3554.2	-5.21	162.77
100.00	5 39 6	2388.41	-28.72	51.48	101.57	98.67	6 18 55	1788.4	-27.22	42.99
100.00	22 6 54	3925.23	-.38	152.01	96.14	60.11	23 12 19	3325.2	-4.35	145.47
110.00	7 10 8	2103.58	-31.81	29.15	100.87	103.22	7 45 12	1503.6	-29.67	20.60
110.00	22 52 21	3782.81	2.29	139.53	94.47	55.88	23 55 24	3182.8	-2.20	133.33

DIFFERENTIAL CORRECTIONS

TDE	-.0812	TRA	-.7749	TC3	.6223	BAU	.3557
RDE	.5459	RRA	1.0783	RC3	-2.1522	FAU	.04822
FDE	1.1747	FRA	2.0196	FC3	-3.5153	BSP	8746
BDE	.5519	BRA	1.3279	BC3	2.2404	FSP	-1202

MID-COURSE EXECUTION ACCURACY

SGT	1425.5	SGR	2562.7	SG3	406.3		
RRT	-.9047	RRF	.9960	RTF	-.9058		
SGB	2932.5	R23	-.0868	R13	.9923		
SG1	2882.4	SG2	539.9	THA	117.77		

ORBIT DETERMINATION ACCURACY

ST	427.9	SR	1069.9	SS	1107.0		
CRT	-.7696	CRS	-.9981	CST	.7297		
LSA	1572.9	MSA	281.0	SSA	6.6		
EL1	1122.5	EL2	260.4	ALF	108.12		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 364.465

RL	151.72	LAL	.00	LOL	314.09	VL	26.836	GAL	.66	AZL	84.35	HCA	158.91	SMA	128.93	ECC	.17710	INC	5.6464
RP	107.51	LAP	2.03	LOP	113.09	VP	37.941	GAP	-3.57	AZP	95.27	TAL	176.95	TAP	335.86	RCA	106.10	APO	151.76
RC	66.441	GL	44.13	GP	-58.63	ZAL	81.38	ZAP	68.22	ETS	34.58	ZAE	117.30	ETE	288.56	ZAC	43.46	ETC	256.23

V1	29.366	V2	35.247	CLP	-44.55														

PLANETOCENTRIC CONIC

C3	14.376	VHL	3.792	DLA	23.69	RAL	244.11	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	6.167	DPA	-75.06	RAP	201.95
ECC	1.2366																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 59 43	2988.56	-28.05	95.60	108.24	85.92	3 49 32	2388.6	-28.32	86.94
90.00	22 12 35	3932.30	-8.49	156.94	102.53	62.89	23 18 7	3332.3	-12.06	150.08
100.00	4 40 3	2665.05	-29.83	71.91	108.35	88.02	5 24 28	2065.0	-29.79	63.10
100.00	23 14 56	3731.05	-6.92	141.30	101.67	60.85	24 17 7	3131.1	-10.75	134.61
110.00	6 26 13	2332.90	-34.06	46.63	108.30	93.13	7 5 6	1732.9	-33.25	37.48
110.00	23 45 15	3635.97	-3.32	131.87	99.45	55.96	24 45 51	3036.0	-7.76	125.60

DIFFERENTIAL CORRECTIONS

TDE	-.0660	TRA	-.7332	TC3	.4160	BAU	.3813
RDE	.8126	RRA	1.3095	RC3	-1.9401	FAU	.04120
FDE	1.2947	FRA	1.9299	FC3	-2.4815	BSP	9516
BDE	.8153	BRA	1.5008	BC3	1.9842	FSP	-1092

MID-COURSE EXECUTION ACCURACY

SGT	1254.4	SGR	2888.3	SG3	361.6		
RRT	-.8836	RRF	.9972	RTF	-.8844		
SGB	3148.9	R23	-.0630	R13	.9953		
SG1	3101.1	SG2	547.0	THA	111.70		

ORBIT DETERMINATION ACCURACY

ST	376.6	SR	1389.3	SS	1160.5		
CRT	-.6848	CRS	-.9995	CST	.6615		
LSA	1828.2	MSA	276.4	SSA	5.0		
EL1	1414.0	EL2	269.6	ALF	100.92		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 370.960

RL	151.72	LAL	.00	LOL	314.09	VL	26.862	GAL	.62	AZL	82.88	HCA	162.12	SMA	129.11	ECC	.17547	INC	7.1155
RP	107.50	LAP	2.18	LOP	116.33	VP	37.962	GAP	-3.07	AZP	96.78	TAL	177.06	TAP	339.18	RCA	106.45	APO	151.76
RC	68.539	GL	50.25	GP	-64.72	ZAL	82.64	ZAP	75.23	ETS	31.93	ZAE	111.72	ETE	284.96	ZAC	37.44	ETC	254.00

V1	29.366	V2	35.251	CLP	-47.50														

PLANETOCENTRIC CONIC

C3	18.730	VHL	4.328	DLA	29.69	RAL	245.45	RAD	6567.8	VEL	11.837	PTH	2.10	VHP	6.831	DPA	-78.12	RAP	178.92
ECC	1.3083																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.68	23 23 29	3766.32	-20.93	150.66	113.33	68.45	24 26 15	3166.3	-23.68	142.95
99.32	1 59 29	3275.45	-20.92	114.58	113.32	68.44	2 54 5	2675.4	-23.67	106.88
100.00	2 34 2	3165.05	-23.29	107.34	114.28	70.72	3 26 47	2565.1	-25.71	99.37
100.00	1 35 34	3351.95	-18.60	119.23	112.29	66.17	2 31 26	2751.9	-21.66	111.77
110.00	5 24 20	2631.14	-32.75	69.71	117.11	79.60	6 8 11	2031.1	-33.83	60.64
110.00	1 1 45	3458.63	-9.99	122.48	107.51	57.14	1 59 23	2858.6	-14.25	115.97

DIFFERENTIAL CORRECTIONS

TDE	-.0147	TRA	-.6815	TC3	.2255	BAU	.3986
RDE	1.1744	RRA	1.6120	RC3	-1.5759	FAU	.03247
FDE	1.3559	FRA	1.7938	FC3	-1.5006	BSP	10316
BDE	1.1745	BRA	1.7502	BC3	1.5920	FSP	-936

MID-COURSE EXECUTION ACCURACY

SGT	1056.9	SGR	3211.4	SG3	304.0		
RRT	-.8390	RRF	.9980	RTF	-.8409		
SGB	3380.9	R23	-.0406	R13	.9972		
SG1	3335.2	SG2	553.7	THA	105.89		

ORBIT DETERMINATION ACCURACY

ST	312.2	SR	1721.1	SS	1165.0		
CRT	-.4841	CRS	-.9999	CST	.4717		
LSA	2083.8	MSA	273.5	SSA	3.8		
EL1	1727.9	EL2	272.1	ALF	95.15		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 377.416

RL	151.72	LAL	.00	LOL	314.09	VL	26.883	GAL	.61	AZL	80.80	HCA	165.31	SMA	129.25	ECC	.17412	INC	9.2013
RP	107.49	LAP	2.32	LOP	119.58	VP	37.981	GAP	-2.58	AZP	98.91	TAL	177.10	TAP	342.41	RCA	106.75	APO	151.76
RC	70.666	GL	56.16	GP	-71.14	ZAL	83.92	ZAP	77.86	ETS	28.89	ZAE	105.59	ETE	281.65	ZAC	31.17	ETC	250.64

V1	29.366	V2	35.254	CLP	-49.40														

PLANETOCENTRIC CONIC

C3	26.780	VHL	5.175	DLA	35.49	RAL	246.93	RAD	6568.1	VEL	12.172	PTH	2.18	VHP	7.912	DPA	-78.69	RAP	146.60
ECC	1.4407																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.66	22 2 19	4124.39	-22.04	178.54	122.35	61.45	23 11 4	3524.4	-25.67	171.16
112.34	3 32 29	3090.61	-22.03	101.07	122.35	61.44	4 23 59	2490.6	-25.66	93.69
67.66	22 2 19	4124.39	-22.04	178.54	122.35	61.45	23 11 4	3524.4	-25.67	171.16
112.34	3 32 29	3090.61	-22.03	101.07	122.35	61.44	4 23 59	2490.6	-25.66	93.69
67.66	22 2 19	4124.39	-22.04	178.54	122.35	61.45	23 11 4	3524.4	-25.67	171.16
112.34	3 32 29	3090.61	-22.03	101.07	122.35	61.44	4 23 59	2490.6	-25.66	93.69

DIFFERENTIAL CORRECTIONS

TDE	.0977	TRA	-.6096	TC3	.0805	BAU	.3957
RDE	1.6816	RRA	2.0203	RC3	-1.1023	FAU	.02264
FDE	1.3556	FRA	1.6199	FC3	-.7318	BSP	11076
BDE	1.6845	BRA	2.1103	BC3	1.1053	FSP	-750

MID-COURSE EXECUTION ACCURACY

SGT	840.1	SGR	3509.2	SG3	239.4		
RRT	-.7364	RRF	.9985	RTF	-.7418		
SGB	3608.4	R23	-.0188	R13	.9984		
SG1	3564.7	SG2	559.6	THA	100.25		

ORBIT DETERMINATION ACCURACY

ST	271.2	SR	2036.4	SS	1121.1		
CRT	-.0067	CRS	-1.0000	CST	.0047		
LSA	2324.6	MSA	271.2	SSA	2.9		
EL1	2036.4	EL2	271.2	ALF	90.05		

LAUNCH DATE AUG 7 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 383.819

RL	151.72	LAL	.00	LOL	314.09	VL	26.901	GAL	.61	AZL	77.59	HCA	168.48	SMA	129.37	ECC	.17306	INC	12.4090	VI	29.366		
RP	107.48	LAP	2.46	LOP	122.83	VP	37.995	GAP	-2.12	AZP	102.17	TAL	177.06	TAP	345.54	RCA	106.98	APO	151.76	V2	35.256		
RC	72.818	GL	61.47	GP	-77.93	ZAL	85.21	ZAP	81.90	ETS	26.00	ZAE	98.81	ETE	279.10	ZAC	24.68	ETC	245.39	CLP	-47.61		

PLANETOCENTRIC CONIC

C3	43.288	VHL	6.579	DLA	40.69	RAL	248.36	RAD	6568.6	VEL	12.832	PTH	2.34	VHP	9.726	DPA	-76.03	RAP	116.96	ECC	1.7124		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.46	21 26 57	4364.44	-20.24	197.03	132.99	53.91	22 39 41	3764.4	-24.80	190.33
120.54	4 19 13	3092.18	-20.22	99.97	132.98	53.90	5 10 45	2492.2	-24.79	93.27
59.46	21 26 57	4364.44	-20.24	197.03	132.99	53.91	22 39 41	3764.4	-24.80	190.33
120.54	4 19 13	3092.18	-20.22	99.97	132.98	53.90	5 10 45	2492.2	-24.79	93.27
59.46	21 26 57	4364.44	-20.24	197.03	132.99	53.91	22 39 41	3764.4	-24.80	190.33
120.54	4 19 13	3092.18	-20.22	99.97	132.98	53.90	5 10 45	2492.2	-24.79	93.27

DIFFERENTIAL CORRECTIONS

TDE	.3271	TRA	-.5059	TC3	.0065	BAU	.3500
RDE	2.4272	RRA	2.6207	RC3	-.6047	FAU	.01268
FDE	1.3055	FRA	1.4412	FC3	-.2537	BSP	11732
BDE	2.4491	BRA	2.6691	BC3	.6047	FSP	-558

MID-COURSE EXECUTION ACCURACY

SGT	647.2	SGR	3763.1	SG3	175.9		
RRT	-.4738	RRF	.9988	RTF	-.4865		
SGB	3818.3	R23	.0026	R13	.9989		
SG1	3775.8	SG2	568.0	THA	94.77		

ORBIT DETERMINATION ACCURACY

ST	333.9	SR	2298.6	SS	1042.5
CRT	.5792	CRS	-1.0000	CST	-.5727
LSA	2531.4	MSA	271.8	SSA	2.3
EL1	2306.9	EL2	271.2	ALF	85.12

LAUNCH DATE AUG 7 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 390.132

RL	151.72	LAL	.00	LOL	314.09	VL	26.914	GAL	.64	AZL	72.03	HCA	171.58	SMA	129.46	ECC	.17226	INC	17.9718	VI	29.366		
RP	107.48	LAP	2.59	LOP	126.08	VP	38.006	GAP	-1.69	AZP	107.79	TAL	176.90	TAP	348.48	RCA	107.16	APO	151.76	V2	35.258		
RC	74.992	GL	65.37	GP	-84.79	ZAL	86.46	ZAP	85.17	ETS	28.21	ZAE	90.89	ETE	282.14	ZAC	18.00	ETC	238.99	CLP	-22.02		

PLANETOCENTRIC CONIC

C3	83.451	VHL	9.135	DLA	44.61	RAL	249.17	RAD	6569.6	VEL	14.311	PTH	2.60	VHP	13.039	DPA	-70.71	RAP	96.13	ECC	2.3734		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.97	21 7 30	4584.80	-14.73	211.73	143.73	47.40	22 23 55	3984.8	-20.06	205.89
126.03	4 45 10	3189.44	-14.72	103.80	143.72	47.40	5 38 20	2589.4	-20.04	97.96
53.97	21 7 30	4584.80	-14.73	211.73	143.73	47.40	22 23 55	3984.8	-20.06	205.89
126.03	4 45 10	3189.44	-14.72	103.80	143.72	47.40	5 38 20	2589.4	-20.04	97.96
53,97	21 7 30	4584.80	-14.73	211.73	143.73	47.40	22 23 55	3984.8	-20.06	205.89
126.03	4 45 10	3189.44	-14.72	103.80	143.72	47.40	5 38 20	2589.4	-20.04	97.96

DIFFERENTIAL CORRECTIONS

TDE	.7895	TRA	-.3665	TC3	-.0009	BAU	.1874
RDE	3.6619	RRA	3.6257	RC3	-.1680	FAU	.00273
FDE	1.2665	FRA	1.3157	FC3	-.0283	BSP	12239
BDE	3.7460	BRA	3.6442	BC3	.1680	FSP	-388

MID-COURSE EXECUTION ACCURACY

SGT	591.1	SGR	3946.1	SG3	121.5		
RRT	.0457	RRF	.9989	RTF	.0231		
SGB	3990.1	R23	.0236	R13	.9989		
SG1	3946.2	SG2	590.5	THA	89.60		

ORBIT DETERMINATION ACCURACY

ST	504.5	SR	2488.6	SS	976.9
CRT	.8318	CRS	-.9998	CST	-.8220
LSA	2706.5	MSA	278.0	SSA	1.8
EL1	2524.2	EL2	276.1	ALF	80.31

LAUNCH DATE AUG 7 1970 FLIGHT TIME 146.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 396.237

RL	151.72	LAL	.00	LOL	314.09	VL	26.924	GAL	.72	AZL	60.32	HCA	174.52	SMA	129.53	ECC	.17174	INC	29.6753	VI	29.366		
RP	107.48	LAP	2.71	LOP	129.32	VP	38.014	GAP	-1.31	AZP	119.56	TAL	176.52	TAP	351.04	RCA	107.29	APO	151.78	V2	35.259		
RC	77.186	GL	65.75	GP	-81.38	ZAL	87.65	ZAP	87.55	ETS	182.51	ZAE	80.16	ETE	77.43	ZAC	12.67	ETC	.87	CLP	73.42		

PLANETOCENTRIC CONIC

C3	213.703	VHL	14.619	DLA	45.37	RAL	247.84	RAD	6571.2	VEL	18.304	PTH	3.03	VHP	20.147	DPA	-62.07	RAP	80.04	ECC	4.5170		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.94	20 58 17	4773.15	-6.46	220.96	151.44	44.99	22 17 50	4173.1	-12.08	215.60
127.06	4 43 46	3357.41	-6.45	111.16	151.42	44.99	5 39 44	2757.4	-12.07	105.80
52.94	20 58 17	4773.15	-6.46	220.96	151.44	44.99	22 17 50	4173.1	-12.08	215.60
127.06	4 43 46	3357.41	-6.45	111.16	151.42	44.99	5 39 44	2757.4	-12.07	105.80
52.94	20 58 17	4773.15	-6.46	220.96	151.44	44.99	22 17 50	4173.1	-12.08	215.60
127.06	4 43 46	3357.41	-6.45	111.16	151.42	44.99	5 39 44	2757.4	-12.07	105.80

DIFFERENTIAL CORRECTIONS

TDE	-1.9068	TRA	-.1025	TC3	-.0381	BAU	.4092
RDE	-6.1276	RRA	-5.7120	RC3	-.1381	FAU	-.01053
FDE	1.4053	FRA	1.3929	FC3	.0427	BSP	12172
BDE	6.4174	BRA	5.7129	BC3	.1432	FSP	-259

MID-COURSE EXECUTION ACCURACY

SGT	757.7	SGR	4010.8	SG3	83.0		
RRT	.6653	RRF	-.9991	RTF	-.6456		
SGB	4081.7	R23	-.0434	R13	-.9985		
SG1	4043.0	SG2	561.2	THA	82.69		

ORBIT DETERMINATION ACCURACY

ST	747.5	SR	2585.0	SS	1041.1
CRT	.9373	CRS	.9998	CST	.9296
LSA	2873.9	MSA	255.4	SSA	1.5
EL1	2679.1	EL2	251.3	ALF	74.70

LAUNCH DATE AUG 7 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 401.574

RL	151.72	LAL	.00	LOL	314.09	VL	26.931	GAL	.95	AZL	28.19	HCA	176.80	SMA	129.58	ECC	.17166	INC	61.8057	VI	29.366		
RP	107.48	LAP	2.82	LOP	132.57	VP	38.018	GAP	-1.14	AZP	151.77	TAL	175.42	TAP	352.22	RCA	107.33	APO	151.82	V2	35.259		
RC	79.396	GL	54.94	GP	-61.61	ZAL	88.60	ZAP	88.87	ETS	184.06	ZAE	60.11	ETE	78.58	ZAC	22.60	ETC	303.26	CLP	87.63		

PLANETOCENTRIC CONIC

C3	840.703	VHL	28.995	DLA	35.81	RAL	240.83	RAD	6572.8	VEL	31.016	PTH	3.47	VHP	38.720	DPA	-43.94	RAP	64.35	ECC	14.8358		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.10	21 34 52	4722.49	-.11	211.26	150.70	54.19	22 53 35	4122.5	-4.78	205.18
112.90	3 11 11	3670.28	-.09	132.32	150.68	54.19	4 12 22	3070.3	-4.76	126.23
67.10	21 34 52	4722.49	-.11	211.26	150.70	54.19	22 53 35	4122.5	-4.78	205.18
112.90	3 11 11	3670.28	-.09	132.32	150.68	54.19	4 12 22	3070.3	-4.76	126.23
67.10	21 34 52	4722.49	-.11	211.26	150.70	54.19	22 53 35	4122.5	-4.78	205.18
112.90	3 11 11	3670.28	-.09	132.32	150.68	54.19	4 12 22	3070.3	-4.76	126.23

DIFFERENTIAL CORRECTIONS

TDE	-4.7427	TRA	-.9000	TC3	-.0869	BAU	3.0217
RDE	-10.6294	RRA	-10.4448	RC3	-.2544	FAU	-.05184
FDE	2.0892	FRA	2.1661	FC3	.0534	BSP	11219
BDE	11.6394	BRA	10.4835	BC3	.2688	FSP	-198

MID-COURSE EXECUTION ACCURACY

SGT	1086.5	SGR	3614.6	SG3	63.8		
RRT	.8327	RRF	-.9996	RTF	-.8213		
SGB	3774.4	R23	-.0601	R13	-.9980		
SG1	3729.1	SG2	583.2	THA	75.59		

ORBIT DETERMINATION ACCURACY

ST	939.6	SR	2235.3	SS	1479.6
CRT	.9615	CRS	.9998	CST	.9565
LSA	2829.5	MSA	250.3	SSA	1.2
EL1	2413.0	EL2	239.3	ALF	67.76

LAUNCH DATE AUG 7 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 411.742

RL 151.72 LAL .00 LOL 314.09 VL 26.934 GAL .29 AZL 149.31 HCA 183.40 SMA 129.60 ECC .17075 INC59.3073 VI 29.366
RP 107.48 LAP 2.92 LOP 135.82 VP 38.020 GAP .29 AZP 30.74 TAL 178.59 TAP 1.99 RCA 107.47 APO 151.73 V2 35.258
RC 81.621 GL -56.00 GP 65.16 ZAL 89.18 ZAP 90.28 ETS 185.96 ZAE 68.33 ETE 287.96 ZAC 144.98 ETC 292.65 CLP 90.67

PLANETOCENTRIC CONIC

C3 780.470 VHL 27.937 DLA -66.84 RAL 185.31 RAD 6572.8 VEL 30.029 PTH 3.45 VHP 35.349 DPA 69.40 RAP 345.65 ECC13.8446

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.54	3 35 39	2414.15	.40	75.87	95.12	156.84	4 15 54	1814.1	7.75	73.12
153.46	13 47 29	682.43	.41	289.76	95.15	156.84	13 58 51	82.4	7.76	287.01
26.54	3 35 39	2414.15	.40	75.87	95.12	156.84	4 15 54	1814.1	7.75	73.12
153.46	13 47 29	682.43	.41	289.76	95.15	156.84	13 58 51	82.4	7.76	287.01
26.54	3 35 39	2414.15	.40	75.87	95.12	156.84	4 15 54	1814.1	7.75	73.12
153.46	13 47 29	682.43	.41	289.76	95.15	156.84	13 58 51	82.4	7.76	287.01

DIFFERENTIAL CORRECTIONS
TDE 6.6931 TRA 1.8552 TC3 -.1257 BAU 2.9526
RD-15.1125 RRA-1.5931 RC3 .2535 FAU-.04785
FDE-3.4371 FRA -.3826 FC3 .0531 BSP 12471
BDE16.5283 BRA 2.4453 BC3 .2830 FSP -218

MID-COURSE EXECUTION ACCURACY
SGT 1820.2 SGR 3507.6 SG3 68.3
RRT -.9480 RRF .9994 RTF -.9515
SGB 3951.8 R23 -.0538 R13 .9981
SG1 3917.6 SG2 518.5 THA 116.70

ORBIT DETERMINATION ACCURACY
ST 1403.2 SR 3109.7 SS 2160.8
CRT -.9918 CRS-1.0000 CST .9924
LSA 4034.9 MSA 166.5 SSA 2.1
EL1 3407.7 EL2 163.6 ALF 114.17

LAUNCH DATE AUG 7 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 417.211

RL 151.72 LAL .00 LOL 314.09 VL 26.935 GAL .51 AZL 121.22 HCA 185.83 SMA 129.60 ECC .17087 INC31.2185 VI 29.366
RP 107.48 LAP 3.02 LOP 139.08 VP 38.019 GAP .49 AZP 58.91 TAL 177.52 TAP 3.34 RCA 107.46 APO 151.75 V2 35.256
RC 83.861 GL -65.54 GP 83.32 ZAL 88.12 ZAP 90.88 ETS 194.73 ZAE 86.17 ETE 294.44 ZAC 161.27 ETC 315.94 CLP 97.60

PLANETOCENTRIC CONIC

C3 235.217 VHL 15.337 DLA -73.48 RAL 164.28 RAD 6571.4 VEL 18.882 PTH 3.07 VHP 18.866 DPA 70.17 RAP 290.89 ECC 4.8711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.85	1 55 18	2321.57	7.81	78.23	71.94	163.32	2 34 0	1721.6	15.46	76.27
161.15	12 40 3	5836.70	7.81	261.94	71.96	163.32	14 17 20	5236.7	15.47	259.98
18.85	1 55 18	2321.57	7.81	78.23	71.94	163.32	2 34 0	1721.6	15.46	76.27
161.15	12 40 3	5836.70	7.81	261.94	71.96	163.32	14 17 20	5236.7	15.47	259.98
18.85	1 55 18	2321.57	7.81	78.23	71.94	163.32	2 34 0	1721.6	15.46	76.27
161.15	12 40 3	5836.70	7.81	261.94	71.96	163.32	14 17 20	5236.7	15.47	259.98

DIFFERENTIAL CORRECTIONS
TDE 5.0004 TRA 1.4586 TC3 -.0917 BAU .5722
RDE-7.2863 RRA-1.5669 RC3 .1572 FAU-.00968
FDE-2.2940 FRA -.5010 FC3 .0356 BSP 13451
BDE 8.8371 BRA 2.1407 BC3 .1820 FSP -291

MID-COURSE EXECUTION ACCURACY
SGT 2690.8 SGR 3446.6 SG3 93.8
RRT -.9882 RRF .9992 RTF -.9899
SGB 4372.6 R23 -.0420 R13 .9984
SG1 4360.5 SG2 325.6 THA 127.90

ORBIT DETERMINATION ACCURACY
ST 1954.5 SR 2791.3 SS 1433.5
CRT -.9972 CRS-1.0000 CST .9974
LSA 3694.7 MSA 124.0 SSA 1.8
EL1 3405.4 EL2 120.8 ALF 124.97

LAUNCH DATE AUG 7 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 423.266

RL 151.72 LAL .00 LOL 314.09 VL 26.933 GAL .63 AZL 110.70 HCA 188.80 SMA 129.59 ECC .17112 INC20.7018 VI 29.366
RP 107.49 LAP 3.10 LOP 142.33 VP 38.016 GAP .84 AZP 69.52 TAL 176.94 TAP 5.73 RCA 107.41 APO 151.76 V2 35.254
RC 86.111 GL -66.14 GP 86.14 ZAL 86.92 ZAP 92.34 ETS 335.69 ZAE 95.65 ETE 74.26 ZAC 167.42 ETC 122.51 CLP-127.38

PLANETOCENTRIC CONIC

C3 108.358 VHL 10.410 DLA -74.88 RAL 163.84 RAD 6570.1 VEL 15.156 PTH 2.72 VHP 12.462 DPA 64.76 RAP 269.00 ECC 2.7833

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.24	1 50 15	2189.60	16.73	77.27	69.16	164.19	2 26 45	1589.6	24.42	75.31
162.76	12 41 36	5698.12	16.74	259.36	69.19	164.19	14 16 34	5098.1	24.42	257.39
17.24	1 50 15	2189.60	16.73	77.27	69.16	164.19	2 26 45	1589.6	24.42	75.31
162.76	12 41 36	5698.12	16.74	259.36	69.19	164.19	14 16 34	5098.1	24.42	257.39
17.24	1 50 15	2189.60	16.73	77.27	69.16	164.19	2 26 45	1589.6	24.42	75.31
162.76	12 41 36	5698.12	16.74	259.36	69.19	164.19	14 16 34	5098.1	24.42	257.39

DIFFERENTIAL CORRECTIONS
TDE 4.2099 TRA .1995 TC3 -.0144 BAU .0760
RDE 4.5042 RRA 1.3964 RC3 .0504 FAU .00533
FDE-2.3160 FRA -.4685 FC3 -.0426 BSP 14210
BDE 6.1653 BRA 1.4106 BC3 .0525 FSP -443

MID-COURSE EXECUTION ACCURACY
SGT 2355.3 SGR 3851.8 SG3 139.6
RRT .7696 RRF -.9773 RTF -.8850
SGB 4514.8 R23 .0441 R13 -.9983
SG1 4310.1 SG2 1344.0 THA 61.82

ORBIT DETERMINATION ACCURACY
ST 2320.6 SR 2632.0 SS 1409.2
CRT .9588 CRS .9935 CST .9849
LSA 3748.2 MSA 499.7 SSA 2.0
EL1 3473.2 EL2 499.5 ALF 48.75

LAUNCH DATE AUG 7 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 429.461

RL 151.72 LAL .00 LOL 314.09 VL 26.928 GAL .74 AZL 105.55 HCA 191.91 SMA 129.56 ECC .17153 INC15.5528 VI 29.366
RP 107.50 LAP 3.17 LOP 145.58 VP 38.009 GAP 1.22 AZP 74.77 TAL 176.45 TAP 8.36 RCA 107.33 APO 151.78 V2 35.251
RC 88.372 GL -64.28 GP 79.05 ZAL 85.66 ZAP 94.59 ETS 8.91 ZAE 102.33 ETE 106.98 ZAC 167.79 ETC 186.70 CLP-114.91

PLANETOCENTRIC CONIC

C3 64.220 VHL 8.014 DLA -75.12 RAL 172.01 RAD 6569.2 VEL 13.623 PTH 2.49 VHP 9.381 DPA 59.60 RAP 257.83 ECC 2.0569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.96	2 22 18	2072.15	24.48	75.62	75.05	163.61	2 56 50	1472.1	32.13	73.38
163.04	13 14 46	5579.59	24.48	257.43	75.08	163.61	14 47 46	4979.6	32.14	255.19
16.96	2 22 18	2072.15	24.48	75.62	75.05	163.61	2 56 50	1472.1	32.13	73.38
163.04	13 14 46	5579.59	24.48	257.43	75.08	163.61	14 47 46	4979.6	32.14	255.19
16.96	2 22 18	2072.15	24.48	75.62	75.05	163.61	2 56 50	1472.1	32.13	73.38
163.04	13 14 46	5579.59	24.48	257.43	75.08	163.61	14 47 46	4979.6	32.14	255.19

DIFFERENTIAL CORRECTIONS
TDE -.6844 TRA -.5017 TC3 -.1918 BAU .3013
RDE 5.2312 RRA .7495 RC3 .2939 FAU .01690
FDE-2.8196 FRA -.3990 FC3 -.2278 BSP 14343
BDE 5.2758 BRA .9020 BC3 .3509 FSP -636

MID-COURSE EXECUTION ACCURACY
SGT 1511.8 SGR 4308.8 SG3 201.4
RRT -.7507 RRF -.9988 RTF .7524
SGB 4566.4 R23 .0560 R13 -.9973
SG1 4463.4 SG2 964.1 THA 105.50

ORBIT DETERMINATION ACCURACY
ST 644.3 SR 3792.2 SS 1656.1
CRT -.8564 CRS 1.0000 CST -.8554
LSA 4174.9 MSA 329.9 SSA 2.6
EL1 3832.5 EL2 329.2 ALF 98.34

LAUNCH DATE AUG 7 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 435.695

RL	151.72	LAL	.00	LOL	314.09	VL	26.921	GAL	.84	AZL	102.53	HCA	195.08	SMA	129.51	ECC	.17210	INC	12.5295
RP	107.51	LAP	3.24	LOP	148.83	VP	38.001	GAP	1.61	AZP	77.89	TAL	175.96	TAP	11.04	RCA	107.22	APO	151.80
RC	90.641	GL	-61.61	GP	72.79	ZAL	84.33	ZAP	97.51	ETS	15.70	ZAE	107.67	ETE	113.95	ZAC	164.75	ETC	213.69

V1	29.366	V2	35.247	CLP	-116.19														

PLANETOCENTRIC CONIC

C3	44.066	VHL	6.638	DLA	-74.60	RAL	182.60	RAD	6568.7	VEL	12.862	PTH	2.34	VHP	7.646	DPA	54.80	RAP	250.36
ECC	1.7252																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.56	3 5 45	1977.90	30.46	73.33	83.26	162.05	3 38 43	1377.9	38.03	70.63
162.44	13 55 46	5487.70	30.46	255.74	83.29	162.05	15 27 14	4887.7	38.04	253.04
17.56	3 5 45	1977.90	30.46	73.33	83.26	162.05	3 38 43	1377.9	38.03	70.63
162.44	13 55 46	5487.70	30.46	255.74	83.29	162.05	15 27 14	4887.7	38.04	253.04
17.56	3 5 45	1977.90	30.46	73.33	83.26	162.05	3 38 43	1377.9	38.03	70.63
162.44	13 55 46	5487.70	30.46	255.74	83.29	162.05	15 27 14	4887.7	38.04	253.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.6864	TRA	-.4161	TC3	-.4451	BAU	.4112	SGT	2072.5	SGR	4102.8	SG3	274.7	ST	1511.1	SR	3868.7
RDE	4.4621	RRA	.3758	RC3	.5377	FAU	.02819	RRT	-.9030	RRF	-.9983	RTF	.9087	CRT	-.9844	CRS	1.0000
FDE	-3.4166	FRA	-.2870	FC3	-.5538	BSP	14519	SGB	4596.5	R23	.0673	R13	-.9962	LSA	4584.4	MSA	251.7
BDE	4.7701	BRA	.5606	BC3	.6980	FSP	-869	SG1	4525.1	SG2	807.5	THA	115.39	EL1	4145.9	EL2	248.3

SS	1956.8	CST	-.9843
SSA	3.4	ALF	111.11

LAUNCH DATE AUG 7 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 441.937

RL	151.72	LAL	.00	LOL	314.09	VL	26.912	GAL	.95	AZL	100.54	HCA	198.28	SMA	129.45	ECC	.17283	INC	10.5405
RP	107.53	LAP	3.29	LOP	152.08	VP	37.990	GAP	2.01	AZP	79.98	TAL	175.44	TAP	13.72	RCA	107.07	APO	151.82
RC	92.917	GL	-58.68	GP	67.07	ZAL	82.94	ZAP	100.94	ETS	20.20	ZAE	112.13	ETE	119.33	ZAC	160.47	ETC	228.14

V1	29.366	V2	35.243	CLP	-119.14														

PLANETOCENTRIC CONIC

C3	33.203	VHL	5.762	DLA	-73.47	RAL	192.91	RAD	6568.3	VEL	12.433	PTH	2.25	VHP	6.576	DPA	50.22	RAP	244.70
ECC	1.5464																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.86	3 49 32	1903.76	34.85	70.37	90.97	159.71	4 21 16	1303.8	42.30	67.05
161.14	14 34 15	5418.93	34.85	254.09	91.00	159.71	16 4 34	4818.9	42.30	250.77
18.86	3 49 32	1903.76	34.85	70.37	90.97	159.71	4 21 16	1303.8	42.30	67.05
161.14	14 34 15	5418.93	34.85	254.09	91.00	159.71	16 4 34	4818.9	42.30	250.77
18.86	3 49 32	1903.76	34.85	70.37	90.97	159.71	4 21 16	1303.8	42.30	67.05
161.14	14 34 15	5418.93	34.85	254.09	91.00	159.71	16 4 34	4818.9	42.30	250.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1503	TRA	-.2913	TC3	-.7601	BAU	.4744	SGT	2525.0	SGR	3860.9	SG3	352.0	ST	2160.0	SR	3736.6
RDE	3.7552	RRA	.1327	RC3	.7512	FAU	.03920	RRT	-.9452	RRF	-.9977	RTF	.9498	CRT	-.9945	CRS	1.0000
FDE	-3.8962	FRA	-.1279	FC3	-1.0220	BSP	14603	SGB	4613.3	R23	.0763	R13	-.9950	LSA	4841.3	MSA	203.7
BDE	4.3273	BRA	.3201	BC3	1.0687	FSP	-1112	SG1	4560.1	SG2	698.2	THA	122.58	EL1	4311.6	EL2	195.8

SS	2202.6	CST	-.9942
SSA	4.3	ALF	119.96

LAUNCH DATE AUG 7 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 448.174

RL	151.72	LAL	.00	LOL	314.09	VL	26.901	GAL	1.07	AZL	99.13	HCA	201.49	SMA	129.37	ECC	.17372	INC	9.1280
RP	107.54	LAP	3.33	LOP	155.33	VP	37.978	GAP	2.40	AZP	81.50	TAL	174.89	TAP	16.38	RCA	106.90	APO	151.85
RC	95.197	GL	-55.69	GP	61.73	ZAL	81.49	ZAP	104.73	ETS	23.65	ZAE	115.86	ETE	124.31	ZAC	155.89	ETC	236.45

V1	29.366	V2	35.238	CLP	-122.46														

PLANETOCENTRIC CONIC

C3	26.684	VHL	5.166	DLA	-71.93	RAL	201.98	RAD	6568.1	VEL	12.168	PTH	2.18	VHP	5.884	DPA	45.82	RAP	240.19
ECC	1.4391																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.63	4 29 25	1844.98	37.96	66.88	97.23	156.83	5 0 10	1245.0	45.23	62.84
159.37	15 6 45	5368.23	37.96	252.41	97.24	156.83	16 36 13	4768.2	45.24	248.36
20.63	4 29 25	1844.98	37.96	66.88	97.23	156.83	5 0 10	1245.0	45.23	62.84
159.37	15 6 45	5368.23	37.96	252.41	97.24	156.83	16 36 13	4768.2	45.24	248.36
20.63	4 29 25	1844.98	37.96	66.88	97.23	156.83	5 0 10	1245.0	45.23	62.84
159.37	15 6 45	5368.23	37.96	252.41	97.24	156.83	16 36 13	4768.2	45.24	248.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3812	TRA	-.1594	TC3	-1.1223	BAU	.5169	SGT	2940.2	SGR	3582.1	SG3	426.1	ST	2646.9	SR	3452.8
RDE	3.1126	RRA	-.0345	RC3	.9164	FAU	.04937	RRT	-.9634	RRF	-.9970	RTF	.9671	CRT	-.9972	CRS	1.0000
FDE	-4.1816	FRA	.0723	FC3	-1.6018	BSP	14709	SGB	4634.2	R23	.0837	R13	-.9938	LSA	4945.7	MSA	173.3
BDE	3.9190	BRA	.1631	BC3	1.4489	FSP	-1349	SG1	4593.2	SG2	615.1	THA	129.17	EL1	4347.7	EL2	158.6

SS	2358.5	CST	-.9967
SSA	5.5	ALF	127.45

LAUNCH DATE AUG 7 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 454.398

RL	151.72	LAL	.00	LOL	314.09	VL	26.888	GAL	1.20	AZL	98.07	HCA	204.70	SMA	129.28	ECC	.17477	INC	8.0684
RP	107.56	LAP	3.36	LOP	158.58	VP	37.963	GAP	2.80	AZP	82.66	TAL	174.30	TAP	19.00	RCA	106.69	APO	151.88
RC	97.481	GL	-52.73	GP	56.74	ZAL	79.96	ZAP	108.72	ETS	26.35	ZAE	118.92	ETE	129.12	ZAC	151.36	ETC	241.66

V1	29.366	V2	35.232	CLP	-125.83														

PLANETOCENTRIC CONIC

C3	22.477	VHL	4.741	DLA	-70.13	RAL	209.70	RAD	6567.9	VEL	11.994	PTH	2.14	VHP	5.428	DPA	41.58	RAP	236.55
ECC	1.3699																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.71	5 4 36	1797.60	40.06	63.03	102.00	153.64	5 34 34	1197.6	47.12	58.23
157.29	15 33 10	5331.34	40.07	250.72	102.02	153.63	17 2 1	4731.3	47.12	245.92
22.71	5 4 36	1797.60	40.06	63.03	102.00	153.64	5 34 34	1197.6	47.12	58.23
157.29	15 33 10	5331.34	40.07	250.72	102.02	153.63	17 2 1	4731.3	47.12	245.92
22.71	5 4 36	1797.60	40.06	63.03	102.00	153.64	5 34 34	1197.6	47.12	58.23
157.29	15 33 10	5331.34	40.07	250.72	102.02	153.63	17 2 1	4731.3	47.12	245.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4750	TRA	-.0242	TC3	-1.5123	BAU	.5486	SGT	3318.2	SGR	3276.8	SG3	490.2	ST	2991.6	SR	3088.5
RDE	2.5521	RRA	-.1500	RC3	1.0227	FAU	.05798	RRT	-.9721	RRF	-.9962	RTF	.9755	CRT	-.9982	CRS	.9999
FDE	-4.2655	FRA	.2991	FC3	-2.2334	BSP	14802	SGB	4663.5	R23	.0892	R13	-.9926	LSA	4932.8	MSA	154.3
BDE	3.5551	BRA	.1520	BC3	1.8257	FSP	-1556	SG1	4630.9	SG2	550.5	THA	135.37	EL1	4297.9	EL2	130.3

SS	2422.4	CST	-.9975
SSA	6.6	ALF	134.08

LAUNCH DATE AUG 7 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 460.607

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RL  151.72 LAL    .00 LOL 314.09 VL  26.873 GAL   1.35 AZL  97.24 HCA 207.93 SMA 129.18 ECC .17598 INC 7.2400 V1  29.366
RP  107.58 LAP   3.38 LOP 161.83 VP  37.947 GAP   3.19 AZP  83.60 TAL 173.67 TAP  21.59 RCA 106.45 APO 151.92 V2  35.226
RC  99.767 GL  -49.84 GP   52.09 ZAL  78.36 ZAP 112.79 ETS  28.45 ZAE 121.35 ETE 133.78 ZAC 147.04 ETC 245.15 CLP-129.09
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PLANETOCENTRIC CONIC

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C3  19.625 VHL  4.430 DLA -68.18 RAL 216.27 RAD 6567.8 VEL 11.875 PTH   2.11 VHP   5.130 DPA  37.52 RAP 233.60 ECC 1.3230
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.97	5 35 42	1758.61	41.38	59.01	105.61	150.31	6 5 1	1158.6	48.18	53.49
155.03	15 54 28	5305.19	41.38	249.09	105.63	150.31	17 22 53	4705.2	48.19	243.58
24.97	5 35 42	1758.61	41.38	59.01	105.61	150.31	6 5 1	1158.6	48.18	53.49
155.03	15 54 28	5305.19	41.38	249.09	105.63	150.31	17 22 53	4705.2	48.19	243.58
24.97	5 35 42	1758.61	41.38	59.01	105.61	150.31	6 5 1	1158.6	48.18	53.49
155.03	15 54 28	5305.19	41.38	249.09	105.63	150.31	17 22 53	4705.2	48.19	243.58

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4883 TRA  .1124 TC3-1.9165 BAU  .5766   SGT 3659.7 SGR 2969.5 SG3  541.1    ST  3220.8 SR  2707.9 SS  2412.3
RDE 2.0854 RRA -.2291 RC3 1.0755 FAU .06482   RRT -.9763 RRF -.9951 RTF  .9798    CRT -.9986 CRS  .9999 CST -.9978
FDE-4.1855 FRA  .5372 FC3-2.8594 BSP  14965   SGB 4712.9 R23  .0931 R13 -.9915    LSA 4848.2 MSA  143.7 SSA    7.7
BDE 3.2466 BRA  .2552 BC3 2.1977 FSP  -1728   SG1 4686.1 SG2  502.0 THA 141.08    EL1 4206.5 EL2  108.3 ALF 139.95
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 466.798

```
RL  151.72 LAL    .00 LOL 314.09 VL  26.857 GAL   1.50 AZL  96.57 HCA 211.15 SMA 129.07 ECC .17734 INC 6.5709 V1  29.366
RP  107.60 LAP   3.39 LOP 165.07 VP  37.929 GAP   3.57 AZP  84.37 TAL 172.99 TAP  24.14 RCA 106.18 APO 151.96 V2  35.218
RC 102.053 GL  -47.03 GP   47.79 ZAL  76.69 ZAP 116.83 ETS  30.06 ZAE 123.22 ETE 138.24 ZAC 143.02 ETC 247.61 CLP-132.21
```

PLANETOCENTRIC CONIC

```
C3  17.629 VHL  4.199 DLA -66.16 RAL 221.93 RAD 6567.7 VEL 11.790 PTH   2.08 VHP   4.942 DPA  33.67 RAP 231.26 ECC 1.2901
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.33	6 3 33	1725.92	42.08	54.96	108.41	147.00	6 32 19	1125.9	48.61	48.79
152.67	16 11 47	5287.52	42.09	247.62	108.42	147.00	17 39 54	4687.5	48.62	241.45
27.33	6 3 33	1725.92	42.08	54.96	108.41	147.00	6 32 19	1125.9	48.61	48.79
152.67	16 11 47	5287.52	42.09	247.62	108.42	147.00	17 39 54	4687.5	48.62	241.45
27.33	6 3 33	1725.92	42.08	54.96	108.41	147.00	6 32 19	1125.9	48.61	48.79
152.67	16 11 47	5287.52	42.09	247.62	108.42	147.00	17 39 54	4687.5	48.62	241.45

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4515 TRA  .2518 TC3-2.3167 BAU  .6023   SGT 3962.2 SGR 2670.8 SG3  576.4    ST  3355.6 SR  2342.8 SS  2342.4
RDE 1.7039 RRA -.2819 RC3 1.0789 FAU .06957   RRT -.9781 RRF -.9937 RTF  .9821    CRT -.9989 CRS  .9998 CST -.9978
FDE-3.9780 FRA  .7725 FC3-3.4167 BSP  15168   SGB 4778.3 R23  .0946 R13 -.9904    LSA 4713.4 MSA  138.0 SSA    8.8
BDE 2.9855 BRA  .3780 BC3 2.5556 FSP  -1853   SG1 4755.8 SG2  463.4 THA 146.24    EL1 4091.6 EL2   89.3 ALF 145.09
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 472.970

```
RL  151.72 LAL    .00 LOL 314.09 VL  26.839 GAL   1.67 AZL  96.02 HCA 214.38 SMA 128.95 ECC .17886 INC 6.0162 V1  29.366
RP  107.63 LAP   3.39 LOP 168.32 VP  37.909 GAP   3.96 AZP  85.03 TAL 172.28 TAP  26.66 RCA 105.89 APO 152.02 V2  35.211
RC 104.339 GL  -44.30 GP   43.85 ZAL  74.96 ZAP 120.75 ETS  31.29 ZAE 124.57 ETE 142.43 ZAC 139.33 ETC 249.41 CLP-135.16
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PLANETOCENTRIC CONIC

```
C3  16.207 VHL  4.026 DLA -64.10 RAL 226.90 RAD 6567.6 VEL 11.730 PTH   2.07 VHP   4.836 DPA  30.04 RAP 229.44 ECC 1.2667
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.75	6 28 55	1697.98	42.30	50.98	110.67	143.81	6 57 13	1098.0	48.55	44.26
150.25	16 26 2	5276.78	42.31	246.35	110.68	143.80	17 53 59	4676.8	48.55	239.64
29.75	6 28 55	1697.98	42.30	50.98	110.67	143.81	6 57 13	1098.0	48.55	44.26
150.25	16 26 2	5276.78	42.31	246.35	110.68	143.80	17 53 59	4676.8	48.55	239.64
29.75	6 28 55	1697.98	42.30	50.98	110.67	143.81	6 57 13	1098.0	48.55	44.26
150.25	16 26 2	5276.78	42.31	246.35	110.68	143.80	17 53 59	4676.8	48.55	239.64

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3825 TRA  .3976 TC3-2.6932 BAU  .6254   SGT 4228.2 SGR 2391.9 SG3  596.7    ST  3413.5 SR  2010.5 SS  2227.0
RDE 1.3955 RRA -.3188 RC3 1.0374 FAU .07201   RRT -.9780 RRF -.9917 RTF  .9831    CRT -.9991 CRS  .9996 CST -.9975
FDE-3.6803 FRA 1.0026 FC3-3.8466 BSP  15324   SGB 4857.8 R23  .0955 R13 -.9891    LSA 4542.6 MSA  137.2 SSA    9.8
BDE 2.7611 BRA  .5096 BC3 2.8861 FSP  -1919   SG1 4838.3 SG2  435.7 THA 150.79    EL1 3960.9 EL2   72.8 ALF 149.51
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 479.121

```
RL  151.72 LAL    .00 LOL 314.09 VL  26.820 GAL   1.85 AZL  95.55 HCA 217.60 SMA 128.83 ECC .18053 INC 5.5461 V1  29.366
RP  107.65 LAP   3.38 LOP 171.56 VP  37.888 GAP   4.34 AZP  85.60 TAL 171.53 TAP  29.13 RCA 105.57 APO 152.08 V2  35.202
RC 106.624 GL  -41.65 GP   40.27 ZAL  73.16 ZAP 124.50 ETS  32.23 ZAE 125.49 ETE 146.31 ZAC 135.99 ETC 250.76 CLP-137.93
```

PLANETOCENTRIC CONIC

```
C3  15.194 VHL  3.898 DLA -62.03 RAL 231.33 RAD 6567.6 VEL 11.687 PTH   2.06 VHP   4.792 DPA  26.64 RAP 228.07 ECC 1.2501
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.19	6 52 23	1673.70	42.13	47.14	112.61	140.78	7 20 17	1073.7	48.09	39.98
147.81	16 37 54	5271.85	42.14	245.34	112.63	140.77	18 5 46	4671.8	48.10	238.19
32.19	6 52 23	1673.70	42.13	47.14	112.61	140.78	7 20 17	1073.7	48.09	39.98
147.81	16 37 54	5271.85	42.14	245.34	112.63	140.77	18 5 46	4671.8	48.10	238.19
32.19	6 52 23	1673.70	42.13	47.14	112.61	140.78	7 20 17	1073.7	48.09	39.98
147.81	16 37 54	5271.85	42.14	245.34	112.63	140.77	18 5 46	4671.8	48.10	238.19

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2979 TRA  .5438 TC3-3.0481 BAU  .6500   SGT 4467.6 SGR 2139.8 SG3  604.1    ST  3416.9 SR  1724.5 SS  2087.5
RDE 1.1528 RRA -.3391 RC3  .9748 FAU .07301   RRT -.9771 RRF -.9892 RTF  .9837    CRT -.9993 CRS  .9992 CST -.9971
FDE-3.3421 FRA 1.2040 FC3-4.1603 BSP  15626   SGB 4953.6 R23  .0926 R13 -.9882    LSA 4357.4 MSA  137.9 SSA   10.8
BDE 2.5708 BRA  .6408 BC3 3.2001 FSP  -1960   SG1 4936.5 SG2  412.1 THA 154.73    EL1 3827.0 EL2   56.3 ALF 153.23
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 485.251

```
RL  151.72 LAL    .00 LOL 314.09 VL  26.800 GAL   2.05 AZL  95.14 HCA 220.83 SMA 128.69 ECC .18237 INC 5.1404 V1  29.366
RP  107.68 LAP   3.36 LOP 174.80 VP  37.865 GAP   4.72 AZP  86.11 TAL 170.74 TAP  31.57 RCA 105.22 APO 152.16 V2  35.193
RC 108.906 GL  -39.09 GP   37.03 ZAL  71.30 ZAP 128.04 ETS  32.93 ZAE 126.05 ETE 149.83 ZAC 133.00 ETC 251.81 CLP-140.53
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PLANETOCENTRIC CONIC

```
C3  14.483 VHL  3.806 DLA -59.97 RAL 235.34 RAD 6567.6 VEL 11.656 PTH   2.05 VHP  4.794 DPA  23.48 RAP 227.11 ECC 1.2384
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.64	7 14 28	1652.17	41.65	43.46	114.38	137.95	7 42 0	1052.2	47.34	35.97
145.36	16 47 50	5272.01	41.67	244.62	114.40	137.94	18 15 42	4672.0	47.35	237.13
34.64	7 14 28	1652.17	41.65	43.46	114.38	137.95	7 42 0	1052.2	47.34	35.97
145.36	16 47 50	5272.01	41.67	244.62	114.40	137.94	18 15 42	4672.0	47.35	237.13
34.64	7 14 28	1652.17	41.65	43.46	114.38	137.95	7 42 0	1052.2	47.34	35.97
145.36	16 47 50	5272.01	41.67	244.62	114.40	137.94	18 15 42	4672.0	47.35	237.13

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2016 TRA  .6947 TC3-3.3645 BAU  .6741   SGT 4681.0 SGR 1915.3 SG3  600.8     ST  3374.2 SR  1481.3 SS  1931.4
RDE  .9612 RRA -.3505 RC3  .8938 FAU .07251   RRT -.9751 RRF -.9858 RTF  .9840     CRT -.9996 CRS  .9984 CST -.9965
FDE-2.9836 FRA 1.3821 FC3-4.3342 BSP  15939   SGB 5057.7 R23  .0877 R13 -.9872     LSA 4158.1 MSA  141.0 SSA   11.7
BDE-2.4022 BRA  .7781 BC3 3.4812 FSP  -1964   SG1 5042.2 SG2  394.6 THA 158.11     EL1 3684.8 EL2   40.2 ALF 156.30
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 491.356

```
RL  151.72 LAL    .00 LOL 314.09 VL  26.778 GAL   2.26 AZL  94.78 HCA 224.06 SMA 128.55 ECC .18438 INC 4.7845 V1  29.366
RP  107.71 LAP   3.32 LOP 178.04 VP  37.841 GAP   5.11 AZP  86.56 TAL 169.91 TAP  33.97 RCA 104.85 APO 152.25 V2  35.184
RC 111.186 GL  -36.60 GP   34.12 ZAL  69.40 ZAP 131.37 ETS  33.48 ZAE 126.34 ETE 152.98 ZAC 130.35 ETC 252.64 CLP-142.97
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PLANETOCENTRIC CONIC

```
C3  14.009 VHL  3.743 DLA -57.92 RAL 239.01 RAD 6567.6 VEL 11.636 PTH   2.04 VHP  4.834 DPA  20.56 RAP 226.50 ECC 1.2306
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.10	7 35 27	1632.80	40.94	39.97	116.07	135.34	8 2 40	1032.8	46.35	32.24
142.90	16 56 9	5276.68	40.95	244.21	116.09	135.33	18 24 5	4676.7	46.36	236.47
37.10	7 35 27	1632.80	40.94	39.97	116.07	135.34	8 2 40	1032.8	46.35	32.24
142.90	16 56 9	5276.68	40.95	244.21	116.09	135.33	18 24 5	4676.7	46.36	236.47
37.10	7 35 27	1632.80	40.94	39.97	116.07	135.34	8 2 40	1032.8	46.35	32.24
142.90	16 56 9	5276.68	40.95	244.21	116.09	135.33	18 24 5	4676.7	46.36	236.47

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1168 TRA  .8305 TC3-3.6913 BAU  .7087   SGT 4885.5 SGR 1721.7 SG3  589.9     ST  3320.1 SR  1292.2 SS  1789.3
RDE  .8211 RRA -.3463 RC3  .8324 FAU .07268   RRT -.9730 RRF -.9814 RTF  .9851     CRT -.9998 CRS  .9973 CST -.9960
FDE-2.6669 FRA 1.4979 FC3-4.4916 BSP  16781   SGB 5180.0 R23  .0745 R13 -.9872     LSA 3984.3 MSA  140.4 SSA   12.5
BDE 2.2705 BRA  .8998 BC3 3.7840 FSP  -2021   SG1 5166.3 SG2  375.8 THA 160.97     EL1 3562.7 EL2   22.8 ALF 158.74
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 497.443

```
RL  151.72 LAL    .00 LOL 314.09 VL  26.756 GAL   2.48 AZL  94.47 HCA 227.28 SMA 128.40 ECC .18656 INC 4.4680 V1  29.366
RP  107.74 LAP   3.28 LOP 181.28 VP  37.816 GAP   5.49 AZP  86.97 TAL 169.05 TAP  36.33 RCA 104.44 APO 152.35 V2  35.174
RC 113.462 GL  -34.20 GP   31.52 ZAL  67.45 ZAP 134.47 ETS  33.91 ZAE 126.41 ETE 155.77 ZAC 128.01 ETC 253.32 CLP-145.26
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PLANETOCENTRIC CONIC

```
C3  13.728 VHL  3.705 DLA -55.90 RAL 242.42 RAD 6567.5 VEL 11.624 PTH   2.04 VHP  4.903 DPA 17.85 RAP 226.21 ECC 1.2259
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.56	7 55 39	1615.06	40.02	36.67	117.76	132.94	8 22 35	1015.1	45.19	28.77
140.44	17 3 7	5285.53	40.03	244.11	117.77	132.93	18 31 13	4685.5	45.20	236.21
39.56	7 55 39	1615.06	40.02	36.67	117.76	132.94	8 22 35	1015.1	45.19	28.77
140.44	17 3 7	5285.53	40.03	244.11	117.77	132.93	18 31 13	4685.5	45.20	236.21
39.56	7 55 39	1615.06	40.02	36.67	117.76	132.94	8 22 35	1015.1	45.19	28.77
140.44	17 3 7	5285.53	40.03	244.11	117.77	132.93	18 31 13	4685.5	45.20	236.21

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9959 TRA 1.0065 TC3-3.8761 BAU  .7235   SGT 5048.2 SGR 1548.3 SG3  571.8     ST  3198.0 SR  1115.5 SS  1612.3
RDE  .6959 RRA -.3545 RC3  .7177 FAU .06882   RRT -.9678 RRF -.9756 RTF  .9839     CRT -.9999 CRS  .9947 CST -.9945
FDE-2.2953 FRA 1.6558 FC3-4.3397 BSP  16750   SGB 5280.3 R23  .0719 R13 -.9857     LSA 3748.0 MSA  152.0 SSA   13.3
BDE 2.1138 BRA 1.0671 BC3 3.9420 FSP  -1917   SG1 5267.1 SG2  373.8 THA 163.38     EL1 3387.0 EL2   13.6 ALF 160.77
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 503.504

```
RL  151.72 LAL    .00 LOL 314.09 VL  26.732 GAL   2.72 AZL  94.18 HCA 230.51 SMA 128.24 ECC .18891 INC 4.1830 V1  29.366
RP  107.77 LAP   3.23 LOP 184.52 VP  37.790 GAP   5.87 AZP  87.34 TAL 168.16 TAP  38.67 RCA 104.02 APO 152.47 V2  35.164
RC 115.736 GL  -31.87 GP   29.19 ZAL  65.48 ZAP 137.36 ETS  34.27 ZAE 126.33 ETE 158.22 ZAC 125.95 ETC 253.90 CLP-147.42
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PLANETOCENTRIC CONIC

```
C3  13.611 VHL  3.689 DLA -53.91 RAL 245.59 RAD 6567.5 VEL 11.619 PTH   2.04 VHP  4.997 DPA  15.34 RAP 226.19 ECC 1.2240
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.00	8 15 14	1598.54	38.95	33.54	119.47	130.76	8 41 52	998.5	43.88	25.55
138.00	17 8 52	5298.29	38.96	244.32	119.48	130.74	18 37 10	4698.3	43.89	236.33
42.00	8 15 14	1598.54	38.95	33.54	119.47	130.76	8 41 52	998.5	43.88	25.55
138.00	17 8 52	5298.29	38.96	244.32	119.48	130.74	18 37 10	4698.3	43.89	236.33
42.00	8 15 14	1598.54	38.95	33.54	119.47	130.76	8 41 52	998.5	43.88	25.55
138.00	17 8 52	5298.29	38.96	244.32	119.48	130.74	18 37 10	4698.3	43.89	236.33

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8829 TRA 1.1769 TC3-4.0398 BAU  .7438   SGT 5202.2 SGR 1401.1 SG3  550.3     ST  3070.1 SR   978.2 SS  1454.0
RDE  .6034 RRA -.3546 RC3  .6227 FAU .06544   RRT -.9618 RRF -.9683 RTF  .9833     CRT -.9997 CRS  .9904 CST -.9927
FDE-1.9715 FRA 1.7696 FC3-4.1623 BSP  17008   SGB 5387.6 R23  .0647 R13 -.9846     LSA 3531.3 MSA  162.4 SSA   14.0
BDE 1.9772 BRA 1.2292 BC3 4.0875 FSP  -1845   SG1 5374.8 SG2  371.4 THA 165.41     EL1 3222.1 EL2  -21.4 ALF 162.33
```

LAUNCH DATE AUG 7 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 509.539

RL	151.72	LAL	.00	LOL	314.09	VL	26.708	GAL	2.98	AZL	93.92	HCA	233.73	SMA	128.08	ECC	.19146	INC	3.9234	V1	29.366
RP	107.80	LAP	3.16	LOP	187.75	VP	37.763	GAP	6.26	AZP	87.68	TAL	167.24	TAP	40.97	RCA	103.56	APO	152.61	V2	35.153
RC	118.005	GL	-29.62	GP	27.11	ZAL	63.49	ZAP	140.05	ETS	34.61	ZAE	126.14	ETE	160.36	ZAC	124.16	ETC	254.39	CLP	-149.45

PLANETOCENTRIC CONIC

C3	13.638	VHL	3.693	DLA	-51.95	RAL	248.56	RAD	6567.5	VEL	11.620	PTH	2.04	VHP	5.112	DPA	13.02	RAP	226.42	ECC	1.2244

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.44	8 34 20	1582.87	37.76	30.57	121.23	128.77	9 0 43	982.9	42.48	22.53
135.56	17 13 27	5314.84	37.77	244.86	121.24	128.76	18 42 2	4714.8	42.49	236.81
44.44	8 34 20	1582.87	37.76	30.57	121.23	128.77	9 0 43	982.9	42.48	22.53
135.56	17 13 27	5314.84	37.77	244.86	121.24	128.76	18 42 2	4714.8	42.49	236.81
44.44	8 34 20	1582.87	37.76	30.57	121.23	128.77	9 0 43	982.9	42.48	22.53
135.56	17 13 27	5314.84	37.77	244.86	121.24	128.76	18 42 2	4714.8	42.49	236.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.7710	TRA	1.3511	TC3	-4.1598	BAU	.7647	SGT	5343.7	SGR	1275.9	SG3	526.6	ST	2932.5	SR	868.8	SS	1308.8
RDE	.5330	RRA	-.3523	RC3	.5373	FAU	.06196	RRT	-.9545	RRF	-.9594	RTF	.9828	CRT	-.9989	CRS	.9833	CST	-.9905
FDE	-1.6811	FRA	1.8595	FC3	-3.9331	BSP	17348	SGB	5493.9	R23	.0563	R13	-.9838	LSA	3322.1	MSA	174.3	SSA	14.5
BDE	1.8495	BRA	1.3963	BC3	4.1944	FSP	-1777	SG1	5481.3	SG2	371.0	THA	167.10	EL1	3058.2	EL2	39.7	ALF	163.51

LAUNCH DATE AUG 7 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 515.548

RL	151.72	LAL	.00	LOL	314.09	VL	26.683	GAL	3.25	AZL	93.68	HCA	236.95	SMA	127.92	ECC	.19420	INC	3.6846	V1	29.366
RP	107.84	LAP	3.09	LOP	190.98	VP	37.734	GAP	6.65	AZP	87.99	TAL	166.29	TAP	43.24	RCA	103.08	APO	152.76	V2	35.141
RC	120.271	GL	-27.44	GP	25.25	ZAL	61.49	ZAP	142.54	ETS	34.94	ZAE	125.88	ETE	162.21	ZAC	122.60	ETC	254.83	CLP	-151.36

PLANETOCENTRIC CONIC

C3	13.799	VHL	3.715	DLA	-50.02	RAL	251.36	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	5.244	DPA	10.86	RAP	226.86	ECC	1.2271

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.87	8 53 5	1567.82	36.47	27.75	123.04	126.97	9 19 13	967.8	40.99	19.70
133.13	17 17 1	5335.01	36.49	245.70	123.06	126.96	18 45 56	4735.0	41.00	237.65
46.87	8 53 5	1567.82	36.47	27.75	123.04	126.97	9 19 13	967.8	40.99	19.70
133.13	17 17 1	5335.01	36.49	245.70	123.06	126.96	18 45 56	4735.0	41.00	237.65
46.87	8 53 5	1567.82	36.47	27.75	123.04	126.97	9 19 13	967.8	40.99	19.70
133.13	17 17 1	5335.01	36.49	245.70	123.06	126.96	18 45 56	4735.0	41.00	237.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.6594	TRA	1.5315	TC3	-4.2310	BAU	.7851	SGT	5472.7	SGR	1169.8	SG3	501.8	ST	2788.6	SR	781.4	SS	1177.5
RDE	.4795	RRA	-.3496	RC3	.4602	FAU	.05834	RRT	-.9456	RRF	-.9488	RTF	.9822	CRT	-.9967	CRS	.9718	CST	-.9874
FDE	-1.4217	FRA	1.9327	FC3	-3.6604	BSP	17695	SGB	5596.3	R23	.0480	R13	-.9830	LSA	3120.5	MSA	188.3	SSA	14.9
BDE	1.7273	BRA	1.5709	BC3	4.2560	FSP	-1705	SG1	5583.9	SG2	372.9	THA	168.52	EL1	2895.4	EL2	61.2	ALF	164.39

LAUNCH DATE AUG 7 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 521.531

RL	151.72	LAL	.00	LOL	314.09	VL	26.658	GAL	3.53	AZL	93.46	HCA	240.17	SMA	127.75	ECC	.19715	INC	3.4628	V1	29.366
RP	107.87	LAP	3.00	LOP	194.21	VP	37.705	GAP	7.04	AZP	88.28	TAL	165.31	TAP	45.48	RCA	102.56	APO	152.94	V2	35.130
RC	122.531	GL	-25.35	GP	23.59	ZAL	59.50	ZAP	144.87	ETS	35.30	ZAE	125.57	ETE	163.82	ZAC	121.24	ETC	255.24	CLP	-153.18

PLANETOCENTRIC CONIC

C3	14.086	VHL	3.753	DLA	-48.14	RAL	254.00	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	5.392	DPA	8.85	RAP	227.48	ECC	1.2318

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.28	9 11 38	1553.00	35.12	25.05	124.93	125.34	9 37 31	953.0	39.46	17.02
130.72	17 19 30	5358.90	35.13	246.86	124.94	125.33	18 48 49	4758.9	39.47	238.82
49.28	9 11 38	1553.00	35.12	25.05	124.93	125.34	9 37 31	953.0	39.46	17.02
130.72	17 19 30	5358.90	35.13	246.86	124.94	125.33	18 48 49	4758.9	39.47	238.82
49.28	9 11 38	1553.00	35.12	25.05	124.93	125.34	9 37 31	953.0	39.46	17.02
130.72	17 19 30	5358.90	35.13	246.86	124.94	125.33	18 48 49	4758.9	39.47	238.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.5468	TRA	1.7200	TC3	-4.2518	BAU	.8041	SGT	5590.0	SGR	1080.1	SG3	476.7	ST	2641.7	SR	711.3	SS	1060.2
RDE	.4390	RRA	-.3473	RC3	.3907	FAU	.05457	RRT	-.9351	RRF	-.9364	RTF	.9816	CRT	-.9923	CRS	.9540	CST	-.9835
FDE	-1.1901	FRA	1.9936	FC3	-3.3540	BSP	18018	SGB	5693.4	R23	.0406	R13	-.9821	LSA	2926.9	MSA	204.9	SSA	15.2
BDE	1.6079	BRA	1.7547	BC3	4.2697	FSP	-1628	SG1	5680.9	SG2	376.7	THA	169.71	EL1	2734.5	EL2	85.1	ALF	165.03

LAUNCH DATE AUG 7 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 527.484

RL	151.72	LAL	.00	LOL	314.09	VL	26.631	GAL	3.84	AZL	93.25	HCA	243.39	SMA	127.58	ECC	.20031	INC	3.2549	V1	29.366
RP	107.91	LAP	2.91	LOP	197.44	VP	37.676	GAP	7.44	AZP	88.54	TAL	164.31	TAP	47.70	RCA	102.02	APO	153.13	V2	35.118
RC	124.786	GL	-23.34	GP	22.11	ZAL	57.52	ZAP	147.03	ETS	35.69	ZAE	125.24	ETE	165.21	ZAC	120.06	ETC	255.62	CLP	-154.90

PLANETOCENTRIC CONIC

C3	14.499	VHL	3.808	DLA	-46.31	RAL	256.49	RAD	6567.6	VEL	11.657	PTH	2.05	VHP	5.554	DPA	6.98	RAP	228.28	ECC	1.2386

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.69	9 30 0	1538.32	33.71	22.46	126.89	123.87	9 55 38	938.3	37.88	14.46
128.31	17 21 1	5386.34	33.72	248.32	126.90	123.85	18 50 48	4786.3	37.90	240.32
51.69	9 30 0	1538.32	33.71	22.46	126.89	123.87	9 55 38	938.3	37.88	14.46
128.31	17 21 1	5386.34	33.72	248.32	126.90	123.85	18 50 48	4786.3	37.90	240.32
51.69	9 30 0	1538.32	33.71	22.46	126.89	123.87	9 55 38	938.3	37.88	14.46
128.31	17 21 1	5386.34	33.72	248.32	126.90	123.85	18 50 48	4786.3	37.90	240.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.4339	TRA	1.9170	TC3	-4.2270	BAU	.8218	SGT	5697.1	SGR	1004.4	SG3	451.9	ST	2496.9	SR	655.3	SS	958.3
RDE	.4088	RRA	-.3457	RC3	.3300	FAU	.05083	RRT	-.9230	RRF	-.9224	RTF	.9809	CRT	-.9845	CRS	.9280	CST	-.9787
FDE	-.9855	FRA	2.0435	FC3	-3.0350	BSP	18329	SGB	5784.9	R23	.0337	R13	-.9813	LSA	2744.4	MSA	223.7	SSA	15.3
BDE	1.4911	BRA	1.9479	BC3	4.2398	FSP	-1551	SG1	5772.3	SG2	381.4	THA	170.72	EL1	2579.0	EL2	111.1	ALF	165.48

LAUNCH DATE AUG 7 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 533.405
RL 151.72 LAL .00 LOL 314.09 VL 26.605 GAL 4.16 AZL 93.06 HCA 246.60 SMA 127.40 ECC .20372 INC 3.0586 V1 29.366
RP 107.95 LAP 2.81 LOP 200.66 VP 37.645 GAP 7.84 AZP 88.78 TAL 163.29 TAP 49.89 RCA 101.45 APO 153.36 V2 35.105
RC 127.036 GL -21.41 GP 20.78 ZAL 55.57 ZAP 149.05 ETS 36.16 ZAE 124.89 ETE 166.42 ZAC 119.04 ETC 255.98 CLP-156.54
PLANETOCENTRIC CONIC
C3 15.037 VHL 3.878 DLA -44.53 RAL 258.85 RAD 6567.6 VEL 11.680 PTH 2.05 VHP 5.730 DPA 5.24 RAP 229.22 ECC 1.2475

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.08	9 48 19	1523.38	32.26	19.95	128.90	122.53	10 13 43	923.4	36.29	12.00
125.92	17 21 30	5417.52	32.28	250.09	128.91	122.52	18 51 48	4817.5	36.30	242.13
54.08	9 48 19	1523.38	32.26	19.95	128.90	122.53	10 13 43	923.4	36.29	12.00
125.92	17 21 30	5417.52	32.28	250.09	128.91	122.52	18 51 48	4817.5	36.30	242.13
54.08	9 48 19	1523.38	32.26	19.95	128.90	122.53	10 13 43	923.4	36.29	12.00
125.92	17 21 30	5417.52	32.28	250.09	128.91	122.52	18 51 48	4817.5	36.30	242.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.3425 TRA 2.1004 TC3-4.2176 BAU .8499 SGT 5795.2 SGR 940.5 SG3 426.8 ST 2376.9 SR 616.2 SS 879.7
RDE .3916 RRA -.3408 RC3 .2905 FAU .04839 RRT -.9100 RRF -.9070 RTF .9812 CRT -.9730 CRS .8982 CST -.9752
FDE -.8326 FRA 2.0598 FC3-2.7861 BSP 19151 SGB 5871.0 R23 .0245 R13 -.9815 LSA 2597.3 MSA 238.5 SSA 15.3
BDE 1.3984 BRA 2.1279 BC3 4.2276 FSP -1531 SG1 5858.3 SG2 385.8 THA 171.56 EL1 2451.6 EL2 138.0 ALF 165.80

LAUNCH DATE AUG 7 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 539.298
RL 151.72 LAL .00 LOL 314.09 VL 26.577 GAL 4.51 AZL 92.87 HCA 249.82 SMA 127.23 ECC .20737 INC 2.8717 V1 29.366
RP 107.99 LAP 2.70 LOP 203.88 VP 37.614 GAP 8.25 AZP 89.01 TAL 162.25 TAP 52.06 RCA 100.84 APO 153.61 V2 35.093
RC 129.278 GL -19.57 GP 19.59 ZAL 53.65 ZAP 150.94 ETS 36.70 ZAE 124.54 ETE 167.46 ZAC 118.16 ETC 256.33 CLP-158.10
PLANETOCENTRIC CONIC
C3 15.707 VHL 3.963 DLA -42.80 RAL 261.08 RAD 6567.6 VEL 11.709 PTH 2.06 VHP 5.918 DPA 3.60 RAP 230.30 ECC 1.2585

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.46	10 6 43	1507.99	30.80	17.50	130.99	121.33	10 31 51	908.0	34.69	9.60
123.54	17 20 58	5452.52	30.81	252.16	131.00	121.31	18 51 51	4852.5	34.71	244.27
56.46	10 6 43	1507.99	30.80	17.50	130.99	121.33	10 31 51	908.0	34.69	9.60
123.54	17 20 58	5452.52	30.81	252.16	131.00	121.31	18 51 51	4852.5	34.71	244.27
56.46	10 6 43	1507.99	30.80	17.50	130.99	121.33	10 31 51	908.0	34.69	9.60
123.54	17 20 58	5452.52	30.81	252.16	131.00	121.31	18 51 51	4852.5	34.71	244.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.2142 TRA 2.3307 TC3-4.0741 BAU .8569 SGT 5882.0 SGR 886.8 SG3 404.3 ST 2233.6 SR 576.1 SS 801.7
RDE .3727 RRA -.3446 RC3 .2364 FAU .04390 RRT -.8950 RRF -.8905 RTF .9798 CRT -.9536 CRS .8468 CST -.9673
FDE -.6551 FRA 2.1120 FC3-2.4198 BSP 19061 SGB 5948.5 R23 .0215 R13 -.9800 LSA 2427.5 MSA 265.4 SSA 15.4
BDE 1.2702 BRA 2.3561 BC3 4.0810 FSP -1417 SG1 5935.5 SG2 391.9 THA 172.28 EL1 2300.5 EL2 168.4 ALF 166.11

LAUNCH DATE AUG 7 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 545.155
RL 151.72 LAL .00 LOL 314.09 VL 26.549 GAL 4.87 AZL 92.69 HCA 253.03 SMA 127.05 ECC .21129 INC 2.6926 V1 29.366
RP 108.03 LAP 2.58 LOP 207.10 VP 37.583 GAP 8.67 AZP 89.21 TAL 161.19 TAP 54.21 RCA 100.20 APO 153.89 V2 35.080
RC 131.513 GL -17.81 GP 18.52 ZAL 51.77 ZAP 152.71 ETS 37.33 ZAE 124.19 ETE 168.37 ZAC 117.40 ETC 256.69 CLP-159.60
PLANETOCENTRIC CONIC
C3 16.513 VHL 4.064 DLA -41.12 RAL 263.20 RAD 6567.7 VEL 11.743 PTH 2.07 VHP 6.118 DPA 2.07 RAP 231.50 ECC 1.2718

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.84	10 25 14	1491.80	29.32	15.07	133.14	120.23	10 50 6	891.8	33.10	7.23
121.16	17 19 21	5491.50	29.34	254.55	133.15	120.22	18 50 52	4891.5	33.11	246.72
58.84	10 25 14	1491.80	29.32	15.07	133.14	120.23	10 50 6	891.8	33.10	7.23
121.16	17 19 21	5491.50	29.34	254.55	133.15	120.22	18 50 52	4891.5	33.11	246.72
58.84	10 25 14	1491.80	29.32	15.07	133.14	120.23	10 50 6	891.8	33.10	7.23
121.16	17 19 21	5491.50	29.34	254.55	133.15	120.22	18 50 52	4891.5	33.11	246.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.0964 TRA 2.5604 TC3-3.9275 BAU .8681 SGT 5962.0 SGR 841.5 SG3 382.4 ST 2113.3 SR 546.0 SS 742.9
RDE .3617 RRA -.3474 RC3 .1960 FAU .04017 RRT -.8795 RRF -.8733 RTF .9789 CRT -.9266 CRS .7860 CST -.9604
FDE -.5116 FRA 2.1462 FC3-2.1059 BSP 19215 SGB 6021.1 R23 .0177 R13 -.9791 LSA 2287.2 MSA 290.3 SSA 15.3
BDE 1.1545 BRA 2.5839 BC3 3.9324 FSP -1334 SG1 6008.0 SG2 397.3 THA 172.89 EL1 2173.5 EL2 199.6 ALF 166.42

LAUNCH DATE AUG 7 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 550.975
RL 151.72 LAL .00 LOL 314.09 VL 26.521 GAL 5.25 AZL 92.52 HCA 256.24 SMA 126.86 ECC .21550 INC 2.5195 V1 29.366
RP 108.07 LAP 2.45 LOP 210.31 VP 37.551 GAP 9.10 AZP 89.40 TAL 160.11 TAP 56.35 RCA 99.52 APO 154.20 V2 35.067
RC 133.740 GL -16.13 GP 17.56 ZAL 49.94 ZAP 154.38 ETS 38.08 ZAE 123.85 ETE 169.16 ZAC 116.74 ETC 257.04 CLP-161.03
PLANETOCENTRIC CONIC
C3 17.467 VHL 4.179 DLA -39.51 RAL 265.21 RAD 6567.7 VEL 11.783 PTH 2.08 VHP 6.331 DPA .62 RAP 232.81 ECC 1.2875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.21	10 43 59	1474.58	27.85	12.64	135.35	119.24	11 8 34	874.6	31.51	4.87
118.79	17 16 38	5534.57	27.86	257.26	135.35	119.23	18 48 52	4934.6	31.53	249.49
61.21	10 43 59	1474.58	27.85	12.64	135.35	119.24	11 8 34	874.6	31.51	4.87
118.79	17 16 38	5534.57	27.86	257.26	135.35	119.23	18 48 52	4934.6	31.53	249.49
61.21	10 43 59	1474.58	27.85	12.64	135.35	119.24	11 8 34	874.6	31.51	4.87
118.79	17 16 38	5534.57	27.86	257.26	135.35	119.23	18 48 52	4934.6	31.53	249.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.9815 TRA 2.7971 TC3-3.7638 BAU .8797 SGT 6034.0 SGR 803.0 SG3 361.5 ST 2010.6 SR 522.0 SS 697.9
RDE .3555 RRA -.3508 RC3 .1638 FAU .03678 RRT -.8636 RRF -.8557 RTF .9782 CRT -.8908 CRS .7159 CST -.9547
FDE -.3893 FRA 2.1724 FC3-1.8230 BSP 19426 SGB 6087.2 R23 .0141 R13 -.9783 LSA 2168.6 MSA 314.6 SSA 15.2
BDE 1.0439 BRA 2.8190 BC3 3.7673 FSP -1263 SG1 6073.9 SG2 402.1 THA 173.41 EL1 2064.4 EL2 231.0 ALF 166.81

LAUNCH DATE AUG 7 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 556.755

RL 151.72 LAL .00 LOL 314.09 VL 26.493 GAL 5.66 AZL 92.35 HCA 259.45 SMA 126.68 ECC .22003 INC 2.3513 V1 29.366
RP 108.11 LAP 2.31 LOP 213.52 VP 37.518 GAP 9.55 AZP 89.57 TAL 159.02 TAP 58.46 RCA 98.81 APO 154.56 V2 35.054
RC 135.957 GL -14.53 GP 16.69 ZAL 48.16 ZAP 155.94 ETS 38.95 ZAE 123.53 ETE 169.85 ZAC 116.18 ETC 257.40 CLP-162.41

PLANETOCENTRIC CONIC

C3 18.579 VHL 4.310 DLA -37.95 RAL 267.12 RAD 6567.8 VEL 11.831 PTH 2.10 VHP 6.557 DPA -.73 RAP 234.21 ECC 1.3058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.60	11 3 8	1455.83	26.38	10.18	137.60	118.33	11 27 24	855.8	29.95	2.47
116.40	17 12 41	5582.13	26.40	260.31	137.61	118.32	18 45 43	4982.1	29.96	252.60
63.60	11 3 8	1455.83	26.38	10.18	137.60	118.33	11 27 24	855.8	29.95	2.47
116.40	17 12 41	5582.13	26.40	260.31	137.61	118.32	18 45 43	4982.1	29.96	252.60
63.60	11 3 8	1455.83	26.38	10.18	137.60	118.33	11 27 24	855.8	29.95	2.47
116.40	17 12 41	5582.13	26.40	260.31	137.61	118.32	18 45 43	4982.1	29.96	252.60

DIFFERENTIAL CORRECTIONS
TDE -.8673 TRA 3.0439 TC3-3.5818 BAU .8903
RDE .3529 RRA -.3554 RC3 .1374 FAU .03360
FDE -.2835 FRA 2.1943 FC3-1.5654 BSP 19650
BDE .9364 BRA 3.0646 BC3 3.5845 FSP -1196

MID-COURSE EXECUTION ACCURACY
SGT 6098.7 SGR 770.1 SG3 341.8
RRT -.8476 RRF -.8381 RTF .9776
SGB 6147.1 R23 .0109 R13 -.9777
SG1 6133.7 SG2 406.3 THA 173.86

ORBIT DETERMINATION ACCURACY
ST 1925.5 SR 502.3 SS 664.3
CRT -.8455 CRS .6389 CST -.9507
LSA 2070.5 MSA 337.8 SSA 15.1
EL1 1972.6 EL2 261.8 ALF 167.33

LAUNCH DATE AUG 7 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 562.492

RL 151.72 LAL .00 LOL 314.09 VL 26.464 GAL 6.10 AZL 92.19 HCA 262.65 SMA 126.50 ECC .22490 INC 2.1867 V1 29.366
RP 108.15 LAP 2.17 LOP 216.73 VP 37.486 GAP 10.00 AZP 89.72 TAL 157.92 TAP 60.57 RCA 98.05 APO 154.95 V2 35.041
RC 138.166 GL -13.02 GP 15.90 ZAL 46.43 ZAP 157.41 ETS 39.97 ZAE 123.21 ETE 170.45 ZAC 115.69 ETC 257.76 CLP-163.75

PLANETOCENTRIC CONIC

C3 19.867 VHL 4.457 DLA -36.46 RAL 268.92 RAD 6567.8 VEL 11.885 PTH 2.11 VHP 6.796 DPA -2.01 RAP 235.69 ECC 1.3270

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.01	11 22 50	1435.01	24.94	7.64	139.91	117.51	11 46 45	835.0	28.41	359.99
113.99	17 7 24	5634.61	24.95	263.72	139.92	117.50	18 41 18	5034.6	28.42	256.07
66.01	11 22 50	1435.01	24.94	7.64	139.91	117.51	11 46 45	835.0	28.41	359.99
113.99	17 7 24	5634.61	24.95	263.72	139.92	117.50	18 41 18	5034.6	28.42	256.07
66.01	11 22 50	1435.01	24.94	7.64	139.91	117.51	11 46 45	835.0	28.41	359.99
113.99	17 7 24	5634.61	24.95	263.72	139.92	117.50	18 41 18	5034.6	28.42	256.07

DIFFERENTIAL CORRECTIONS
TDE -.7526 TRA 3.3025 TC3-3.3846 BAU .8995
RDE .3531 RRA -.3612 RC3 .1156 FAU .03059
FDE -.1913 FRA 2.2136 FC3-1.3329 BSP 19872
BDE .8313 BRA 3.3222 BC3 3.3866 FSP -1135

MID-COURSE EXECUTION ACCURACY
SGT 6156.2 SGR 741.6 SG3 323.2
RRT -.8318 RRF -.8208 RTF .9770
SGB 6200.7 R23 .0081 R13 -.9771
SG1 6187.2 SG2 409.6 THA 174.25

ORBIT DETERMINATION ACCURACY
ST 1857.8 SR 485.8 SS 640.0
CRT -.7907 CRS .5582 CST -.9490
LSA 1992.0 MSA 359.1 SSA 14.9
EL1 1898.1 EL2 291.1 ALF 168.03

LAUNCH DATE AUG 7 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 568.181

RL 151.72 LAL .00 LOL 314.09 VL 26.435 GAL 6.56 AZL 92.02 HCA 265.85 SMA 126.31 ECC .23014 INC 2.0246 V1 29.366
RP 108.19 LAP 2.02 LOP 219.94 VP 37.453 GAP 10.48 AZP 89.85 TAL 156.81 TAP 62.66 RCA 97.24 APO 155.38 V2 35.028
RC 140.364 GL -11.58 GP 15.19 ZAL 44.77 ZAP 158.81 ETS 41.16 ZAE 122.90 ETE 170.97 ZAC 115.27 ETC 258.14 CLP-165.04

PLANETOCENTRIC CONIC

C3 21.348 VHL 4.620 DLA -35.03 RAL 270.63 RAD 6567.9 VEL 11.947 PTH 2.13 VHP 7.049 DPA -3.22 RAP 237.26 ECC 1.3513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.47	11 43 17	1411.47	23.51	4.96	142.26	116.75	12 6 49	811.5	26.90	357.37
111.53	17 0 36	5692.56	23.52	267.54	142.27	116.74	18 35 28	5092.6	26.91	259.94
68.47	11 43 17	1411.47	23.51	4.96	142.26	116.75	12 6 49	811.5	26.90	357.37
111.53	17 0 36	5692.56	23.52	267.54	142.27	116.74	18 35 28	5092.6	26.91	259.94
68.47	11 43 17	1411.47	23.51	4.96	142.26	116.75	12 6 49	811.5	26.90	357.37
111.53	17 0 36	5692.56	23.52	267.54	142.27	116.74	18 35 28	5092.6	26.91	259.94

DIFFERENTIAL CORRECTIONS
TDE -.6369 TRA 3.5741 TC3-3.1756 BAU .9067
RDE .3554 RRA -.3684 RC3 .0973 FAU .02771
FDE -.1104 FRA 2.2317 FC3-1.1238 BSP 20067
BDE .7293 BRA 3.5930 BC3 3.1771 FSP -1076

MID-COURSE EXECUTION ACCURACY
SGT 6207.1 SGR 716.6 SG3 305.7
RRT -.8164 RRF -.8042 RTF .9765
SGB 6248.3 R23 .0060 R13 -.9766
SG1 6234.7 SG2 412.0 THA 174.59

ORBIT DETERMINATION ACCURACY
ST 1807.7 SR 471.4 SS 623.4
CRT -.7276 CRS .4769 CST -.9496
LSA 1932.9 MSA 377.5 SSA 14.7
EL1 1841.0 EL2 317.6 ALF 168.92

LAUNCH DATE AUG 7 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 573.818

RL 151.72 LAL .00 LOL 314.09 VL 26.406 GAL 7.05 AZL 91.86 HCA 269.05 SMA 126.13 ECC .23578 INC 1.8639 V1 29.366
RP 108.23 LAP 1.86 LOP 223.14 VP 37.420 GAP 10.97 AZP 89.97 TAL 155.69 TAP 64.75 RCA 96.39 APO 155.87 V2 35.014
RC 142.552 GL -10.23 GP 14.55 ZAL 43.17 ZAP 160.12 ETS 42.55 ZAE 122.60 ETE 171.43 ZAC 114.91 ETC 258.53 CLP-166.30

PLANETOCENTRIC CONIC

C3 23.045 VHL 4.801 DLA -33.66 RAL 272.26 RAD 6567.9 VEL 12.018 PTH 2.14 VHP 7.317 DPA -4.35 RAP 238.90 ECC 1.3793

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.00	12 4 50	1384.17	22.10	2.07	144.66	116.05	12 27 54	784.2	25.42	354.53
109.00	16 51 59	5756.92	22.11	271.82	144.66	116.04	18 27 56	5156.9	25.43	264.28
71.00	12 4 50	1384.17	22.10	2.07	144.66	116.05	12 27 54	784.2	25.42	354.53
109.00	16 51 59	5756.92	22.11	271.82	144.66	116.04	18 27 56	5156.9	25.43	264.28
110.00	16 12 36	5877.45	17.97	278.87	142.34	119.58	17 50 33	5277.4	21.77	271.80
110.00	17 43 24	5599.68	26.37	261.69	146.77	112.59	19 16 44	4999.7	29.19	253.65

DIFFERENTIAL CORRECTIONS
TDE -.5207 TRA 3.8586 TC3-2.9601 BAU .9123
RDE .3596 RRA -.3767 RC3 .0822 FAU .02500
FDE -.0399 FRA 2.2487 FC3 -.9392 BSP 20269
BDE .6328 BRA 3.8770 BC3 2.9612 FSP -1021

MID-COURSE EXECUTION ACCURACY
SGT 6251.0 SGR 694.3 SG3 289.3
RRT -.8016 RRF -.7884 RTF .9762
SGB 6289.4 R23 .0041 R13 -.9762
SG1 6275.8 SG2 413.5 THA 174.89

ORBIT DETERMINATION ACCURACY
ST 1774.4 SR 458.7 SS 612.5
CRT -.6583 CRS .3987 CST -.9525
LSA 1892.1 MSA 392.2 SSA 14.4
EL1 1800.9 EL2 340.2 ALF 169.98

LAUNCH DATE AUG 7 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 579.397

RL 151.72 LAL .00 LOL 314.09 VL 26.377 GAL 7.57 AZL 91.70 HCA 272.25 SMA 125.94 ECC .24187 INC 1.7037 V1 29.366
RP 108.27 LAP 1.70 LOP 226.34 VP 37.387 GAP 11.48 AZP 90.07 TAL 154.58 TAP 66.83 RCA 95.48 APO 156.41 V2 35.001
RC 144.730 GL -8.95 GP 13.96 ZAL 41.65 ZAP 161.36 ETS 44.15 ZAE 122.32 ETE 171.84 ZAC 114.59 ETC 258.92 CLP-167.53

PLANETOCENTRIC CONIC

C3 24.986 VHL 4.999 DLA -32.35 RAL 273.79 RAD 6568.0 VEL 12.098 PTH 2.17 VHP 7.601 DPA -5.42 RAP 240.59 ECC 1.4112

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.67	12 28 1	1351.31	20.73	358.83	147.09	115.41	12 50 32	751.3	23.97	351.34
106.33	16 41 4	5829.40	20.74	276.69	147.09	115.40	18 18 13	5229.4	23.98	269.19
73.67	12 28 1	1351.31	20.73	358.83	147.09	115.41	12 50 32	751.3	23.97	351.34
106.33	16 41 4	5829.40	20.74	276.69	147.09	115.40	18 18 13	5229.4	23.98	269.19
110.00	15 39 40	731.28	13.03	308.98	142.70	121.89	15 51 52	131.3	17.15	302.30
110.00	18 28 35	5497.42	28.85	254.78	150.75	109.18	20 0 12	4897.4	31.19	246.36

DIFFERENTIAL CORRECTIONS
TOE -.4034 TRA 4.1576 TC3-2.7417 BAU .9161
RDE .3652 RRA -.3860 RC3 .0697 FAU .02245
FDE .0219 FRA 2.2653 FC3 -.7779 BSP 20461
BDE .5441 BRA 4.1755 BC3 2.7426 FSP -970

MID-COURSE EXECUTION ACCURACY
SGT 6288.7 SGR 674.1 SG3 273.9
RRT -.7876 RRF -.7736 RTF .9759
SGB 6324.7 R23 .0027 R13 -.9759
SG1 6311.1 SG2 413.8 THA 175.15

ORBIT DETERMINATION ACCURACY
ST 1756.3 SR 447.1 SS 606.0
CRT -.5853 CRS .3258 CST -.9569
LSA 1867.9 MSA 402.7 SSA 14.2
EL1 1776.5 EL2 358.4 ALF 171.16

LAUNCH DATE AUG 7 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 584.911

RL 151.72 LAL .00 LOL 314.09 VL 26.347 GAL 8.12 AZL 91.54 HCA 275.45 SMA 125.76 ECC .24845 INC 1.5428 V1 29.366
RP 108.31 LAP 1.54 LOP 229.54 VP 37.354 GAP 12.01 AZP 90.15 TAL 153.46 TAP 68.91 RCA 94.51 APO 157.00 V2 34.988
RC 146.899 GL -7.74 GP 13.43 ZAL 40.18 ZAP 162.53 ETS 46.00 ZAE 122.04 ETE 172.20 ZAC 114.32 ETC 259.33 CLP-168.73

PLANETOCENTRIC CONIC

C3 27.202 VHL 5.216 DLA -31.10 RAL 275.25 RAD 6568.1 VEL 12.189 PTH 2.19 VHP 7.903 DPA -6.43 RAP 242.35 ECC 1.4477

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.57	12 53 41	1310.09	19.38	355.03	149.55	114.81	13 15 31	710.1	22.56	347.58
103.43	16 26 59	624.64	19.40	304.43	149.56	114.80	16 37 24	24.6	22.58	296.98
76.57	12 53 41	1310.09	19.38	355.03	149.55	114.81	13 15 31	710.1	22.56	347.58
103.43	16 26 59	624.64	19.40	304.43	149.56	114.80	16 37 24	24.6	22.58	296.98
110.00	15 20 48	831.72	9.36	314.44	143.85	123.03	15 34 39	231.7	13.64	307.96
110.00	18 59 3	5439.04	30.09	250.68	154.05	107.05	20 29 42	4839.0	32.12	242.06

DIFFERENTIAL CORRECTIONS
TOE -.2854 TRA 4.4711 TC3-2.5240 BAU .9181
RDE .3720 RRA -.3962 RC3 .0591 FAU .02005
FDE .0758 FRA 2.2814 FC3 -.6381 BSP 20674
BDE .4689 BRA 4.4886 BC3 2.5247 FSP -923

MID-COURSE EXECUTION ACCURACY
SGT 6319.3 SGR 655.2 SG3 259.4
RRT -.7745 RRF -.7599 RTF .9758
SGB 6353.2 R23 .0015 R13 -.9758
SG1 6339.8 SG2 413.1 THA 175.39

ORBIT DETERMINATION ACCURACY
ST 1751.0 SR 436.2 SS 602.5
CRT -.5115 CRS .2596 CST -.9623
LSA 1857.9 MSA 408.8 SSA 13.9
EL1 1765.8 EL2 371.7 ALF 172.40

LAUNCH DATE AUG 7 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 590.353

RL 151.72 LAL .00 LOL 314.09 VL 26.318 GAL 8.72 AZL 91.38 HCA 278.64 SMA 125.57 ECC .25557 INC 1.3803 V1 29.366
RP 108.35 LAP 1.36 LOP 232.73 VP 37.321 GAP 12.57 AZP 90.21 TAL 152.35 TAP 70.99 RCA 93.48 APO 157.67 V2 34.975
RC 149.057 GL -6.60 GP 12.95 ZAL 38.79 ZAP 163.63 ETS 48.14 ZAE 121.76 ETE 172.51 ZAC 114.08 ETC 259.75 CLP-169.91

PLANETOCENTRIC CONIC

C3 29.732 VHL 5.453 DLA -29.91 RAL 276.62 RAD 6568.2 VEL 12.293 PTH 2.21 VHP 8.225 DPA -7.38 RAP 244.15 ECC 1.4893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.94	13 23 56	1253.64	18.07	350.17	152.05	114.25	13 44 50	653.6	21.19	342.77
100.06	16 7 41	725.49	18.08	311.34	152.06	114.24	16 19 46	125.5	21.20	303.93
79.94	13 23 56	1253.64	18.07	350.17	152.05	114.25	13 44 50	653.6	21.19	342.77
100.06	16 7 41	725.49	18.08	311.34	152.06	114.24	16 19 46	125.5	21.20	303.93
110.00	15 7 18	916.59	6.18	318.96	145.34	123.69	15 22 34	316.6	10.56	312.61
110.00	19 23 29	5398.58	30.86	247.79	157.11	105.49	20 53 28	4798.6	32.67	239.04

DIFFERENTIAL CORRECTIONS
TOE -.1666 TRA 4.8007 TC3-2.3091 BAU .9180
RDE .3799 RRA -.4073 RC3 .0502 FAU .01779
FDE .1227 FRA 2.2980 FC3 -.5181 BSP 20899
BDE .4148 BRA 4.8179 BC3 2.3096 FSP -880

MID-COURSE EXECUTION ACCURACY
SGT 6343.4 SGR 637.3 SG3 245.8
RRT -.7622 RRF -.7472 RTF .9758
SGB 6375.3 R23 .0005 R13 -.9758
SG1 6362.0 SG2 411.4 THA 175.60

ORBIT DETERMINATION ACCURACY
ST 1756.2 SR 425.8 SS 601.1
CRT -.4394 CRS .2009 CST -.9680
LSA 1859.6 MSA 410.9 SSA 13.6
EL1 1766.7 EL2 380.2 ALF 173.62

LAUNCH DATE AUG 7 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 595.711

RL 151.72 LAL .00 LOL 314.09 VL 26.289 GAL 9.35 AZL 91.22 HCA 281.83 SMA 125.39 ECC .26328 INC 1.2152 V1 29.366
RP 108.39 LAP 1.19 LOP 235.92 VP 37.288 GAP 13.17 AZP 90.25 TAL 151.24 TAP 73.07 RCA 92.38 APO 158.40 V2 34.962
RC 151.205 GL -5.53 GP 12.51 ZAL 37.48 ZAP 164.67 ETS 50.62 ZAE 121.49 ETE 172.80 ZAC 113.87 ETC 260.18 CLP-171.07

PLANETOCENTRIC CONIC

C3 32.622 VHL 5.712 DLA -28.78 RAL 277.91 RAD 6568.3 VEL 12.409 PTH 2.24 VHP 8.569 DPA -8.26 RAP 246.00 ECC 1.5369

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.63	14 6 12	1157.80	16.79	342.50	154.57	113.72	14 25 30	557.8	19.86	335.13
95.37	15 35 44	867.95	16.81	321.27	154.57	113.71	15 50 12	268.0	19.87	313.90
100.00	15 3 54	970.52	10.72	325.78	151.53	118.07	15 20 4	370.5	14.39	318.92
100.00	17 20 44	5818.51	23.08	276.91	157.22	109.54	18 57 42	5218.5	25.53	268.97
110.00	14 56 51	992.67	3.29	322.96	147.03	124.04	15 13 24	392.7	7.74	316.69
110.00	19 44 16	5369.12	31.38	245.64	160.06	104.32	21 13 45	4769.1	33.02	236.81

DIFFERENTIAL CORRECTIONS
TOE -.0455 TRA 5.1486 TC3-2.0978 BAU .9151
RDE .3885 RRA -.4191 RC3 .0425 FAU .01565
FDE .1643 FRA 2.3158 FC3 -.4153 BSP 21121
BDE .3912 BRA 5.1656 BC3 2.0982 FSP -840

MID-COURSE EXECUTION ACCURACY
SGT 6361.5 SGR 619.9 SG3 233.1
RRT -.7507 RRF -.7356 RTF .9759
SGB 6391.6 R23 -.0002 R13 -.9759
SG1 6378.5 SG2 408.4 THA 175.80

ORBIT DETERMINATION ACCURACY
ST 1769.9 SR 415.4 SS 601.3
CRT -.3703 CRS .1488 CST -.9734
LSA 1870.5 MSA 409.4 SSA 13.3
EL1 1776.9 EL2 384.4 ALF 174.79

LAUNCH DATE AUG 7 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 600.975

RL 151.72 LAL .00 LOL 314.09 VL 26.259 GAL 10.03 AZL 91.05 HCA 285.02 SMA 125.21 ECC .27166 INC 1.0464 V1 29.366
RP 108.43 LAP 1.01 LOP 239.11 VP 37.256 GAP 13.80 AZP 90.27 TAL 150.15 TAP 75.17 RCA 91.20 APO 159.22 V2 34.949
RC 153.343 GL -4.52 GP 12.10 ZAL 36.23 ZAP 165.64 ETS 53.47 ZAE 121.22 ETE 173.05 ZAC 113.69 ETC 260.63 CLP-172.22

PLANETOCENTRIC CONIC

C3 35.928 VHL 5.994 DLA -27.71 RAL 279.13 RAD 6568.4 VEL 12.542 PTH 2.27 VHP 8.937 DPA -9.09 RAP 247.88 ECC 1.5913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 4 11	1205.30	11.03	343.21	154.97	116.24	14 24 16	605.3	14.47	336.22
90.00	15 47 29	869.17	20.19	322.80	159.05	110.29	16 1 58	269.2	22.77	315.08
100.00	14 41 25	1084.96	6.98	332.23	152.82	119.14	14 59 30	485.0	10.82	325.54
100.00	17 52 56	5752.78	24.51	272.55	160.66	107.67	19 28 49	5152.8	26.70	264.43
110.00	14 48 25	1062.97	.60	326.63	148.88	124.18	15 6 8	463.0	5.09	320.41
110.00	20 2 25	5347.54	31.73	244.06	162.93	103.44	21 31 33	4747.5	33.25	235.16

DIFFERENTIAL CORRECTIONS
TDE .0782 TRA 5.5167 TC3-1.8920 BAU .9089
RDE .3976 RRA -.4315 RC3 .0357 FAU .01359
FDE .2014 FRA 2.3358 FC3 -.3276 BSP 21338
BDE .4053 BRA 5.5336 BC3 1.8924 FSP -802

MID-COURSE EXECUTION ACCURACY
SGT 6373.9 SGR 602.8 SG3 221.1
RRT -.7401 RRF -.7250 RTF .9762
SGB 6402.4 R23 -.0007 R13 -.9762
SG1 6389.6 SG2 404.4 THA 175.98

ORBIT DETERMINATION ACCURACY
ST 1789.7 SR 405.0 SS 602.9
CRT -.3055 CRS .1030 CST -.9783
LSA 1888.5 MSA 404.9 SSA 13.0
EL1 1794.2 EL2 384.7 ALF 175.85

LAUNCH DATE AUG 7 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 606.132

RL 151.72 LAL .00 LOL 314.09 VL 26.230 GAL 10.76 AZL 90.87 HCA 288.20 SMA 125.03 ECC .28078 INC .8724 V1 29.366
RP 108.47 LAP .83 LOP 242.29 VP 37.223 GAP 14.46 AZP 90.27 TAL 149.08 TAP 77.29 RCA 89.92 APO 160.13 V2 34.937
RC 155.470 GL -3.57 GP 11.74 ZAL 35.06 ZAP 166.54 ETS 56.76 ZAE 120.94 ETE 173.27 ZAC 113.52 ETC 261.08 CLP-173.36

PLANETOCENTRIC CONIC

C3 39.717 VHL 6.302 DLA -26.69 RAL 280.27 RAD 6568.5 VEL 12.692 PTH 2.31 VHP 9.332 DPA -9.87 RAP 249.79 ECC 1.6536

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 36 9	1338.41	6.93	350.83	156.12	117.52	13 58 27	738.4	10.56	344.04
90.00	16 24 38	786.72	22.04	317.46	162.69	108.24	16 37 45	186.7	24.33	309.54
100.00	14 25 56	1177.59	3.89	337.36	154.46	119.66	14 45 34	577.6	7.81	330.77
100.00	18 17 32	5710.82	25.35	269.72	163.81	106.40	19 52 43	5110.8	27.35	261.49
110.00	14 41 24	1129.08	-1.92	330.07	150.85	124.14	15 0 13	529.1	2.57	323.87
110.00	20 18 34	5332.09	31.97	242.92	165.78	102.81	21 47 26	4732.1	33.40	233.98

DIFFERENTIAL CORRECTIONS
TDE .2061 TRA 5.9079 TC3-1.6915 BAU .8983
RDE .4071 RRA -.4444 RC3 .0295 FAU .01160
FDE .2353 FRA 2.3584 FC3 -.2528 BSP 21516
BDE .4563 BRA 5.9246 BC3 1.6917 FSP -765

MID-COURSE EXECUTION ACCURACY
SGT 6381.1 SGR 585.6 SG3 210.0
RRT -.7302 RRF -.7152 RTF .9767
SGB 6408.0 R23 -.0010 R13 -.9767
SG1 6395.5 SG2 399.2 THA 176.15

ORBIT DETERMINATION ACCURACY
ST 1814.3 SR 394.2 SS 605.6
CRT -.2452 CRS .0625 CST -.9826
LSA 1911.9 MSA 397.8 SSA 12.7
EL1 1817.0 EL2 381.6 ALF 176.81

LAUNCH DATE AUG 7 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 611.162

RL 151.72 LAL .00 LOL 314.09 VL 26.201 GAL 11.55 AZL 90.69 HCA 291.39 SMA 124.85 ECC .29073 INC .6922 V1 29.366
RP 108.51 LAP .64 LOP 245.48 VP 37.192 GAP 15.18 AZP 90.25 TAL 148.04 TAP 79.42 RCA 88.55 APO 161.15 V2 34.925
RC 157.587 GL -2.68 GP 11.40 ZAL 33.96 ZAP 167.36 ETS 60.55 ZAE 120.65 ETE 173.48 ZAC 113.37 ETC 261.54 CLP-174.49

PLANETOCENTRIC CONIC

C3 44.070 VHL 6.638 DLA -25.72 RAL 281.34 RAD 6568.7 VEL 12.862 PTH 2.34 VHP 9.758 DPA -10.59 RAP 251.73 ECC 1.7253

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 18 27	1438.59	3.74	356.47	157.74	118.09	13 42 25	838.6	7.47	349.78
90.00	16 50 52	739.00	23.02	314.31	165.91	106.96	17 3 11	139.0	25.13	306.27
100.00	14 14 3	1259.04	1.13	341.84	156.30	119.87	14 35 2	659.0	5.10	335.29
100.00	18 37 57	5681.83	25.89	267.73	166.83	105.49	20 12 39	5081.8	27.76	259.43
110.00	14 35 25	1191.98	-4.32	333.36	152.90	123.94	14 55 17	592.0	.17	327.15
110.00	20 33 4	5321.65	32.12	242.15	168.59	102.37	22 1 46	4721.6	33.49	233.18

DIFFERENTIAL CORRECTIONS
TDE .3391 TRA 6.3252 TC3-1.4974 BAU .8823
RDE .4169 RRA -.4577 RC3 .0237 FAU .00964
FDE .2666 FRA 2.3848 FC3 -.1894 BSP 21659
BDE .5374 BRA 6.3417 BC3 1.4976 FSP -728

MID-COURSE EXECUTION ACCURACY
SGT 6384.0 SGR 568.1 SG3 199.6
RRT -.7209 RRF -.7063 RTF .9772
SGB 6409.2 R23 -.0012 R13 -.9772
SG1 6397.2 SG2 392.9 THA 176.32

ORBIT DETERMINATION ACCURACY
ST 1842.2 SR 383.1 SS 609.6
CRT -.1897 CRS .0266 CST -.9863
LSA 1939.3 MSA 388.8 SSA 12.4
EL1 1843.7 EL2 375.8 ALF 177.64

LAUNCH DATE AUG 7 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 616.047

RL 151.72 LAL .00 LOL 314.09 VL 26.173 GAL 12.40 AZL 90.50 HCA 294.57 SMA 124.67 ECC .30160 INC .5040 V1 29.366
RP 108.54 LAP .46 LOP 248.66 VP 37.160 GAP 15.95 AZP 90.21 TAL 147.02 TAP 81.59 RCA 87.07 APO 162.28 V2 34.913
RC 159.692 GL -1.84 GP 11.09 ZAL 32.94 ZAP 168.09 ETS 64.89 ZAE 120.36 ETE 173.67 ZAC 113.22 ETC 262.01 CLP-175.63

PLANETOCENTRIC CONIC

C3 49.086 VHL 7.006 DLA -24.80 RAL 282.34 RAD 6568.8 VEL 13.056 PTH 2.38 VHP 10.219 DPA -11.25 RAP 253.68 ECC 1.8078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 5 13	1524.46	.98	1.27	159.58	118.30	13 30 37	924.5	4.75	354.63
90.00	17 12 3	707.20	23.64	312.18	168.96	106.06	17 23 50	107.2	25.62	304.07
100.00	14 4 25	1333.34	-1.39	345.91	158.27	119.86	14 26 38	733.3	2.60	339.39
100.00	18 55 32	5661.59	26.25	266.34	169.75	104.84	20 29 53	5061.6	28.03	257.99
110.00	14 30 15	1252.28	-6.60	336.54	155.03	123.62	14 51 8	652.3	-2.14	330.30
110.00	20 46 10	5315.42	32.21	241.68	171.39	102.11	22 14 46	4715.4	33.54	232.70

DIFFERENTIAL CORRECTIONS
TDE .4790 TRA 6.7723 TC3-1.3099 BAU .8597
RDE .4267 RRA -.4712 RC3 .0184 FAU .00769
FDE .2965 FRA 2.4156 FC3 -.1357 BSP 21729
BDE .6415 BRA 6.7887 BC3 1.3101 FSP -692

MID-COURSE EXECUTION ACCURACY
SGT 6383.4 SGR 550.1 SG3 189.9
RRT -.7121 RRF -.6981 RTF .9780
SGB 6407.1 R23 -.0012 R13 -.9780
SG1 6395.4 SG2 385.5 THA 176.48

ORBIT DETERMINATION ACCURACY
ST 1872.6 SR 371.5 SS 614.9
CRT -.1386 CRS -.0057 CST -.9893
LSA 1969.7 MSA 378.0 SSA 12.1
EL1 1873.4 EL2 367.7 ALF 178.36

LAUNCH DATE AUG 8 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 17 1970

HELIOCENTRIC CONIC DISTANCE 146.530

RL	151.69	LAL	.00	LOL	315.05	VL	19.838	GAL	8.59	AZL	93.90	HCA	53.63	SMA	97.86	ECC	.56412	INC	3.9046	V1	29.371		
RP	108.60	LAP	-3.14	LOP	8.62	VP	32.983	GAP	-33.83	AZP	92.32	TAL	173.23	TAP	226.87	RCA	42.65	APO	153.06	V2	34.894		
RC	52.249	GL	-7.38	GP	-5.00	ZAL	71.90	ZAP	23.09	ETS	165.77	ZAE	155.80	ETE	169.75	ZAC	91.33	ETC	256.38	CLP	22.57		

PLANETOCENTRIC CONIC

C3	108.256	VHL	10.405	DLA	-28.05	RAL	239.68	RAD	6570.1	VEL	15.152	PTH	2.72	VHP	19.743	DPA	-14.24	RAP	207.93	ECC	2.7816		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 40 31	1410.08	4.66	354.87	132.46	117.96	12 4 1	810.1	8.36	348.15
90.00	12 48 32	1189.21	11.52	342.27	135.99	116.05	13 8 21	589.2	14.93	335.26
100.00	12 7 59	1321.24	-.98	345.25	129.35	119.88	12 30 0	721.2	3.00	338.72
100.00	15 3 45	753.28	17.33	313.05	138.84	114.74	15 16 18	153.3	20.52	305.71
110.00	12 11 16	1310.92	-8.80	339.66	124.54	123.16	12 33 7	710.9	-4.38	333.37
110.00	17 16 57	5624.40	25.71	263.31	142.85	113.35	18 50 42	5024.4	28.64	255.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2556	TRA	-1.2299	TC3	-.1014	BAU	.1489	SGT	808.3	SGR	448.9	SG3	37.0	ST	269.9	SR	445.2	SS	238.4
RDE	-.8081	RRA	-.0756	RC3	.0172	FAU	.01481	RRT	-.0936	RRF	.0950	RTF	-.6351	CRT	-.4941	CRS	-.6668	CST	.9742
FDE	-.1752	FRA	.5389	FC3	-.1184	BSP	2058	SGB	924.6	R23	-.0096	R13	.6360	LSA	511.4	MSA	257.4	SSA	13.9
BDE	.8475	BRA	1.2323	BC3	.1029	FSP	-77	SG1	809.9	SG2	446.1	THA	175.72	EL1	471.0	EL2	221.8	ALF	111.72

LAUNCH DATE AUG 8 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 19 1970

HELIOCENTRIC CONIC DISTANCE 152.772

RL	151.69	LAL	.00	LOL	315.05	VL	20.404	GAL	8.24	AZL	93.67	HCA	56.81	SMA	99.53	ECC	.53813	INC	3.6660	V1	29.371		
RP	108.57	LAP	-3.07	LOP	11.80	VP	33.338	GAP	-32.18	AZP	92.01	TAL	172.80	TAP	229.61	RCA	45.97	APO	153.09	V2	34.905		
RC	50.589	GL	-7.54	GP	-5.18	ZAL	71.07	ZAP	21.61	ETS	164.31	ZAE	157.21	ETE	169.69	ZAC	91.46	ETC	256.49	CLP	21.01		

PLANETOCENTRIC CONIC

C3	96.799	VHL	9.839	DLA	-28.38	RAL	240.57	RAD	6569.9	VEL	14.770	PTH	2.67	VHP	18.876	DPA	-15.04	RAP	209.40	ECC	2.5931		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.02	12 1 21	1330.14	8.89	351.25	133.73	117.06	12 23 31	730.1	12.45	344.37
91.98	12 34 48	1221.73	8.90	343.33	133.73	117.06	12 55 10	621.7	12.46	336.45
100.00	12 19 43	1270.51	.74	342.47	129.30	119.88	12 40 54	670.5	4.71	335.93
100.00	14 59 7	756.59	17.23	313.25	137.89	114.81	15 11 43	156.6	20.44	305.92
110.00	12 18 52	1273.20	-7.39	337.65	124.28	123.47	12 40 5	673.2	-2.94	331.39
110.00	17 16 27	5614.70	25.97	262.68	142.05	113.05	18 50 2	5014.7	28.86	254.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2497	TRA	-1.2204	TC3	-.1036	BAU	.1360	SGT	845.7	SGR	453.7	SG3	40.4	ST	282.7	SR	450.7	SS	247.6
RDE	-.7737	RRA	-.0610	RC3	.0176	FAU	.01517	RRT	-.1042	RRF	.1062	RTF	-.6552	CRT	-.4913	CRS	-.6620	CST	.9750
FDE	-.1778	FRA	.5577	FC3	-.1356	BSP	2191	SGB	959.7	R23	-.0109	R13	.6562	LSA	522.3	MSA	267.3	SSA	14.1
BDE	.8130	BRA	1.2219	BC3	.1051	FSP	-85	SG1	847.5	SG2	450.3	THA	175.54	EL1	479.0	EL2	231.7	ALF	112.72

LAUNCH DATE AUG 8 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 21 1970

HELIOCENTRIC CONIC DISTANCE 159.081

RL	151.69	LAL	.00	LOL	315.05	VL	20.931	GAL	7.87	AZL	93.44	HCA	59.99	SMA	101.18	ECC	.51314	INC	3.4440	V1	29.371		
RP	108.53	LAP	-2.98	LOP	14.99	VP	33.675	GAP	-30.62	AZP	91.72	TAL	172.40	TAP	232.38	RCA	49.26	APO	153.10	V2	34.917		
RC	49.017	GL	-7.69	GP	-5.38	ZAL	70.32	ZAP	20.17	ETS	162.62	ZAE	158.80	ETE	169.68	ZAC	91.57	ETC	256.62	CLP	19.46		

PLANETOCENTRIC CONIC

C3	86.587	VHL	9.305	DLA	-28.68	RAL	241.38	RAD	6569.7	VEL	14.420	PTH	2.62	VHP	18.044	DPA	-15.85	RAP	210.88	ECC	2.4250		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.27	11 41 48	1379.37	9.74	355.30	133.08	117.11	12 4 47	779.4	13.30	348.40
94.73	13 0 50	1123.43	9.75	336.56	133.09	117.10	13 19 34	523.4	13.31	329.66
100.00	12 31 10	1219.12	2.48	339.64	129.13	119.80	12 51 29	619.1	6.43	333.08
100.00	14 54 10	758.92	17.17	313.39	136.80	114.85	15 6 49	158.9	20.38	306.06
110.00	12 25 52	1235.76	-5.98	335.67	123.90	123.72	12 46 28	635.8	-1.51	329.44
110.00	17 15 57	5603.08	26.28	261.92	141.11	112.69	18 49 20	5003.1	29.11	253.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2449	TRA	-1.2102	TC3	-.1044	BAU	.1226	SGT	884.3	SGR	457.9	SG3	44.1	ST	296.2	SR	455.7	SS	257.0
RDE	-.7398	RRA	-.0471	RC3	.0177	FAU	.01557	RRT	-.1161	RRF	.1186	RTF	-.6746	CRT	-.4904	CRS	-.6578	CST	.9761
FDE	-.1805	FRA	.5767	FC3	-.1557	BSP	2336	SGB	995.8	R23	-.0124	R13	.6757	LSA	533.4	MSA	276.8	SSA	14.4
BDE	.7793	BRA	1.2112	BC3	.1059	FSP	-95	SG1	886.5	SG2	453.7	THA	175.33	EL1	486.8	EL2	241.6	ALF	113.91

LAUNCH DATE AUG 8 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 23 1970

HELIOCENTRIC CONIC DISTANCE 165.454

RL	151.69	LAL	.00	LOL	315.05	VL	21.421	GAL	7.49	AZL	93.24	HCA	63.17	SMA	102.81	ECC	.48917	INC	3.2356	V1	29.371		
RP	108.49	LAP	-2.89	LOP	18.18	VP	33.994	GAP	-29.13	AZP	91.46	TAL	172.03	TAP	235.20	RCA	52.52	APO	153.10	V2	34.929		
RC	47.541	GL	-7.83	GP	-5.60	ZAL	69.65	ZAP	18.75	ETS	160.63	ZAE	160.56	ETE	169.76	ZAC	91.66	ETC	256.76	CLP	17.92		

PLANETOCENTRIC CONIC

C3	77.479	VHL	8.802	DLA	-28.94	RAL	242.12	RAD	6569.5	VEL	14.101	PTH	2.57	VHP	17.244	DPA	-16.68	RAP	212.37	ECC	2.2751		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.77	11 32 30	1393.56	10.61	356.79	132.30	117.08	11 55 43	793.6	14.15	349.87
96.23	13 16 0	1058.69	10.62	332.25	132.31	117.08	13 33 38	458.7	14.17	325.33
100.00	12 42 13	1167.33	4.23	336.79	128.83	119.62	13 1 40	567.3	8.14	330.19
100.00	14 48 57	760.16	17.13	313.46	135.57	114.88	15 1 38	160.2	20.34	306.14
110.00	12 32 12	1198.83	-4.58	333.72	123.39	123.91	12 52 11	598.8	-.10	327.51
110.00	17 15 28	5589.46	26.63	261.02	140.03	112.27	18 48 37	4989.5	29.41	252.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2409	TRA	-1.1999	TC3	-.1039	BAU	.1091	SGT	924.4	SGR	461.6	SG3	48.1	ST	310.3	SR	459.9	SS	266.6
RDE	-.7065	RRA	-.0339	RC3	.0173	FAU	.01602	RRT	-.1292	RRF	.1324	RTF	-.6932	CRT	-.4910	CRS	-.6542	CST	.9774
FDE	-.1833	FRA	.5963	FC3	-.1790	BSP	2483	SGB	1033.3	R23	-.0141	R13	.6944	LSA	544.9	MSA	286.0	SSA	14.6
BDE	.7464	BRA	1.2004	BC3	.1053	FSP	-106	SG1	927.0	SG2	456.4	THA	175.12	EL1	494.6	EL2	251.4	ALF	115.29

LAUNCH DATE AUG 8 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 171.884

RL	151.69	LAL	.00	LOL	315.05	VL	21.876	GAL	7.11	AZL	93.04	HCA	66.35	SMA	104.40	ECC	.46624	INC	3.0384	V1	29.371		
RP	108.45	LAP	-2.78	LOP	21.37	VP	34.296	GAP	-27.71	AZP	91.22	TAL	171.71	TAP	238.06	RCA	55.73	APO	153.08	V2	34.942		
RC	46.171	GL	-7.94	GP	-5.84	ZAL	69.05	ZAP	17.37	ETS	158.27	ZAE	162.49	ETE	169.96	ZAC	91.73	ETC	256.91	CLP	16.39		

PLANETOCENTRIC CONIC

C3	69.352	VHL	8.328	DLA	-29.16	RAL	242.77	RAD	6569.3	VEL	13.810	PTH	2.52	VHP	16.474	DPA	-17.52	RAP	213.87	ECC	2.1414		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.72	11 26 38	1394.90	11.49	357.35	131.39	116.99	11 49 52	794.9	15.02	350.39
97.28	13 27 4	1005.50	11.50	328.79	131.40	116.98	13 43 50	405.5	15.03	321.83
100.00	12 52 46	1115.59	5.97	333.93	128.40	119.35	13 11 22	515.6	9.83	327.28
100.00	14 43 36	760.04	17.14	313.45	134.22	114.87	14 56 17	160.0	20.35	306.13
110.00	12 37 49	1162.68	-3.21	331.83	122.75	124.05	12 57 11	562.7	1.29	325.62
110.00	17 15 3	5573.76	27.03	259.97	138.82	111.77	18 47 57	4973.8	29.74	251.83

DIFFERENTIAL CORRECTIONS

TDE	.2377	TRA	-1.1890	TC3	-.1014	BAU	.0952
RDE	-.6737	RRA	-.0215	RC3	.0164	FAU	.01651
FDE	-.1863	FRA	.6162	FC3	-.2061	BSP	2639
BDE	.7145	BRA	1.1892	BC3	.1027	FSP	-118

MID-COURSE EXECUTION ACCURACY

SGT	965.8	SGR	464.7	SG3	52.6		
RRT	-.1440	RRF	.1479	RTF	-.7112		
SGB	1071.8	R23	-.0159	R13	.7125		
SG1	968.8	SG2	458.4	THA	174.89		

ORBIT DETERMINATION ACCURACY

ST	325.2	SR	463.6	SS	276.5
CRT	-.4935	CRS	-.6513	CST	.9788
LSA	556.9	MSA	294.5	SSA	14.8
EL1	502.6	EL2	260.9	ALF	116.87

LAUNCH DATE AUG 8 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 178.366

RL	151.69	LAL	.00	LOL	315.05	VL	22.300	GAL	6.73	AZL	92.85	HCA	69.54	SMA	105.96	ECC	.44436	INC	2.8505	V1	29.371		
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.580	GAP	-26.35	AZP	91.00	TAL	171.43	TAP	240.97	RCA	58.88	APO	153.05	V2	34.954		
RC	44.918	GL	-8.03	GP	-6.10	ZAL	68.54	ZAP	16.04	ETS	155.46	ZAE	164.60	ETE	170.35	ZAC	91.77	ETC	257.07	CLP	14.86		

PLANETOCENTRIC CONIC

C3	62.097	VHL	7.880	DLA	-29.35	RAL	243.34	RAD	6569.2	VEL	13.544	PTH	2.48	VHP	15.734	DPA	-18.37	RAP	215.38	ECC	2.0220		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.95	11 22 47	1388.05	12.37	357.30	130.36	116.83	11 45 55	788.0	15.88	350.30
98.05	13 35 27	959.42	12.39	325.85	130.36	116.82	13 51 26	359.4	15.89	318.84
100.00	13 2 36	1064.69	7.65	331.10	127.82	118.98	13 20 21	464.7	11.46	324.38
100.00	14 38 19	758.00	17.19	313.33	132.77	114.84	14 50 57	158.0	20.40	306.00
110.00	12 42 37	1127.63	-1.87	330.00	121.97	124.14	13 1 25	527.6	2.62	323.79
110.00	17 14 48	5555.87	27.48	258.77	137.48	111.18	18 47 23	4955.9	30.10	250.56

DIFFERENTIAL CORRECTIONS

TDE	.2351	TRA	-1.1778	TC3	-.0968	BAU	.0813
RDE	-.6417	RRA	-.0096	RC3	.0148	FAU	.01706
FDE	-.1893	FRA	.6369	FC3	-.2378	BSP	2793
BDE	.6834	BRA	1.1778	BC3	.0979	FSP	-131

MID-COURSE EXECUTION ACCURACY

SGT	1008.8	SGR	467.2	SG3	57.4		
RRT	-.1601	RRF	.1651	RTF	-.7283		
SGB	1111.8	R23	-.0181	R13	.7297		
SG1	1012.3	SG2	459.6	THA	174.65		

ORBIT DETERMINATION ACCURACY

ST	340.8	SR	466.6	SS	286.7
CRT	-.4972	CRS	-.6488	CST	.9804
LSA	569.5	MSA	302.5	SSA	15.0
EL1	510.7	EL2	270.1	ALF	118.64

LAUNCH DATE AUG 8 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 184.897

RL	151.69	LAL	.00	LOL	315.05	VL	22.694	GAL	6.36	AZL	92.67	HCA	72.73	SMA	107.48	ECC	.42354	INC	2.6702	V1	29.371		
RP	108.38	LAP	-2.55	LOP	27.76	VP	34.848	GAP	-25.05	AZP	90.79	TAL	171.20	TAP	243.93	RCA	61.96	APO	153.01	V2	34.967		
RC	43.790	GL	-8.10	GP	-6.39	ZAL	68.10	ZAP	14.75	ETS	152.07	ZAE	166.86	ETE	171.08	ZAC	91.77	ETC	257.24	CLP	13.33		

PLANETOCENTRIC CONIC

C3	55.619	VHL	7.458	DLA	-29.49	RAL	243.82	RAD	6569.0	VEL	13.303	PTH	2.43	VHP	15.021	DPA	-19.25	RAP	216.89	ECC	1.9153		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.39	11 20 24	1374.99	13.26	356.79	129.19	116.59	11 43 19	775.0	16.72	349.74
98.61	13 41 42	918.66	13.27	323.29	129.20	116.58	13 57 0	318.7	16.73	316.24
100.00	13 11 18	1016.00	9.25	328.36	127.06	118.55	13 28 14	416.0	12.99	321.57
100.00	14 33 29	752.89	17.34	313.02	131.23	114.74	14 46 2	152.9	20.53	305.68
110.00	12 46 32	1094.01	-.58	328.24	121.06	124.18	13 4 46	494.0	3.91	322.04
110.00	17 14 44	5535.68	27.97	257.40	136.01	110.51	18 47 0	4935.7	30.49	249.12

DIFFERENTIAL CORRECTIONS

TDE	.2336	TRA	-1.1656	TC3	-.0893	BAU	.0670
RDE	-.6104	RRA	.0018	RC3	.0122	FAU	.01767
FDE	-.1927	FRA	.6582	FC3	-.2750	BSP	2960
BDE	.6536	BRA	1.1656	BC3	.0901	FSP	-145

MID-COURSE EXECUTION ACCURACY

SGT	1052.8	SGR	469.3	SG3	62.8		
RRT	-.1785	RRF	.1844	RTF	-.7448		
SGB	1152.7	R23	-.0204	R13	.7463		
SG1	1056.9	SG2	460.0	THA	174.38		

ORBIT DETERMINATION ACCURACY

ST	357.0	SR	469.0	SS	297.2
CRT	-.5035	CRS	-.6472	CST	.9822
LSA	582.9	MSA	309.3	SSA	15.2
EL1	519.5	EL2	278.5	ALF	120.63

LAUNCH DATE AUG 8 1970 FLIGHT TIME 84.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 191.471

RL	151.69	LAL	.00	LOL	315.05	VL	23.060	GAL	5.99	AZL	92.50	HCA	75.92	SMA	108.96	ECC	.40375	INC	2.4958	V1	29.371		
RP	108.34	LAP	-2.42	LOP	30.95	VP	35.101	GAP	-23.81	AZP	90.61	TAL	171.02	TAP	246.93	RCA	64.97	APO	152.95	V2	34.980		
RC	42.797	GL	-8.13	GP	-6.71	ZAL	67.75	ZAP	13.54	ETS	147.95	ZAE	169.28	ETE	172.41	ZAC	91.75	ETC	257.43	CLP	11.79		

PLANETOCENTRIC CONIC

C3	49.835	VHL	7.059	DLA	-29.59	RAL	244.22	RAD	6568.8	VEL	13.084	PTH	2.39	VHP	14.336	DPA	-20.14	RAP	218.40	ECC	1.8202		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.04	11 19 13	1356.66	14.12	355.88	127.90	116.27	11 41 50	756.7	17.54	348.77
98.96	13 46 3	882.56	14.14	321.06	127.91	116.27	14 0 46	282.6	17.55	313.95
100.00	13 18 9	971.86	10.68	325.86	126.09	118.09	13 34 21	371.9	14.35	319.00
100.00	14 29 49	742.60	17.63	312.40	129.64	114.54	14 42 11	142.6	20.80	305.03
110.00	12 49 29	1062.23	.63	326.59	120.01	124.18	13 7 11	462.2	5.11	320.37
110.00	17 14 58	5513.02	28.50	255.86	134.43	109.73	18 46 51	4913.0	30.91	247.49

DIFFERENTIAL CORRECTIONS

TDE	.2324	TRA	-1.1532	TC3	-.0788	BAU	.0528
RDE	-.5800	RRA	.0126	RC3	.0085	FAU	.01835
FDE	-.1962	FRA	.6804	FC3	-.3187	BSP	3126
BDE	.6248	BRA	1.1533	BC3	.0792	FSP	-161

MID-COURSE EXECUTION ACCURACY

SGT	1098.3	SGR	471.0	SG3	68.6		
RRT	-.1987	RRF	.2059	RTF	-.7604		
SGB	1195.1	R23	-.0231	R13	.7621		
SG1	1103.2	SG2	459.6	THA	174.10		

ORBIT DETERMINATION ACCURACY

ST	374.0	SR	470.7	SS	308.0
CRT	-.5108	CRS	-.6461	CST	.9840
LSA	597.2	MSA	315.3	SSA	15.4
EL1	528.7	EL2	286.3	ALF	122.78

LAUNCH DATE AUG 8 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 198.082

RL	151.69	LAL	.00	LOL	315.05	VL	23.400	GAL	5.62	AZL	92.33	HCA	79.11	SMA	110.39	ECC	.38500	INC	2.3262	V1	29.371		
RP	108.29	LAP	-2.28	LOP	34.15	VP	35.338	GAP	-22.62	AZP	90.44	TAL	170.88	TAP	249.99	RCA	67.89	APO	152.89	V2	34.993		
RC	41.950	GL	-8.13	GP	-7.05	ZAL	67.47	ZAP	12.42	ETS	142.94	ZAE	171.83	ETE	174.95	ZAC	91.68	ETC	257.62	CLP	10.25		

PLANETOCENTRIC CONIC

C3	44.673	VHL	6.684	DLA	-29.63	RAL	244.53	RAD	6568.7	VEL	12.886	PTH	2.35	VHP	13.676	DPA	-21.05	RAP	219.91	ECC	1.7352		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.88	11 19 15	1333.12	14.96	354.56	126.49	115.88	11 41 28	733.1	18.32	347.40
99.12	13 48 30	851.30	14.97	319.16	126.50	115.87	14 2 41	251.3	18.33	312.00
100.00	13 22 6	935.73	11.83	323.80	124.87	117.65	13 37 42	335.7	15.44	316.87
100.00	14 28 20	723.93	18.16	311.26	128.05	114.16	14 40 24	123.9	21.27	303.84
110.00	12 51 21	1032.71	1.76	325.05	118.82	124.14	13 8 34	432.7	6.23	318.81
110.00	17 15 35	5487.75	29.07	254.11	132.73	108.84	18 47 3	4887.8	31.36	245.65

DIFFERENTIAL CORRECTIONS

TDE	.2320	TRA	-1.1398	TC3	-.0644	BAU	.0385
RDE	-.5505	RRA	.0231	RC3	.0033	FAU	.01910
FDE	-.2000	FRA	.7035	FC3	-.3702	BSP	3305
BDE	.5974	BRA	1.1401	BC3	.0645	FSP	-179

MID-COURSE EXECUTION ACCURACY

SGT	1144.8	SGR	472.5	SG3	75.1		
RRT	-.2216	RRF	.2301	RTF	-.7752		
SGB	1238.5	R23	-.0262	R13	.7771		
SG1	1150.5	SG2	458.5	THA	173.79		

ORBIT DETERMINATION ACCURACY

ST	391.5	SR	472.0	SS	319.1		
CRT	-.5204	CRS	-.6459	CST	.9860		
LSA	612.5	MSA	320.1	SSA	15.6		
EL1	538.8	EL2	292.9	ALF	125.07		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 204.727

RL	151.69	LAL	.00	LOL	315.05	VL	23.716	GAL	5.26	AZL	92.16	HCA	82.31	SMA	111.78	ECC	.36727	INC	2.1600	V1	29.371		
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.561	GAP	-21.47	AZP	90.29	TAL	170.80	TAP	253.10	RCA	70.72	APO	152.83	V2	35.007		
RC	41.257	GL	-8.08	GP	-7.44	ZAL	67.28	ZAP	11.43	ETS	136.84	ZAE	174.46	ETE	180.61	ZAC	91.56	ETC	257.82	CLP	8.70		

PLANETOCENTRIC CONIC

C3	40.065	VHL	6.330	DLA	-29.62	RAL	244.75	RAD	6568.5	VEL	12.706	PTH	2.31	VHP	13.040	DPA	-21.99	RAP	221.42	ECC	1.6594		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.93	11 20 30	1304.54	15.76	352.84	124.97	115.40	11 42 15	704.5	19.06	345.61
99.07	13 49 2	825.01	15.78	317.61	124.97	115.40	14 2 47	225.0	19.07	310.39
100.00	13 22 11	910.91	12.61	322.37	123.35	117.33	13 37 22	310.9	16.17	315.39
100.00	14 30 3	693.87	18.98	309.41	126.50	113.53	14 41 36	93.9	22.00	301.92
110.00	12 52 3	1005.90	2.79	323.65	117.48	124.08	13 8 49	405.9	7.24	317.39
110.00	17 16 39	5459.69	29.67	252.15	130.92	107.82	18 47 39	4859.7	31.81	243.59

DIFFERENTIAL CORRECTIONS

TDE	.2319	TRA	-1.1261	TC3	-.0455	BAU	.0244
RDE	-.5219	RRA	.0332	RC3	-.0037	FAU	.01994
FDE	-.2038	FRA	.7278	FC3	-.4308	BSP	3475
BDE	.5711	BRA	1.1266	BC3	.0456	FSP	-199

MID-COURSE EXECUTION ACCURACY

SGT	1192.6	SGR	473.7	SG3	82.2		
RRT	-.2469	RRF	-.2572	RTF	-.7894		
SGB	1283.2	R23	-.0297	R13	.7914		
SG1	1199.3	SG2	456.5	THA	173.44		

ORBIT DETERMINATION ACCURACY

ST	409.6	SR	472.6	SS	330.4		
CRT	-.5312	CRS	-.6460	CST	.9879		
LSA	628.7	MSA	323.7	SSA	15.9		
EL1	549.6	EL2	298.4	ALF	127.45		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 211.400

RL	151.69	LAL	.00	LOL	315.05	VL	24.009	GAL	4.92	AZL	92.00	HCA	85.51	SMA	113.11	ECC	.35053	INC	1.9962	V1	29.371		
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.770	GAP	-20.38	AZP	90.16	TAL	170.76	TAP	256.27	RCA	73.46	APO	152.76	V2	35.020		
RC	40.727	GL	-7.99	GP	-7.86	ZAL	67.17	ZAP	10.61	ETS	129.48	ZAE	177.00	ETE	197.84	ZAC	91.40	ETC	258.03	CLP	7.14		

PLANETOCENTRIC CONIC

C3	35.956	VHL	5.996	DLA	-29.54	RAL	244.89	RAD	6568.4	VEL	12.543	PTH	2.27	VHP	12.429	DPA	-22.95	RAP	222.91	ECC	1.5917		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.21	11 23 12	1270.30	16.51	350.67	123.33	114.85	11 44 22	670.3	19.73	343.37
98.79	13 47 25	804.56	16.53	316.46	123.34	114.84	14 0 50	204.6	19.74	309.17
100.00	13 18 13	898.01	13.01	321.62	121.56	117.15	13 33 11	298.0	16.55	314.61
100.00	14 35 5	652.08	20.10	306.81	124.99	112.60	14 45 57	52.1	22.99	299.20
110.00	12 51 30	982.23	3.69	322.41	116.00	124.01	13 7 52	382.2	8.13	316.13
110.00	17 18 17	5428.67	30.29	249.95	129.00	106.65	18 48 46	4828.7	32.27	241.29

DIFFERENTIAL CORRECTIONS

TDE	.2322	TRA	-1.1116	TC3	-.0215	BAU	.0121
RDE	-.4944	RRA	.0432	RC3	-.0130	FAU	.02086
FDE	-.2078	FRA	.7534	FC3	-.5024	BSP	3661
BDE	.5462	BRA	1.1124	BC3	.0251	FSP	-221

MID-COURSE EXECUTION ACCURACY

SGT	1241.1	SGR	475.0	SG3	90.1		
RRT	-.2752	RRF	.2875	RTF	-.8027		
SGB	1328.9	R23	-.0338	R13	.8050		
SG1	1249.0	SG2	453.8	THA	173.07		

ORBIT DETERMINATION ACCURACY

ST	428.2	SR	472.6	SS	341.9		
CRT	-.5436	CRS	-.6469	CST	.9898		
LSA	645.8	MSA	326.1	SSA	16.1		
EL1	561.4	EL2	302.6	ALF	129.85		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 218.098

RL	151.69	LAL	.00	LOL	315.05	VL	24.280	GAL	4.58	AZL	91.83	HCA	88.71	SMA	114.39	ECC	.33478	INC	1.8336	V1	29.371		
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.966	GAP	-19.32	AZP	90.04	TAL	170.78	TAP	259.49	RCA	76.09	APO	152.68	V2	35.033		
RC	40.367	GL	-7.83	GP	-8.33	ZAL	67.15	ZAP	10.01	ETS	120.84	ZAE	178.14	ETE	266.79	ZAC	91.18	ETC	258.25	CLP	5.56		

PLANETOCENTRIC CONIC

C3	32.292	VHL	5.683	DLA	-29.39	RAL	244.94	RAD	6568.3	VEL	12.396	PTH	2.24	VHP	11.841	DPA	-23.94	RAP	224.38	ECC	1.5315		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.77	11 27 48	1229.04	17.20	347.94	121.59	114.21	11 48 17	629.0	20.32	340.58
98.23	13 43 13	791.59	17.21	315.85	121.59	114.20	13 56 24	191.6	20.34	308.47
100.00	13 10 58	894.92	13.10	321.44	119.55	117.11	13 25 53	294.9	16.64	314.43
100.00	14 42 44	600.95	21.40	303.57	123.46	111.38	14 52 45	1.0	24.12	295.82
110.00	12 49 37	962.16	4.45	321.36	114.39	123.93	13 6 39	362.2	8.88	315.06
110.00	17 20 34	5394.51	30.93	247.49	126.97	105.33	18 50 29	4794.5	32.72	238.73

DIFFERENTIAL CORRECTIONS

TDE	.2327	TRA	-1.0965	TC3	.0083	BAU	.0114
RDE	-.4679	RRA	.0530	RC3	-.0251	FAU	.02190
FDE	-.2117	FRA	.7807	FC3	-.5870	BSP	3845
BDE	.5226	BRA	1.0977	BC3	.0264	FSP	-246

MID-COURSE EXECUTION ACCURACY

SGT	1290.4	SGR	476.6	SG3	98.8		
RRT	-.3069	RRF	.3214	RTF	-.8153		
SGB	1375.6	R23	-.0382	R13	.8178		
SG1	1299.8	SG2	450.3	THA	172.64		

ORBIT DETERMINATION ACCURACY

ST	447.2	SR	472.1	SS	353.5		
CRT	-.5575	CRS	-.6478	CST	.9918		
LSA	663.7	MSA	327.1	SSA	16.3		
EL1	574.2	EL2	305.2	ALF	132.22		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 224.816

RL	151.69	LAL	.00	LOL	315.05	VL	24.532	GAL	4.25	AZL	91.67	HCA	91.91	SMA	115.61	ECC	.31998	INC	1.6714	V1	29.371
RP	108.13	LAP	-1.67	LOP	46.96	VP	36.149	GAP	-18.30	AZP	89.94	TAL	170.85	TAP	262.76	RCA	78.62	APO	152.60	V2	35.046
RC	40.182	GL	-7.61	GP	-8.86	ZAL	67.20	ZAP	9.69	ETS	111.11	ZAE	176.08	ETE	312.85	ZAC	90.90	ETC	258.47	CLP	3.96

PLANETOCENTRIC CONIC

C3	29.030	VHL	5.388	DLA	-29.16	RAL	244.90	RAO	6568.2	VEL	12.264	PTH	2.21	VHP	11.277	DPA	-24.96	RAP	225.84	ECC	1.4778

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.72	11 35 11	1178.16	17.81	344.46	119.74	113.48	11 54 49	578.2	20.83	337.03
97.28	13 35 33	789.00	17.82	315.92	119.75	113.47	13 48 42	189.0	20.84	308.49
100.00	13 1 15	899.10	12.97	321.68	117.37	117.17	13 16 14	299.1	16.51	314.68
100.00	14 52 10	5831.33	22.79	277.75	121.86	109.89	16 29 21	5231.3	25.29	269.85
110.00	12 46 19	946.11	5.06	320.51	112.66	123.85	13 2 5	346.1	9.47	314.20
110.00	17 23 35	5357.09	31.57	244.76	124.85	103.83	18 52 53	4757.1	33.15	235.89

DIFFERENTIAL CORRECTIONS

TDE	.2331	TRA	-1.0808	TC3	.0452	BAU	.0236	SGT	1340.2	SGR	478.7	SG3	108.4	ST	466.2	SR	471.1	SS	365.1
RDE	-.4425	RRA	.0628	RC3	-.0407	FAU	.02304	RRT	-.3421	RRF	.3591	RTF	-.8273	CRT	-.5724	CRS	-.6488	CST	.9936
FDE	-.2152	FRA	.8097	FC3	-.6872	BSP	4035	SGB	1423.1	R23	-.0433	R13	.8301	LSA	682.1	MSA	327.0	SSA	16.5
BDE	.5001	BRA	1.0826	BC3	.0608	FSP	-274	SG1	1351.4	SG2	446.1	THA	172.18	EL1	587.7	EL2	306.4	ALF	134.48

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 231.550

RL	151.69	LAL	.00	LOL	315.05	VL	24.765	GAL	3.94	AZL	91.51	HCA	95.12	SMA	116.78	ECC	.30611	INC	1.5085	V1	29.371
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.320	GAP	-17.32	AZP	89.87	TAL	170.97	TAP	266.09	RCA	81.03	APO	152.52	V2	35.060
RC	40.174	GL	-7.31	GP	-9.44	ZAL	67.34	ZAP	9.72	ETS	100.81	ZAE	173.28	ETE	323.80	ZAC	90.55	ETC	258.70	CLP	2.33

PLANETOCENTRIC CONIC

C3	26.126	VHL	5.111	DLA	-28.84	RAL	244.79	RAO	6568.1	VEL	12.145	PTH	2.18	VHP	10.734	DPA	-26.02	RAP	227.26	ECC	1.4300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.29	11 47 22	1111.21	18.32	339.76	117.82	112.67	12 5 53	511.2	21.23	332.26
95.71	13 22 27	803.50	18.33	317.22	117.82	112.66	13 35 50	203.5	21.24	309.71
100.00	12 49 42	908.90	12.67	322.25	115.09	117.30	13 4 51	308.9	16.23	315.27
100.00	15 2 48	5769.08	24.17	273.64	120.15	108.15	16 38 57	5169.1	26.42	265.57
110.00	12 41 34	934.47	5.50	319.90	110.81	123.79	12 57 9	334.5	9.90	313.58
110.00	17 27 25	5316.28	32.20	241.75	122.62	102.15	18 56 1	4716.3	33.54	232.77

DIFFERENTIAL CORRECTIONS

TDE	.2335	TRA	-1.0645	TC3	.0897	BAU	.0378	SGT	1390.1	SGR	481.8	SG3	119.0	ST	485.3	SR	469.5	SS	376.5
RDE	-.4181	RRA	.0729	RC3	-.0605	FAU	.02432	RRT	-.3812	RRF	.4009	RTF	-.8386	CRT	-.5886	CRS	-.6497	CST	.9953
FDE	-.2185	FRA	.8410	FC3	-.8059	BSP	4231	SGB	1471.3	R23	-.0490	R13	.8418	LSA	701.0	MSA	325.7	SSA	16.8
BDE	.4789	BRA	1.0670	BC3	.1082	FSP	-305	SG1	1403.6	SG2	441.2	THA	171.64	EL1	601.9	EL2	306.0	ALF	136.61

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 238.297

RL	151.69	LAL	.00	LOL	315.05	VL	24.980	GAL	3.64	AZL	91.34	HCA	98.33	SMA	117.89	ECC	.29314	INC	1.3438	V1	29.371
RP	108.05	LAP	-1.33	LOP	53.37	VP	36.480	GAP	-16.38	AZP	89.81	TAL	171.14	TAP	269.47	RCA	83.33	APO	152.44	V2	35.073
RC	40.345	GL	-6.92	GP	-10.08	ZAL	67.56	ZAP	10.11	ETS	90.67	ZAE	170.38	ETE	327.70	ZAC	90.13	ETC	258.93	CLP	.67

PLANETOCENTRIC CONIC

C3	23.546	VHL	4.852	DLA	-28.41	RAL	244.60	RAO	6568.0	VEL	12.038	PTH	2.15	VHP	10.213	DPA	-27.13	RAP	228.65	ECC	1.3875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.55	12 13 31	998.60	18.71	331.67	115.81	111.78	12 30 9	398.6	21.51	324.10
92.45	12 54 45	864.94	18.73	321.89	115.82	111.77	13 9 10	264.9	21.52	314.33
100.00	12 36 40	923.45	12.21	323.09	112.72	117.50	12 52 3	323.5	15.80	316.14
100.00	15 14 17	5703.36	25.49	269.21	118.32	106.17	16 49 21	5103.4	27.46	260.96
110.00	12 35 21	927.60	5.76	319.54	108.86	123.75	12 50 48	327.6	10.16	313.21
110.00	17 32 6	5271.98	32.79	238.42	120.28	100.27	18 59 58	4672.0	33.85	229.35

DIFFERENTIAL CORRECTIONS

TDE	.2308	TRA	-1.0489	TC3	.1387	BAU	.0513	SGT	1440.6	SGR	486.5	SG3	130.7	ST	502.7	SR	467.4	SS	387.5
RDE	-.3948	RRA	.0832	RC3	-.0855	FAU	.02573	RRT	-.4217	RRF	.4469	RTF	-.8478	CRT	-.6010	CRS	-.6503	CST	.9964
FDE	-.2209	FRA	.8746	FC3	-.9462	BSP	4368	SGB	1520.5	R23	-.0587	R13	.8515	LSA	718.2	MSA	324.4	SSA	17.1
BDE	.4573	BRA	1.0522	BC3	.1630	FSP	-339	SG1	1456.6	SG2	436.3	THA	171.09	EL1	614.7	EL2	305.5	ALF	138.46

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 245.052

RL	151.69	LAL	.00	LOL	315.05	VL	25.178	GAL	3.35	AZL	91.18	HCA	101.54	SMA	118.94	ECC	.28104	INC	1.1762	V1	29.371
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.629	GAP	-15.47	AZP	89.76	TAL	171.36	TAP	272.90	RCA	85.51	APO	152.37	V2	35.086
RC	40.692	GL	-6.43	GP	-10.81	ZAL	67.86	ZAP	10.85	ETS	81.37	ZAE	167.49	ETE	329.28	ZAC	89.61	ETC	259.16	CLP	-1.02

PLANETOCENTRIC CONIC

C3	21.256	VHL	4.610	DLA	-27.87	RAL	244.33	RAO	6567.9	VEL	11.943	PTH	2.13	VHP	9.715	DPA	-28.29	RAP	230.00	ECC	1.3498

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 48 59	1050.31	15.52	334.04	112.25	113.98	12 6 29	450.3	18.63	326.75
90.00	13 17 11	763.61	22.52	315.94	115.06	107.63	13 29 54	163.6	24.73	307.96
100.00	12 22 21	942.44	11.61	324.18	110.30	117.74	12 38 3	342.4	15.24	317.26
100.00	15 26 30	5634.75	26.70	264.47	116.36	103.96	17 0 25	5034.8	28.36	256.06
110.00	12 27 38	925.81	5.83	319.44	106.82	123.74	12 43 4	325.8	10.22	313.11
110.00	17 37 42	5224.14	33.31	234.79	117.85	98.17	19 4 46	4624.1	34.08	225.63

DIFFERENTIAL CORRECTIONS

TDE	.2329	TRA	-1.0306	TC3	.2042	BAU	.0669	SGT	1489.4	SGR	493.4	SG3	143.8	ST	522.2	SR	464.6	SS	397.9
RDE	-.3725	RRA	.0942	RC3	-.1169	FAU	.02730	RRT	-.4709	RRF	.4968	RTF	-.8591	CRT	-.6234	CRS	-.6496	CST	.9979
FDE	-.2220	FRA	.9113	FC3	-1.1120	BSP	4617	SGB	1569.0	R23	-.0628	R13	.8631	LSA	737.7	MSA	320.0	SSA	17.3
BDE	.4393	BRA	1.0349	BC3	.2353	FSP	-377	SG1	1509.0	SG2	429.6	THA	170.34	EL1	631.0	EL2	300.7	ALF	140.32

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 251.812

RL	151.69	LAL	.00	LOL	315.05	VL	25.362	GAL	3.07	AZL	91.00	HCA	104.75	SMA	119.93	ECC	.26979	INC	1.0046	V1	29.371		
RP	107.97	LAP	-.97	LOP	59.80	VP	36.767	GAP	-14.59	AZP	89.74	TAL	171.63	TAP	276.37	RCA	87.58	APO	152.29	V2	35.098		
RC	41.209	GL	-5.81	GP	-11.62	ZAL	68.23	ZAP	11.93	ETS	73.31	ZAE	164.66	ETE	329.79	ZAC	89.00	ETC	259.39	CLP	-2.75		

PLANETOCENTRIC CONIC

C3	19.228	VHL	4.385	DLA	-27.20	RAL	244.00	RAD	6567.8	VEL	11.858	PTH	2.10	VHP	9.237	DPA	-29.51	RAP	231.29	ECC	1.3164		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 21 56	1111.06	13.81	337.68	109.36	114.97	11 40 27	511.1	17.06	330.51
90.00	13 41 38	655.02	24.58	308.65	113.44	104.53	13 52 33	55.0	26.33	300.42
100.00	12 6 53	965.81	10.87	325.52	107.86	118.02	12 22 59	365.8	14.53	318.64
100.00	15 39 22	5563.54	27.77	259.45	114.27	101.52	17 12 5	4963.5	29.08	250.89
110.00	12 18 28	929.41	5.69	319.63	104.73	123.76	12 33 58	329.4	10.09	313.30
110.00	17 44 16	5172.70	33.74	230.83	115.33	95.87	19 10 28	4572.7	34.18	221.62

DIFFERENTIAL CORRECTIONS

TDE	.2305	TRA	-1.0135	TC3	.2760	BAU	.0815
RDE	-.3511	RRA	.1059	RC3	-.1560	FAU	.02904
FDE	-.2212	FRA	.9514	FC3	-1.3076	BSP	4814
BDE	.4200	BRA	1.0190	BC3	.3171	FSP	-420

MID-COURSE EXECUTION ACCURACY

SGT	1538.2	SGR	503.4	SG3	158.2		
RRT	-.5204	RRF	.5501	RTF	-.8684		
SGB	1618.5	R23	-.0715	R13	.8730		
SG1	1562.1	SG2	423.3	THA	169.56		

ORBIT DETERMINATION ACCURACY

ST	538.7	SR	461.1	SS	407.3		
CRT	-.6401	CRS	-.6470	CST	.9985		
LSA	753.9	MSA	316.3	SSA	17.6		
EL1	644.3	EL2	296.2	ALF	141.85		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 258.575

RL	151.69	LAL	.00	LOL	315.05	VL	25.530	GAL	2.80	AZL	90.83	HCA	107.96	SMA	120.87	ECC	.25935	INC	.8277	V1	29.371		
RP	107.93	LAP	-.79	LOP	63.01	VP	36.895	GAP	-13.74	AZP	89.74	TAL	171.93	TAP	279.89	RCA	89.52	APO	152.22	V2	35.111		
RC	41.891	GL	-5.06	GP	-12.53	ZAL	68.69	ZAP	13.31	ETS	66.62	ZAE	161.93	ETE	329.66	ZAC	88.27	ETC	259.62	CLP	-4.54		

PLANETOCENTRIC CONIC

C3	17.435	VHL	4.175	DLA	-26.37	RAL	243.62	RAD	6567.7	VEL	11.782	PTH	2.08	VHP	8.781	DPA	-30.81	RAP	232.51	ECC	1.2869		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 20	1161.70	12.33	340.67	106.64	115.69	11 17 42	561.7	15.69	333.60
90.00	14 2 11	5846.60	26.06	279.88	111.52	101.50	15 39 38	5246.6	27.38	271.46
100.00	11 50 21	993.73	9.97	327.10	105.42	118.33	12 6 54	393.7	13.68	320.28
100.00	15 52 52	5489.81	28.66	254.15	112.04	98.87	17 24 21	4889.8	29.59	245.47
110.00	12 7 53	938.69	5.34	320.12	102.60	123.81	12 23 32	338.7	9.75	313.80
110.00	17 51 49	5117.61	34.04	226.56	112.72	93.36	19 17 6	4517.6	34.13	217.32

DIFFERENTIAL CORRECTIONS

TDE	.2269	TRA	-.9963	TC3	.3572	BAU	.0959
RDE	-.3305	RRA	.1187	RC3	-.2046	FAU	.03096
FDE	-.2176	FRA	.9954	FC3	-1.5374	BSP	5003
BDE	.4009	BRA	1.0033	BC3	.4116	FSP	-467

MID-COURSE EXECUTION ACCURACY

SGT	1585.7	SGR	517.6	SG3	174.1		
RRT	-.5722	RRF	.6059	RTF	-.8769		
SGB	1668.0	R23	-.0814	R13	.8823		
SG1	1615.1	SG2	416.7	THA	168.65		

ORBIT DETERMINATION ACCURACY

ST	553.7	SR	456.8	SS	415.4		
CRT	-.6572	CRS	-.6419	CST	.9984		
LSA	768.2	MSA	312.1	SSA	17.9		
EL1	656.4	EL2	290.4	ALF	143.21		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 265.337

RL	151.69	LAL	.00	LOL	315.05	VL	25.685	GAL	2.55	AZL	90.64	HCA	111.18	SMA	121.75	ECC	.24969	INC	.6441	V1	29.371		
RP	107.89	LAP	-.60	LOP	66.23	VP	37.014	GAP	-12.93	AZP	89.77	TAL	172.27	TAP	283.45	RCA	91.35	APO	152.15	V2	35.123		
RC	42.728	GL	-4.16	GP	-13.55	ZAL	69.21	ZAP	14.95	ETS	61.18	ZAE	159.31	ETE	329.11	ZAC	87.42	ETC	259.84	CLP	-6.37		

PLANETOCENTRIC CONIC

C3	15.855	VHL	3.982	DLA	-25.38	RAL	243.20	RAD	6567.6	VEL	11.715	PTH	2.06	VHP	8.347	DPA	-32.19	RAP	233.66	ECC	1.2609		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 35 44	1210.74	10.87	343.52	104.04	116.31	10 55 55	610.7	14.32	336.54
90.00	14 21 25	5754.01	27.15	273.32	109.39	98.38	15 57 19	5154.0	28.03	264.76
100.00	11 32 48	1026.45	8.91	328.95	103.00	118.65	11 49 55	426.5	12.67	322.18
100.00	16 7 2	5413.53	29.34	248.58	109.71	96.01	17 37 15	4813.5	29.86	239.82
110.00	11 55 55	953.92	4.76	320.92	100.47	123.89	12 11 49	353.9	9.18	314.62
110.00	18 0 24	5058.83	34.18	221.97	110.04	90.65	19 24 43	4458.8	33.89	212.74

DIFFERENTIAL CORRECTIONS

TDE	.2216	TRA	-.9790	TC3	.4482	BAU	.1103
RDE	-.3105	RRA	.1330	RC3	-.2643	FAU	.03307
FDE	-.2105	FRA	1.0440	FC3	-1.8058	BSP	5201
BDE	.3814	BRA	.9880	BC3	.5204	FSP	-520

MID-COURSE EXECUTION ACCURACY

SGT	1631.1	SGR	537.4	SG3	191.7		
RRT	-.6252	RRF	.6628	RTF	-.8848		
SGB	1717.4	R23	-.0924	R13	.8911		
SG1	1667.6	SG2	410.3	THA	167.60		

ORBIT DETERMINATION ACCURACY

ST	566.2	SR	451.3	SS	422.0		
CRT	-.6740	CRS	-.6335	CST	.9971		
LSA	779.4	MSA	307.5	SSA	18.3		
EL1	666.3	EL2	283.3	ALF	144.37		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 272.095

RL	151.69	LAL	.00	LOL	315.05	VL	25.827	GAL	2.32	AZL	90.45	HCA	114.40	SMA	122.58	ECC	.24078	INC	.4521	V1	29.371		
RP	107.86	LAP	-.41	LOP	69.45	VP	37.124	GAP	-12.14	AZP	89.81	TAL	172.64	TAP	287.05	RCA	93.06	APO	152.09	V2	35.135		
RC	43.711	GL	-3.07	GP	-14.71	ZAL	69.80	ZAP	16.83	ETS	56.83	ZAE	156.82	ETE	328.20	ZAC	86.42	ETC	260.05	CLP	-8.27		

PLANETOCENTRIC CONIC

C3	14.467	VHL	3.804	DLA	-24.20	RAL	242.75	RAD	6567.6	VEL	11.656	PTH	2.05	VHP	7.935	DPA	-33.67	RAP	234.72	ECC	1.2381		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 13 18	1261.31	9.33	346.44	101.54	116.86	10 34 19	661.3	12.86	339.54
90.00	14 40 15	5662.38	27.88	266.72	107.13	95.15	16 14 38	5062.4	28.30	258.08
100.00	11 14 19	1064.35	7.67	331.08	100.65	118.98	11 32 3	464.4	11.47	324.36
100.00	16 21 56	5334.57	29.76	242.75	107.28	92.97	17 50 50	4734.6	29.85	233.95
110.00	11 42 40	975.43	3.95	322.05	98.36	123.98	11 58 55	375.4	8.38	315.77
110.00	18 10 4	4996.26	34.12	217.09	107.31	87.76	19 33 20	4396.3	33.43	207.91

DIFFERENTIAL CORRECTIONS

TDE	.2143	TRA	-.9617	TC3	.5492	BAU	.1247
RDE	-.2908	RRA	.1492	RC3	-.3377	FAU	.03539
FDE	-.1984	FRA	1.0976	FC3	-2.1175	BSP	5383
BDE	.3612	BRA	.9732	BC3	.6447	FSP	-578

MID-COURSE EXECUTION ACCURACY

SGT	1673.8	SGR	564.4	SG3	211.1		
RRT	-.6775	RRF	.7188	RTF	-.8922		
SGB	1766.4	R23	-.1045	R13	.8996		
SG1	1719.5	SG2	404.1	THA	166.36		

ORBIT DETERMINATION ACCURACY

ST	575.7	SR	444.3	SS	426.7		
CRT	-.6909	CRS	-.6201	CST	.9941		
LSA	786.7	MSA	302.9	SSA	18.6		
EL1	673.4	EL2	274.6	ALF	145.38		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 278.847

RL	151.69	LAL	.00	LOL	315.05	VL	25.958	GAL	2.10	AZL	90.25	HCA	117.62	SMA	123.35	ECC	.23258	INC	.2500	V1	29.371		
RP	107.82	LAP	-.22	LOP	72.67	VP	37.226	GAP	-11.37	AZP	89.88	TAL	173.05	TAP	290.67	RCA	94.66	APO	152.03	V2	35.146		
RC	44.829	GL	-1.78	GP	-16.02	ZAL	70.45	ZAP	18.95	ETS	53.37	ZAE	154.44	ETE	326.99	ZAC	85.25	ETC	260.24	CLP	-10.25		

PLANETOCENTRIC CONIC

C3	13.256	VHL	3.641	DLA	-22.82	RAL	242.29	RAD	6567.5	VEL	11.604	PTH	2.03	VHP	7.545	DPA	-35.28	RAP	235.66	ECC	1.2182		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 50 40	1315.21	7.66	349.52	99.17	117.35	10 12 35	715.2	11.26	342.69
90.00	14 59 11	5570.15	28.26	260.00	104.77	91.81	16 32 1	4970.1	28.22	251.33
100.00	10 54 54	1107.89	6.22	333.50	98.39	119.30	11 13 22	507.9	10.08	326.84
100.00	16 37 38	5252.70	29.89	236.67	104.80	89.78	18 5 11	4652.7	29.54	227.88
110.00	11 28 10	1003.56	2.87	323.53	96.32	124.08	11 44 54	403.6	7.33	317.27
110.00	18 20 51	4929.79	33.82	211.92	104.57	84.71	19 43 1	4329.8	32.72	202.86

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2044	TRA	-.9447	TC3	.6584	BAU	.1391	SGT	1713.0	SGR	600.6	SG3	232.4	ST	581.2	SR	435.3	SS	429.6
RDE	-.2711	RRA	.1677	RC3	-.4272	FAU	.03791	RRT	-.7272	RRF	.7722	RTF	-.8989	CRT	-.7073	CRS	-.6002	CST	.9884
FDE	-.1799	FRA	1.1572	FC3	-2.4761	BSP	5579	SGB	1815.3	R23	-.1178	R13	.9077	LSA	788.8	MSA	298.7	SSA	19.0
BDE	.3395	BRA	.9594	BC3	.7848	FSP	-643	SG1	1770.9	SG2	398.8	THA	164.91	EL1	676.2	EL2	264.4	ALF	146.26

LAUNCH DATE AUG 8 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 285.591

RL	151.69	LAL	.00	LOL	315.05	VL	26.077	GAL	1.89	AZL	90.04	HCA	120.85	SMA	124.06	ECC	.22506	INC	.0335	V1	29.371		
RP	107.79	LAP	-.03	LOP	75.89	VP	37.320	GAP	-10.63	AZP	89.98	TAL	173.47	TAP	294.31	RCA	96.14	APO	151.98	V2	35.158		
RC	46.073	GL	-.27	GP	-17.51	ZAL	71.17	ZAP	21.29	ETS	50.62	ZAE	152.18	ETE	325.48	ZAC	83.89	ETC	260.41	CLP	-12.30		

PLANETOCENTRIC CONIC

C3	12.207	VHL	3.494	DLA	-21.19	RAL	241.83	RAD	6567.5	VEL	11.558	PTH	2.02	VHP	7.179	DPA	-37.03	RAP	236.46	ECC	1.2009		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 27 38	1373.72	5.81	352.83	96.95	117.76	9 50 32	773.7	9.48	346.07
90.00	15 18 32	5476.29	28.27	253.13	102.37	88.37	16 49 49	4876.3	27.75	244.51
100.00	10 34 36	1157.61	4.56	336.26	96.26	119.57	10 53 53	557.6	8.46	329.65
100.00	16 54 16	5167.63	29.70	230.35	102.29	86.46	18 20 23	4567.6	28.89	221.64
110.00	11 12 31	1038.75	1.53	325.36	94.38	124.15	11 29 50	438.8	6.00	319.13
110.00	18 32 50	4859.26	33.25	206.50	101.86	81.55	19 53 49	4259.3	31.72	197.60

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1908	TRA	-.9282	TC3	.7719	BAU	.1533	SGT	1747.6	SGR	647.9	SG3	255.5	ST	581.4	SR	423.1	SS	430.7
RDE	-.2506	RRA	.1894	RC3	-.5354	FAU	.04063	RRT	-.7720	RRF	.8205	RTF	-.9049	CRT	-.7224	CRS	-.5697	CST	.9782
FDE	-.1516	FRA	1.2232	FC3	-2.8814	BSP	5760	SGB	1863.8	R23	-.1324	R13	.9155	LSA	784.0	MSA	295.8	SSA	19.5
BDE	.3149	BRA	.9473	BC3	.9394	FSP	-715	SG1	1821.5	SG2	395.1	THA	163.22	EL1	673.2	EL2	252.6	ALF	147.06

LAUNCH DATE AUG 8 1970 FLIGHT TIME 114.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 292.325

RL	151.69	LAL	.00	LOL	315.05	VL	26.185	GAL	1.69	AZL	89.81	HCA	124.07	SMA	124.72	ECC	.21819	INC	.1929	V1	29.371		
RP	107.76	LAP	.16	LOP	79.12	VP	37.406	GAP	-9.92	AZP	90.11	TAL	173.90	TAP	297.97	RCA	97.51	APO	151.93	V2	35.168		
RC	47.431	GL	1.51	GP	-19.20	ZAL	71.93	ZAP	23.86	ETS	48.44	ZAE	150.00	ETE	323.68	ZAC	82.32	ETC	260.56	CLP	-14.44		

PLANETOCENTRIC CONIC

C3	11.307	VHL	3.363	DLA	-19.30	RAL	241.39	RAD	6567.4	VEL	11.519	PTH	2.01	VHP	6.838	DPA	-38.95	RAP	237.10	ECC	1.1861		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 4 4	1437.97	3.76	356.44	94.93	118.09	9 28 2	838.0	7.49	349.74
90.00	15 38 36	5379.98	27.89	246.12	99.98	84.87	17 8 16	4780.0	26.88	237.59
100.00	10 13 26	1214.17	2.65	339.37	94.31	119.79	10 33 40	614.2	6.60	332.81
100.00	17 11 56	5079.02	29.15	223.83	99.82	83.07	18 36 35	4479.0	27.88	215.25
110.00	10 55 46	1081.51	-.10	327.59	92.59	124.18	11 13 47	481.5	4.38	321.38
110.00	18 46 5	4784.45	32.36	200.84	99.21	78.32	20 5 50	4184.4	30.41	192.17

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1751	TRA	-.9121	TC3	.8877	BAU	.1677	SGT	1776.8	SGR	709.1	SG3	280.5	ST	577.4	SR	407.3	SS	432.1
RDE	-.2289	RRA	.2149	RC3	-.6652	FAU	.04351	RRT	-.8115	RRF	.8628	RTF	-.9102	CRT	-.7405	CRS	-.5303	CST	.9607
FDE	-.1133	FRA	1.2965	FC3	-3.3316	BSP	5938	SGB	1913.1	R23	-.1469	R13	.9231	LSA	774.1	MSA	293.9	SSA	19.9
BDE	.2882	BRA	.9370	BC3	1.1093	FSP	-791	SG1	1872.2	SG2	393.3	THA	161.19	EL1	665.5	EL2	237.5	ALF	147.84

LAUNCH DATE AUG 8 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 299.046

RL	151.69	LAL	.00	LOL	315.05	VL	26.284	GAL	1.51	AZL	89.56	HCA	127.30	SMA	125.33	ECC	.21193	INC	.4412	V1	29.371		
RP	107.72	LAP	.35	LOP	82.34	VP	37.484	GAP	-9.22	AZP	90.27	TAL	174.35	TAP	301.64	RCA	98.77	APO	151.89	V2	35.179		
RC	48.893	GL	3.57	GP	-21.13	ZAL	72.75	ZAP	26.68	ETS	46.70	ZAE	147.89	ETE	321.57	ZAC	80.50	ETC	260.68	CLP	-16.68		

PLANETOCENTRIC CONIC

C3	10.550	VHL	3.248	DLA	-17.13	RAL	240.99	RAD	6567.4	VEL	11.486	PTH	2.00	VHP	6.524	DPA	-41.06	RAP	237.53	ECC	1.1736		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 53	1509.08	1.48	.41	93.13	118.28	9 5 2	909.1	5.25	353.76
90.00	15 59 38	5280.46	27.07	238.95	97.67	81.37	17 27 39	4680.5	25.60	230.59
100.00	9 51 23	1278.36	.48	342.90	92.58	119.89	10 12 42	678.4	4.45	336.36
100.00	17 30 49	4986.42	28.20	217.11	97.45	79.65	18 53 56	4386.4	26.48	208.73
110.00	10 37 58	1132.45	-2.05	330.25	91.00	124.13	10 56 50	532.5	2.44	324.05
110.00	19 0 44	4705.09	31.11	194.99	96.70	75.06	20 19 9	4105.1	28.75	186.59

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1554	TRA	-.8965	TC3	1.0021	BAU	.1826	SGT	1799.2	SGR	786.8	SG3	307.0	ST	567.4	SR	386.3	SS	436.0
RDE	-.2048	RRA	.2454	RC3	-.8193	FAU	.04654	RRT	-.8443	RRF	.8979	RTF	-.9151	CRT	-.7610	CRS	-.4797	CST	.9323
FDE	-.0604	FRA	1.3771	FC3	-3.8191	BSP	6110	SGB	1963.7	R23	-.1607	R13	.9307	LSA	757.7	MSA	294.5	SSA	20.1
BDE	.2571	BRA	.9294	BC3	1.2944	FSP	-873	SG1	1923.7	SG2	394.3	THA	158.80	EL1	650.7	EL2	218.6	ALF	148.68

LAUNCH DATE AUG 8 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 305.754

RL	151.69	LAL	.00	LOL	315.05	VL	26.374	GAL	1.35	AZL	89.29	HCA	130.52	SMA	125.89	ECC	.20626	INC	.7115	V1	29.371
RP	107.69	LAP	.54	LOP	85.57	VP	37.556	GAP	-8.55	AZP	90.46	TAL	174.79	TAP	305.32	RCA	99.92	APO	151.86	V2	35.188
RC	50.451	GL	5.97	GP	-23.33	ZAL	73.61	ZAP	29.77	ETS	45.30	ZAE	145.78	ETE	319.15	ZAC	78.39	ETC	260.76	CLP	-19.04

PLANETOCENTRIC CONIC

C3	9.929	VHL	3.151	DLA	-14.62	RAL	240.66	RAD	6567.4	VEL	11.459	PTH	1.99	VHP	6.238	DPA	-43.40	RAP	237.73	ECC	1.1634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 58	1588.23	-1.08	4.83	91.63	118.30	8 41 26	988.2	2.71	358.20
90.00	16 21 56	5176.99	25.81	231.64	95.51	77.92	17 48 13	4577.0	23.88	223.50
100.00	9 28 27	1351.12	-1.99	346.89	91.12	119.83	9 50 59	751.1	1.99	340.37
100.00	17 51 7	4889.34	26.82	210.22	95.26	76.28	19 12 37	4289.3	24.67	202.09
110.00	10 19 9	1192.35	-4.33	333.38	89.66	123.94	10 39 1	592.4	.15	327.17
110.00	19 16 55	4620.87	29.48	188.98	94.40	71.85	20 33 56	4020.9	26.71	180.88

DIFFERENTIAL CORRECTIONS

TDE	.1324	TRA	-.8814	TC3	1.1063	BAU	.1979	SGT	1813.0	SGR	883.9	SG3	334.7	ST	552.5	SR	359.4	SS	447.4
RDE	-.1770	RRA	.2822	RC3	-.9993	FAU	.04961	RRT	-.8703	RRF	.9260	RTF	-.9191	CRT	-.7901	CRS	-.4273	CST	.8896
FDE	.0093	FRA	1.4648	FC3	-4.3252	BSP	6291	SGB	2017.0	R23	-.1725	R13	.9384	LSA	738.5	MSA	298.0	SSA	20.2
BDE	.2210	BRA	.9254	BC3	1.4908	FSP	-959	SG1	1977.1	SG2	399.2	THA	155.97	EL1	630.2	EL2	193.2	ALF	149.65

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 312.445

RL	151.69	LAL	.00	LOL	315.05	VL	26.454	GAL	1.20	AZL	88.99	HCA	133.75	SMA	126.40	ECC	.20113	INC	1.0094	V1	29.371
RP	107.67	LAP	.73	LOP	88.80	VP	37.622	GAP	-7.90	AZP	90.70	TAL	175.23	TAP	308.99	RCA	100.98	APO	151.83	V2	35.198
RC	52.096	GL	8.72	GP	-25.84	ZAL	74.50	ZAP	33.14	ETS	44.16	ZAE	143.63	ETE	316.41	ZAC	75.96	ETC	260.78	CLP	-21.52

PLANETOCENTRIC CONIC

C3	9.447	VHL	3.074	DLA	-11.77	RAL	240.42	RAD	6567.3	VEL	11.438	PTH	1.98	VHP	5.985	DPA	-46.00	RAP	237.61	ECC	1.1555

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 11	1676.76	-3.93	9.77	90.48	118.07	8 17 8	1076.8	-.14	3.14
90.00	16 45 46	5068.81	24.05	224.21	93.60	74.59	18 10 15	4468.8	21.70	216.32
100.00	9 4 33	1433.60	-4.77	351.43	90.02	119.54	9 28 27	833.6	-.80	344.89
100.00	18 13 5	4787.21	24.98	203.20	93.31	73.02	19 32 52	4187.2	22.42	195.34
110.00	9 59 18	1262.16	-6.98	337.06	88.66	123.55	10 20 20	662.2	-2.52	330.81
110.00	19 34 50	4531.41	27.42	182.83	92.36	68.74	20 50 21	3931.4	24.28	175.07

DIFFERENTIAL CORRECTIONS

TDE	.1065	TRA	-.8657	TC3	1.1925	BAU	.2141	SGT	1815.0	SGR	1003.3	SG3	362.5	ST	533.4	SR	327.0	SS	472.0
RDE	-.1436	RRA	.3265	RC3	-1.2049	FAU	.05260	RRT	-.8901	RRF	.9475	RTF	-.9223	CRT	-.8364	CRS	-.3977	CST	.8328
FDE	.0986	FRA	1.5572	FC3	-4.8200	BSP	6492	SGB	2073.8	R23	-.1807	R13	.9461	LSA	721.7	MSA	304.7	SSA	19.8
BDE	.1788	BRA	.9252	BC3	1.6952	FSP	-1049	SG1	2033.2	SG2	408.3	THA	152.60	EL1	605.4	EL2	157.9	ALF	150.66

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 319.120

RL	151.69	LAL	.00	LOL	315.05	VL	26.527	GAL	1.06	AZL	88.66	HCA	136.98	SMA	126.87	ECC	.19653	INC	1.3414	V1	29.371
RP	107.64	LAP	.92	LOP	92.03	VP	37.681	GAP	-7.27	AZP	90.98	TAL	175.66	TAP	312.64	RCA	101.94	APO	151.80	V2	35.206
RC	53.818	GL	11.87	GP	-28.69	ZAL	75.43	ZAP	36.82	ETS	43.17	ZAE	141.36	ETE	313.35	ZAC	73.17	ETC	260.73	CLP	-24.13

PLANETOCENTRIC CONIC

C3	9.108	VHL	3.018	DLA	-8.52	RAL	240.29	RAD	6567.3	VEL	11.424	PTH	1.98	VHP	5.770	DPA	-48.89	RAP	237.11	ECC	1.1499

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 22 20	1776.27	-7.09	15.38	89.77	117.49	7 51 56	1176.3	-3.35	8.69
90.00	17 11 33	4955.10	21.79	216.64	92.03	71.45	18 34 8	4355.1	19.05	209.03
100.00	8 39 33	1527.19	-7.89	356.63	89.34	118.93	9 5 0	927.2	-3.97	350.04
100.00	18 37 2	4679.40	22.64	196.04	91.70	69.95	19 55 1	4079.4	19.71	188.48
110.00	9 38 22	1343.03	-9.99	341.38	88.07	122.86	10 0 45	743.0	-5.59	335.05
110.00	19 54 42	4436.33	24.92	176.58	90.69	65.80	21 8 39	3836.3	21.44	169.16

DIFFERENTIAL CORRECTIONS

TDE	.0769	TRA	-.8510	TC3	1.2501	BAU	.2315	SGT	1805.4	SGR	1148.5	SG3	389.4	ST	511.9	SR	293.3	SS	517.9
RDE	-.1017	RRA	.3809	RC3	-1.4321	FAU	.05529	RRT	-.9042	RRF	.9634	RTF	-.9246	CRT	-.9075	CRS	-.4388	CST	.7717
FDE	.2122	FRA	1.6545	FC3	-5.2559	BSP	6712	SGB	2139.7	R23	-.1835	R13	.9540	LSA	719.5	MSA	313.3	SSA	18.8
BDE	.1274	BRA	.9323	BC3	1.9010	FSP	-1137	SG1	2097.7	SG2	422.2	THA	148.68	EL1	579.8	EL2	108.8	ALF	151.43

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 325.777

RL	151.69	LAL	.00	LOL	315.05	VL	26.592	GAL	.94	AZL	88.28	HCA	140.21	SMA	127.29	ECC	.19240	INC	1.7163	V1	29.371
RP	107.61	LAP	1.10	LOP	95.27	VP	37.734	GAP	-6.66	AZP	91.32	TAL	176.07	TAP	316.28	RCA	102.80	APO	151.78	V2	35.214
RC	55.612	GL	15.46	GP	-31.94	ZAL	76.39	ZAP	40.81	ETS	42.27	ZAE	138.90	ETE	310.01	ZAC	69.98	ETC	260.60	CLP	-26.89

PLANETOCENTRIC CONIC

C3	8.928	VHL	2.988	DLA	-4.86	RAL	240.28	RAD	6567.3	VEL	11.416	PTH	1.98	VHP	5.598	DPA	-52.10	RAP	236.11	ECC	1.1469

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 9	1888.67	-10.56	21.81	89.61	116.43	7 25 37	1288.7	-6.93	15.02
90.00	17 39 44	4834.98	18.99	208.94	90.89	68.59	19 0 19	4235.0	15.91	201.62
100.00	8 13 12	1633.65	-11.34	2.65	89.20	117.84	8 40 26	1033.6	-7.52	355.94
100.00	19 3 22	4565.24	19.80	188.76	90.54	67.13	20 19 27	3965.2	16.53	181.49
110.00	9 16 12	1436.41	-13.39	346.48	88.00	121.75	9 40 9	836.4	-9.10	340.01
110.00	20 16 51	4335.25	21.94	170.23	89.48	63.11	21 29 6	3735.2	18.16	163.14

DIFFERENTIAL CORRECTIONS

TDE	.0448	TRA	-.8362	TC3	1.2689	BAU	.2506	SGT	1781.0	SGR	1322.7	SG3	413.5	ST	490.9	SR	275.9	SS	589.5
RDE	-.0478	RRA	.4477	RC3	-1.6724	FAU	.05747	RRT	-.9136	RRF	.9748	RTF	-.9259	CRT	-.9846	CRS	-.6031	CST	.7232
FDE	.3509	FRA	1.7517	FC3	-5.5731	BSP	6943	SGB	2218.4	R23	-.1796	R13	.9620	LSA	750.2	MSA	318.6	SSA	17.2
BDE	.0655	BRA	.9485	BC3	2.0993	FSP	-1215	SG1	2174.2	SG2	440.5	THA	144.14	EL1	561.5	EL2	42.1	ALF	150.86

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 8 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 332.413

RL	151.69	LAL	.00	LOL	315.05	VL	26.650	GAL	.83	AZL	87.85	HCA	143.44	SMA	127.67	ECC	.18873	INC	2.1458	V1	29.371
RP	107.59	LAP	1.28	LOP	98.51	VP	37.782	GAP	-6.07	AZP	91.72	TAL	176.44	TAP	319.88	RCA	103.57	APO	151.76	V2	35.222
RC	57.469	GL	19.50	GP	-35.61	ZAL	77.38	ZAP	45.13	ETS	41.36	ZAE	136.15	ETE	306.42	ZAC	66.35	ETC	260.37	CLP	-29.80

PLANETOCENTRIC CONIC

C3	8.933	VHL	2.989	DLA	-.76	RAL	240.44	RAD	6567.3	VEL	11.416	PTH	1.98	VHP	5.478	DPA	-55.64	RAP	234.44	ECC	1.1470

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 24 10	2016.40	-14.32	29.31	90.13	114.69	6 57 46	1416.4	-10.87	22.33
90.00	18 10 57	4707.49	15.64	201.09	90.33	66.09	19 29 24	4107.5	12.28	194.02
100.00	7 45 9	1755.15	-15.10	9.72	89.74	116.11	8 14 24	1155.2	-11.46	2.81
100.00	19 32 38	4443.97	16.42	181.34	89.96	64.66	20 46 42	3844.0	12.87	174.34
110.00	8 52 35	1544.07	-17.16	352.55	88.60	120.03	9 18 19	944.1	-13.04	345.86
110.00	20 41 42	4227.82	18.50	163.80	88.83	60.73	21 52 10	3627.8	14.46	157.02

DIFFERENTIAL CORRECTIONS

TDE	.0123	TRA	-.8214	TC3	1.2388	BAU	.2717
RDE	.0226	RRA	.5306	RC3	-1.9079	FAU	.05875
FDE	.5133	FRA	1.8441	FC3	-5.6937	BSP	7229
BDE	.0257	BRA	.9778	BC3	2.2748	FSP	-1279

MID-COURSE EXECUTION ACCURACY

SGT	1740.3	SGR	1528.8	SG3	432.4		
RRT	-.9191	RRF	.9828	RTF	-.9258		
SGB	2316.5	R23	-.1685	R13	.9700		
SG1	2269.9	SG2	461.9	THA	139.02		

ORBIT DETERMINATION ACCURACY

ST	473.5	SR	310.1	SS	686.4
CRT	-.9800	CRS	-.8221	CST	.6991
LSA	831.2	MSA	316.9	SSA	14.9
EL1	563.7	EL2	51.9	ALF	146.99

LAUNCH DATE AUG 8 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 339.029

RL	151.69	LAL	.00	LOL	315.05	VL	26.702	GAL	.73	AZL	87.35	HCA	146.67	SMA	128.00	ECC	.18549	INC	2.6464	V1	29.371
RP	107.57	LAP	1.45	LOP	101.74	VP	37.825	GAP	-5.49	AZP	92.21	TAL	176.79	TAP	323.46	RCA	104.26	APO	151.75	V2	35.229
RC	59.382	GL	24.02	GP	-39.72	ZAL	78.40	ZAP	49.76	ETS	40.34	ZAE	133.02	ETE	302.65	ZAC	62.27	ETC	259.98	CLP	-32.87

PLANETOCENTRIC CONIC

C3	9.172	VHL	3.029	DLA	3.79	RAL	240.77	RAD	6567.3	VEL	11.426	PTH	1.98	VHP	5.422	DPA	-59.52	RAP	231.85	ECC	1.1510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 51 42	2162.67	-18.28	38.22	91.51	112.01	6 27 44	1562.7	-15.13	30.96
90.00	18 46 4	4571.41	11.72	193.01	90.49	64.04	20 2 15	3971.4	8.14	186.17
100.00	7 14 49	1894.58	-19.08	18.15	91.15	113.45	7 46 23	1294.6	-15.75	10.94
100.00	20 5 38	4314.73	12.51	173.74	90.08	62.63	21 17 33	3714.7	8.74	166.97
110.00	8 27 7	1668.26	-21.23	359.88	90.06	117.44	8 54 56	1068.3	-17.39	352.86
110.00	21 9 48	4113.82	14.58	157.29	88.89	58.73	22 18 22	3513.8	10.33	150.76

DIFFERENTIAL CORRECTIONS

TDE	-.0194	TRA	-.8039	TC3	1.1514	BAU	.2950
RDE	.1157	RRA	.6320	RC3	-2.1127	FAU	.05876
FDE	.6950	FRA	1.9183	FC3	-5.5462	BSP	7573
BDE	.1174	BRA	1.0226	BC3	2.4061	FSP	-1318

MID-COURSE EXECUTION ACCURACY

SGT	1676.6	SGR	1766.8	SG3	442.6		
RRT	-.9206	RRF	.9883	RTF	-.9239		
SGB	2435.7	R23	-.1509	R13	.9774		
SG1	2387.0	SG2	484.6	THA	133.37		

ORBIT DETERMINATION ACCURACY

ST	459.2	SR	422.7	SS	801.8
CRT	-.8925	CRS	-.9455	CST	.6990
LSA	968.1	MSA	308.2	SSA	12.4
EL1	607.3	EL2	144.2	ALF	137.66

LAUNCH DATE AUG 8 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 345.623

RL	151.69	LAL	.00	LOL	315.05	VL	26.747	GAL	.65	AZL	86.76	HCA	149.90	SMA	128.30	ECC	.18265	INC	3.2410	V1	29.371
RP	107.55	LAP	1.62	LOP	104.98	VP	37.863	GAP	-4.93	AZP	92.80	TAL	177.09	TAP	326.99	RCA	104.87	APO	151.74	V2	35.235
RC	61.346	GL	29.00	GP	-44.29	ZAL	79.44	ZAP	54.66	ETS	39.12	ZAE	129.44	ETE	298.76	ZAC	57.73	ETC	259.40	CLP	-36.08

PLANETOCENTRIC CONIC

C3	9.726	VHL	3.119	DLA	8.78	RAL	241.30	RAD	6567.4	VEL	11.451	PTH	1.99	VHP	5.446	DPA	-63.69	RAP	227.89	ECC	1.1601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 15 34	2332.09	-22.24	49.07	94.01	108.00	5 54 26	1732.1	-19.57	41.41
90.00	19 26 25	4424.94	7.23	184.59	91.58	62.55	20 40 10	3824.9	3.50	177.91
100.00	6 41 11	2055.97	-23.12	28.43	93.68	109.50	7 15 27	1456.0	-20.25	20.81
100.00	20 43 30	4176.30	8.06	165.87	91.13	61.12	21 53 6	3576.3	4.14	159.27
110.00	7 59 9	1811.95	-25.46	8.89	92.67	113.62	8 29 21	1211.9	-22.04	1.40
110.00	21 42 0	3993.08	10.22	150.66	89.83	57.20	22 48 34	3393.1	5.82	144.33

DIFFERENTIAL CORRECTIONS

TDE	-.0485	TRA	-.7839	TC3	1.0042	BAU	.3202
RDE	.2410	RRA	.7578	RC3	-2.2484	FAU	.05702
FDE	.8893	FRA	1.9668	FC3	-5.0757	BSP	8036
BDE	.2458	BRA	1.0903	BC3	2.4625	FSP	-1328

MID-COURSE EXECUTION ACCURACY

SGT	1588.7	SGR	2036.5	SG3	441.1		
RRT	-.9182	RRF	.9921	RTF	-.9194		
SGB	2582.9	R23	-.1284	R13	.9840		
SG1	2532.8	SG2	505.9	THA	127.36		

ORBIT DETERMINATION ACCURACY

ST	446.5	SR	613.5	SS	927.0
CRT	-.8212	CRS	-.9853	CST	.7125
LSA	1160.7	MSA	296.1	SSA	10.0
EL1	727.8	EL2	214.8	ALF	124.26

LAUNCH DATE AUG 8 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 352.193

RL	151.69	LAL	.00	LOL	315.05	VL	26.786	GAL	.58	AZL	86.04	HCA	153.12	SMA	128.57	ECC	.18017	INC	3.9640	V1	29.371
RP	107.53	LAP	1.79	LOP	108.22	VP	37.896	GAP	-4.39	AZP	93.54	TAL	177.35	TAP	330.48	RCA	105.40	APO	151.73	V2	35.240
RC	63.355	GL	34.41	GP	-49.31	ZAL	80.51	ZAP	59.75	ETS	37.59	ZAE	125.35	ETE	294.85	ZAC	52.73	ETC	258.56	CLP	-39.41

PLANETOCENTRIC CONIC

C3	10.736	VHL	3.277	DLA	14.16	RAL	242.05	RAD	6567.4	VEL	11.495	PTH	2.00	VHP	5.574	DPA	-68.05	RAP	221.80	ECC	1.1767

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 33 37	2532.20	-25.79	62.64	97.90	102.11	5 15 50	1932.2	-23.87	54.50
90.00	20 14 20	4264.46	2.12	175.58	93.90	61.76	21 25 24	3664.5	-1.67	168.95
100.00	6 2 29	2245.61	-26.83	41.29	97.63	103.71	6 39 55	1645.6	-24.67	33.15
100.00	21 28 9	4026.28	3.04	157.55	93.38	60.25	22 35 15	3426.3	-.94	151.03
110.00	7 27 35	1979.34	-29.53	20.20	96.76	108.06	8 0 35	1379.3	-26.78	12.09
110.00	22 19 33	3865.31	5.43	143.86	91.90	56.20	23 23 58	3265.3	.96	137.63

DIFFERENTIAL CORRECTIONS

TDE	-.0676	TRA	-.7591	TC3	.8107	BAU	.3470
RDE	.4070	RRA	.9132	RC3	-2.2778	FAU	.05332
FDE	1.0748	FRA	1.9756	FC3	-4.3000	BSP	8563
BDE	.4125	BRA	1.1875	BC3	2.4178	FSP	-1289

MID-COURSE EXECUTION ACCURACY

SGT	1473.2	SGR	2333.8	SG3	424.7		
RRT	-.9108	RRF	.9946	RTF	-.9109		
SGB	2759.9	R23	-.1038	R13	.9893		
SG1	2709.8	SG2	523.7	THA	121.19		

ORBIT DETERMINATION ACCURACY

ST	427.7	SR	867.5	SS	1042.0
CRT	-.7756	CRS	-.9959	CST	.7159
LSA	1392.7	MSA	285.6	SSA	7.8
EL1	934.1	EL2	250.7	ALF	112.65

LAUNCH DATE AUG 8 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 358.738

RL	151.69	LAL	.00	LOL	315.05	VL	26.820	GAL	.53	AZL	85.13	HCA	156.34	SMA	128.79	ECC	.17804	INC	4.8681	V1	29.371
RP	107.52	LAP	1.95	LOP	111.47	VP	37.924	GAP	-3.86	AZP	94.46	TAL	177.56	TAP	333.91	RCA	105.86	APO	151.72	V2	35.245
RC	65.403	GL	40.16	GP	-54.73	ZAL	81.60	ZAP	64.93	ETS	35.66	ZAE	120.74	ETE	290.97	ZAC	47.34	ETC	257.36	CLP	-42.79

PLANETOCENTRIC CONIC

C3	12.453	VHL	3.529	DLA	19.84	RAL	243.03	RAD	6567.5	VEL	11.569	PTH	2.02	VHP	5.840	DPA	-72.38	RAP	212.10	ECC	1.2049

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 41 8	2778.45	-28.11	80.25	103.39	93.59	4 27 27	2178.4	-27.31	71.68
90.00	21 14 39	4080.04	-3.83	165.28	97.95	61.92	22 22 39	3480.0	-7.55	158.58
100.00	5 15 5	2475.48	-29.45	57.85	103.27	95.40	5 56 21	1875.5	-28.39	49.20
100.00	22 23 23	3858.24	-2.65	148.33	97.30	60.21	23 27 41	3258.2	-6.59	141.76
110.00	6 50 25	2177.23	-32.83	34.66	102.73	100.11	7 26 42	1577.2	-31.09	25.87
110.00	23 4 32	3729.25	.25	136.74	95.49	55.82	24 6 41	3129.3	-4.24	130.53

DIFFERENTIAL CORRECTIONS

TDE	-.0808	TRA	-.7368	TC3	-.5505	BAU	.3664
RDE	.6379	RRA	1.1166	RC3	-2.1307	FAU	.04662
FDE	1.2499	FRA	1.9528	FC3	-3.2408	BSP	8836
BDE	.6430	BRA	1.3378	BC3	2.2006	FSP	-1164

MID-COURSE EXECUTION ACCURACY

SGT	1336.3	SGR	2655.0	SG3	393.2		
RRT	-.8939	RRF	.9963	RTF	-.8948		
SGB	2972.3	R23	-.0774	R13	.9933		
SG1	2922.1	SG2	544.3	THA	115.16		

ORBIT DETERMINATION ACCURACY

ST	403.7	SR	1187.1	SS	1144.7
CRT	-.7452	CRS	-.9989	CST	.7132
LSA	1675.5	MSA	274.2	SSA	6.1
EL1	1226.5	EL2	260.5	ALF	104.91

LAUNCH DATE AUG 8 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 365.253

RL	151.69	LAL	.00	LOL	315.05	VL	26.849	GAL	.49	AZL	83.96	HCA	159.56	SMA	128.99	ECC	.17623	INC	6.0388	V1	29.371
RP	107.51	LAP	2.11	LOP	114.71	VP	37.948	GAP	-3.35	AZP	95.66	TAL	177.71	TAP	337.28	RCA	106.26	APO	151.72	V2	35.249
RC	67.486	GL	46.12	GP	-60.51	ZAL	82.71	ZAP	70.04	ETS	33.24	ZAE	115.61	ETE	287.19	ZAC	41.60	ETC	255.63	CLP	-46.09

PLANETOCENTRIC CONIC

C3	15.355	VHL	3.919	DLA	25.71	RAL	244.24	RAD	6567.6	VEL	11.694	PTH	2.06	VHP	6.302	DPA	-76.22	RAP	195.96	ECC	1.2527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
^90.00	2 21 9	3124.49	-27.00	105.40	109.93	81.12	3 13 13	2524.5	-27.95	96.86
90.00	22 44 17	3825.80	-11.74	150.79	104.87	64.04	23 48 3	3225.8	-15.13	143.76
100.00	4 8 10	2779.46	-29.26	80.36	110.27	83.61	4 54 29	2179.5	-29.84	71.60
100.00	23 39 57	3646.06	-9.70	136.53	103.81	61.59	24 40 43	3046.1	-13.43	129.72
110.00	6 3 13	2419.49	-34.17	53.39	110.64	89.14	6 43 32	1819.5	-33.92	44.15
110.00	0 5 19	3578.79	-5.49	128.87	101.24	56.21	1 4 58	2978.8	-9.89	122.55

DIFFERENTIAL CORRECTIONS

TDE	-.0517	TRA	-.6913	TC3	.3432	BAU	.3900
RDE	.9300	RRA	1.3609	RC3	-1.8686	FAU	.03905
FDE	1.3506	FRA	1.8564	FC3	-2.2017	BSP	9621
BDE	.9314	BRA	1.5264	BC3	1.8998	FSP	-1043

MID-COURSE EXECUTION ACCURACY

SGT	1156.1	SGR	2978.4	SG3	345.1		
RRT	-.8638	RRF	.9974	RTF	-.8648		
SGB	3194.8	R23	-.0542	R13	.9960		
SG1	3146.9	SG2	551.3	THA	109.15		

ORBIT DETERMINATION ACCURACY

ST	345.0	SR	1513.2	SS	1182.8
CRT	-.6248	CRS	-.9997	CST	.6057
LSA	1932.5	MSA	270.6	SSA	4.7
EL1	1529.0	EL2	266.6	ALF	98.36

LAUNCH DATE AUG 8 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 371.735

RL	151.69	LAL	.00	LOL	315.05	VL	26.873	GAL	.46	AZL	82.38	HCA	162.77	SMA	129.15	ECC	.17473	INC	7.6247	V1	29.371
RP	107.50	LAP	2.25	LOP	117.96	VP	37.969	GAP	-2.86	AZP	97.29	TAL	177.80	TAP	340.57	RCA	106.59	APO	151.72	V2	35.253
RC	69.600	GL	52.08	GP	-66.60	ZAL	83.82	ZAP	74.89	ETS	30.33	ZAE	109.96	ETE	283.55	ZAC	35.59	ETC	253.11	CLP	-48.97

PLANETOCENTRIC CONIC

C3	20.427	VHL	4.520	DLA	31.55	RAL	245.66	RAD	6567.8	VEL	11.908	PTH	2.12	VHP	7.052	DPA	-78.59	RAP	169.88	ECC	1.3362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.48	22 42 14	3907.78	-21.62	161.56	115.47	66.45	23 47 22	3307.8	-24.62	153.91
104.52	2 34 30	3175.10	-21.61	107.38	115.46	66.44	3 27 25	2575.1	-24.61	99.73
75.48	22 42 14	3907.78	-21.62	161.56	115.47	66.45	23 47 22	3307.8	-24.62	153.91
104.52	2 34 30	3175.10	-21.61	107.38	115.46	66.44	3 27 25	2575.1	-24.61	99.73
110.00	4 50 55	2751.48	-30.92	78.61	119.12	74.63	5 36 46	2151.5	-32.71	69.85
110.00	1 28 55	3379.39	-12.88	118.16	110.66	58.06	2 25 15	2779.4	-17.01	111.48

DIFFERENTIAL CORRECTIONS

TDE	.0215	TRA	-.6279	TC3	.1663	BAU	.4044
RDE	1.3277	RRA	1.6762	RC3	-1.4713	FAU	.03009
FDE	1.3919	FRA	1.7107	FC3	-1.2751	BSP	10430
BDE	1.3278	BRA	1.7900	BC3	1.4807	FSP	-882

MID-COURSE EXECUTION ACCURACY

SGT	946.5	SGR	3289.2	SG3	285.5		
RRT	-.7976	RRF	.9981	RTF	-.8001		
SGB	3422.7	R23	-.0323	R13	.9976		
SG1	3377.2	SG2	556.1	THA	103.29		

ORBIT DETERMINATION ACCURACY

ST	281.6	SR	1842.3	SS	1171.6
CRT	-.3158	CRS	-.9999	CST	.3064
LSA	2185.0	MSA	267.4	SSA	3.5
EL1	1844.5	EL2	266.9	ALF	92.82

LAUNCH DATE AUG 8 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 378.176

RL	151.69	LAL	.00	LOL	315.05	VL	26.893	GAL	.46	AZL	80.09	HCA	165.96	SMA	129.29	ECC	.17350	INC	9.9075	V1	29.371
RP	107.49	LAP	2.39	LOP	121.20	VP	37.985	GAP	-2.38	AZP	99.62	TAL	177.82	TAP	343.78	RCA	106.86	APO	151.72	V2	35.255
RC	71.740	GL	57.76	GP	-73.01	ZAL	84.93	ZAP	79.29	ETS	27.03	ZAE	103.79	ETE	280.19	ZAC	29.35	ETC	249.28	CLP	-50.51

PLANETOCENTRIC CONIC

C3	29.926	VHL	5.471	DLA	37.09	RAL	247.19	RAD	6568.2	VEL	12.300	PTH	2.22	VHP	8.268	DPA	-78.17	RAP	137.59	ECC	1.4925

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.97	21 44 55	4195.17	-21.99	184.19	124.93	59.35	22 54 50	3595.2	-25.89	176.96
115.03	3 44 5	3075.27	-21.98	99.80	124.92	59.34	4 35 20	2475.3	-25.87	92.58
64.97	21 44 55	4195.17	-21.99	184.19	124.93	59.35	22 54 50	3595.2	-25.89	176.96
115.03	3 44 5	3075.27	-21.98	99.80	124.92	59.34	4 35 20	2475.3	-25.87	92.58
64.97	21 44 55	4195.17	-21.99	184.19	124.93	59.35	22 54 50	3595.2	-25.89	176.96
115.03	3 44 5	3075.27	-21.98	99.80	124.92	59.34	4 35 20	2475.3	-25.87	92.58

DIFFERENTIAL CORRECTIONS

TDE	.1758	TRA	-.5391	TC3	.0429	BAU	.3945
RDE	1.8826	RRA	2.1151	RC3	-.9852	FAU	.02026
FDE	1.3707	FRA	1.5415	FC3	-.5861	BSP	11161
BDE	1.8908	BRA	2.1827	BC3	.9861	FSP	-694

MID-COURSE EXECUTION ACCURACY

SGT	732.9	SGR	3572.4	SG3	221.4		
RRT	-.6314	RRF	.9986	RTF	-.6379		
SGB	3646.8	R23	-.0111	R13	.9985		
SG1	3603.0	SG2	563.5	THA	97.57		

ORBIT DETERMINATION ACCURACY

ST	281.1	SR	2140.8	SS	1113.6
CRT	.3094	CRS	-1.0000	CST	-.3091
LSA	2414.7	MSA	267.1	SSA	2.8
EL1	2142.6	EL2	267.1	ALF	87.64

LAUNCH DATE AUG 8 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 384.558

RL	151.69	LAL	.00	LOL	315.05	VL	26.909	GAL	.47	AZL	76.51	HCA	169.11	SMA	129.39	ECC	.17254	INC	13.4897	V1	29.371
RP	107.48	LAP	2.53	LOP	124.45	VP	37.998	GAP	-1.92	AZP	103.26	TAL	177.74	TAP	346.86	RCA	107.07	APO	151.72	V2	35.257
RC	73.903	GL	62.69	GP	-79.81	ZAL	86.03	ZAP	83.06	ETS	23.99	ZAE	96.90	ETE	277.67	ZAC	22.89	ETC	243.13	CLP	-46.90

PLANETOCENTRIC CONIC

C3	49.902	VHL	7.064	DLA	41.92	RAL	248.61	RAD	6568.8	VEL	13.087	PTH	2.39	VHP	10.328	DPA	-74.77	RAP	111.12	ECC	1.8213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.70	21 16 20	4421.34	-19.28	201.18	135.70	52.03	22 30 1	3821.3	-24.06	194.70
122.30	4 23 57	3106.59	-19.26	100.45	135.69	52.02	5 15 44	2506.6	-24.05	93.97
57.70	21 16 20	4421.34	-19.28	201.18	135.70	52.03	22 30 1	3821.3	-24.06	194.70
122.30	4 23 57	3106.59	-19.26	100.45	135.69	52.02	5 15 44	2506.6	-24.05	93.97
57.70	21 16 20	4421.34	-19.28	201.18	135.70	52.03	22 30 1	3821.3	-24.06	194.70
122.30	4 23 57	3106.59	-19.26	100.45	135.69	52.02	5 15 44	2506.6	-24.05	93.97

DIFFERENTIAL CORRECTIONS

TDE	.4931	TRA	-.3944	TC3	-.0109	BAU	.3302
RDE	2.7056	RRA	2.7768	RC3	-.4948	FAU	.01038
FDE	1.3111	FRA	1.3784	FC3	-.1800	BSP	11748
BDE	2.7502	BRA	2.8047	BC3	.4949	FSP	-508

MID-COURSE EXECUTION ACCURACY

SGT	587.4	SGR	3803.4	SG3	160.5		
RRT	-.1848	RRF	.9988	RTF	-.1986		
SGB	3848.5	R23	.0098	R13	.9989		
SG1	3805.0	SG2	577.1	THA	91.67		

ORBIT DETERMINATION ACCURACY

ST	420.3	SR	2375.0	SS	1030.6
CRT	.7621	CRS	-1.0000	CST	-.7565
LSA	2608.9	MSA	270.6	SSA	2.2
EL1	2396.8	EL2	269.7	ALF	82.22

LAUNCH DATE AUG 8 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 390.834

RL	151.69	LAL	.00	LOL	315.05	VL	26.921	GAL	.51	AZL	70.10	HCA	172.19	SMA	129.47	ECC	.17184	INC	19.8989	V1	29.371
RP	107.48	LAP	2.65	LOP	127.70	VP	38.008	GAP	-1.50	AZP	109.73	TAL	177.54	TAP	349.73	RCA	107.23	APO	151.72	V2	35.258
RC	76.087	GL	65.95	GP	-86.03	ZAL	87.10	ZAP	86.03	ETS	31.55	ZAE	88.67	ETE	286.17	ZAC	16.28	ETC	239.32	CLP	-.38

PLANETOCENTRIC CONIC

C3	100.667	VHL	10.033	DLA	45.22	RAL	249.23	RAD	6569.9	VEL	14.900	PTH	2.69	VHP	14.176	DPA	-68.90	RAP	92.46	ECC	2.6567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.15	21 0 40	4634.19	-12.96	214.56	146.04	46.29	22 17 55	4034.2	-18.41	208.89
126.85	4 44 35	3222.54	-12.95	105.13	146.03	46.29	5 38 17	2622.5	-18.40	99.47
53.15	21 0 40	4634.19	-12.96	214.56	146.04	46.29	22 17 55	4034.2	-18.41	208.89
126.85	4 44 35	3222.54	-12.95	105.13	146.03	46.29	5 38 17	2622.5	-18.40	99.47
53.15	21 0 40	4634.19	-12.96	214.56	146.04	46.29	22 17 55	4034.2	-18.41	208.89
126.85	4 44 35	3222.54	-12.95	105.13	146.03	46.29	5 38 17	2622.5	-18.40	99.47

DIFFERENTIAL CORRECTIONS

TDE	1.5348	TRA	.0604	TC3	.0008	BAU	.1190
RDE	3.9652	RRA	3.9174	RC3	-.0884	FAU	.00041
FDE	1.2854	FRA	1.2854	FC3	-.0036	BSP	12255
BDE	4.2518	BRA	3.9179	BC3	.0884	FSP	-352

MID-COURSE EXECUTION ACCURACY

SGT	877.8	SGR	3904.3	SG3	110.2		
RRT	.6244	RRF	.9992	RTF	.6214		
SGB	4001.8	R23	.0281	R13	.9988		
SG1	3943.8	SG2	678.8	THA	81.76		

ORBIT DETERMINATION ACCURACY

ST	876.6	SR	2456.6	SS	978.9
CRT	.9281	CRS	-1.0000	CST	-.9268
LSA	2768.4	MSA	312.1	SSA	1.8
EL1	2589.9	EL2	309.6	ALF	71.40

LAUNCH DATE AUG 8 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 396.847

RL	151.69	LAL	.00	LOL	315.05	VL	26.930	GAL	.61	AZL	55.93	HCA	175.06	SMA	129.53	ECC	.17141	INC	34.0679	V1	29.371
RP	107.48	LAP	2.77	LOP	130.95	VP	38.014	GAP	-1.15	AZP	123.97	TAL	177.05	TAP	352.11	RCA	107.33	APO	151.74	V2	35.259
RC	78.289	GL	64.84	GP	-78.47	ZAL	88.09	ZAP	88.08	ETS	185.31	ZAE	76.88	ETE	80.87	ZAC	12.32	ETC	350.43	CLP	80.34

PLANETOCENTRIC CONIC

C3	277.736	VHL	16.665	DLA	44.57	RAL	247.22	RAD	6571.6	VEL	19.976	PTH	3.14	VHP	22.766	DPA	-59.12	RAP	77.15	ECC	5.5708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.02	20 55 57	4798.43	-4.66	221.50	152.48	45.63	22 15 56	4198.4	-10.22	216.11
125.98	4 33 14	3404.09	-4.65	113.66	152.47	45.62	5 29 58	2804.1	-10.21	108.28
54.02	20 55 57	4798.43	-4.66	221.50	152.48	45.63	22 15 56	4198.4	-10.22	216.11
125.98	4 33 14	3404.09	-4.65	113.66	152.47	45.62	5 29 58	2804.1	-10.21	108.28
54.02	20 55 57	4798.43	-4.66	221.50	152.48	45.63	22 15 56	4198.4	-10.22	216.11
125.98	4 33 14	3404.09	-4.65	113.66	152.47	45.62	5 29 58	2804.1	-10.21	108.28

DIFFERENTIAL CORRECTIONS

TDE	-2.1996	TRA	-.0939	TC3	-.0462	BAU	.6929
RDE	-7.1113	RRA	-6.3977	RC3	-.1808	FAU	-.01512
FDE	1.5094	FRA	1.4562	FC3	.0471	BSP	11911
BDE	7.4437	BRA	6.3984	BC3	.1866	FSP	-236

MID-COURSE EXECUTION ACCURACY

SGT	773.1	SGR	3984.0	SG3	76.7		
RRT	.6758	RRF	-.9991	RTF	-.6536		
SGB	4058.4	R23	-.0482	R13	-.9984		
SG1	4018.9	SG2	564.9	THA	82.38		

ORBIT DETERMINATION ACCURACY

ST	756.4	SR	2614.5	SS	1101.8
CRT	.9414	CRS	.9997	CST	.9331
LSA	2925.5	MSA	251.1	SSA	1.5
EL1	2710.5	EL2	246.2	ALF	74.64

LAUNCH DATE AUG 8 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 401.803

RL	151.69	LAL	.00	LOL	315.05	VL	26.935	GAL	.91	AZL	16.41	HCA	177.00	SMA	129.57	ECC	.17149	INC	73.5911	V1	29.371
RP	107.48	LAP	2.87	LOP	134.20	VP	38.017	GAP	-1.08	AZP	163.57	TAL	175.59	TAP	352.60	RCA	107.35	APO	151.79	V2	35.258
RC	80.507	GL	49.88	GP	-55.08	ZAL	88.82	ZAP	89.07	ETS	183.83	ZAE	53.57	ETE	78.11	ZAC	28.07	ETC	296.25	CLP	88.37

PLANETOCENTRIC CONIC

C3	1141.467	VHL	33.786	DLA	30.96	RAL	239.09	RAD	6573.0	VEL	35.535	PTH	3.52	VHP	44.854	DPA	-37.55	RAP	61.89	ECC	19.7857

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.94	22 26 18	4544.67	.40	197.21	149.79	59.04	23 42 3	3944.7	-3.70	190.76
103.06	1 58 4	3876.53	.42	147.89	149.77	59.05	3 2 40	3276.5	-3.69	141.44
76.94	22 26 18	4544.67	.40	197.21	149.79	59.04	23 42 3	3944.7	-3.70	190.76
103.06	1 58 4	3876.53	.42	147.89	149.77	59.05	3 2 40	3276.5	-3.69	141.44
110.00	4 35 18	3386.27	-12.63	118.54	157.79	57.97	5 31 44	2786.3	-16.78	111.88
110.00	0 52 10	4082.93	13.48	155.57	141.79	58.29	2 0 13	3482.9	9.19	149.10

DIFFERENTIAL CORRECTIONS

TDE	-5.4513	TRA	-1.0597	TC3	-.0943	BAU	4.0447
RD	-11.0168	RR	-11.3705	RC3	-.2477	FAU	-.07049
FDE	2.2577	FRA	2.4570	FC3	.0535	BSP	10555
BDE	12.2917	BRA	11.4197	BC3	.2650	FSP	-192

MID-COURSE EXECUTION ACCURACY

SGT	1142.0	SGR	3368.7	SG3	61.9		
RRT	.8485	RRF	-.9997	RTF	-.8383		
SGB	3557.1	R23	-.0677	R13	-.9976		
SG1	3509.5	SG2	580.1	THA	73.49		

ORBIT DETERMINATION ACCURACY

ST	926.8	SR	1987.0	SS	1588.2
CRT	.9615	CRS	.9999	CST	.9566
LSA	2696.0	MSA	247.0	SSA	1.2
EL1	2180.2	EL2	232.3	ALF	65.55

LAUNCH DATE AUG 8 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 412.200

RL 151.69 LAL .00 LOL 315.05 VL 26.937 GAL .21 AZL 141.06 HCA 183.82 SMA 129.58 ECC .17069 INC51.0571 V1 29.371
RP 107.48 LAP 2.97 LOP 137.45 VP 38.018 GAP .41 AZP 39.00 TAL 178.96 TAP 2.78 RCA 107.46 APO 151.70 V2 35.257
RC 82.739 GL -59.29 GP 70.01 ZAL 89.13 ZAP 90.45 ETS 186.89 ZAE 73.06 ETE 287.72 ZAC 149.38 ETC 295.57 CLP 91.32

PLANETOCENTRIC CONIC

C3 593.783 VHL 24.368 DLA -69.52 RAL 179.87 RAD 6572.5 VEL 26.741 PTH 3.39 VHP 30.694 DPA 71.67 RAP 332.49 ECC10.7722

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.42	3 3 12	2406.08	1.52	77.22	89.29	159.51	3 43 18	1806.1	9.01	74.81
156.58	13 28 40	655.70	1.53	287.76	89.31	159.51	13 39 36	55.7	9.02	285.35
23.42	3 3 12	2406.08	1.52	77.22	89.29	159.51	3 43 18	1806.1	9.01	74.81
156.58	13 28 40	655.70	1.53	287.76	89.31	159.51	13 39 36	55.7	9.02	285.35
23.42	3 3 12	2406.08	1.52	77.22	89.29	159.51	3 43 18	1806.1	9.01	74.81
156.58	13 28 40	655.70	1.53	287.76	89.31	159.51	13 39 36	55.7	9.02	285.35

DIFFERENTIAL CORRECTIONS
TDE 6.0204 TRA 1.7199 TC3 -.1222 BAU 2.1885
RD-13.3719 RRA-1.8577 RC3 .2471 FAU-.03543
FDE-3.0939 FRA -.4438 FC3 .0517 BSP 12384
BDE14.6647 BRA 2.5316 BC3 .2757 FSP -219

MID-COURSE EXECUTION ACCURACY
SGT 1922.1 SGR 3590.8 SG3 71.3
RRT -.9578 RRF .9994 RTF -.9607
SGB 4072.9 R23 -.0513 R13 .9982
SG1 4043.3 SG2 490.5 THA 117.58

ORBIT DETERMINATION ACCURACY
ST 1457.5 SR 3166.6 SS 1943.9
CRT -.9926 CRS-1.0000 CST .9931
LSA 3987.9 MSA 163.5 SSA 1.9
EL1 3482.2 EL2 160.8 ALF 114.61

LAUNCH DATE AUG 8 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 417.859

RL 151.69 LAL .00 LOL 315.05 VL 26.936 GAL .40 AZL 118.48 HCA 186.43 SMA 129.58 ECC .17084 INC28.4756 V1 29.371
RP 107.49 LAP 3.06 LOP 140.70 VP 38.016 GAP .65 AZP 61.68 TAL 178.04 TAP 4.47 RCA 107.44 APO 151.71 V2 35.255
RC 84.985 GL -66.03 GP 85.35 ZAL 38.13 ZAP 91.31 ETS 196.56 ZAE 88.29 ETE 295.54 ZAC 162.79 ETC 321.38 CLP 106.31

PLANETOCENTRIC CONIC

C3 197.545 VHL 14.055 DLA -74.05 RAL 163.20 RAD 6571.1 VEL 17.857 PTH 3.00 VHP 17.227 DPA 69.44 RAP 284.68 ECC 4.2511

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.19	1 45 44	2297.13	9.52	78.25	70.45	163.82	2 24 1	1697.1	17.19	76.35
161.81	12 33 11	5809.48	9.52	261.30	70.47	163.82	14 10 1	5209.5	17.20	259.39
18.19	1 45 44	2297.13	9.52	78.25	70.45	163.82	2 24 1	1697.1	17.19	76.35
161.81	12 33 11	5809.48	9.52	261.30	70.47	163.82	14 10 1	5209.5	17.20	259.39
18.19	1 45 44	2297.13	9.52	78.25	70.45	163.82	2 24 1	1697.1	17.19	76.35
161.81	12 33 11	5809.48	9.52	261.30	70.47	163.82	14 10 1	5209.5	17.20	259.39

DIFFERENTIAL CORRECTIONS
TDE 4.9756 TRA 1.4127 TC3 -.0727 BAU .3741
RDE-6.1788 RRA-1.4104 RC3 .1216 FAU-.00582
FDE-2.1940 FRA -.4978 FC3 .0255 BSP 13750
BDE 7.9331 BRA 1.9963 BC3 .1417 FSP -316

MID-COURSE EXECUTION ACCURACY
SGT 2923.6 SGR 3292.2 SG3 100.4
RRT -.9936 RRF .9991 RTF -.9938
SGB 4403.0 R23 -.0402 R13 .9983
SG1 4396.0 SG2 247.8 THA 131.58

ORBIT DETERMINATION ACCURACY
ST 2123.5 SR 2595.9 SS 1371.4
CRT -.9984 CRS-1.0000 CST .9983
LSA 3622.0 MSA 97.5 SSA 2.1
EL1 3352.5 EL2 92.6 ALF 129.28

LAUNCH DATE AUG 8 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 423.950

RL 151.69 LAL .00 LOL 315.05 VL 26.933 GAL .52 AZL 109.50 HCA 189.44 SMA 129.55 ECC .17114 INC19.4992 V1 29.371
RP 107.50 LAP 3.14 LOP 143.95 VP 38.011 GAP 1.01 AZP 70.75 TAL 177.47 TAP 6.91 RCA 107.38 APO 151.73 V2 35.253
RC 87.241 GL -65.93 GP 84.68 ZAL 87.01 ZAP 93.00 ETS 357.39 ZAE 96.95 ETE 95.40 ZAC 167.66 ETC 149.40 CLP-124.37

PLANETOCENTRIC CONIC

C3 96.937 VHL 9.846 DLA -75.07 RAL 164.97 RAD 6569.9 VEL 14.774 PTH 2.67 VHP 11.768 DPA 63.92 RAP 266.10 ECC 2.5953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.02	1 50 24	2166.43	18.30	77.09	69.90	164.25	2 26 31	1566.4	25.98	75.10
162.98	12 42 38	5674.10	18.30	258.95	69.93	164.25	14 17 12	5074.1	25.99	256.96
17.02	1 50 24	2166.43	18.30	77.09	69.90	164.25	2 26 31	1566.4	25.98	75.10
162.98	12 42 38	5674.10	18.30	258.95	69.93	164.25	14 17 12	5074.1	25.99	256.96
17.02	1 50 24	2166.43	18.30	77.09	69.90	164.25	2 26 31	1566.4	25.98	75.10
162.98	12 42 38	5674.10	18.30	258.95	69.93	164.25	14 17 12	5074.1	25.99	256.96

DIFFERENTIAL CORRECTIONS
TDE 1.9526 TRA -.3431 TC3 -.0478 BAU .1378
RDE 5.5024 RRA 1.2670 RC3 .0950 FAU .00775
FDE-2.3338 FRA -.4592 FC3 -.0692 BSP 14205
BDE 5.8386 BRA 1.3127 BC3 .1064 FSP -471

MID-COURSE EXECUTION ACCURACY
SGT 1378.7 SGR 4298.5 SG3 148.1
RRT .2368 RRF -.9964 RTF -.3075
SGB 4514.2 R23 .0477 R13 -.9980
SG1 4312.2 SG2 1335.2 THA 85.19

ORBIT DETERMINATION ACCURACY
ST 1159.9 SR 3315.2 SS 1416.7
CRT .8944 CRS .9993 CST .9102
LSA 3754.7 MSA 494.8 SSA 2.1
EL1 3477.2 EL2 494.7 ALF 72.25

LAUNCH DATE AUG 8 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 430.149

RL 151.69 LAL .00 LOL 315.05 VL 26.927 GAL .63 AZL 104.90 HCA 192.57 SMA 129.51 ECC .17160 INC14.8956 V1 29.371
RP 107.51 LAP 3.21 LOP 147.20 VP 38.003 GAP 1.39 AZP 75.45 TAL 176.97 TAP 9.53 RCA 107.29 APO 151.74 V2 35.249
RC 89.506 GL -63.86 GP 77.81 ZAL 85.81 ZAP 95.45 ETS 12.52 ZAE 103.28 ETE 110.21 ZAC 167.24 ETC 193.79 CLP-116.73

PLANETOCENTRIC CONIC

C3 59.439 VHL 7.710 DLA -75.13 RAL 173.79 RAD 6569.1 VEL 13.446 PTH 2.46 VHP 9.032 DPA 58.80 RAP 255.99 ECC 1.9782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.95	2 25 27	2053.42	25.70	75.31	76.44	163.45	2 59 41	1453.4	33.34	73.00
163.05	13 17 57	5560.83	25.71	257.10	76.46	163.45	14 50 38	4960.8	33.35	254.80
16.95	2 25 27	2053.42	25.70	75.31	76.44	163.45	2 59 41	1453.4	33.34	73.00
163.05	13 17 57	5560.83	25.71	257.10	76.46	163.45	14 50 38	4960.8	33.35	254.80
16.95	2 25 27	2053.42	25.70	75.31	76.44	163.45	2 59 41	1453.4	33.34	73.00
163.05	13 17 57	5560.83	25.71	257.10	76.46	163.45	14 50 38	4960.8	33.35	254.80

DIFFERENTIAL CORRECTIONS
TDE-1.1185 TRA -.5243 TC3 -.2468 BAU .3333
RDE 4.9788 RRA .6678 RC3 .3391 FAU .01911
FDE-2.8607 FRA -.3872 FC3 -.2784 BSP 14343
BDE 5.1029 BRA .8490 BC3 .4194 FSP -667

MID-COURSE EXECUTION ACCURACY
SGT 1772.0 SGR 4207.4 SG3 210.9
RRT -.8329 RRF -.9986 RTF .8395
SGB 4565.3 R23 .0617 R13 -.9968
SG1 4471.1 SG2 922.9 THA 110.23

ORBIT DETERMINATION ACCURACY
ST 947.9 SR 3745.3 SS 1679.7
CRT -.9408 CRS 1.0000 CST -.9413
LSA 4201.1 MSA 313.7 SSA 2.7
EL1 3850.7 EL2 312.5 ALF 103.48

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LAUNCH DATE  AUG  8 1970                          FLIGHT TIME 158.00                          ARRIVAL DATE  JAN 13 1971

 HELIOCENTRIC CONIC                                DISTANCE 436.380
  RL  151.69 LAL     .00 LOL 315.05 VL  26.919 GAL    .74 AZL 102.12 HCA 195.74 SMA 129.46 ECC .17223 INC12.1155 V1  29.371
  RP  107.52 LAP    3.26 LOP 150.45 VP  37.994 GAP   1.78 AZP  78.33 TAL 176.46 TAP  12.20 RCA 107.16 APO 151.75 V2  35.245
  RC  91.778 GL   -61.14 GP   71.69 ZAL  84.53 ZAP  98.52 ETS  18.10 ZAE 108.41 ETE 116.13 ZAC 163.91 ETC 217.20 CLP-118.13
 PLANETOCENTRIC CONIC
  C3  41.610 VHL   6.451 DLA -74.47 RAL 184.41 RAD 6568.6 VEL 12.766 PTH   2.32 VHP   7.454 DPA  54.02 RAP 249.02 ECC 1.6848
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     17.70     3  9 19   1963.16      31.37      72.89      84.64      161.73    3 42  2    1363.2      38.93      70.09
    162.30    13 58 45   5473.53      31.38     255.44      84.66      161.73   15 29 59    4873.5      38.94     252.64
     17.70     3  9 19   1963.16      31.37      72.89      84.64      161.73    3 42  2    1363.2      38.93      70.09
    162.30    13 58 45   5473.53      31.38     255.44      84.66      161.73   15 29 59    4873.5      38.94     252.64
     17.70     3  9 19   1963.16      31.37      72.89      84.64      161.73    3 42  2    1363.2      38.93      70.09
    162.30    13 58 45   5473.53      31.38     255.44      84.66      161.73   15 29 59    4873.5      38.94     252.64
 DIFFERENTIAL CORRECTIONS                       MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TOE-1.8966 TRA -.4142 TC3 -.5184 BAU  .4317    SGT 2274.6 SGR 3992.1 SG3  283.5          ST  1734.4 SR  3778.3 SS  1972.0
  ROE 4.2374 RRA  .3323 RC3  .5775 FAU .03025    RRT -.9200 RRF -.9981 RTF  .9266          CRT -.9884 CRS 1.0000 CST -.9885
  FOE-3.4336 FRA -.2709 FC3 -.6294 BSP  14498    SGB 4594.6 R23  .0729 R13 -.9956          LSA 4594.9 MSA  244.1 SSA    3.6
  BOE 4.6424 BRA  .5310 BC3  .7760 FSP   -897    SG1 4526.8 SG2  786.1 THA 118.61          EL1 4150.5 EL2  239.8 ALF 114.49

LAUNCH DATE  AUG  8 1970                          FLIGHT TIME 160.00                          ARRIVAL DATE  JAN 15 1971

 HELIOCENTRIC CONIC                                DISTANCE 442.615
  RL  151.69 LAL     .00 LOL 315.05 VL  26.908 GAL    .85 AZL 100.25 HCA 198.94 SMA 129.39 ECC .17301 INC10.2527 V1  29.371
  RP  107.53 LAP    3.31 LOP 153.70 VP  37.982 GAP   2.18 AZP  80.29 TAL 175.92 TAP  14.86 RCA 107.00 APO 151.78 V2  35.240
  RC  94.056 GL   -58.19 GP   66.05 ZAL  83.18 ZAP 102.06 ETS  22.10 ZAE 112.69 ETE 121.16 ZAC 159.58 ETC 230.04 CLP-120.97
 PLANETOCENTRIC CONIC
  C3  31.754 VHL   5.635 DLA -73.26 RAL 194.53 RAD 6568.3 VEL 12.374 PTH   2.23 VHP   6.469 DPA  49.45 RAP 243.68 ECC 1.5226
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     19.09     3 52 33   1892.01      35.52      69.83      92.12      159.28    4 24  5    1292.0      42.94      66.39
    160.91    14 36 17   5408.20      35.53     253.79      92.14      159.28   16  6 25    4808.2      42.95     250.35
     19.09     3 52 33   1892.01      35.52      69.83      92.12      159.28    4 24  5    1292.0      42.94      66.39
    160.91    14 36 17   5408.20      35.53     253.79      92.14      159.28   16  6 25    4808.2      42.95     250.35
     19.09     3 52 33   1892.01      35.52      69.83      92.12      159.28    4 24  5    1292.0      42.94      66.39
    160.91    14 36 17   5408.20      35.53     253.79      92.14      159.28   16  6 25    4808.2      42.95     250.35
 DIFFERENTIAL CORRECTIONS                       MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TOE-2.2746 TRA -.2837 TC3 -.8489 BAU  .4897    SGT 2695.8 SGR 3745.2 SG3  358.7          ST  2332.3 SR  3621.5 SS  2201.5
  ROE 3.5599 RRA  .1097 RC3  .7811 FAU .04096    RRT -.9510 RRF -.9975 RTF  .9559          CRT -.9953 CRS 1.0000 CST -.9950
  FOE-3.8721 FRA -.1099 FC3-1.1167 BSP  14614    SGB 4614.5 R23  .0817 R13 -.9944          LSA 4833.4 MSA  199.9 SSA    4.6
  BOE 4.2245 BRA  .3041 BC3 1.1536 FSP  -1135    SG1 4563.5 SG2  684.2 THA 125.30          EL1 4303.4 EL2  190.5 ALF 122.73

LAUNCH DATE  AUG  8 1970                          FLIGHT TIME 162.00                          ARRIVAL DATE  JAN 17 1971

 HELIOCENTRIC CONIC                                DISTANCE 448.844
  RL  151.69 LAL     .00 LOL 315.05 VL  26.896 GAL    .98 AZL  98.91 HCA 202.15 SMA 129.31 ECC .17395 INC 8.9128 V1  29.371
  RP  107.55 LAP    3.35 LOP 156.95 VP  37.969 GAP   2.57 AZP  81.74 TAL 175.34 TAP  17.49 RCA 106.81 APO 151.80 V2  35.235
  RC  96.339 GL   -55.21 GP   60.79 ZAL  81.75 ZAP 105.91 ETS  25.22 ZAE 116.27 ETE 125.94 ZAC 155.03 ETC 237.59 CLP-124.17
 PLANETOCENTRIC CONIC
  C3  25.739 VHL   5.073 DLA -71.67 RAL 203.39 RAD 6568.0 VEL 12.129 PTH   2.17 VHP   5.827 DPA  45.04 RAP 239.43 ECC 1.4236
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     20.93     4 31 44   1835.35      38.45      66.26      98.14      156.33    5  2 19    1235.3      45.69      62.09
    159.07    15  7 50   5360.01      38.45     252.09      98.15      156.33   16 37 10    4760.0      45.69     247.92
     20.93     4 31 44   1835.35      38.45      66.26      98.14      156.33    5  2 19    1235.3      45.69      62.09
    159.07    15  7 50   5360.01      38.45     252.09      98.15      156.33   16 37 10    4760.0      45.69     247.92
     20.93     4 31 44   1835.35      38.45      66.26      98.14      156.33    5  2 19    1235.3      45.69      62.09
    159.07    15  7 50   5360.01      38.45     252.09      98.15      156.33   16 37 10    4760.0      45.69     247.92
 DIFFERENTIAL CORRECTIONS                       MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TOE-2.4554 TRA -.1488 TC3-1.2231 BAU  .5298    SGT 3084.7 SGR 3462.4 SG3  429.2          ST  2777.9 SR  3326.3 SS  2339.1
  ROE 2.9449 RRA -.0460 RC3  .9349 FAU .05070    RRT -.9654 RRF -.9967 RTF  .9693          CRT -.9973 CRS 1.0000 CST -.9969
  FOE-4.1126 FRA  .0910 FC3-1.7054 BSP  14692    SGB 4637.2 R23  .0889 R13 -.9931          LSA 4921.6 MSA  172.0 SSA    5.6
  BOE 3.8342 BRA  .1558 BC3 1.5395 FSP  -1358    SG1 4597.5 SG2  605.4 THA 131.58          EL1 4330.9 EL2  155.2 ALF 129.85

LAUNCH DATE  AUG  8 1970                          FLIGHT TIME 164.00                          ARRIVAL DATE  JAN 19 1971

 HELIOCENTRIC CONIC                                DISTANCE 455.059
  RL  151.69 LAL     .00 LOL 315.05 VL  26.882 GAL   1.12 AZL  97.90 HCA 205.37 SMA 129.21 ECC .17505 INC 7.8980 V1  29.371
  RP  107.57 LAP    3.37 LOP 160.20 VP  37.953 GAP   2.96 AZP  82.86 TAL 174.73 TAP  20.09 RCA 106.59 APO 151.83 V2  35.229
  RC  98.624 GL   -52.26 GP   55.86 ZAL  80.23 ZAP 109.93 ETS  27.67 ZAE 119.20 ETE 130.60 ZAC 150.56 ETC 242.41 CLP-127.40
 PLANETOCENTRIC CONIC
  C3  21.814 VHL   4.671 DLA -69.84 RAL 210.96 RAD 6567.9 VEL 11.966 PTH   2.13 VHP   5.404 DPA  40.80 RAP 235.99 ECC 1.3590
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     23.04     5  6 23   1789.45      40.41      62.36     102.73      153.09    5 36 12    1189.5      47.43      57.44
    156.96    15 33 30   5324.99      40.42     250.40     102.75      153.09   17  2 15    4725.0      47.44     245.47
     23.04     5  6 23   1789.45      40.41      62.36     102.73      153.09    5 36 12    1189.5      47.43      57.44
    156.96    15 33 30   5324.99      40.42     250.40     102.75      153.09   17  2 15    4725.0      47.44     245.47
     23.04     5  6 23   1789.45      40.41      62.36     102.73      153.09    5 36 12    1189.5      47.43      57.44
    156.96    15 33 30   5324.99      40.42     250.40     102.75      153.09   17  2 15    4725.0      47.44     245.47
 DIFFERENTIAL CORRECTIONS                       MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TOE-2.5184 TRA -.0136 TC3-1.6235 BAU  .5610    SGT 3442.0 SGR 3161.6 SG3  489.4          ST  3089.9 SR  2966.3 SS  2389.6
  ROE 2.4143 RRA -.1525 RC3 1.0319 FAU .05888    RRT -.9728 RRF -.9958 RTF  .9763          CRT -.9982 CRS  .9999 CST -.9975
  FOE-4.1629 FRA  .3128 FC3-2.3370 BSP  14822    SGB 4673.6 R23  .0938 R13 -.9919          LSA 4902.3 MSA  154.3 SSA    6.8
  BOE 3.4887 BRA  .1531 BC3 1.9237 FSP  -1554    SG1 4641.9 SG2  543.4 THA 137.50          EL  4281.3 EL2  128.0 ALF 136.17
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 461.259

RL 151.69 LAL .00 LOL 315.05 VL 26.867 GAL 1.27 AZL 97.10 HCA 208.59 SMA 129.11 ECC .17630 INC 7.0988 V1 29.371
RP 107.59 LAP 3.39 LOP 163.45 VP 37.936 GAP 3.34 AZP 83.76 TAL 174.07 TAP 22.66 RCA 106.35 APO 151.87 V2 35.222
RC 100.910 GL -49.37 GP 51.28 ZAL 78.64 ZAP 113.99 ETS 29.58 ZAE 121.52 ETE 135.11 ZAC 146.32 ETC 245.67 CLP-130.54

PLANETOCENTRIC CONIC

C3 19.133 VHL 4.374 DLA -67.88 RAL 217.42 RAD 6567.8 VEL 11.854 PTH 2.10 VHP 5.128 DPA 36.76 RAP 233.24 ECC 1.3149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.33	5 37 8	1751.51	41.62	58.31	106.23	149.75	6 6 19	1151.5	48.38	52.67
154.67	15 54 18	5300.27	41.63	248.79	106.25	149.75	17 22 38	4700.3	48.39	243.14
25.33	5 37 8	1751.51	41.62	58.31	106.23	149.75	6 6 19	1151.5	48.38	52.67
154.67	15 54 18	5300.27	41.63	248.79	106.25	149.75	17 22 38	4700.3	48.39	243.14
25.33	5 37 8	1751.51	41.62	58.31	106.23	149.75	6 6 19	1151.5	48.38	52.67
154.67	15 54 18	5300.27	41.63	248.79	106.25	149.75	17 22 38	4700.3	48.39	243.14

DIFFERENTIAL CORRECTIONS
TDE-2.5106 TRA .1238 TC3-2.0339 BAU .5885
RDE 1.9730 RRA -.2265 RC3 1.0754 FAU .06519
FDE-4.0572 FRA .5452 FC3-2.9498 BSP 15006
BDE 3.1930 BRA .2581 BC3 2.3006 FSP -1714

MID-COURSE EXECUTION ACCURACY
SGT 3763.7 SGR 2860.8 SG3 536.1
RRT -.9763 RRF -.9947 RTF .9800
SGB 4727.6 R23 .0969 R13 -.9908
SG1 4701.5 SG2 496.0 THA 142.94

ORBIT DETERMINATION ACCURACY
ST 3291.5 SR 2595.3 SS 2368.3
CRT -.9986 CRS .9999 CST -.9977
LSA 4812.2 MSA 144.3 SSA 7.9
EL1 4190.2 EL2 106.3 ALF 141.75

LAUNCH DATE AUG 8 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 467.441

RL 151.69 LAL .00 LOL 315.05 VL 26.850 GAL 1.43 AZL 96.45 HCA 211.81 SMA 128.99 ECC .17770 INC 6.4496 V1 29.371
RP 107.61 LAP 3.39 LOP 166.70 VP 37.917 GAP 3.73 AZP 84.51 TAL 173.37 TAP 25.18 RCA 106.07 APO 151.91 V2 35.215
RC 103.196 GL -46.55 GP 47.06 ZAL 76.96 ZAP 117.99 ETS 31.04 ZAE 123.28 ETE 139.42 ZAC 142.38 ETC 247.99 CLP-133.55

PLANETOCENTRIC CONIC

C3 17.248 VHL 4.153 DLA -65.84 RAL 223.01 RAD 6567.7 VEL 11.774 PTH 2.08 VHP 4.957 DPA 32.92 RAP 231.07 ECC 1.2839

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.71	6 4 47	1719.58	42.24	54.25	108.96	146.44	6 33 26	1119.6	48.72	47.97
152.29	16 11 18	5283.73	42.25	247.33	108.98	146.43	17 39 22	4683.7	48.73	241.04
27.71	6 4 47	1719.58	42.24	54.25	108.96	146.44	6 33 26	1119.6	48.72	47.97
152.29	16 11 18	5283.73	42.25	247.33	108.98	146.43	17 39 22	4683.7	48.73	241.04
27.71	6 4 47	1719.58	42.24	54.25	108.96	146.44	6 33 26	1119.6	48.72	47.97
152.29	16 11 18	5283.73	42.25	247.33	108.98	146.43	17 39 22	4683.7	48.73	241.04

DIFFERENTIAL CORRECTIONS
TDE-2.4599 TRA .2633 TC3-2.4395 BAU .6146
RDE 1.6142 RRA -.2760 RC3 1.0735 FAU .06955
FDE-3.8368 FRA .7731 FC3-3.4909 BSP 15231
BDE 2.9422 BRA .3814 BC3 2.6652 FSP -1830

MID-COURSE EXECUTION ACCURACY
SGT 4051.0 SGR 2572.9 SG3 568.0
RRT -.9777 RRF -.9931 RTF .9820
SGB 4799.0 R23 .0977 R13 -.9897
SG1 4777.0 SG2 458.5 THA 147.83

ORBIT DETERMINATION ACCURACY
ST 3404.7 SR 2244.6 SS 2291.8
CRT -.9989 CRS .9997 CST -.9977
LSA 4675.8 MSA 139.1 SSA 9.0
EL1 4077.0 EL2 87.6 ALF 146.62

LAUNCH DATE AUG 8 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 473.601

RL 151.69 LAL .00 LOL 315.05 VL 26.831 GAL 1.60 AZL 95.91 HCA 215.04 SMA 128.87 ECC .17926 INC 5.9087 V1 29.371
RP 107.64 LAP 3.39 LOP 169.94 VP 37.896 GAP 4.11 AZP 85.16 TAL 172.63 TAP 27.67 RCA 105.77 APO 151.97 V2 35.207
RC 105.482 GL -43.82 GP 43.19 ZAL 75.21 ZAP 121.86 ETS 32.15 ZAE 124.56 ETE 143.47 ZAC 138.78 ETC 249.69 CLP-136.39

PLANETOCENTRIC CONIC

C3 15.9302 VHL 3.988 DLA -63.76 RAL 227.94 RAD 6567.6 VEL 11.717 PTH 2.06 VHP 4.863 DPA 29.32 RAP 229.40 ECC 1.2617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.14	6 30 4	1692.16	42.38	50.26	111.20	143.24	6 58 16	1092.2	48.58	43.44
149.86	16 25 19	5273.96	42.39	246.09	111.21	143.23	17 53 13	4674.0	48.59	239.27
30.14	6 30 4	1692.16	42.38	50.26	111.20	143.24	6 58 16	1092.2	48.58	43.44
149.86	16 25 19	5273.96	42.39	246.09	111.21	143.23	17 53 13	4674.0	48.59	239.27
30.14	6 30 4	1692.16	42.38	50.26	111.20	143.24	6 58 16	1092.2	48.58	43.44
149.86	16 25 19	5273.96	42.39	246.09	111.21	143.23	17 53 13	4674.0	48.59	239.27

DIFFERENTIAL CORRECTIONS
TDE-2.3926 TRA .3948 TC3-2.8506 BAU .6462
RDE 1.3347 RRA -.3000 RC3 1.0550 FAU .07305
FDE-3.5642 FRA .9631 FC3-3.9768 BSP 15801
BDE 2.7397 BRA .4959 BC3 3.0395 FSP -1950

MID-COURSE EXECUTION ACCURACY
SGT 4316.6 SGR 2310.0 SG3 586.5
RRT -.9784 RRF -.9911 RTF .9839
SGB 4895.8 R23 .0921 R13 -.9892
SG1 4877.6 SG2 422.1 THA 152.14

ORBIT DETERMINATION ACCURACY
ST 3459.8 SR 1940.0 SS 2187.8
CRT -.9992 CRS .9995 CST -.9976
LSA 4527.9 MSA 133.8 SSA 10.0
EL1 3966.0 EL2 68.3 ALF 150.73

LAUNCH DATE AUG 8 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 479.745

RL 151.69 LAL .00 LOL 315.05 VL 26.811 GAL 1.79 AZL 95.45 HCA 218.26 SMA 128.73 ECC .18098 INC 5.4485 V1 29.371
RP 107.66 LAP 3.37 LOP 173.18 VP 37.874 GAP 4.49 AZP 85.72 TAL 171.86 TAP 30.12 RCA 105.44 APO 152.03 V2 35.198
RC 107.765 GL -41.16 GP 39.68 ZAL 73.39 ZAP 125.54 ETS 32.98 ZAE 125.42 ETE 147.20 ZAC 135.53 ETC 250.98 CLP-139.06

PLANETOCENTRIC CONIC

C3 14.944 VHL 3.866 DLA -61.68 RAL 232.36 RAD 6567.6 VEL 11.676 PTH 2.05 VHP 4.827 DPA 25.95 RAP 228.18 ECC 1.2459

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.60	6 53 36	1668.20	42.16	46.41	113.15	140.22	7 21 24	1068.2	48.06	39.17
147.40	16 37 3	5269.92	42.16	245.11	113.16	140.21	18 4 53	4669.9	48.07	237.87
32.60	6 53 36	1668.20	42.16	46.41	113.15	140.22	7 21 24	1068.2	48.06	39.17
147.40	16 37 3	5269.92	42.16	245.11	113.16	140.21	18 4 53	4669.9	48.07	237.87
32.60	6 53 36	1668.20	42.16	46.41	113.15	140.22	7 21 24	1068.2	48.06	39.17
147.40	16 37 3	5269.92	42.16	245.11	113.16	140.21	18 4 53	4669.9	48.07	237.87

DIFFERENTIAL CORRECTIONS
TDE-2.2866 TRA .5566 TC3-3.1698 BAU .6618
RDE 1.0945 RRA -.3304 RC3 .9613 FAU .07222
FDE-3.1918 FRA 1.1899 FC3-4.1839 BSP 15680
BDE 2.5350 BRA .6473 BC3 3.3124 FSP -1915

MID-COURSE EXECUTION ACCURACY
SGT 4529.5 SGR 2061.5 SG3 590.2
RRT -.9761 RRF -.9882 RTF .9833
SGB 4976.6 R23 .0943 R13 -.9875
SG1 4959.7 SG2 408.9 THA 155.87

ORBIT DETERMINATION ACCURACY
ST 3429.8 SR 1651.6 SS 2027.3
CRT -.9993 CRS .9991 CST -.9969
LSA 4310.6 MSA 139.5 SSA 10.9
EL1 3806.3 EL2 54.7 ALF 154.30

LAUNCH DATE AUG 8 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 485.865

```
RL  151.69 LAL    .00 LOL 315.05 VL  26.790 GAL   1.99 AZL  95.05 HCA 221.49 SMA 128.59 ECC .18286 INC 5.0499 VI  29.371
RP  107.69 LAP   3.34 LOP 176.42 VP  37.851 GAP   4.87 AZP  86.21 TAL 171.05 TAP  32.53 RCA 105.08 APO 152.11 V2  35.189
RC 110.046 GL  -38.59 GP   36.52 ZAL  71.51 ZAP 129.02 ETS  33.62 ZAE 125.94 ETE 150.59 ZAC 132.62 ETC 251.99 CLP-141.57
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PLANETOCENTRIC CONIC

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C3  14.276 VHL  3.778 DLA -59.60 RAL 236.37 RAD 6567.6 VEL 11.647 PTH   2.04 VHP  4.836 DPA  22.83 RAP 227.35 ECC 1.2349
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.08	7 15 44	1646.94	41.63	42.73	114.94	137.40	7 43 11	1046.9	47.25	35.17
144.92	16 46 54	5270.85	41.64	244.43	114.95	137.39	18 14 45	4670.8	47.27	236.87
35.08	7 15 44	1646.94	41.63	42.73	114.94	137.40	7 43 11	1046.9	47.25	35.17
144.92	16 46 54	5270.85	41.64	244.43	114.95	137.39	18 14 45	4670.8	47.27	236.87
35.08	7 15 44	1646.94	41.63	42.73	114.94	137.40	7 43 11	1046.9	47.25	35.17
144.92	16 46 54	5270.85	41.64	244.43	114.95	137.39	18 14 45	4670.8	47.27	236.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-2.1842 TRA  .7076 TC3-3.4844 BAU  .6859   SGT 4733.1 SGR 1847.1 SG3  585.4          ST  3373.7 SR  1420.6 SS  1870.5
 RDE  .9146 RRA -.3413 RC3  .8798 FAU .07152   RRT -.9738 RRF -.9845 RTF  .9835          CRT -.9996 CRS  .9982 CST -.9962
 FDE-2.8390 FRA 1.3606 FC3-4.3371 BSP  16003   SGB 5080.7 R23  .0887 R13 -.9865          LSA 4108.3 MSA  142.7 SSA   11.9
 BDE 2.3680 BRA  .7856 BC3 3.5938 FSP  -1915   SG1 5065.5 SG2  392.2 THA 159.06          EL1 3660.4 EL2   38.6 ALF 157.17
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 176.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 491.961

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RL  151.69 LAL    .00 LOL 315.05 VL  26.768 GAL   2.20 AZL  94.70 HCA 224.71 SMA 128.45 ECC .18490 INC 4.6993 VI  29.371
RP  107.72 LAP   3.30 LOP 179.66 VP  37.826 GAP   5.25 AZP  86.66 TAL 170.20 TAP  34.91 RCA 104.70 APO 152.20 V2  35.179
RC 112.324 GL  -36.10 GP   33.67 ZAL  69.58 ZAP 132.28 ETS  34.11 ZAE 126.20 ETE 153.62 ZAC 130.04 ETC 252.80 CLP-143.93
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PLANETOCENTRIC CONIC

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C3  13.835 VHL  3.720 DLA -57.54 RAL 240.04 RAD 6567.5 VEL 11.628 PTH   2.04 VHP  4.881 DPA  19.93 RAP 226.85 ECC 1.2277
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.56	7 36 52	1627.65	40.86	39.24	116.65	134.80	8 3 59	1027.6	46.22	31.45
142.44	16 55 6	5276.35	40.87	244.06	116.67	134.79	18 23 3	4676.3	46.23	236.27
37.56	7 36 52	1627.65	40.86	39.24	116.65	134.80	8 3 59	1027.6	46.22	31.45
142.44	16 55 6	5276.35	40.87	244.06	116.67	134.79	18 23 3	4676.3	46.23	236.27
37.56	7 36 52	1627.65	40.86	39.24	116.65	134.80	8 3 59	1027.6	46.22	31.45
142.44	16 55 6	5276.35	40.87	244.06	116.67	134.79	18 23 3	4676.3	46.23	236.27

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-2.0925 TRA  .8466 TC3-3.8014 BAU  .7191   SGT 4928.6 SGR 1663.0 SG3  573.9          ST  3305.7 SR  1240.2 SS  1726.6
 RDE  .7825 RRA -.3388 RC3  .8149 FAU .07131   RRT -.9714 RRF -.9798 RTF  .9844          CRT -.9998 CRS  .9969 CST -.9956
 FDE-2.5258 FRA 1.4766 FC3-4.4621 BSP  16783   SGB 5201.6 R23  .0755 R13 -.9865          LSA 3927.7 MSA  143.0 SSA   12.7
 BDE 2.2340 BRA  .9119 BC3 3.8878 FSP  -1958   SG1 5188.1 SG2  375.1 THA 161.75          EL1 3530.6 EL2   21.6 ALF 159.44
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 498.037

```
RL  151.69 LAL    .00 LOL 315.05 VL  26.745 GAL   2.43 AZL  94.39 HCA 227.94 SMA 128.29 ECC .18712 INC 4.3866 VI  29.371
RP  107.75 LAP   3.26 LOP 182.90 VP  37.800 GAP   5.63 AZP  87.06 TAL 169.32 TAP  37.26 RCA 104.29 APO 152.30 V2  35.169
RC 114.599 GL  -33.68 GP   31.13 ZAL  67.61 ZAP 135.31 ETS  34.51 ZAE 126.27 ETE 156.29 ZAC 127.77 ETC 253.47 CLP-146.15
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PLANETOCENTRIC CONIC

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C3  13.583 VHL  3.685 DLA -55.50 RAL 243.46 RAD 6567.5 VEL 11.618 PTH   2.04 VHP  4.954 DPA  17.25 RAP 226.66 ECC 1.2235
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.04	7 57 13	1609.96	39.90	35.92	118.37	132.42	8 24 3	1010.0	45.01	27.99
139.96	17 1 58	5286.02	39.91	244.02	118.38	132.41	18 30 4	4686.0	45.02	236.08
40.04	7 57 13	1609.96	39.90	35.92	118.37	132.42	8 24 3	1010.0	45.01	27.99
139.96	17 1 58	5286.02	39.91	244.02	118.38	132.41	18 30 4	4686.0	45.02	236.08
40.04	7 57 13	1609.96	39.90	35.92	118.37	132.42	8 24 3	1010.0	45.01	27.99
139.96	17 1 58	5286.02	39.91	244.02	118.38	132.41	18 30 4	4686.0	45.02	236.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.9683 TRA 1.0221 TC3-3.9830 BAU  .7345   SGT 5084.8 SGR 1498.6 SG3  555.8          ST  3174.9 SR  1073.6 SS  1553.2
 RDE  .6657 RRA -.3467 RC3  .7039 FAU .06754   RRT -.9659 RRF -.9736 RTF  .9833          CRT -.9999 CRS  .9940 CST -.9940
 FDE-2.1681 FRA 1.6270 FC3-4.3050 BSP  16790   SGB 5301.0 R23  .0721 R13 -.9849          LSA 3690.7 MSA  154.6 SSA   13.5
 BDE 2.0778 BRA 1.0793 BC3 4.0447 FSP  -1861   SG1 5287.9 SG2  373.2 THA 164.03          EL1 3351.5 EL2   13.5 ALF 161.32
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 504.088

```
RL  151.69 LAL    .00 LOL 315.05 VL  26.721 GAL   2.68 AZL  94.10 HCA 231.16 SMA 128.14 ECC .18951 INC 4.1043 VI  29.371
RP  107.79 LAP   3.20 LOP 186.14 VP  37.775 GAP   6.01 AZP  87.42 TAL 168.41 TAP  39.57 RCA 103.85 APO 152.42 V2  35.158
RC 116.871 GL  -31.34 GP   28.85 ZAL  65.61 ZAP 138.14 ETS  34.85 ZAE 126.19 ETE 158.64 ZAC 125.78 ETC 254.03 CLP-148.24
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PLANETOCENTRIC CONIC

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C3  13.490 VHL  3.673 DLA -53.49 RAL 246.64 RAD 6567.5 VEL 11.614 PTH   2.03 VHP  5.052 DPA  14.77 RAP 226.73 ECC 1.2220
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.52	8 16 58	1593.34	38.79	32.79	120.12	130.25	8 43 31	993.3	43.67	24.76
137.48	17 7 37	5299.60	38.80	244.29	120.13	130.23	18 35 56	4699.6	43.68	236.26
42.52	8 16 58	1593.34	38.79	32.79	120.12	130.25	8 43 31	993.3	43.67	24.76
137.48	17 7 37	5299.60	38.80	244.29	120.13	130.23	18 35 56	4699.6	43.68	236.26
42.52	8 16 58	1593.34	38.79	32.79	120.12	130.25	8 43 31	993.3	43.67	24.76
137.48	17 7 37	5299.60	38.80	244.29	120.13	130.23	18 35 56	4699.6	43.68	236.26

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.8520 TRA 1.1928 TC3-4.1407 BAU  .7549   SGT 5232.7 SGR 1358.8 SG3  534.5          ST  3039.0 SR   944.0 SS  1398.0
 RDE  .5792 RRA -.3471 RC3  .6113 FAU .06420   RRT -.9596 RRF -.9658 RTF  .9827          CRT -.9997 CRS  .9891 CST -.9920
 FDE-1.8562 FRA 1.7363 FC3-4.1203 BSP  17069   SGB 5406.3 R23  .0643 R13 -.9839          LSA 3471.8 MSA  165.2 SSA   14.1
 BDE 1.9405 BRA 1.2423 BC3 4.1856 FSP  -1794   SG1 5393.5 SG2  371.0 THA 165.94          EL1 3182.2 EL2   23.4 ALF 162.75
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 510.113

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RL  151.69 LAL    .00 LOL 315.05 VL  26.697 GAL   2.94 AZL  93.85 HCA 234.38 SMA 127.97 ECC .19209 INC 3.8467 V1  29.371
RP  107.82 LAP   3.13 LOP 189.37 VP  37.745 GAP   6.40 AZP  87.76 TAL 167.46 TAP  41.85 RCA 103.39 APO 152.55 V2  35.147
RC 119.138 GL  -29.08 GP   26.82 ZAL  63.59 ZAP 140.76 ETS  35.17 ZAE 126.01 ETE 160.69 ZAC 124.04 ETC 254.52 CLP-150.22
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PLANETOCENTRIC CONIC

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C3  13.540 VHL  3.680 DLA -51.52 RAL 249.62 RAD 6567.5 VEL 11.616 PTH   2.04 VHP  5.169 DPA  12.48 RAP 227.03 ECC 1.2228
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.98	8 36 17	1577.52	37.56	29.81	121.91	128.27	9 2 34	977.5	42.23	21.74
135.02	17 12 5	5317.03	37.58	244.89	121.92	128.26	18 40 42	4717.0	42.24	236.82
44.98	8 36 17	1577.52	37.56	29.81	121.91	128.27	9 2 34	977.5	42.23	21.74
135.02	17 12 5	5317.03	37.58	244.89	121.92	128.26	18 40 42	4717.0	42.24	236.82
44.98	8 36 17	1577.52	37.56	29.81	121.91	128.27	9 2 34	977.5	42.23	21.74
135.02	17 12 5	5317.03	37.58	244.89	121.92	128.26	18 40 42	4717.0	42.24	236.82

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.7375 TRA 1.3676 TC3-4.2529 BAU  .7757   SGT 5369.0 SGR 1240.3 SG3  511.4     ST  2895.3 SR   841.1 SS  1256.8
 RDE  .5138 RRA -.3456 RC3  .5279 FAU .06076   RRT -.9519 RRF -.9564 RTF  .9822     CRT -.9986 CRS  .9810 CST -.9894
 FDE-1.5781 FRA 1.8237 FC3-3.8852 BSP  17415   SGB 5510.4 R23  .0556 R13 -.9831     LSA 3261.6 MSA  177.4 SSA   14.6
 BDE 1.8119 BRA 1.4106 BC3 4.2855 FSP  -1728   SG1 5497.9 SG2  371.2 THA 167.54     EL1 3014.7 EL2   42.4 ALF 163.82
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 516.113

```
RL  151.69 LAL    .00 LOL 315.05 VL  26.671 GAL   3.21 AZL  93.61 HCA 237.60 SMA 127.80 ECC .19487 INC 3.6091 V1  29.371
RP  107.86 LAP   3.05 LOP 192.60 VP  37.717 GAP   6.78 AZP  88.06 TAL 166.49 TAP  44.10 RCA 102.90 APO 152.71 V2  35.136
RC 121.402 GL  -26.91 GP   25.01 ZAL  61.57 ZAP 143.20 ETS  35.50 ZAE 125.76 ETE 162.48 ZAC 122.53 ETC 254.96 CLP-152.08
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PLANETOCENTRIC CONIC

```
C3  13.722 VHL  3.704 DLA -49.58 RAL 252.42 RAD 6567.5 VEL 11.624 PTH   2.04 VHP  5.304 DPA  10.35 RAP 227.54 ECC 1.2258
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.44	8 55 16	1562.18	36.25	26.97	123.77	126.49	9 21 18	962.2	40.71	18.90
132.56	17 15 28	5338.21	36.26	245.81	123.78	126.48	18 44 26	4738.2	40.72	237.74
47.44	8 55 16	1562.18	36.25	26.97	123.77	126.49	9 21 18	962.2	40.71	18.90
132.56	17 15 28	5338.21	36.26	245.81	123.78	126.48	18 44 26	4738.2	40.72	237.74
47.44	8 55 16	1562.18	36.25	26.97	123.77	126.49	9 21 18	962.2	40.71	18.90
132.56	17 15 28	5338.21	36.26	245.81	123.78	126.48	18 44 26	4738.2	40.72	237.74

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.6223 TRA 1.5502 TC3-4.3126 BAU  .7955   SGT 5493.5 SGR 1140.0 SG3  487.5     ST  2745.2 SR   758.4 SS  1129.0
 RDE  .4638 RRA -.3439 RC3  .4519 FAU .05714   RRT -.9426 RRF -.9453 RTF  .9815     CRT -.9961 CRS  .9679 CST -.9860
 FDE-1.3283 FRA 1.8969 FC3-3.6051 BSP  17738   SGB 5610.5 R23  .0474 R13 -.9823     LSA 3057.6 MSA  192.1 SSA   15.0
 BDE 1.6873 BRA 1.5879 BC3 4.3362 FSP  -1656   SG1 5598.1 SG2  373.5 THA 168.88     EL1 2847.3 EL2   64.6 ALF 164.61
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 522.084

```
RL  151.69 LAL    .00 LOL 315.05 VL  26.645 GAL   3.51 AZL  93.39 HCA 240.82 SMA 127.63 ECC .19786 INC 3.3881 V1  29.371
RP  107.89 LAP   2.96 LOP 195.83 VP  37.687 GAP   7.18 AZP  88.35 TAL 165.50 TAP  46.32 RCA 102.38 APO 152.89 V2  35.124
RC 123.660 GL  -24.81 GP   23.39 ZAL  59.55 ZAP 145.47 ETS  35.86 ZAE 125.46 ETE 164.02 ZAC 121.21 ETC 255.37 CLP-153.85
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PLANETOCENTRIC CONIC

```
C3  14.031 VHL  3.746 DLA -47.68 RAL 255.07 RAD 6567.6 VEL 11.637 PTH   2.04 VHP  5.453 DPA   8.36 RAP 228.23 ECC 1.2309
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.88	9 14 2	1547.08	34.86	24.26	125.70	124.87	9 39 49	947.1	39.15	16.21
130.12	17 17 48	5363.08	34.87	247.05	125.71	124.86	18 47 11	4763.1	39.16	239.00
49.88	9 14 2	1547.08	34.86	24.26	125.70	124.87	9 39 49	947.1	39.15	16.21
130.12	17 17 48	5363.08	34.87	247.05	125.71	124.86	18 47 11	4763.1	39.16	239.00
49.88	9 14 2	1547.08	34.86	24.26	125.70	124.87	9 39 49	947.1	39.15	16.21
130.12	17 17 48	5363.08	34.87	247.05	125.71	124.86	18 47 11	4763.1	39.16	239.00

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.5073 TRA 1.7399 TC3-4.3238 BAU  .8143   SGT 5606.7 SGR 1055.1 SG3  463.2     ST  2594.5 SR   692.5 SS  1016.2
 RDE  .4262 RRA -.3424 RC3  .3844 FAU .05346   RRT -.9317 RRF -.9325 RTF  .9809     CRT -.9911 CRS  .9480 CST -.9816
 FDE-1.1069 FRA 1.9569 FC3-3.2985 BSP  18060   SGB 5705.1 R23  .0397 R13 -.9814     LSA 2863.5 MSA  209.2 SSA   15.3
 BDE 1.5664 BRA 1.7733 BC3 4.3408 FSP  -1583   SG1 5692.6 SG2  377.5 THA 170.01     EL1 2683.9 EL2   89.1 ALF 165.17
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 528.027

```
RL  151.69 LAL    .00 LOL 315.05 VL  26.618 GAL   3.82 AZL  93.18 HCA 244.04 SMA 127.46 ECC .20108 INC 3.1807 V1  29.371
RP  107.93 LAP   2.86 LOP 199.05 VP  37.657 GAP   7.57 AZP  88.61 TAL 164.48 TAP  48.52 RCA 101.83 APO 153.09 V2  35.112
RC 125.912 GL  -22.80 GP   21.94 ZAL  57.55 ZAP 147.59 ETS  36.27 ZAE 125.15 ETE 165.36 ZAC 120.07 ETC 255.75 CLP-155.53
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PLANETOCENTRIC CONIC

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C3  14.465 VHL  3.803 DLA -45.84 RAL 257.57 RAD 6567.6 VEL 11.655 PTH   2.05 VHP  5.617 DPA   6.52 RAP 229.08 ECC 1.2381
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.32	9 32 41	1531.89	33.42	21.64	127.69	123.41	9 58 13	931.9	37.55	13.63
127.68	17 19 5	5391.73	33.44	248.60	127.70	123.40	18 48 57	4791.7	37.56	240.59
52.32	9 32 41	1531.89	33.42	21.64	127.69	123.41	9 58 13	931.9	37.55	13.63
127.68	17 19 5	5391.73	33.44	248.60	127.70	123.40	18 48 57	4791.7	37.56	240.59
52.32	9 32 41	1531.89	33.42	21.64	127.69	123.41	9 58 13	931.9	37.55	13.63
127.68	17 19 5	5391.73	33.44	248.60	127.70	123.40	18 48 57	4791.7	37.56	240.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.3921 TRA 1.9378 TC3-4.2899 BAU  .8320   SGT 5709.9 SGR  983.4 SG3  439.2     ST  2447.0 SR   639.7 SS   918.6
 RDE  .3983 RRA -.3416 RC3  .3257 FAU .04982   RRT -.9193 RRF -.9181 RTF  .9803     CRT -.9823 CRS  .9189 CST -.9762
 FDE -.9112 FRA 2.0061 FC3-2.9815 BSP  18374   SGB 5793.9 R23  .0327 R13 -.9807     LSA 2681.1 MSA  228.6 SSA   15.4
 BDE 1.4480 BRA 1.9677 BC3 4.3022 FSP  -1510   SG1 5781.3 SG2  382.3 THA 170.96     EL1 2526.6 EL2  116.0 ALF 165.57
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LAUNCH DATE AUG 8 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 533.938

RL	151.69	LAL	.00	LOL	315.05	VL	26.591	GAL	4.15	AZL	92.98	HCA	247.25	SMA	127.28	ECC	.20452	INC	2.9845
RP	107.97	LAP	2.75	LOP	202.27	VP	37.626	GAP	7.98	AZP	88.84	TAL	163.44	TAP	50.70	RCA	101.25	APO	153.31
RC	128.158	GL	-20.87	GP	20.64	ZAL	55.58	ZAP	149.57	ETS	36.75	ZAE	124.81	ETE	166.53	ZAC	119.08	ETC	256.12

V1	29.371	V2	35.099	CLP	-157.13														

PLANETOCENTRIC CONIC

C3	15.026	VHL	3.876	DLA	-44.04	RAL	259.93	RAD	6567.6	VEL	11.680	PTH	2.05	VHP	5.794	DPA	4.79	RAP	230.08
ECC	1.2473																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.74	9 51 18	1516.44	31.96	19.09	129.74	122.09	10 16 34	916.4	35.93	11.14
125.26	17 19 20	5424.14	31.97	250.46	129.75	122.07	18 49 44	4824.1	35.95	242.50
54.74	9 51 18	1516.44	31.96	19.09	129.74	122.09	10 16 34	916.4	35.93	11.14
125.26	17 19 20	5424.14	31.97	250.46	129.75	122.07	18 49 44	4824.1	35.95	242.50
54.74	9 51 18	1516.44	31.96	19.09	129.74	122.09	10 16 34	916.4	35.93	11.14
125.26	17 19 20	5424.14	31.97	250.46	129.75	122.07	18 49 44	4824.1	35.95	242.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2955	TRA	2.1261	TC3	-4.2624	BAU	.8582	SGT	5805.0	SGR	923.0	SG3	415.2	ST	2323.1	SR	602.3	SS	843.0
RDE	.3822	RRA	-.3383	RC3	.2853	FAU	.04724	RRT	-.9059	RRF	-.9023	RTF	.9804	CRT	-.9693	CRS	.8849	CST	-.9720
FDE	-.7617	FRA	2.0273	FC3	-2.7217	BSP	19128	SGB	5877.9	R23	.0240	R13	-.9807	LSA	2531.8	MSA	245.0	SSA	15.4
BDE	1.3507	BRA	2.1528	BC3	4.2719	FSP	-1484	SG1	5865.2	SG2	386.9	THA	171.77	EL1	2395.6	EL2	143.7	ALF	165.84

LAUNCH DATE AUG 8 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 539.819

RL	151.69	LAL	.00	LOL	315.05	VL	26.563	GAL	4.50	AZL	92.80	HCA	250.47	SMA	127.10	ECC	.20822	INC	2.7974
RP	108.01	LAP	2.64	LOP	205.49	VP	37.594	GAP	8.39	AZP	89.06	TAL	162.38	TAP	52.85	RCA	100.63	APO	153.57
RC	130.397	GL	-19.02	GP	19.47	ZAL	53.64	ZAP	151.42	ETS	37.31	ZAE	124.48	ETE	167.54	ZAC	118.23	ETC	256.49

V1	29.371	V2	35.086	CLP	-158.66														

PLANETOCENTRIC CONIC

C3	15.720	VHL	3.965	DLA	-42.30	RAL	262.17	RAD	6567.6	VEL	11.709	PTH	2.06	VHP	5.984	DPA	3.17	RAP	231.20
ECC	1.2587																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.16	10 10 1	1500.33	30.47	16.59	131.87	120.89	10 35 1	900.3	34.32	8.70
122.84	17 18 29	5460.55	30.48	252.64	131.88	120.88	18 49 30	4860.6	34.33	244.74
57.16	10 10 1	1500.33	30.47	16.59	131.87	120.89	10 35 1	900.3	34.32	8.70
122.84	17 18 29	5460.55	30.48	252.64	131.88	120.88	18 49 30	4860.6	34.33	244.74
57.16	10 10 1	1500.33	30.47	16.59	131.87	120.89	10 35 1	900.3	34.32	8.70
122.84	17 18 29	5460.55	30.48	252.64	131.88	120.88	18 49 30	4860.6	34.33	244.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.1666	TRA	2.3566	TC3	-4.1122	BAU	.8656	SGT	5888.7	SGR	872.0	SG3	393.5	ST	2181.7	SR	564.7	SS	770.9
RDE	.3652	RRA	-.3424	RC3	.2334	FAU	.04292	RRT	-.8907	RRF	-.8855	RTF	.9791	CRT	-.9477	CRS	.8286	CST	-.9636
FDE	-.5938	FRA	2.0782	FC3	-2.3639	BSP	19061	SGB	5952.9	R23	.0210	R13	-.9793	LSA	2366.1	MSA	272.1	SSA	15.5
BDE	1.2224	BRA	2.3814	BC3	4.1188	FSP	-1377	SG1	5939.9	SG2	393.0	THA	172.45	EL1	2246.8	EL2	175.0	ALF	166.13

LAUNCH DATE AUG 8 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 545.665

RL	151.69	LAL	.00	LOL	315.05	VL	26.535	GAL	4.87	AZL	92.62	HCA	253.68	SMA	126.92	ECC	.21220	INC	2.6178
RP	108.05	LAP	2.51	LOP	208.71	VP	37.563	GAP	8.81	AZP	89.26	TAL	161.31	TAP	54.98	RCA	99.99	APO	153.85
RC	132.627	GL	-17.27	GP	18.43	ZAL	51.74	ZAP	153.15	ETS	37.97	ZAE	124.15	ETE	168.42	ZAC	117.49	ETC	256.85

V1	29.371	V2	35.074	CLP	-160.12														

PLANETOCENTRIC CONIC

C3	16.552	VHL	4.068	DLA	-40.62	RAL	264.29	RAD	6567.7	VEL	11.745	PTH	2.07	VHP	6.186	DPA	1.66	RAP	232.45
ECC	1.2724																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.57	10 28 53	1483.33	28.98	14.12	134.05	119.81	10 53 37	883.3	32.71	6.28
120.43	17 16 32	5501.04	28.99	255.15	134.06	119.80	18 48 13	4901.0	32.72	247.31
59.57	10 28 53	1483.33	28.98	14.12	134.05	119.81	10 53 37	883.3	32.71	6.28
120.43	17 16 32	5501.04	28.99	255.15	134.06	119.80	18 48 13	4901.0	32.72	247.31
59.57	10 28 53	1483.33	28.98	14.12	134.05	119.81	10 53 37	883.3	32.71	6.28
120.43	17 16 32	5501.04	28.99	255.15	134.06	119.80	18 48 13	4901.0	32.72	247.31

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.0472	TRA	2.5874	TC3	-3.9581	BAU	.8769	SGT	5966.0	SGR	829.0	SG3	372.4	ST	2063.6	SR	536.3	SS	716.9
RDE	.3554	RRA	-.3458	RC3	.1946	FAU	.03932	RRT	-.8751	RRF	-.8681	RTF	.9783	CRT	-.9179	CRS	.7629	CST	-.9565
FDE	-.4573	FRA	2.1123	FC3	-2.0567	BSP	19223	SGB	6023.3	R23	.0170	R13	-.9784	LSA	2229.7	MSA	297.4	SSA	15.4
BDE	1.1059	BRA	2.6104	BC3	3.9629	FSP	-1299	SG1	6010.2	SG2	398.3	THA	173.04	EL1	2122.1	EL2	207.0	ALF	166.45

LAUNCH DATE AUG 8 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 551.474

RL	151.69	LAL	.00	LOL	315.05	VL	26.506	GAL	5.26	AZL	92.44	HCA	256.88	SMA	126.73	ECC	.21647	INC	2.4441
RP	108.09	LAP	2.38	LOP	211.92	VP	37.530	GAP	9.24	AZP	89.44	TAL	160.21	TAP	57.10	RCA	99.30	APO	154.17
RC	134.850	GL	-15.59	GP	17.48	ZAL	49.90	ZAP	154.78	ETS	38.75	ZAE	123.83	ETE	169.18	ZAC	116.85	ETC	257.21

V1	29.371	V2	35.061	CLP	-161.53														

PLANETOCENTRIC CONIC

C3	17.534	VHL	4.187	DLA	-39.00	RAL	266.30	RAD	6567.7	VEL	11.786	PTH	2.08	VHP	6.400	DPA	.23	RAP	233.79
ECC	1.2886																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.98	10 48 3	1465.09	27.49	11.63	136.29	118.82	11 12 28	865.1	31.11	3.86
118.02	17 13 25	5545.84	27.51	257.98	136.30	118.81	18 45 50	4945.8	31.12	250.21
61.98	10 48 3	1465.09	27.49	11.63	136.29	118.82	11 12 28	865.1	31.11	3.86
118.02	17 13 25	5545.84	27.51	257.98	136.30	118.81	18 45 50	4945.8	31.12	250.21
61.98	10 48 3	1465.09	27.49	11.63	136.29	118.82	11 12 28	865.1	31.11	3.86
118.02	17 13 25	5545.84	27.51	257.98	136.30	118.81	18 45 50	4945.8	31.12	250.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.9304	TRA	2.8259	TC3	-3.7864	BAU	.8884	SGT	6035.8	SGR	792.4	SG3	352.3	ST	1964.1	SR	513.6	SS	676.4
RDE	.3502	RRA	-.3499	RC3	.1633	FAU	.03602	RRT	-.8591	RRF	-.8504	RTF	.9776	CRT	-.8786	CRS	.6883	CST	-.9508
FDE	-.3407	FRA	2.1395	FC3	-1.7787	BSP	19438	SGB	6087.6	R23	.0134	R13	-.9777	LSA	2115.5	MSA	322.0	SSA	15.3
BDE	.9942	BRA	2.8475	BC3	3.7899	FSP	-1231	SG1	6074.2	SG2	403.0	THA	173.54	EL1	2016.1	EL2	239.0	ALF	166.87

LAUNCH DATE AUG 8 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 557.241
RL 151.69 LAL .00 LOL 315.05 VL 26.477 GAL 5.67 AZL 92.28 HCA 260.09 SMA 126.55 ECC .22105 INC 2.2750 V1 29.371
RP 108.13 LAP 2.24 LOP 215.13 VP 37.498 GAP 9.68 AZP 89.61 TAL 159.11 TAP 59.20 RCA 98.58 APO 154.52 V2 35.047
RC 137.063 GL -14.01 GP 16.63 ZAL 48.11 ZAP 156.31 ETS 39.66 ZAE 123.51 ETE 169.85 ZAC 116.30 ETC 257.58 CLP-162.89
PLANETOCENTRIC CONIC
C3 18.677 VHL 4.322 DLA -37.44 RAL 268.21 RAD 6567.8 VEL 11.835 PTH 2.10 VHP 6.627 DPA -1.11 RAP 235.23 ECC 1.3074

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.41	11 7 40	1445.07	26.02	9.08	138.58	117.93	11 31 45	845.1	29.53	1.38
115.59	17 8 59	5595.37	26.03	261.17	138.59	117.92	18 42 14	4995.4	29.55	253.47
64.41	11 7 40	1445.07	26.02	9.08	138.58	117.93	11 31 45	845.1	29.53	1.38
115.59	17 8 59	5595.37	26.03	261.17	138.59	117.92	18 42 14	4995.4	29.55	253.47
64.41	11 7 40	1445.07	26.02	9.08	138.58	117.93	11 31 45	845.1	29.53	1.38
115.59	17 8 59	5595.37	26.03	261.17	138.59	117.92	18 42 14	4995.4	29.55	253.47

DIFFERENTIAL CORRECTIONS
TDE -.8230 TRA 3.0657 TC3-3.6157 BAU .9035
RDE .3497 RRA -.3539 RC3 .1404 FAU .03329
FDE -.2475 FRA 2.1552 FC3-1.5430 BSP 19881
BDE .8942 BRA 3.0861 BC3 3.6184 FSP -1184

MID-COURSE EXECUTION ACCURACY
SGT 6096.0 SGR 760.8 SG3 332.8
RRT -.8430 RRF -.8328 RTF .9773
SGB 6143.3 R23 .0096 R13 -.9774
SG1 6129.8 SG2 406.9 THA 173.97

ORBIT DETERMINATION ACCURACY
ST 1886.1 SR 496.4 SS 646.5
CRT -.8314 CRS .6132 CST -.9484
LSA 2025.8 MSA 343.2 SSA 15.1
EL1 1931.7 EL2 269.3 ALF 167.41

LAUNCH DATE AUG 8 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 562.966
RL 151.69 LAL .00 LOL 315.05 VL 26.448 GAL 6.11 AZL 92.11 HCA 263.29 SMA 126.36 ECC .22598 INC 2.1093 V1 29.371
RP 108.17 LAP 2.09 LOP 218.34 VP 37.465 GAP 10.14 AZP 89.75 TAL 158.00 TAP 61.29 RCA 97.81 APO 154.92 V2 35.034
RC 139.266 GL -12.50 GP 15.86 ZAL 46.38 ZAP 157.76 ETS 40.72 ZAE 123.21 ETE 170.43 ZAC 115.82 ETC 257.95 CLP-164.20
PLANETOCENTRIC CONIC
C3 20.000 VHL 4.472 DLA -35.94 RAL 270.01 RAD 6567.8 VEL 11.890 PTH 2.11 VHP 6.868 DPA -2.37 RAP 236.75 ECC 1.3292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.88	11 27 57	1422.61	24.56	6.43	140.92	117.11	11 51 40	822.6	27.99	358.79
113.12	17 3 9	5650.04	24.58	264.75	140.93	117.10	18 37 19	5050.0	28.00	257.10
66.88	11 27 57	1422.61	24.56	6.43	140.92	117.11	11 51 40	822.6	27.99	358.79
113.12	17 3 9	5650.04	24.58	264.75	140.93	117.10	18 37 19	5050.0	28.00	257.10
66.88	11 27 57	1422.61	24.56	6.43	140.92	117.11	11 51 40	822.6	27.99	358.79
113.12	17 3 9	5650.04	24.58	264.75	140.93	117.10	18 37 19	5050.0	28.00	257.10

DIFFERENTIAL CORRECTIONS
TDE -.6968 TRA 3.3360 TC3-3.3912 BAU .9073
RDE .3490 RRA -.3616 RC3 .1158 FAU .02993
FDE -.1508 FRA 2.1838 FC3-1.2957 BSP 19870
BDE .7793 BRA 3.3555 BC3 3.3931 FSP -1107

MID-COURSE EXECUTION ACCURACY
SGT 6153.5 SGR 733.6 SG3 315.4
RRT -.8273 RRF -.8157 RTF .9764
SGB 6197.1 R23 .0077 R13 -.9765
SG1 6183.5 SG2 410.2 THA 174.34

ORBIT DETERMINATION ACCURACY
ST 1820.3 SR 479.0 SS 626.1
CRT -.7700 CRS .5233 CST -.9463
LSA 1949.5 MSA 366.2 SSA 14.9
EL1 1858.3 EL2 299.4 ALF 168.24

LAUNCH DATE AUG 8 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 568.641
RL 151.69 LAL .00 LOL 315.05 VL 26.419 GAL 6.58 AZL 91.95 HCA 266.50 SMA 126.18 ECC .23129 INC 1.9459 V1 29.371
RP 108.21 LAP 1.94 LOP 221.54 VP 37.432 GAP 10.61 AZP 89.88 TAL 156.87 TAP 63.37 RCA 96.99 APO 155.36 V2 35.021
RC 141.459 GL -11.08 GP 15.17 ZAL 44.71 ZAP 159.12 ETS 41.96 ZAE 122.92 ETE 170.94 ZAC 115.41 ETC 258.34 CLP-165.47
PLANETOCENTRIC CONIC
C3 21.521 VHL 4.639 DLA -34.51 RAL 271.72 RAD 6567.9 VEL 11.954 PTH 2.13 VHP 7.123 DPA -3.56 RAP 238.34 ECC 1.3542

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.40	11 49 6	1397.07	23.13	3.62	143.30	116.36	12 12 23	797.1	26.47	356.03
110.60	16 55 36	5710.84	23.14	268.77	143.31	116.35	18 30 47	5110.8	26.48	261.18
69.40	11 49 6	1397.07	23.13	3.62	143.30	116.36	12 12 23	797.1	26.47	356.03
110.60	16 55 36	5710.84	23.14	268.77	143.31	116.35	18 30 47	5110.8	26.48	261.18
69.40	11 49 6	1397.07	23.13	3.62	143.30	116.36	12 12 23	797.1	26.47	356.03
110.60	16 55 36	5710.84	23.14	268.77	143.31	116.35	18 30 47	5110.8	26.48	261.18

DIFFERENTIAL CORRECTIONS
TDE -.5789 TRA 3.6102 TC3-3.1760 BAU .9142
RDE .3518 RRA -.3694 RC3 .0979 FAU .02712
FDE -.0733 FRA 2.2036 FC3-1.0910 BSP 20062
BDE .6774 BRA 3.6291 BC3 3.1775 FSP -1050

MID-COURSE EXECUTION ACCURACY
SGT 6202.8 SGR 709.6 SG3 298.6
RRT -.8120 RRF -.7992 RTF .9760
SGB 6243.2 R23 .0055 R13 -.9760
SG1 6229.6 SG2 412.4 THA 174.67

ORBIT DETERMINATION ACCURACY
ST 1776.0 SR 465.2 SS 612.6
CRT -.7027 CRS .4405 CST -.9480
LSA 1896.9 MSA 383.9 SSA 14.7
EL1 1806.9 EL2 325.3 ALF 169.22

LAUNCH DATE AUG 8 1970 FLIGHT TIME 204.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 574.264
RL 151.69 LAL .00 LOL 315.05 VL 26.390 GAL 7.08 AZL 91.78 HCA 269.69 SMA 125.99 ECC .23701 INC 1.7837 V1 29.371
RP 108.25 LAP 1.78 LOP 224.74 VP 37.398 GAP 11.10 AZP 89.99 TAL 155.75 TAP 65.44 RCA 96.13 APO 155.85 V2 35.008
RC 143.643 GL -9.73 GP 14.53 ZAL 43.11 ZAP 160.41 ETS 43.40 ZAE 122.63 ETE 171.39 ZAC 115.05 ETC 258.74 CLP-166.71
PLANETOCENTRIC CONIC
C3 23.262 VHL 4.823 DLA -33.14 RAL 273.34 RAD 6567.9 VEL 12.027 PTH 2.15 VHP 7.393 DPA -4.68 RAP 240.01 ECC 1.3828

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.02	12 11 35	1366.91	21.72	.53	145.73	115.67	12 34 22	766.9	24.99	353.00
107.98	16 46 1	5778.76	21.73	273.31	145.73	115.66	18 22 20	5178.8	25.00	265.77
72.02	12 11 35	1366.91	21.72	.53	145.73	115.67	12 34 22	766.9	24.99	353.00
107.98	16 46 1	5778.76	21.73	273.31	145.73	115.66	18 22 20	5178.8	25.00	265.77
110.00	15 54 37	648.65	15.95	304.36	142.47	120.64	16 5 26	48.6	19.90	297.46
110.00	18 2 10	5545.01	27.74	258.04	148.57	110.82	19 34 35	4945.0	30.31	249.79

DIFFERENTIAL CORRECTIONS
TDE -.4602 TRA 3.8973 TC3-2.9550 BAU .9193
RDE .3563 RRA -.3781 RC3 .0829 FAU .02446
FDE -.0056 FRA 2.2218 FC3 -.9102 BSP 20256
BDE .5820 BRA 3.9156 BC3 2.9561 FSP -997

MID-COURSE EXECUTION ACCURACY
SGT 6244.7 SGR 687.9 SG3 282.7
RRT -.7973 RRF -.7835 RTF .9756
SGB 6282.4 R23 .0037 R13 -.9756
SG1 6268.8 SG2 413.7 THA 174.96

ORBIT DETERMINATION ACCURACY
ST 1748.6 SR 452.9 SS 604.3
CRT -.6296 CRS .3619 CST -.9518
LSA 1862.7 MSA 397.4 SSA 14.5
EL1 1772.7 EL2 347.1 ALF 170.37

LAUNCH DATE AUG 8 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 579.828

RL	151.69	LAL	.00	LOL	315.05	VL	26.360	GAL	7.61	AZL	91.62	HCA	272.89	SMA	125.81	ECC	.24319	INC	1.6217	V1	29.371		
RP	108.29	LAP	1.62	LOP	227.94	VP	37.365	GAP	11.62	AZP	90.08	TAL	154.62	TAP	67.51	RCA	95.21	APO	156.40	V2	34.995		
RC	145.816	GL	-8.46	GP	13.96	ZAL	41.58	ZAP	161.62	ETS	45.06	ZAE	122.36	ETE	171.79	ZAC	114.74	ETC	259.14	CLP	-167.92		

PLANETOCENTRIC CONIC

C3	25.253	VHL	5.025	DLA	-31.83	RAL	274.87	RAD	6568.0	VEL	12.109	PTH	2.17	VHP	7.680	DPA	-5.73	RAP	241.73	ECC	1.4156		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.81	12 36 1	1330.13	20.34	357.02	148.19	115.03	12 58 11	730.1	23.54	349.53
105.19	16 33 49	5855.82	20.36	278.51	148.19	115.02	18 11 25	5255.8	23.56	271.02
74.81	12 36 1	1330.13	20.34	357.02	148.19	115.03	12 58 11	730.1	23.54	349.53
105.19	16 33 49	5855.82	20.36	278.51	148.19	115.02	18 11 25	5255.8	23.56	271.02
110.00	15 29 6	768.89	11.67	311.04	143.26	122.36	15 41 55	168.9	15.86	304.44
110.00	18 39 54	5465.06	29.55	252.52	152.19	108.02	20 10 59	4865.1	31.73	243.99

DIFFERENTIAL CORRECTIONS

TDE	-.3406	TRA	4.1988	TC3	-2.7322	BAU	.9227
RDE	.3622	RRA	-.3878	RC3	.0704	FAU	.02196
FDE	.0537	FRA	2.2397	FC3	-.7528	BSP	20449
BDE	.4972	BRA	4.2167	BC3	2.7331	FSP	-948

MID-COURSE EXECUTION ACCURACY

SGT	6280.4	SGR	668.2	SG3	267.9		
RRT	-.7834	RRF	-.7689	RTF	.9754		
SGB	6315.8	R23	.0023	R13	-.9754		
SG1	6302.3	SG2	413.8	THA	175.22		

ORBIT DETERMINATION ACCURACY

ST	1736.5	SR	441.5	SS	599.9		
CRT	-.5536	CRS	.2895	CST	-.9570		
LSA	1845.2	MSA	406.4	SSA	14.2		
EL1	1754.4	EL2	363.9	ALF	171.62		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 585.325

RL	151.69	LAL	.00	LOL	315.05	VL	26.330	GAL	8.17	AZL	91.46	HCA	276.08	SMA	125.62	ECC	.24986	INC	1.4590	V1	29.371		
RP	108.33	LAP	1.45	LOP	231.13	VP	37.332	GAP	12.15	AZP	90.15	TAL	153.49	TAP	69.57	RCA	94.23	APO	157.01	V2	34.982		
RC	147.979	GL	-7.27	GP	13.44	ZAL	40.12	ZAP	162.77	ETS	46.98	ZAE	122.09	ETE	172.14	ZAC	114.47	ETC	259.56	CLP	-169.11		

PLANETOCENTRIC CONIC

C3	27.527	VHL	5.247	DLA	-30.59	RAL	276.32	RAD	6568.1	VEL	12.203	PTH	2.19	VHP	7.985	DPA	-6.72	RAP	243.51	ECC	1.4530		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.92	13 3 43	1282.45	19.00	352.77	150.68	114.44	13 25 5	682.5	22.14	345.32
102.08	16 17 40	658.19	19.01	306.76	150.69	114.42	16 28 38	58.2	22.15	299.32
77.92	13 3 43	1282.45	19.00	352.77	150.68	114.44	13 25 5	682.5	22.14	345.32
102.08	16 17 40	658.19	19.01	306.76	150.69	114.42	16 28 38	58.2	22.15	299.32
110.00	15 12 37	862.66	8.20	316.10	144.57	123.30	15 27 0	262.7	12.53	309.67
110.00	19 7 56	5414.02	30.57	248.90	155.37	106.09	20 38 10	4814.0	32.47	240.20

DIFFERENTIAL CORRECTIONS

TDE	-.2205	TRA	4.5151	TC3	-2.5113	BAU	.9244
RDE	.3694	RRA	-.3984	RC3	.0600	FAU	.01961
FDE	.1051	FRA	2.2574	FC3	-.6168	BSP	20665
BDE	.4302	BRA	4.5326	BC3	2.5120	FSP	-904

MID-COURSE EXECUTION ACCURACY

SGT	6309.5	SGR	649.6	SG3	253.9		
RRT	-.7703	RRF	-.7553	RTF	.9753		
SGB	6342.9	R23	.0011	R13	-.9753		
SG1	6329.4	SG2	412.9	THA	175.45		

ORBIT DETERMINATION ACCURACY

ST	1736.9	SR	430.9	SS	598.1		
CRT	-.4780	CRS	.2248	CST	-.9630		
LSA	1841.5	MSA	411.0	SSA	13.9		
EL1	1749.7	EL2	375.7	ALF	172.91		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 590.748

RL	151.69	LAL	.00	LOL	315.05	VL	26.301	GAL	8.78	AZL	91.29	HCA	279.28	SMA	125.43	ECC	.25708	INC	1.2944	V1	29.371		
RP	108.37	LAP	1.28	LOP	234.33	VP	37.299	GAP	12.72	AZP	90.21	TAL	152.37	TAP	71.64	RCA	93.19	APO	157.68	V2	34.969		
RC	150.132	GL	-6.14	GP	12.96	ZAL	38.73	ZAP	163.85	ETS	49.20	ZAE	121.82	ETE	172.45	ZAC	114.23	ETC	259.99	CLP	-170.27		

PLANETOCENTRIC CONIC

C3	30.123	VHL	5.488	DLA	-29.41	RAL	277.69	RAD	6568.2	VEL	12.308	PTH	2.22	VHP	8.310	DPA	-7.64	RAP	245.33	ECC	1.4957		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.72	13 38 3	1212.82	17.69	346.97	153.20	113.88	13 58 16	612.8	20.77	339.57
98.28	15 54 14	772.86	17.71	314.68	153.21	113.87	16 7 7	172.9	20.78	307.27
100.00	15 22 11	875.54	13.70	320.31	151.24	116.83	15 36 47	275.5	17.19	313.26
100.00	16 52 47	5873.42	21.79	280.48	154.99	110.99	18 30 41	5273.4	24.44	272.69
110.00	15 0 26	944.08	5.14	320.41	146.16	123.84	15 16 10	344.1	9.55	314.09
110.00	19 31 2	5377.64	31.23	246.27	158.38	104.66	21 0 40	4777.6	32.93	237.45

DIFFERENTIAL CORRECTIONS

TDE	-.0985	TRA	4.8482	TC3	-2.2926	BAU	.9235
RDE	.3773	RRA	-.4097	RC3	.0509	FAU	.01738
FDE	.1505	FRA	2.2756	FC3	-.4995	BSP	20876
BDE	.3900	BRA	4.8655	BC3	2.2932	FSP	-862

MID-COURSE EXECUTION ACCURACY

SGT	6332.2	SGR	631.9	SG3	240.7		
RRT	-.7581	RRF	-.7427	RTF	.9754		
SGB	6363.6	R23	.0003	R13	-.9754		
SG1	6350.3	SG2	410.9	THA	175.66		

ORBIT DETERMINATION ACCURACY

ST	1747.6	SR	420.6	SS	598.2		
CRT	-.4046	CRS	.1673	CST	-.9690		
LSA	1849.1	MSA	411.6	SSA	13.6		
EL1	1756.3	EL2	382.7	ALF	174.16		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 596.086

RL	151.69	LAL	.00	LOL	315.05	VL	26.271	GAL	9.42	AZL	91.13	HCA	282.47	SMA	125.25	ECC	.26491	INC	1.1269	V1	29.371		
RP	108.41	LAP	1.10	LOP	237.51	VP	37.266	GAP	13.32	AZP	90.24	TAL	151.26	TAP	73.72	RCA	92.07	APO	158.43	V2	34.956		
RC	152.275	GL	-5.08	GP	12.53	ZAL	37.41	ZAP	164.86	ETS	51.76	ZAE	121.55	ETE	172.73	ZAC	114.02	ETC	260.44	CLP	-171.42		

PLANETOCENTRIC CONIC

C3	33.090	VHL	5.752	DLA	-28.28	RAL	278.98	RAD	6568.3	VEL	12.428	PTH	2.25	VHP	8.657	DPA	-8.51	RAP	247.20	ECC	1.5446		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 38 39	1057.44	15.32	334.47	155.24	114.11	14 56 16	457.4	18.45	327.19
90.00	15 3 55	975.48	17.54	329.47	156.24	112.59	15 20 11	375.5	20.45	322.01
100.00	14 50 21	1019.54	9.14	328.56	152.11	118.59	15 7 21	419.5	12.88	321.78
100.00	17 34 54	5776.66	24.01	274.15	158.82	108.37	19 11 11	5176.7	26.29	266.09
110.00	14 50 50	1018.03	2.32	324.28	147.94	124.11	15 7 48	418.0	6.78	318.04
110.00	19 50 55	5350.93	31.67	244.31	161.30	103.58	21 20 6	4750.9	33.22	235.42

DIFFERENTIAL CORRECTIONS

TDE	.0251	TRA	5.1994	TC3	-2.0794	BAU	.9201
RDE	.3861	RRA	-.4217	RC3	.0431	FAU	.01527
FDE	.1906	FRA	2.2951	FC3	-.3995	BSP	21103
BDE	.3869	BRA	5.2165	BC3	2.0798	FSP	-823

MID-COURSE EXECUTION ACCURACY

SGT	6348.7	SGR	614.7	SG3	228.4		
RRT	-.7467	RRF	-.7312	RTF	.9756		
SGB	6378.4	R23	-.0004	R13	-.9756		
SG1	6365.4	SG2	407.8	THA	175.85		

ORBIT DETERMINATION ACCURACY

ST	1765.9	SR	410.3	SS	599.6		
CRT	-.3353	CRS	.1169	CST	-.9746		
LSA	1865.2	MSA	408.8	SSA	13.3		
EL1	1771.5	EL2	385.3	ALF	175.32		

LAUNCH DATE AUG 8 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 601.328

RL 151.69 LAL .00 LOL 315.05 VL 26.242 GAL 10.11 AZL 90.96 HCA 285.65 SMA 125.07 ECC .27342 INC .9554 V1 29.371
RP 108.45 LAP .92 LOP 240.70 VP 37.234 GAP 13.95 AZP 90.26 TAL 150.16 TAP 75.81 RCA 90.87 APO 159.26 V2 34.943
RC 154.408 GL -4.09 GP 12.13 ZAL 36.17 ZAP 165.80 ETS 54.70 ZAE 121.29 ETE 172.98 ZAC 113.83 ETC 260.89 CLP-172.56

PLANETOCENTRIC CONIC

C3 36.485 VHL 6.040 DLA -27.21 RAL 280.19 RAD 6568.4 VEL 12.564 PTH 2.28 VHP 9.029 DPA -9.32 RAP 249.10 ECC 1.6004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 46 46	1267.48	9.14	346.79	155.44	116.92	14 7 54	667.5	12.68	339.90
90.00	16 5 29	814.75	21.43	319.29	160.82	108.96	16 19 3	214.8	23.82	311.44
100.00	14 31 32	1122.84	5.72	334.33	153.59	119.39	14 50 15	522.8	9.60	327.69
100.00	18 3 23	5722.67	25.12	270.52	162.11	106.77	19 38 46	5122.7	27.17	262.32
110.00	14 43 0	1086.85	-.31	327.87	149.85	124.18	15 1 7	486.9	4.18	321.66
110.00	20 8 25	5331.42	31.98	242.87	164.17	102.78	21 37 17	4731.4	33.40	233.93

DIFFERENTIAL CORRECTIONS
TDE .1520 TRA 5.5711 TC3-1.8719 BAU .9132
RDE .3953 RRA -.4342 RC3 .0362 FAU .01325
FDE .2265 FRA 2.3165 FC3 -.3144 BSP 21307
BDE .4235 BRA 5.5880 BC3 1.8723 FSP -786

MID-COURSE EXECUTION ACCURACY
SGT 6359.7 SGR 597.5 SG3 216.8
RRT -.7360 RRF -.7206 RTF .9759
SGB 6387.7 R23 -.0008 R13 -.9759
SG1 6375.0 SG2 403.5 THA 176.03

ORBIT DETERMINATION ACCURACY
ST 1789.8 SR 399.9 SS 602.1
CRT -.2706 CRS .0727 CST -.9795
LSA 1887.7 MSA 403.1 SSA 13.0
EL1 1793.2 EL2 384.2 ALF 176.37

LAUNCH DATE AUG 8 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 606.459

RL 151.69 LAL .00 LOL 315.05 VL 26.212 GAL 10.85 AZL 90.78 HCA 288.84 SMA 124.89 ECC .28268 INC .7785 V1 29.371
RP 108.49 LAP .74 LOP 243.89 VP 37.201 GAP 14.63 AZP 90.25 TAL 149.08 TAP 77.92 RCA 89.58 APO 160.19 V2 34.931
RC 156.530 GL -3.16 GP 11.77 ZAL 35.01 ZAP 166.67 ETS 58.09 ZAE 121.01 ETE 173.20 ZAC 113.66 ETC 261.35 CLP-173.69

PLANETOCENTRIC CONIC

C3 40.377 VHL 6.354 DLA -26.20 RAL 281.33 RAD 6568.6 VEL 12.718 PTH 2.31 VHP 9.429 DPA -10.08 RAP 251.02 ECC 1.6645

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 24 45	1381.72	5.56	353.28	156.88	117.81	13 47 46	781.7	9.24	346.53
90.00	16 36 34	751.75	22.77	315.16	164.21	107.31	16 49 6	151.7	24.92	307.15
100.00	14 17 49	1210.30	2.78	339.16	155.35	119.77	14 38 0	610.3	6.72	332.59
100.00	18 26 11	5686.44	25.80	268.05	165.20	105.64	20 0 57	5086.4	27.70	259.76
110.00	14 36 26	1151.88	-2.79	331.26	151.87	124.08	14 55 38	551.9	1.70	325.06
110.00	20 24 3	5317.62	32.18	241.85	167.00	102.21	21 52 41	4717.6	33.53	232.87

DIFFERENTIAL CORRECTIONS
TDE .2832 TRA 5.9667 TC3-1.6700 BAU .9016
RDE .4049 RRA -.4472 RC3 .0298 FAU .01127
FDE .2595 FRA 2.3410 FC3 -.2417 BSP 21485
BDE .4941 BRA 5.9834 BC3 1.6703 FSP -750

MID-COURSE EXECUTION ACCURACY
SGT 6365.8 SGR 580.3 SG3 206.0
RRT -.7261 RRF -.7109 RTF .9764
SGB 6392.2 R23 -.0011 R13 -.9764
SG1 6379.8 SG2 398.1 THA 176.20

ORBIT DETERMINATION ACCURACY
ST 1818.0 SR 389.2 SS 605.8
CRT -.2111 CRS .0336 CST -.9838
LSA 1915.0 MSA 395.0 SSA 12.7
EL1 1819.9 EL2 380.0 ALF 177.29

LAUNCH DATE AUG 8 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 611.461

RL 151.69 LAL .00 LOL 315.05 VL 26.183 GAL 11.65 AZL 90.60 HCA 292.02 SMA 124.71 ECC .29279 INC .5951 V1 29.371
RP 108.53 LAP .55 LOP 247.07 VP 37.170 GAP 15.35 AZP 90.22 TAL 148.03 TAP 80.05 RCA 88.19 APO 161.22 V2 34.919
RC 158.641 GL -2.28 GP 11.43 ZAL 33.92 ZAP 167.46 ETS 61.98 ZAE 120.73 ETE 173.40 ZAC 113.51 ETC 261.82 CLP-174.82

PLANETOCENTRIC CONIC

C3 44.852 VHL 6.697 DLA -25.24 RAL 282.39 RAD 6568.7 VEL 12.892 PTH 2.35 VHP 9.860 DPA -10.78 RAP 252.97 ECC 1.7381

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 9 23	1474.72	2.58	358.49	158.63	118.21	13 33 58	874.7	6.33	351.82
90.00	17 0 25	711.72	23.55	312.49	167.35	106.19	17 12 16	111.7	25.55	304.39
100.00	14 7 1	1288.63	.13	343.46	157.27	119.89	14 28 30	688.6	4.10	336.93
100.00	18 45 27	5661.08	26.26	266.30	168.18	104.82	20 19 49	5061.1	28.04	257.95
110.00	14 30 50	1213.93	-5.15	334.52	153.98	123.84	14 51 4	613.9	-.67	328.30
110.00	20 38 8	5308.56	32.31	241.17	169.82	101.83	22 6 37	4708.6	33.60	232.17

DIFFERENTIAL CORRECTIONS
TDE .4196 TRA 6.3882 TC3-1.4755 BAU .8849
RDE .4147 RRA -.4604 RC3 .0240 FAU .00934
FDE .2901 FRA 2.3688 FC3 -.1803 BSP 21623
BDE .5900 BRA 6.4048 BC3 1.4757 FSP -715

MID-COURSE EXECUTION ACCURACY
SGT 6367.3 SGR 562.6 SG3 195.9
RRT -.7166 RRF -.7019 RTF .9770
SGB 6392.1 R23 -.0013 R13 -.9770
SG1 6380.1 SG2 391.6 THA 176.36

ORBIT DETERMINATION ACCURACY
ST 1848.8 SR 378.1 SS 610.5
CRT -.1566 CRS -.0009 CST -.9873
LSA 1945.6 MSA 385.2 SSA 12.4
EL1 1849.8 EL2 373.2 ALF 178.09

LAUNCH DATE AUG 8 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 616.313

RL 151.69 LAL .00 LOL 315.05 VL 26.154 GAL 12.52 AZL 90.40 HCA 295.20 SMA 124.53 ECC .30385 INC .4031 V1 29.371
RP 108.56 LAP .37 LOP 250.25 VP 37.138 GAP 16.13 AZP 90.17 TAL 147.01 TAP 82.21 RCA 86.69 APO 162.37 V2 34.907
RC 160.740 GL -1.46 GP 11.13 ZAL 32.90 ZAP 168.17 ETS 66.42 ZAE 120.44 ETE 173.59 ZAC 113.36 ETC 262.30 CLP-175.96

PLANETOCENTRIC CONIC

C3 50.012 VHL 7.072 DLA -24.34 RAL 283.38 RAD 6568.8 VEL 13.091 PTH 2.39 VHP 10.327 DPA -11.42 RAP 254.94 ECC 1.8231

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 57 29	1556.58	-.06	3.06	160.56	118.32	13 23 26	956.6	3.73	356.43
90.00	17 20 11	684.41	24.06	310.64	170.35	105.40	17 31 35	84.4	25.94	302.48
100.00	13 58 8	1360.81	-2.32	347.42	159.30	119.81	14 20 49	760.8	1.67	340.90
100.00	19 2 13	5643.45	26.56	265.08	171.08	104.25	20 36 17	5043.5	28.26	256.69
110.00	14 25 58	1273.52	-7.40	337.67	156.16	123.47	14 47 11	673.5	-2.95	331.41
110.00	20 50 53	5303.50	32.38	240.79	172.62	101.61	22 19 17	4703.5	33.64	231.79

DIFFERENTIAL CORRECTIONS
TDE .5639 TRA 6.8408 TC3-1.2875 BAU .8609
RDE .4246 RRA -.4737 RC3 .0185 FAU .00740
FDE .3196 FRA 2.4016 FC3 -.1281 BSP 21678
BDE .7059 BRA 6.8571 BC3 1.2876 FSP -679

MID-COURSE EXECUTION ACCURACY
SGT 6365.9 SGR 544.5 SG3 186.5
RRT -.7076 RRF -.6936 RTF .9778
SGB 6389.1 R23 -.0013 R13 -.9778
SG1 6377.6 SG2 384.0 THA 176.52

ORBIT DETERMINATION ACCURACY
ST 1881.9 SR 366.5 SS 616.6
CRT -.1065 CRS -.0320 CST -.9902
LSA 1979.0 MSA 373.8 SSA 12.0
EL1 1882.4 EL2 364.3 ALF 178.77

LAUNCH DATE AUG 9 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 18 1970

HELIOCENTRIC CONIC DISTANCE 147.256

RL	151.67	LAL	.00	LOL	316.01	VL	20.000	GAL	8.11	AZL	93.83	HCA	54.26	SMA	98.30	ECC	.55567	INC	3.8280	V1	29.375
RP	108.58	LAP	-3.11	LOP	10.21	VP	33.081	GAP	-33.28	AZP	92.24	TAL	173.40	TAP	227.66	RCA	43.68	APO	152.93	V2	34.900
RC	51.409	GL	-7.45	GP	-5.13	ZAL	72.30	ZAP	22.68	ETS	165.16	ZAE	156.82	ETE	169.72	ZAC	91.42	ETC	256.46	CLP	22.13

PLANETOCENTRIC CONIC

C3	103.864	VHL	10.191	DLA	-28.24	RAL	240.27	RAD	6570.0	VEL	15.007	PTH	2.70	VHP	19.455	DPA	-14.81	RAP	208.96	ECC	2.7093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 54 14	1351.66	6.51	351.58	133.35	117.62	12 16 46	751.7	10.16	344.80
90.00	12 31 40	1230.29	10.28	344.65	135.30	116.53	12 52 10	630.3	13.76	337.71
100.00	12 10 55	1297.68	-.18	343.96	129.68	119.89	12 32 33	697.7	3.80	337.43
100.00	14 57 40	759.50	17.15	313.42	138.70	114.86	15 10 20	159.5	20.36	306.10
110.00	12 11 57	1294.41	-8.19	338.78	124.75	123.30	12 33 32	694.4	-3.75	332.50
110.00	17 13 7	5623.58	25.73	263.26	142.82	113.32	18 46 51	5023.6	28.66	255.30

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2474	TRA	-1.2062	TC3	-.0993	BAU	.1398	SGT	807.9	SGR	448.5	SG3	37.6
RDE	-.7915	RRA	-.0688	RC3	.0169	FAU	.01495	RRT	-.0968	RRF	.0984	RTF	-.6364
FDE	-.1714	FRA	.5329	FC3	-.1246	BSP	2062	SGB	924.0	R23	-.0099	R13	.6374
BDE	.8293	BRA	1.2081	BC3	.1007	FSP	-78	SG1	809.6	SG2	445.5	THA	175.58

ST	269.6	SR	445.2	SS	236.2		
CRT	-.4903	CRS	-.6637	CST	.9741		
LSA	510.0	MSA	257.7	SSA	13.9		
EL1	470.6	EL2	222.3	ALF	111.58		

LAUNCH DATE AUG 9 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 20 1970

HELIOCENTRIC CONIC DISTANCE 153.519

RL	151.67	LAL	.00	LOL	316.01	VL	20.557	GAL	7.77	AZL	93.59	HCA	57.44	SMA	99.98	ECC	.52985	INC	3.5906	V1	29.375
RP	108.55	LAP	-3.03	LOP	13.40	VP	33.433	GAP	-31.65	AZP	91.93	TAL	172.99	TAP	230.43	RCA	47.00	APO	152.95	V2	34.911
RC	49.791	GL	-7.61	GP	-5.32	ZAL	71.51	ZAP	21.21	ETS	163.61	ZAE	158.32	ETE	169.69	ZAC	91.54	ETC	256.58	CLP	20.56

PLANETOCENTRIC CONIC

C3	92.787	VHL	9.633	DLA	-28.55	RAL	241.13	RAD	6569.8	VEL	14.635	PTH	2.65	VHP	18.595	DPA	-15.61	RAP	210.43	ECC	2.5270

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.21	11 44 36	1369.67	9.22	354.32	133.75	117.14	12 7 25	769.7	12.79	347.44
93.79	12 48 9	1163.77	9.24	339.25	133.75	117.13	13 7 33	563.8	12.80	332.37
100.00	12 22 34	1246.40	1.56	341.14	129.57	119.86	12 43 20	646.4	5.52	334.59
100.00	14 52 52	762.28	17.07	313.59	137.68	114.92	15 5 35	162.3	20.29	306.27
110.00	12 19 17	1256.69	-6.77	336.77	124.43	123.59	12 40 14	656.7	-2.31	330.55
110.00	17 12 38	5612.78	26.02	262.55	141.95	112.99	18 46 11	5012.8	28.90	254.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2420	TRA	-1.1961	TC3	-.1008	BAU	.1269	SGT	845.3	SGR	453.3	SG3	41.1
RDE	-.7574	RRA	-.0546	RC3	.0172	FAU	.01533	RRT	-.1078	RRF	.1100	RTF	-.6564
FDE	-.1740	FRA	.5514	FC3	-.1430	BSP	2193	SGB	959.1	R23	-.0114	R13	.6575
BDE	.7951	BRA	1.1974	BC3	.1023	FSP	-87	SG1	847.2	SG2	449.6	THA	175.39

ST	282.5	SR	450.7	SS	245.4		
CRT	-.4882	CRS	-.6592	CST	.9750		
LSA	520.9	MSA	267.6	SSA	14.2		
EL1	478.5	EL2	232.2	ALF	112.61		

LAUNCH DATE AUG 9 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 22 1970

HELIOCENTRIC CONIC DISTANCE 159.849

RL	151.67	LAL	.00	LOL	316.01	VL	21.075	GAL	7.42	AZL	93.37	HCA	60.62	SMA	101.63	ECC	.50505	INC	3.3692	V1	29.375
RP	108.51	LAP	-2.94	LOP	16.58	VP	33.767	GAP	-30.11	AZP	91.65	TAL	172.61	TAP	233.23	RCA	50.30	APO	152.96	V2	34.923
RC	48.266	GL	-7.75	GP	-5.53	ZAL	70.79	ZAP	19.77	ETS	161.81	ZAE	159.98	ETE	169.72	ZAC	91.64	ETC	256.71	CLP	19.01

PLANETOCENTRIC CONIC

C3	82.923	VHL	9.106	DLA	-28.83	RAL	241.91	RAD	6569.6	VEL	14.292	PTH	2.60	VHP	17.770	DPA	-16.42	RAP	211.91	ECC	2.3647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.37	11 32 33	1393.54	10.09	356.52	133.03	117.15	11 55 47	793.5	13.65	349.62
95.63	13 6 25	1089.79	10.10	334.27	133.04	117.14	13 24 34	489.8	13.66	327.36
100.00	12 33 52	1194.56	3.31	338.29	129.34	119.73	12 53 46	594.6	7.25	331.71
100.00	14 47 47	763.99	17.02	313.69	136.51	114.95	15 0 31	164.0	20.24	306.38
110.00	12 25 59	1219.37	-5.36	334.80	123.98	123.81	12 46 18	619.4	-.88	328.58
110.00	17 12 10	5599.99	26.36	261.71	140.93	112.60	18 45 30	5000.0	29.18	253.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2375	TRA	-1.1857	TC3	-.1010	BAU	.1136	SGT	884.0	SGR	457.4	SG3	44.9
RDE	-.7238	RRA	-.0412	RC3	.0170	FAU	.01575	RRT	-.1200	RRF	.1228	RTF	-.6758
FDE	-.1766	FRA	.5702	FC3	-.1644	BSP	2336	SGB	995.3	R23	-.0129	R13	.6770
BDE	.7618	BRA	1.1865	BC3	.1025	FSP	-97	SG1	886.3	SG2	452.9	THA	175.19

ST	296.0	SR	455.5	SS	254.7		
CRT	-.4878	CRS	-.6550	CST	.9763		
LSA	531.9	MSA	277.1	SSA	14.4		
EL1	486.4	EL2	242.0	ALF	113.83		

LAUNCH DATE AUG 9 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 166.240

RL	151.67	LAL	.00	LOL	316.01	VL	21.557	GAL	7.05	AZL	93.16	HCA	63.80	SMA	103.25	ECC	.48129	INC	3.1611	V1	29.375
RP	108.47	LAP	-2.84	LOP	19.77	VP	34.082	GAP	-28.64	AZP	91.40	TAL	172.27	TAP	236.07	RCA	53.56	APO	152.95	V2	34.935
RC	46.842	GL	-7.88	GP	-5.76	ZAL	70.16	ZAP	18.36	ETS	159.69	ZAE	161.82	ETE	169.85	ZAC	91.72	ETC	256.86	CLP	17.47

PLANETOCENTRIC CONIC

C3	74.135	VHL	8.610	DLA	-29.07	RAL	242.61	RAD	6569.4	VEL	13.982	PTH	2.55	VHP	16.977	DPA	-17.25	RAP	213.40	ECC	2.2201

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.14	11 25 26	1399.67	10.97	357.43	132.18	117.09	11 48 46	799.7	14.51	350.50
96.86	13 19 6	1032.10	10.98	330.48	132.19	117.08	13 36 18	432.1	14.53	323.55
100.00	12 44 43	1142.53	5.06	335.42	128.97	119.50	13 3 46	542.5	8.96	328.80
100.00	14 42 30	764.47	17.01	313.72	135.22	114.96	14 55 14	164.5	20.23	306.41
110.00	12 31 58	1182.68	-3.97	332.88	123.40	123.98	12 51 40	582.7	.52	326.67
110.00	17 11 45	5585.13	26.74	260.73	139.78	112.13	18 44 50	4985.1	29.50	252.63

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2339	TRA	-1.1748	TC3	-.0995	BAU	.0999	SGT	923.9	SGR	461.1	SG3	49.0
RDE	-.6908	RRA	-.0286	RC3	.0164	FAU	.01622	RRT	-.1337	RRF	.1371	RTF	-.6945
FDE	-.1793	FRA	.5894	FC3	-.1894	BSP	2487	SGB	1032.6	R23	-.0146	R13	.6958
BDE	.7293	BRA	1.1752	BC3	.1008	FSP	-108	SG1	926.6	SG2	455.6	THA	174.96

ST	310.2	SR	459.7	SS	264.3		
CRT	-.4893	CRS	-.6516	CST	.9776		
LSA	543.5	MSA	286.1	SSA	14.6		
EL1	494.2	EL2	251.7	ALF	115.25		

LAUNCH DATE AUG 9 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 172.687

RL 151.67 LAL .00 LOL 316.01 VL 22.006 GAL 6.69 AZL 92.96 HCA 66.99 SMA 104.85 ECC .45859 INC 2.9640 V1 29.375
RP 108.44 LAP -2.73 LOP 22.97 VP 34.380 GAP -27.23 AZP 91.16 TAL 171.98 TAP 238.96 RCA 56.76 APO 152.93 V2 34.948
RC 45.530 GL -7.98 GP -6.00 ZAL 69.60 ZAP 16.99 ETS 157.17 ZAE 163.83 ETE 170.15 ZAC 91.77 ETC 257.02 CLP 15.92

PLANETOCENTRIC CONIC

C3 66.301 VHL 8.143 DLA -29.27 RAL 243.22 RAD 6569.3 VEL 13.699 PTH 2.50 VHP 16.214 DPA -18.09 RAP 214.90 ECC 2.0911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.25	11 20 48	1396.08	11.86	357.63	131.20	116.96	11 44 4	796.1	15.38	350.65
97.75	13 28 38	982.91	11.88	327.32	131.21	116.95	13 45 1	382.9	15.40	320.34
100.00	12 54 57	1090.91	6.79	332.56	128.46	119.18	13 13 8	490.9	10.63	325.88
100.00	14 37 9	763.31	17.04	313.65	133.80	114.94	14 49 53	163.3	20.26	306.34
110.00	12 37 10	1146.93	-2.60	331.01	122.68	124.10	12 56 17	546.9	1.89	324.80
110.00	17 11 26	5568.10	27.17	259.59	138.50	111.58	18 44 14	4968.1	29.85	251.43

DIFFERENTIAL CORRECTIONS
TDE .2308 TRA-1.1638 TC3 -.0961 BAU .0863
RDE -.6584 RRA -.0165 RC3 .0152 FAU .01673
FDE -.1822 FRA .6091 FC3 -.2184 BSP 2633
BDE .6977 BRA 1.1639 BC3 .0973 FSP -120

MID-COURSE EXECUTION ACCURACY
SGT 965.5 SGR 464.1 SG3 53.6
RRT -.1486 RRF .1531 RTF -.7123
SGB 1071.3 R23 -.0167 R13 .7137
SG1 968.7 SG2 457.5 THA 174.74

ORBIT DETERMINATION ACCURACY
ST 325.1 SR 463.3 SS 274.1
CRT -.4921 CRS -.6487 CST .9791
LSA 555.4 MSA 294.6 SSA 14.8
EL1 502.2 EL2 261.2 ALF 116.85

LAUNCH DATE AUG 9 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 179.185

RL 151.67 LAL .00 LOL 316.01 VL 22.422 GAL 6.32 AZL 92.78 HCA 70.17 SMA 106.40 ECC .43696 INC 2.7758 V1 29.375
RP 108.40 LAP -2.61 LOP 26.16 VP 34.661 GAP -25.89 AZP 90.94 TAL 171.72 TAP 241.90 RCA 59.91 APO 152.90 V2 34.961
RC 44.337 GL -8.06 GP -6.28 ZAL 69.12 ZAP 15.67 ETS 154.16 ZAE 166.00 ETE 170.70 ZAC 91.79 ETC 257.19 CLP 14.39

PLANETOCENTRIC CONIC

C3 59.314 VHL 7.702 DLA -29.44 RAL 243.75 RAD 6569.1 VEL 13.441 PTH 2.46 VHP 15.480 DPA -18.95 RAP 216.41 ECC 1.9762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.61	11 17 49	1385.46	12.75	357.31	130.09	116.76	11 40 55	785.5	16.24	350.29
98.39	13 35 49	939.72	12.76	324.58	130.10	116.75	13 51 28	339.7	16.25	317.56
100.00	13 4 16	1040.75	8.44	329.76	127.78	118.78	13 21 37	440.8	12.22	323.00
100.00	14 32 3	759.66	17.15	313.43	132.29	114.87	14 44 43	159.7	20.36	306.11
110.00	12 41 31	1112.43	-1.29	329.21	121.83	124.16	13 0 3	512.4	3.20	323.00
110.00	17 11 18	5548.79	27.65	258.29	137.08	110.95	18 43 46	4948.8	30.24	250.06

DIFFERENTIAL CORRECTIONS
TDE .2290 TRA-1.1518 TC3 -.0901 BAU .0722
RDE -.6267 RRA -.0051 RC3 .0131 FAU .01730
FDE -.1853 FRA .6294 FC3 -.2526 BSP 2797
BDE .6672 BRA 1.1518 BC3 .0910 FSP -134

MID-COURSE EXECUTION ACCURACY
SGT 1008.1 SGR 466.7 SG3 58.6
RRT -.1657 RRF .1710 RTF -.7296
SGB 1110.9 R23 -.0188 R13 .7311
SG1 1011.8 SG2 458.6 THA 174.48

ORBIT DETERMINATION ACCURACY
ST 340.8 SR 466.3 SS 284.2
CRT -.4974 CRS -.6466 CST .9809
LSA 568.1 MSA 302.3 SSA 15.0
EL1 510.5 EL2 270.0 ALF 118.68

LAUNCH DATE AUG 9 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 185.730

RL 151.67 LAL .00 LOL 316.01 VL 22.809 GAL 5.96 AZL 92.59 HCA 73.36 SMA 107.92 ECC .41639 INC 2.5949 V1 29.375
RP 108.36 LAP -2.49 LOP 29.35 VP 34.926 GAP -24.61 AZP 90.74 TAL 171.52 TAP 244.89 RCA 62.98 APO 152.85 V2 34.974
RC 43.276 GL -8.10 GP -6.58 ZAL 68.73 ZAP 14.41 ETS 150.52 ZAE 168.34 ETE 171.70 ZAC 91.78 ETC 257.37 CLP 12.85

PLANETOCENTRIC CONIC

C3 53.084 VHL 7.286 DLA -29.55 RAL 244.19 RAD 6568.9 VEL 13.208 PTH 2.41 VHP 14.774 DPA -19.83 RAP 217.92 ECC 1.8736

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.17	11 16 9	1369.18	13.63	356.55	128.85	116.48	11 38 58	769.2	17.08	349.48
98.83	13 41 0	901.43	13.65	322.20	128.85	116.47	13 56 1	301.4	17.09	315.13
100.00	13 12 6	993.93	9.97	327.11	126.91	118.33	13 28 39	393.9	13.68	320.29
100.00	14 27 44	751.91	17.37	312.96	130.70	114.72	14 40 16	151.9	20.56	305.62
110.00	12 44 55	1079.58	-.03	327.49	120.83	124.18	13 2 55	479.6	4.45	321.28
110.00	17 11 24	5527.06	28.17	256.82	135.54	110.21	18 43 31	4927.1	30.66	248.50

DIFFERENTIAL CORRECTIONS
TDE .2276 TRA-1.1393 TC3 -.0811 BAU .0580
RDE -.5959 RRA .0058 RC3 .0100 FAU .01794
FDE -.1886 FRA .6505 FC3 -.2926 BSP 2960
BDE .6379 BRA 1.1394 BC3 .0817 FSP -149

MID-COURSE EXECUTION ACCURACY
SGT 1052.1 SGR 468.9 SG3 64.1
RRT -.1845 RRF .1910 RTF -.7460
SGB 1151.8 R23 -.0213 R13 .7476
SG1 1056.5 SG2 458.9 THA 174.20

ORBIT DETERMINATION ACCURACY
ST 357.1 SR 468.6 SS 294.7
CRT -.5042 CRS -.6451 CST .9828
LSA 581.6 MSA 309.0 SSA 15.3
EL1 519.3 EL2 278.3 ALF 120.69

LAUNCH DATE AUG 9 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 192.316

RL 151.67 LAL .00 LOL 316.01 VL 23.169 GAL 5.60 AZL 92.42 HCA 76.56 SMA 109.39 ECC .39687 INC 2.4198 V1 29.375
RP 108.32 LAP -2.35 LOP 32.55 VP 35.175 GAP -23.38 AZP 90.56 TAL 171.37 TAP 247.92 RCA 65.98 APO 152.80 V2 34.987
RC 42.355 GL -8.12 GP -6.91 ZAL 68.42 ZAP 13.22 ETS 146.10 ZAE 170.82 ETE 173.57 ZAC 91.73 ETC 257.55 CLP 11.30

PLANETOCENTRIC CONIC

C3 47.527 VHL 6.894 DLA -29.62 RAL 244.54 RAD 6568.8 VEL 12.996 PTH 2.37 VHP 14.095 DPA -20.72 RAP 219.42 ECC 1.7822

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.92	11 15 37	1347.80	14.49	355.41	127.48	116.12	11 38 5	747.8	17.88	348.28
99.08	13 44 20	867.71	14.51	320.14	127.49	116.11	13 58 47	267.7	17.90	313.02
100.00	13 17 31	953.46	11.26	324.81	125.79	117.87	13 33 24	353.5	14.91	317.91
100.00	14 25 7	737.29	17.78	312.07	129.10	114.43	14 37 24	137.3	20.93	304.69
110.00	12 47 17	1048.78	1.15	325.89	119.69	124.17	13 4 46	448.8	5.62	319.66
110.00	17 11 50	5502.78	28.73	255.15	133.88	109.37	18 43 32	4902.8	31.10	246.75

DIFFERENTIAL CORRECTIONS
TDE .2267 TRA-1.1264 TC3 -.0686 BAU .0438
RDE -.5659 RRA .0163 RC3 .0056 FAU .01865
FDE -.1920 FRA .6723 FC3 -.3397 BSP 3127
BDE .6096 BRA 1.1265 BC3 .0689 FSP -165

MID-COURSE EXECUTION ACCURACY
SGT 1097.3 SGR 470.6 SG3 70.1
RRT -.2054 RRF .2133 RTF -.7616
SGB 1194.0 R23 -.0243 R13 .7634
SG1 1102.5 SG2 458.4 THA 173.91

ORBIT DETERMINATION ACCURACY
ST 374.0 SR 470.3 SS 305.3
CRT -.5123 CRS -.6442 CST .9847
LSA 595.8 MSA 314.8 SSA 15.5
EL1 528.6 EL2 285.8 ALF 122.85

LAUNCH DATE AUG 9 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 198.938

RL	151.67	LAL	.00	LOL	316.01	VL	23.503	GAL	5.25	AZL	92.25	HCA	79.75	SMA	110.81	ECC	.37839	INC	2.2492	V1	29.375
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.409	GAP	-22.20	AZP	90.40	TAL	171.26	TAP	251.01	RCA	68.88	APO	152.74	V2	35.000
RC	41.583	GL	-8.09	GP	-7.27	ZAL	68.19	ZAP	12.14	ETS	140.71	ZAE	173.41	ETE	177.45	ZAC	91.64	ETC	257.75	CLP	9.75

PLANETOCENTRIC CONIC

C3	42.573	VHL	6.525	DLA	-29.64	RAL	244.80	RAD	6568.6	VEL	12.804	PTH	2.33	VHP	13.442	DPA	-21.64	RAP	220.93	ECC	1.7006

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.87	11 16 18	1321.30	15.32	353.86	125.99	115.68	11 38 19	721.3	18.65	346.67
99.13	13 45 44	838.88	15.34	318.42	126.00	115.67	13 59 43	238.9	18.67	311.23
100.00	13 19 25	923.02	12.23	323.06	124.40	117.49	13 34 48	323.0	15.81	316.11
100.00	14 25 17	712.40	18.48	310.55	127.52	113.92	14 37 10	112.4	21.55	303.11
110.00	12 48 32	1020.46	2.23	324.41	118.40	124.12	13 5 32	420.5	6.69	318.16
110.00	17 12 41	5475.77	29.33	253.27	132.10	108.41	18 43 56	4875.8	31.56	244.78

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2265	TRA	-1.1128	TC3	-.0521	BAU	.0297	SGT	1143.7	SGR	472.2	SG3	76.7	ST	391.5	SR	471.5	SS	316.2
RDE	-.5368	RRA	.0263	RC3	-.0004	FAU	.01944	RRT	-.2289	RRF	.2384	RTF	-.7763	CRT	-.5224	CRS	-.6440	CST	.9866
FDE	-.1957	FRA	.6951	FC3	-.3953	BSP	3298	SG8	1237.4	R23	-.0276	R13	.7783	LSA	611.0	MSA	319.4	SSA	15.7
BDE	.5826	BRA	1.1131	BC3	.0521	FSP	-184	SG1	1149.8	SG2	457.2	THA	173.58	EL1	538.7	EL2	292.2	ALF	125.16

LAUNCH DATE AUG 9 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 205.593

RL	151.67	LAL	.00	LOL	316.01	VL	23.813	GAL	4.90	AZL	92.08	HCA	82.95	SMA	112.18	ECC	.36093	INC	2.0819	V1	29.375
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.628	GAP	-21.07	AZP	90.26	TAL	171.21	TAP	254.16	RCA	71.69	APO	152.68	V2	35.013
RC	40.971	GL	-8.02	GP	-7.67	ZAL	68.05	ZAP	11.20	ETS	134.18	ZAE	176.03	ETE	187.54	ZAC	91.50	ETC	257.96	CLP	8.19

PLANETOCENTRIC CONIC

C3	38.157	VHL	6.177	DLA	-29.59	RAL	244.97	RAD	6568.5	VEL	12.630	PTH	2.29	VHP	12.813	DPA	-22.58	RAP	222.42	ECC	1.6280

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.04	11 18 17	1289.46	16.10	351.89	124.39	115.16	11 39 47	689.5	19.36	344.63
98.96	13 45 6	815.43	16.12	317.07	124.39	115.15	13 58 42	215.4	19.38	309.81
100.00	13 17 13	904.69	12.80	322.01	122.71	117.24	13 32 17	304.7	16.35	315.01
100.00	14 28 52	675.44	19.48	308.27	125.97	113.13	14 40 8	75.4	22.44	300.72
110.00	12 48 32	995.07	3.20	323.08	116.97	124.05	13 5 7	395.1	7.65	316.82
110.00	17 14 2	5445.86	29.95	251.17	130.21	107.30	18 44 48	4845.9	32.02	242.57

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2269	TRA	-1.0984	TC3	-.0305	BAU	.0162	SGT	1190.9	SGR	473.6	SG3	84.1	ST	409.7	SR	472.1	SS	327.4
RDE	-.5088	RRA	.0361	RC3	-.0085	FAU	.02032	RRT	-.2553	RRF	.2665	RTF	-.7905	CRT	-.5346	CRS	-.6445	CST	.9887
FDE	-.1995	FRA	.7190	FC3	-.4610	BSP	3479	SG8	1281.7	R23	-.0311	R13	.7927	LSA	627.3	MSA	322.6	SSA	15.9
BDE	.5571	BRA	1.0990	BC3	.0317	FSP	-204	SG1	1198.1	SG2	455.2	THA	173.22	EL1	549.8	EL2	297.3	ALF	127.55

LAUNCH DATE AUG 9 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 212.274

RL	151.67	LAL	.00	LOL	316.01	VL	24.100	GAL	4.56	AZL	91.92	HCA	86.15	SMA	113.51	ECC	.34448	INC	1.9167	V1	29.375
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.834	GAP	-19.98	AZP	90.13	TAL	171.21	TAP	257.36	RCA	74.41	APO	152.61	V2	35.027
RC	40.525	GL	-7.89	GP	-8.12	ZAL	67.99	ZAP	10.46	ETS	126.37	ZAE	178.13	ETE	229.14	ZAC	91.32	ETC	258.18	CLP	6.61

PLANETOCENTRIC CONIC

C3	34.224	VHL	5.850	DLA	-29.47	RAL	245.05	RAD	6568.3	VEL	12.474	PTH	2.26	VHP	12.208	DPA	-23.55	RAP	223.90	ECC	1.5632

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.47	11 21 56	1251.35	16.83	349.42	122.67	114.56	11 42 47	651.4	20.00	342.09
98.53	13 42 7	798.58	16.85	316.17	122.68	114.55	13 55 26	198.6	20.02	308.85
100.00	13 11 17	897.30	13.03	321.58	120.76	117.14	13 26 15	297.3	16.57	314.57
100.00	14 35 27	627.86	20.72	305.28	124.44	112.04	14 45 55	27.9	23.53	297.61
110.00	12 47 14	973.07	4.04	321.93	115.40	123.97	13 3 27	373.1	8.47	315.65
110.00	17 15 59	5412.90	30.59	248.82	128.21	106.05	18 46 12	4812.9	32.49	240.11

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2275	TRA	-1.0835	TC3	-.0033	BAU	.0089	SGT	1239.1	SGR	475.1	SG3	92.2	ST	428.2	SR	472.0	SS	338.6
RDE	-.4817	RRA	.0457	RC3	-.0191	FAU	.02129	RRT	-.2848	RRF	.2979	RTF	-.8039	CRT	-.5480	CRS	-.6452	CST	.9907
FDE	-.2032	FRA	.7443	FC3	-.5385	BSP	3659	SG8	1327.0	R23	-.0352	R13	.8063	LSA	644.4	MSA	324.6	SSA	16.1
BDE	.5327	BRA	1.0844	BC3	.0194	FSP	-227	SG1	1247.6	SG2	452.3	THA	172.82	EL1	561.8	EL2	301.0	ALF	129.95

LAUNCH DATE AUG 9 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 218.979

RL	151.67	LAL	.00	LOL	316.01	VL	24.366	GAL	4.24	AZL	91.75	HCA	89.35	SMA	114.77	ECC	.32901	INC	1.7527	V1	29.375
RP	108.15	LAP	-1.75	LOP	45.36	VP	36.027	GAP	-18.93	AZP	90.02	TAL	171.26	TAP	260.61	RCA	77.01	APO	152.53	V2	35.040
RC	40.252	GL	-7.71	GP	-8.61	ZAL	68.01	ZAP	9.95	ETS	117.33	ZAE	177.16	ETE	302.72	ZAC	91.07	ETC	258.40	CLP	5.02

PLANETOCENTRIC CONIC

C3	30.723	VHL	5.543	DLA	-29.28	RAL	245.05	RAD	6568.2	VEL	12.333	PTH	2.22	VHP	11.627	DPA	-24.55	RAP	225.37	ECC	1.5056

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.22	11 27 51	1205.10	17.48	346.30	120.85	113.87	11 47 57	605.1	20.56	338.91
97.78	13 36 9	790.48	17.50	315.88	120.85	113.86	13 49 19	190.5	20.58	308.49
100.00	13 2 33	898.23	13.00	321.63	118.63	117.16	13 17 31	298.2	16.54	314.63
100.00	14 44 9	5860.62	22.10	279.65	122.85	110.66	16 21 49	5260.6	24.71	271.83
110.00	12 44 33	954.89	4.73	320.97	113.70	123.89	13 0 28	354.9	9.15	314.67
110.00	17 18 37	5376.73	31.25	246.20	126.11	104.63	18 48 14	4776.7	32.94	237.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2281	TRA	-1.0683	TC3	.0298	BAU	.0182	SGT	1288.2	SGR	477.0	SG3	101.1	ST	447.0	SR	471.5	SS	349.9
RDE	-.4557	RRA	.0552	RC3	-.0328	FAU	.02236	RRT	-.3174	RRF	.3330	RTF	-.8164	CRT	-.5623	CRS	-.6461	CST	.9926
FDE	-.2068	FRA	.7713	FC3	-.6301	BSP	3840	SG8	1373.7	R23	-.0401	R13	.8192	LSA	662.1	MSA	325.5	SSA	16.4
BDE	.5096	BRA	1.0697	BC3	.0443	FSP	-253	SG1	1298.3	SG2	448.8	THA	172.38	EL1	574.6	EL2	303.4	ALF	132.29

LAUNCH DATE AUG 9 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 225.703

RL	151.67	LAL	.00	LOL	316.01	VL	24.613	GAL	3.92	AZL	91.59	HCA	92.56	SMA	115.98	ECC	.31449	INC	1.5887
RP	108.11	LAP	-1.59	LOP	48.56	VP	36.207	GAP	-17.93	AZP	89.93	TAL	171.37	TAP	263.92	RCA	79.51	APO	152.46
RC	40.156	GL	-7.44	GP	-9.15	ZAL	68.13	ZAP	9.76	ETS	107.37	ZAE	174.49	ETE	321.35	ZAC	90.76	ETC	258.62

V1	29.375	V2	35.053	CLP	3.40														

PLANETOCENTRIC CONIC

C3	27.609	VHL	5.254	DLA	-29.00	RAL	244.96	RAD	6568.1	VEL	12.206	PTH	2.19	VHP	11.069	DPA	-25.58	RAP	226.81
ECC	1.4544																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.46	11 37 23	1146.59	18.05	342.24	118.93	113.09	11 56 29	546.6	21.02	334.78
96.54	13 25 54	795.54	18.06	316.51	118.94	113.08	13 39 10	195.5	21.03	309.05
100.00	12 51 44	905.38	12.78	322.05	116.36	117.25	13 6 49	305.4	16.33	315.06
100.00	14 54 14	5800.02	23.50	275.70	121.17	109.03	16 30 54	5200.0	25.88	267.71
110.00	12 40 26	940.93	5.26	320.24	111.87	123.83	12 56 7	340.9	9.66	313.92
110.00	17 22 1	5337.24	31.89	243.30	123.89	103.02	18 50 58	4737.2	33.35	234.38

DIFFERENTIAL CORRECTIONS

TDE	.2284	TRA	-1.0521	TC3	.0705	BAU	.0320												
RDE	-.4308	RRA	.0648	RC3	-.0503	FAU	.02357												
FDE	-.2101	FRA	.8000	FC3	-.7390	BSP	4028												
BDE	.4876	BRA	1.0541	BC3	.0866	FSP	-281												

MID-COURSE EXECUTION ACCURACY

SGT	1337.2	SGR	479.6	SG3	111.0						
RRT	-.3537	RRF	.3720	RTF	-.8283						
SGB	1420.6	R23	-.0456	R13	.8313						
SG1	1349.2	SG2	444.6	THA	171.88						

ORBIT DETERMINATION ACCURACY

ST	465.7	SR	470.4	SS	361.1						
CRT	-.5776	CRS	-.6469	CST	.9944						
LSA	680.0	MSA	325.2	SSA	16.6						
EL1	587.9	EL2	304.2	ALF	134.50						

LAUNCH DATE AUG 9 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 232.441

RL	151.67	LAL	.00	LOL	316.01	VL	24.841	GAL	3.61	AZL	91.42	HCA	95.76	SMA	117.14	ECC	.30091	INC	1.4238
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.374	GAP	-16.96	AZP	89.86	TAL	171.52	TAP	267.29	RCA	81.89	APO	152.38
RC	40.238	GL	-7.10	GP	-9.76	ZAL	68.32	ZAP	9.92	ETS	97.10	ZAE	171.61	ETE	327.02	ZAC	90.38	ETC	258.85

V1	29.375	V2	35.066	CLP	1.76														

PLANETOCENTRIC CONIC

C3	24.843	VHL	4.984	DLA	-28.62	RAL	244.78	RAD	6568.0	VEL	12.092	PTH	2.16	VHP	10.533	DPA	-26.66	RAP	228.22
ECC	1.4089																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.63	11 54 23	1063.36	18.51	336.33	116.93	112.23	12 12 6	463.4	21.36	328.80
94.37	13 7 31	826.48	18.52	318.99	116.93	112.22	13 21 18	226.5	21.37	311.45
100.00	12 39 17	917.56	12.40	322.75	114.00	117.42	12 54 35	317.6	15.97	315.78
100.00	15 5 18	5735.56	24.86	271.39	119.37	107.16	16 40 53	5135.6	26.97	263.23
110.00	12 34 50	931.56	5.61	319.75	109.94	123.77	12 50 22	331.6	10.01	313.42
110.00	17 26 14	5294.32	32.50	240.10	121.57	101.22	18 54 29	4694.3	33.71	231.08

DIFFERENTIAL CORRECTIONS

TDE	.2285	TRA	-1.0360	TC3	.1188	BAU	.0462												
RDE	-.4069	RRA	.0746	RC3	-.0726	FAU	.02490												
FDE	-.2126	FRA	.8312	FC3	-.8676	BSP	4218												
BDE	.4667	BRA	1.0387	BC3	.1392	FSP	-313												

MID-COURSE EXECUTION ACCURACY

SGT	1387.0	SGR	483.3	SG3	122.0						
RRT	-.3937	RRF	.4151	RTF	-.8394						
SGB	1468.8	R23	-.0518	R13	.8429						
SG1	1401.4	SG2	439.7	THA	171.33						

ORBIT DETERMINATION ACCURACY

ST	484.4	SR	468.7	SS	372.0						
CRT	-.5936	CRS	-.6471	CST	.9960						
LSA	698.2	MSA	323.9	SSA	16.9						
EL1	601.8	EL2	303.6	ALF	136.59						

LAUNCH DATE AUG 9 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 239.190

RL	151.67	LAL	.00	LOL	316.01	VL	25.051	GAL	3.32	AZL	91.26	HCA	98.97	SMA	118.23	ECC	.28822	INC	1.2568
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.531	GAP	-16.02	AZP	89.80	TAL	171.73	TAP	270.70	RCA	84.15	APO	152.31
RC	40.497	GL	-6.66	GP	-10.44	ZAL	68.60	ZAP	10.44	ETS	87.24	ZAE	168.71	ETE	329.27	ZAC	89.91	ETC	259.09

V1	29.375	V2	35.079	CLP	.08														

PLANETOCENTRIC CONIC

C3	22.389	VHL	4.732	DLA	-28.14	RAL	244.53	RAD	6567.9	VEL	11.990	PTH	2.14	VHP	10.019	DPA	-27.78	RAP	229.59
ECC	1.3685																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 2 1	1010.16	16.62	331.60	113.90	113.26	12 18 51	410.2	19.63	324.22
90.00	12 57 54	828.83	21.12	320.21	115.75	109.32	13 11 42	228.8	23.56	312.39
100.00	12 25 29	934.24	11.87	323.71	111.57	117.64	12 41 3	334.2	15.48	316.78
100.00	15 17 7	5668.03	26.14	266.78	117.44	105.05	16 51 35	5068.0	27.95	258.45
110.00	12 27 45	927.13	5.78	319.51	107.91	123.75	12 43 12	327.1	10.17	313.18
110.00	17 31 20	5247.90	33.06	236.60	119.15	99.22	18 58 48	4647.9	33.98	227.48

DIFFERENTIAL CORRECTIONS

TDE	.2299	TRA	-1.0184	TC3	.1769	BAU	.0609												
RDE	-.3841	RRA	.0848	RC3	-.1006	FAU	.02638												
FDE	-.2142	FRA	.8647	FC3	-1.0201	BSP	4415												
BDE	.4477	BRA	1.0220	BC3	.2035	FSP	-348												

MID-COURSE EXECUTION ACCURACY

SGT	1435.7	SGR	488.8	SG3	134.1						
RRT	-.4393	RRF	.4624	RTF	-.8501						
SGB	1516.7	R23	-.0572	R13	.8540						
SG1	1453.3	SG2	433.8	THA	170.65						

ORBIT DETERMINATION ACCURACY

ST	503.5	SR	466.4	SS	382.3						
CRT	-.6138	CRS	-.6466	CST	.9975						
LSA	717.0	MSA	320.7	SSA	17.1						
EL1	617.1	EL2	300.5	ALF	138.56						

LAUNCH DATE AUG 9 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 245.947

RL	151.67	LAL	.00	LOL	316.01	VL	25.245	GAL	3.04	AZL	91.09	HCA	102.18	SMA	119.27	ECC	.27641	INC	1.0868
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.677	GAP	-15.12	AZP	89.77	TAL	171.98	TAP	274.16	RCA	86.30	APO	152.24
RC	40.930	GL	-6.11	GP	-11.20	ZAL	68.96	ZAP	11.31	ETS	78.39	ZAE	165.86	ETE	330.12	ZAC	89.36	ETC	259.32

V1	29.375	V2	35.092	CLP	-1.64														

PLANETOCENTRIC CONIC

C3	20.215	VHL	4.496	DLA	-27.53	RAL	244.21	RAD	6567.8	VEL	11.899	PTH	2.11	VHP	9.527	DPA	-28.96	RAP	230.91
ECC	1.3327																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 30 2	1085.99	14.52	336.18	110.78	114.58	11 48 8	486.0	17.72	328.97
90.00	13 27 20	703.87	23.70	311.96	114.36	105.97	13 39 4	103.9	25.66	303.84
100.00	12 10 29	955.27	11.21	324.91	109.10	117.89	12 26 24	355.3	14.85	318.02
100.00	15 29 34	5597.85	27.28	261.88	115.37	102.71	17 2 52	4997.9	28.76	253.39
110.00	12 19 11	927.93	5.75	319.56	105.81	123.75	12 34 39	327.9	10.14	313.22
110.00	17 37 21	5197.95	33.54	232.78	116.63	97.01	19 3 59	4598.0	34.15	223.59

DIFFERENTIAL CORRECTIONS

TDE	.2270	TRA	-1.0018	TC3	.2444	BAU	.0755												
RDE	-.3622	RRA	.0956	RC3	-.1356	FAU	.02802												
FDE	-.2141	FRA	.9012	FC3	-1.2000	BSP	4606												
BDE	.4275	BRA	1.0063	BC3	.2795	FSP	-387												

MID-COURSE EXECUTION ACCURACY

SGT	1484.7	SGR	496.8	SG3	147.5						
RRT	-.4856	RRF	.5134	RTF	-.8600						
SGB	1565.6	R23	-.0661	R13	.8644						
SG1	1505.9	SG2	428.2	THA	169.95						

ORBIT DETERMINATION ACCURACY

ST	519.9	SR	463.4	SS	391.7						
CRT	-.6283	CRS	-.6443	CST	.9982						
LSA	732.7	MSA	318.2	SSA	17.4						
EL1	629.6	EL2	297.7	ALF	140.20						

LAUNCH DATE AUG 9 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 252.708

RL	151.67	LAL	.00	LOL	316.01	VL	25.424	GAL	2.77	AZL	90.91	HCA	105.40	SMA	120.25	ECC	.26544	INC	.9125	V1	29.375
RP	107.95	LAP	-.88	LOP	61.41	VP	36.812	GAP	-14.25	AZP	89.76	TAL	172.27	TAP	277.67	RCA	88.33	APO	152.17	V2	35.105
RC	41.530	GL	-5.43	GP	-12.05	ZAL	69.40	ZAP	12.51	ETS	70.85	ZAE	163.08	ETE	330.23	ZAC	88.69	ETC	259.55	CLP	-3.40

PLANETOCENTRIC CONIC

C3	18.293	VHL	4.277	DLA	-26.78	RAL	243.83	RAD	6567.7	VEL	11.818	PTH	2.09	VHP	9.056	DPA	-30.21	RAP	232.18	ECC	1.3011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 5 19	1139.16	12.99	339.34	107.96	115.38	11 24 19	539.2	16.31	332.23
90.00	13 49 1	603.48	25.41	305.10	112.52	102.94	13 59 4	3.5	26.94	296.77
100.00	11 54 22	980.73	10.39	326.37	106.62	118.19	12 10 43	380.7	14.08	319.52
100.00	15 42 39	5525.19	28.26	256.71	113.17	100.16	17 14 44	4925.2	29.38	248.08
110.00	12 9 11	934.25	5.51	319.89	103.66	123.79	12 24 45	334.3	9.91	313.56
110.00	17 44 20	5144.43	33.91	228.64	114.02	94.59	19 10 4	4544.4	34.17	219.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2244	TRA	-.9843	TC3	.3209	BAU	.0899	SGT	1532.1	SGR	508.2	SG3	162.4	ST	535.5	SR	459.6	SS	400.0
RDE	-.3412	RRA	.1073	RC3	-.1791	FAU	.02983	RRT	-.5359	RRF	.5675	RTF	-.8690	CRT	-.6453	CRS	-.6400	CST	.9984
FDE	-.2119	FRA	.9410	FC3	-1.4116	BSP	4801	SG8	1614.2	R23	-.0752	R13	.8741	LSA	747.5	MSA	314.4	SSA	17.8
BDE	.4083	BRA	.9902	BC3	.3675	FSP	-432	SG1	1558.1	SG2	421.9	THA	169.11	EL1	642.0	EL2	292.8	ALF	141.69

LAUNCH DATE AUG 9 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 259.471

RL	151.67	LAL	.00	LOL	316.01	VL	25.589	GAL	2.52	AZL	90.73	HCA	108.61	SMA	121.17	ECC	.25527	INC	.7325	V1	29.375
RP	107.91	LAP	-.69	LOP	64.62	VP	36.938	GAP	-13.42	AZP	89.77	TAL	172.61	TAP	281.22	RCA	90.24	APO	152.10	V2	35.117
RC	42.291	GL	-4.60	GP	-13.00	ZAL	69.91	ZAP	13.99	ETS	64.63	ZAE	160.41	ETE	329.85	ZAC	87.92	ETC	259.77	CLP	-5.21

PLANETOCENTRIC CONIC

C3	16.598	VHL	4.074	DLA	-25.87	RAL	243.40	RAD	6567.7	VEL	11.747	PTH	2.07	VHP	8.608	DPA	-31.53	RAP	233.37	ECC	1.2732

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 42 22	1188.01	11.55	342.20	105.27	116.03	11 2 10	588.0	14.96	335.18
90.00	14 8 32	5797.65	26.67	276.43	110.44	99.87	15 45 10	5197.6	27.77	267.93
100.00	11 37 14	1010.82	9.42	328.07	104.15	118.50	11 54 5	410.8	13.15	321.27
100.00	15 56 21	5450.07	29.05	251.26	110.85	97.39	17 27 11	4850.1	29.76	242.53
110.00	11 57 47	946.37	5.05	320.53	101.49	123.85	12 13 33	346.4	9.46	314.22
110.00	17 52 18	5087.29	34.13	224.20	111.33	91.96	19 17 5	4487.3	34.03	214.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2202	TRA	-.9671	TC3	.4085	BAU	.1043	SGT	1578.5	SGR	524.3	SG3	178.9	ST	549.3	SR	454.7	SS	407.0
RDE	-.3208	RRA	.1202	RC3	-.2330	FAU	.03184	RRT	-.5883	RRF	.6239	RTF	-.8775	CRT	-.6621	CRS	-.6325	CST	.9977
FDE	-.2067	FRA	.9850	FC3	-1.6607	BSP	4987	SG8	1663.3	R23	-.0855	R13	.8834	LSA	759.9	MSA	310.3	SSA	18.1
BDE	.3892	BRA	.9746	BC3	.4702	FSP	-481	SG1	1610.6	SG2	415.6	THA	168.14	EL1	652.9	EL2	286.7	ALF	143.00

LAUNCH DATE AUG 9 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 266.231

RL	151.67	LAL	.00	LOL	316.01	VL	25.740	GAL	2.28	AZL	90.55	HCA	111.83	SMA	122.04	ECC	.24588	INC	.5455	V1	29.375
RP	107.88	LAP	-.51	LOP	67.84	VP	37.054	GAP	-12.61	AZP	89.80	TAL	172.98	TAP	284.81	RCA	92.03	APO	152.04	V2	35.129
RC	43.202	GL	-3.61	GP	-14.07	ZAL	70.50	ZAP	15.72	ETS	59.60	ZAE	157.86	ETE	329.11	ZAC	87.00	ETC	259.99	CLP	-7.08

PLANETOCENTRIC CONIC

C3	15.109	VHL	3.887	DLA	-24.79	RAL	242.94	RAD	6567.6	VEL	11.683	PTH	2.05	VHP	8.181	DPA	-32.95	RAP	234.48	ECC	1.2487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 19 52	1237.16	10.07	345.05	102.69	116.61	10 40 29	637.2	13.56	338.11
90.00	14 27 18	5705.88	27.58	269.86	108.19	96.70	16 2 24	5105.9	28.22	261.26
100.00	11 19 8	1045.85	8.27	330.04	101.73	118.83	11 36 34	445.9	12.06	323.30
100.00	16 10 43	5372.42	29.59	245.55	108.42	94.44	17 40 16	4772.4	29.89	236.76
110.00	11 45 3	964.56	4.36	321.48	99.33	123.94	12 1 7	364.6	8.79	315.19
110.00	18 1 18	5026.48	34.17	219.45	108.59	89.15	19 25 4	4426.5	33.68	210.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2137	TRA	-.9500	TC3	.5053	BAU	.1186	SGT	1622.5	SGR	546.4	SG3	197.0	ST	559.9	SR	448.4	SS	411.9
RDE	-.3009	RRA	.1346	RC3	-.2991	FAU	.03404	RRT	-.6409	RRF	.6806	RTF	-.8854	CRT	-.6777	CRS	-.6197	CST	.9955
FDE	-.1967	FRA	1.0337	FC3	-1.9502	BSP	5175	SG8	1712.0	R23	-.0970	R13	.8923	LSA	768.2	MSA	306.2	SSA	18.5
BDE	.3691	BRA	.9595	BC3	.5872	FSP	-535	SG1	1662.4	SG2	409.4	THA	167.02	EL1	660.7	EL2	279.4	ALF	144.14

LAUNCH DATE AUG 9 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 272.987

RL	151.67	LAL	.00	LOL	316.01	VL	25.878	GAL	2.05	AZL	90.35	HCA	115.05	SMA	122.84	ECC	.23723	INC	.3496	V1	29.375
RP	107.84	LAP	-.32	LOP	71.06	VP	37.161	GAP	-11.82	AZP	89.85	TAL	173.38	TAP	288.43	RCA	93.70	APO	151.98	V2	35.141
RC	44.254	GL	-2.44	GP	-15.29	ZAL	71.15	ZAP	17.69	ETS	55.58	ZAE	155.44	ETE	328.05	ZAC	85.94	ETC	260.19	CLP	-9.01

PLANETOCENTRIC CONIC

C3	13.806	VHL	3.716	DLA	-23.51	RAL	242.44	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	7.777	DPA	-34.47	RAP	235.49	ECC	1.2272

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 57 20	1288.83	8.48	348.01	100.22	117.12	10 18 49	688.8	12.05	341.16
90.00	14 45 55	5614.24	28.13	263.22	105.83	93.42	16 19 29	5014.2	28.30	254.56
100.00	11 0 6	1086.23	6.94	332.30	99.39	119.15	11 18 12	486.2	10.78	325.61
100.00	16 25 50	5292.08	29.87	239.60	105.91	91.32	17 54 2	4692.1	29.73	230.79
110.00	11 31 4	989.15	3.42	322.77	97.22	124.03	11 47 33	389.1	7.87	316.50
110.00	18 11 22	4961.93	33.99	214.42	105.81	86.18	19 34 4	4361.9	33.09	205.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2057	TRA	-.9328	TC3	.6119	BAU	.1330	SGT	1663.7	SGR	576.5	SG3	217.0	ST	567.6	SR	440.4	SS	415.3
RDE	-.2812	RRA	.1510	RC3	-.3800	FAU	.03645	RRT	-.6927	RRF	.7360	RTF	-.8926	CRT	-.6941	CRS	-.6015	CST	.9910
FDE	-.1817	FRA	1.0874	FC3	-2.2857	BSP	5374	SG8	1760.7	R23	-.1094	R13	.9008	LSA	772.7	MSA	302.1	SSA	18.9
BDE	.3484	BRA	.9450	BC3	.7203	FSP	-596	SG1	1713.8	SG2	403.6	THA	165.69	EL1	665.6	EL2	270.4	ALF	145.14

LAUNCH DATE AUG 9 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 279.736

RL	151.67	LAL	.00	LOL	316.01	VL	26.005	GAL	1.84	AZL	90.14	HCA	118.27	SMA	123.59	ECC	.22929	INC	.1425	V1	29.375		
RP	107.81	LAP	-.13	LOP	74.28	VP	37.260	GAP	-11.07	AZP	89.93	TAL	173.81	TAP	292.08	RCA	95.26	APO	151.93	V2	35.152		
RC	45.436	GL	-1.05	GP	-16.66	ZAL	71.86	ZAP	19.89	ETS	52.38	ZAE	153.14	ETE	326.71	ZAC	84.70	ETC	260.38	CLP	-11.02		

PLANETOCENTRIC CONIC

C3	12.674	VHL	3.560	DLA	-22.01	RAL	241.95	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	7.395	DPA	-36.13	RAP	236.38	ECC	1.2086		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 34 30	1344.46	6.74	351.18	97.88	117.57	9 56 54	744.5	10.38	344.39
90.00	15 4 47	5521.54	28.32	256.44	103.40	90.03	16 36 49	4921.5	28.02	247.79
100.00	10 40 11	1132.43	5.40	334.86	97.15	119.44	10 59 4	532.4	9.29	328.23
100.00	16 41 47	5208.80	29.84	233.41	103.37	88.06	18 8 36	4608.8	29.25	224.65
110.00	11 15 54	1020.50	2.23	324.41	95.18	124.12	11 32 54	420.5	6.69	318.17
110.00	18 22 34	4893.50	33.56	209.12	103.04	83.08	19 44 7	4293.5	32.24	200.14

DIFFERENTIAL CORRECTIONS

TDE	.1940	TRA	-.9157	TC3	.7254	BAU	.1472								
RDE	-.2611	RRA	.1699	RC3	-.4781	FAU	.03906								
FDE	-.1584	FRA	1.1469	FC3	-2.6685	BSP	5553								
BDE	.3253	BRA	.9313	BC3	.8688	FSP	-663								

MID-COURSE EXECUTION ACCURACY

SGT	1700.2	SGR	616.1	SG3	238.8		
RRT	-.7408	RRF	.7877	RTF	-.8992		
SGB	1808.4	R23	-.1230	R13	.9090		
SG1	1763.9	SG2	398.9	THA	164.14		

ORBIT DETERMINATION ACCURACY

ST	570.2	SR	429.6	SS	416.5
CRT	-.7086	CRS	-.5733	CST	.9827
LSA	770.3	MSA	299.0	SSA	19.3
EL1	664.9	EL2	259.9	ALF	146.02

LAUNCH DATE AUG 9 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 286.476

RL	151.67	LAL	.00	LOL	316.01	VL	26.121	GAL	1.64	AZL	89.92	HCA	121.50	SMA	124.29	ECC	.22202	INC	.0737	V1	29.375		
RP	107.77	LAP	.06	LOP	77.50	VP	37.352	GAP	-10.34	AZP	90.04	TAL	174.25	TAP	295.75	RCA	96.70	APO	151.89	V2	35.163		
RC	46.738	GL	.58	GP	-18.22	ZAL	72.63	ZAP	22.32	ETS	49.83	ZAE	150.94	ETE	325.07	ZAC	83.26	ETC	260.54	CLP	-13.12		

PLANETOCENTRIC CONIC

C3	11.698	VHL	3.420	DLA	-20.26	RAL	241.46	RAD	6567.4	VEL	11.536	PTH	2.01	VHP	7.038	DPA	-37.93	RAP	237.12	ECC	1.1925		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 11 12	1405.18	4.81	354.60	95.72	117.94	9 34 37	805.2	8.51	347.87
90.00	15 24 12	5426.90	28.13	249.53	100.96	86.57	16 54 39	4826.9	27.35	240.95
100.00	10 19 25	1185.03	3.64	337.77	95.07	119.69	10 39 10	585.0	7.56	331.18
100.00	16 58 40	5122.29	29.46	227.00	100.84	84.71	18 24 3	4522.3	28.42	218.36
110.00	10 59 37	1059.04	.76	326.42	93.28	124.18	11 17 16	459.0	5.23	320.20
110.00	18 34 58	4821.04	32.83	203.59	100.31	79.88	19 55 19	4221.0	31.08	194.81

DIFFERENTIAL CORRECTIONS

TDE	.1802	TRA	-.8990	TC3	.8443	BAU	.1617								
RDE	-.2403	RRA	.1921	RC3	-.5966	FAU	.04189								
FDE	-.1263	FRA	1.2130	FC3	-3.1000	BSP	5736								
BDE	.3003	BRA	.9193	BC3	1.0338	FSP	-735								

MID-COURSE EXECUTION ACCURACY

SGT	1732.7	SGR	668.1	SG3	262.5		
RRT	-.7844	RRF	.8344	RTF	-.9052		
SGB	1857.0	R23	-.1370	R13	.9170		
SG1	1814.3	SG2	395.7	THA	162.30		

ORBIT DETERMINATION ACCURACY

ST	568.7	SR	415.7	SS	417.4
CRT	-.7246	CRS	-.5358	CST	.9684
LSA	762.8	MSA	296.8	SSA	19.8
EL1	659.7	EL2	247.0	ALF	146.86

LAUNCH DATE AUG 9 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 293.205

RL	151.67	LAL	.00	LOL	316.01	VL	26.226	GAL	1.45	AZL	89.69	HCA	124.72	SMA	124.94	ECC	.21539	INC	.3108	V1	29.375		
RP	107.74	LAP	.26	LOP	80.73	VP	37.435	GAP	-9.63	AZP	90.18	TAL	174.71	TAP	299.43	RCA	98.03	APO	151.85	V2	35.174		
RC	48.150	GL	2.48	GP	-20.00	ZAL	73.46	ZAP	24.99	ETS	47.80	ZAE	148.83	ETE	323.14	ZAC	81.60	ETC	260.68	CLP	-15.31		

PLANETOCENTRIC CONIC

C3	10.868	VHL	3.297	DLA	-18.25	RAL	241.01	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	6.706	DPA	-39.91	RAP	237.68	ECC	1.1789		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 22	1472.06	2.67	358.35	93.77	118.20	9 11 54	872.1	6.42	351.67
90.00	15 44 26	5329.58	27.53	242.47	98.57	83.08	17 13 15	4729.6	26.28	234.03
100.00	9 57 49	1244.69	1.62	341.05	93.19	119.85	10 18 34	644.7	5.58	334.50
100.00	17 16 39	5032.18	28.72	220.41	98.38	81.32	18 40 31	4432.2	27.22	211.93
110.00	10 42 19	1105.31	-1.01	328.83	91.54	124.17	11 0 44	505.3	3.48	322.63
110.00	18 48 39	4744.33	31.76	197.86	97.70	76.65	20 7 44	4144.3	29.60	189.32

DIFFERENTIAL CORRECTIONS

TDE	.1628	TRA	-.8835	TC3	.9607	BAU	.1760								
RDE	-.2177	RRA	.2185	RC3	-.7376	FAU	.04484								
FDE	-.0818	FRA	1.2866	FC3	-3.5724	BSP	5919								
BDE	.2718	BRA	.9102	BC3	1.2112	FSP	-815								

MID-COURSE EXECUTION ACCURACY

SGT	1759.5	SGR	734.5	SG3	288.0		
RRT	-.8215	RRF	.8743	RTF	-.9103		
SGB	1906.6	R23	-.1518	R13	.9246		
SG1	1865.2	SG2	395.1	THA	160.14		

ORBIT DETERMINATION ACCURACY

ST	561.9	SR	397.1	SS	419.5
CRT	-.7417	CRS	-.4854	CST	.9445
LSA	749.0	MSA	296.6	SSA	20.1
EL1	648.2	EL2	230.9	ALF	147.76

LAUNCH DATE AUG 9 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 299.920

RL	151.67	LAL	.00	LOL	316.01	VL	26.322	GAL	1.28	AZL	89.43	HCA	127.95	SMA	125.53	ECC	.20937	INC	.5657	V1	29.375		
RP	107.71	LAP	.45	LOP	83.96	VP	37.512	GAP	-8.94	AZP	90.35	TAL	175.17	TAP	303.12	RCA	99.25	APO	151.81	V2	35.184		
RC	49.661	GL	4.67	GP	-22.02	ZAL	74.32	ZAP	27.91	ETS	46.17	ZAE	146.75	ETE	320.91	ZAC	79.68	ETC	260.78	CLP	-17.60		

PLANETOCENTRIC CONIC

C3	10.177	VHL	3.190	DLA	-15.93	RAL	240.61	RAD	6567.4	VEL	11.470	PTH	1.99	VHP	6.402	DPA	-42.10	RAP	238.02	ECC	1.1675		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 53	1546.17	.28	2.48	92.08	118.32	8 48 40	946.2	4.06	355.84
90.00	16 5 42	5228.88	26.49	235.29	96.29	79.62	17 32 51	4628.9	24.79	227.03
100.00	9 35 23	1312.23	-.67	344.75	91.55	119.89	9 57 16	712.2	3.31	338.23
100.00	17 35 54	4938.05	27.56	213.66	96.06	77.94	18 58 12	4338.0	25.62	205.39
110.00	10 24 1	1159.93	-3.10	331.69	90.04	124.06	10 43 21	559.9	1.39	325.48
110.00	19 3 46	4663.12	30.33	191.97	95.25	73.43	20 21 29	4063.1	27.77	183.72

DIFFERENTIAL CORRECTIONS

TDE	.1411	TRA	-.8678	TC3	1.0728	BAU	.1909								
RDE	-.1918	RRA	.2499	RC3	-.9038	FAU	.04792								
FDE	-.0208	FRA	1.3666	FC3	-4.0769	BSP	6097								
BDE	.2381	BRA	.9031	BC3	1.4028	FSP	-899								

MID-COURSE EXECUTION ACCURACY

SGT	1777.6	SGR	818.0	SG3	314.9		
RRT	-.8518	RRF	.9071	RTF	-.9149		
SGB	1956.8	R23	-.1650	R13	.9324		
SG1	1916.0	SG2	397.6	THA	157.58		

ORBIT DETERMINATION ACCURACY

ST	548.7	SR	372.3	SS	426.2
CRT	-.7624	CRS	-.4233	CST	.9068
LSA	728.9	MSA	299.4	SSA	20.4
EL1	628.9	EL2	210.2	ALF	148.77

LAUNCH DATE AUG 9 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 306.621

RL	151.67	LAL	.00	LOL	316.01	VL	26.408	GAL	1.12	AZL	89.16	HCA	131.18	SMA	126.07	ECC	.20391	INC	.8440	V1	29.375
RP	107.68	LAP	.64	LOP	87.19	VP	37.581	GAP	-8.28	AZP	90.56	TAL	175.62	TAP	306.80	RCA	100.37	APO	151.78	V2	35.193
RC	51.263	GL	7.20	GP	-24.32	ZAL	75.22	ZAP	31.11	ETS	44.84	ZAE	144.68	ETE	318.36	ZAC	77.46	ETC	260.83	CLP	-20.02

PLANETOCENTRIC CONIC

C3	9.622	VHL	3.102	DLA	-13.29	RAL	240.28	RAD	6567.3	VEL	11.446	PTH	1.99	VHP	6.127	DPA	-44.52	RAP	238.10	ECC	1.1584		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 57 40	1628.69	-2.38	7.08	90.71	118.22	8 24 49	1028.7	1.41	.46
90.00	16 28 20	5124.09	25.00	227.98	94.22	76.25	17 53 44	4524.1	22.86	219.96
100.00	9 12 5	1388.61	-3.26	348.95	90.22	119.73	9 35 14	788.6	.72	342.42
100.00	17 56 36	4839.40	25.97	206.76	93.94	74.65	19 17 16	4239.4	23.61	198.76
110.00	10 4 44	1223.70	-5.52	335.03	88.82	123.79	10 25 8	623.7	-1.05	328.81
110.00	19 20 26	4577.08	28.51	185.94	93.04	70.29	20 36 44	3977.1	25.56	178.00

DIFFERENTIAL CORRECTIONS

TDE	.1171	TRA	-.8524	TC3	1.1703	BAU	.2062
RDE	-.1619	RRA	.2878	RC3	-1.0956	FAU	.05099
FDE	.0569	FRA	1.4530	FC3	-4.5882	BSP	6285
BDE	.1998	BRA	.8997	BC3	1.6031	FSP	-986

MID-COURSE EXECUTION ACCURACY

SGT	1786.4	SGR	921.8	SG3	342.5		
RRT	-.8756	RRF	.9330	RTF	-.9185		
SGB	2010.2	R23	-.1759	R13	.9401		
SG1	1969.2	SG2	404.0	THA	154.54		

ORBIT DETERMINATION ACCURACY

ST	531.8	SR	341.6	SS	443.8
CRT	-.7963	CRS	-.3698	CST	.8539
LSA	709.3	MSA	304.9	SSA	20.3
EL1	605.4	EL2	181.5	ALF	149.93

LAUNCH DATE AUG 9 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 313.306

RL	151.67	LAL	.00	LOL	316.01	VL	26.486	GAL	.97	AZL	88.85	HCA	134.41	SMA	126.57	ECC	.19900	INC	1.1514	V1	29.375		
RP	107.65	LAP	.82	LOP	90.42	VP	37.644	GAP	-7.64	AZP	90.81	TAL	176.07	TAP	310.48	RCA	101.38	APO	151.76	V2	35.202		
RC	52.948	GL	10.10	GP	-26.94	ZAL	76.15	ZAP	34.59	ETS	43.73	ZAE	142.53	ETE	315.50	ZAC	74.91	ETC	260.83	CLP	-22.56		

PLANETOCENTRIC CONIC

C3	9.205	VHL	3.034	DLA	-10.28	RAL	240.06	RAD	6567.3	VEL	11.428	PTH	1.98	VHP	5.887	DPA	-47.21	RAP	237.85	ECC	1.1515		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 31 34	1720.97	-5.34	12.26	89.72	117.85	8 0 15	1121.0	-1.57	5.60
90.00	16 52 37	5014.48	23.02	220.56	92.43	73.04	18 16 11	4414.5	20.48	212.81
100.00	8 47 49	1475.01	-6.16	353.72	89.27	119.31	9 12 24	875.0	-2.21	347.16
100.00	18 19 4	4735.68	23.91	199.74	92.12	71.50	19 37 59	4135.7	21.16	192.02
110.00	9 44 28	1297.58	-8.30	338.95	87.96	123.28	10 6 6	697.6	-3.87	332.67
110.00	19 38 53	4485.88	26.26	179.80	91.15	67.28	20 53 39	3885.9	22.95	172.20

DIFFERENTIAL CORRECTIONS

TDE	.0896	TRA	-.8379	TC3	1.2451	BAU	.2225
RDE	-.1252	RRA	.3342	RC3	-1.3114	FAU	.05390
FDE	.1566	FRA	1.5457	FC3	-5.0699	BSP	6475
BDE	.1539	BRA	.9021	BC3	1.8084	FSP	-1074

MID-COURSE EXECUTION ACCURACY

SGT	1784.9	SGR	1049.0	SG3	370.1		
RRT	-.8933	RRF	.9526	RTF	-.9214		
SGB	2070.3	R23	-.1823	R13	.9480		
SG1	2028.3	SG2	414.9	THA	150.97		

ORBIT DETERMINATION ACCURACY

ST	511.8	SR	305.7	SS	479.4
CRT	-.8523	CRS	-.3594	CST	.7910
LSA	697.7	MSA	313.0	SSA	19.7
EL1	579.1	EL2	141.3	ALF	151.14

LAUNCH DATE AUG 9 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 319.973

RL	151.67	LAL	.00	LOL	316.01	VL	26.556	GAL	.84	AZL	88.51	HCA	137.64	SMA	127.02	ECC	.19460	INC	1.4947	V1	29.375		
RP	107.63	LAP	1.01	LOP	93.65	VP	37.701	GAP	-7.01	AZP	91.10	TAL	176.50	TAP	314.14	RCA	102.30	APO	151.74	V2	35.210		
RC	54.707	GL	13.40	GP	-29.92	ZAL	77.11	ZAP	38.38	ETS	42.75	ZAE	140.25	ETE	312.33	ZAC	71.99	ETC	260.76	CLP	-25.24		

PLANETOCENTRIC CONIC

C3	8.934	VHL	2.989	DLA	-6.89	RAL	239.95	RAD	6567.3	VEL	11.416	PTH	1.98	VHP	5.686	DPA	-50.19	RAP	237.17	ECC	1.1470		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 4 23	1824.65	-8.60	18.13	89.21	117.08	7 34 47	1224.6	-4.90	11.40
90.00	17 18 58	4899.28	20.53	213.03	91.02	70.06	18 40 37	4299.3	17.63	205.55
100.00	8 22 26	1572.85	-9.38	359.20	88.79	118.51	8 48 39	972.9	-5.50	352.56
100.00	18 43 36	4626.30	21.36	192.62	90.69	68.58	20 0 42	4026.3	18.26	185.19
110.00	9 23 9	1382.75	-11.45	343.53	87.56	122.43	9 46 12	782.8	-7.09	337.15
110.00	19 59 22	4389.17	23.57	173.58	89.65	64.49	21 12 31	3789.2	19.94	166.32

DIFFERENTIAL CORRECTIONS

TDE	.0594	TRA	-.8228	TC3	1.2892	BAU	.2405
RDE	-.0789	RRA	.3906	RC3	-1.5473	FAU	.05652
FDE	.2800	FRA	1.6402	FC3	-5.4767	BSP	6701
BDE	.0988	BRA	.9108	BC3	2.0140	FSP	-1160

MID-COURSE EXECUTION ACCURACY

SGT	1769.5	SGR	1203.0	SG3	396.3		
RRT	-.9059	RRF	.9670	RTF	-.9233		
SGB	2139.7	R23	-.1826	R13	.9562		
SG1	2096.0	SG2	430.2	THA	146.79		

ORBIT DETERMINATION ACCURACY

ST	490.6	SR	273.6	SS	538.3
CRT	-.9366	CRS	-.4554	CST	.7330
LSA	708.9	MSA	320.0	SSA	18.5
EL1	555.3	EL2	84.7	ALF	151.70

LAUNCH DATE AUG 9 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 326.622

RL	151.67	LAL	.00	LOL	316.01	VL	26.619	GAL	.73	AZL	88.12	HCA	140.87	SMA	127.43	ECC	.19067	INC	1.8835	V1	29.375		
RP	107.60	LAP	1.19	LOP	96.89	VP	37.753	GAP	-6.41	AZP	91.46	TAL	176.91	TAP	317.77	RCA	103.13	APO	151.72	V2	35.218		
RC	56.533	GL	17.13	GP	-33.29	ZAL	78.08	ZAP	42.48	ETS	41.81	ZAE	137.74	ETE	308.88	ZAC	68.67	ETC	260.59	CLP	-28.08		

PLANETOCENTRIC CONIC

C3	8.827	VHL	2.971	DLA	-3.09	RAL	239.99	RAD	6567.3	VEL	11.411	PTH	1.98	VHP	5.531	DPA	-53.50	RAP	235.94	ECC	1.1453		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 35 46	1941.69	-12.15	24.89	89.29	115.78	7 8 8	1341.7	-8.58	18.03
90.00	17 47 53	4777.62	17.52	205.37	90.11	67.40	19 7 30	4177.6	14.31	198.17
100.00	7 55 40	1683.95	-12.92	5.55	88.90	117.19	8 23 44	1083.9	-9.17	358.76
100.00	19 10 40	4510.59	18.31	185.38	89.75	65.95	20 25 50	3910.6	14.91	178.24
110.00	9 0 36	1480.68	-14.96	348.95	87.73	121.10	9 25 16	880.7	-10.73	342.40
110.00	20 22 13	4286.62	20.42	167.28	88.66	61.97	21 33 40	3686.6	16.51	160.34

DIFFERENTIAL CORRECTIONS

TDE	.0274	TRA	-.8081	TC3	1.2899	BAU	.2604
RDE	-.0191	RRA	.4603	RC3	-1.7899	FAU	.05847
FDE	.4286	FRA	1.7342	FC3	-5.7351	BSP	6938
BDE	.0334	BRA	.9300	BC3	2.2063	FSP	-1233

MID-COURSE EXECUTION ACCURACY

SGT	1739.5	SGR	1386.7	SG3	419.0		
RRT	-.9140	RRF	.9773	RTF	-.9242		
SGB	2224.6	R23	-.1759	R13	.9644		
SG1	2178.7	SG2	449.3	THA	142.02		

ORBIT DETERMINATION ACCURACY

ST	471.7	SR	271.1	SS	623.6
CRT	-.9973	CRS	-.6806	CST	.6970
LSA	762.9	MSA	320.4	SSA	16.5
EL1	543.8	EL2	17.3	ALF	150.14

LAUNCH DATE AUG 9 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 333.250

RL	151.67	LAL	.00	LOL	316.01	VL	26.674	GAL	.63	AZL	87.67	HCA	144.10	SMA	127.79	ECC	.18718	INC	2.3306	V1	29.375
RP	107.58	LAP	1.37	LOP	100.12	VP	37.799	GAP	-5.82	AZP	91.89	TAL	177.28	TAP	321.38	RCA	103.87	APO	151.71	V2	35.225
RC	58.419	GL	21.30	GP	-37.09	ZAL	79.06	ZAP	46.90	ETS	40.83	ZAE	134.91	ETE	305.20	ZAC	64.91	ETC	260.30	CLP	-31.07

PLANETOCENTRIC CONIC

C3	8.916	VHL	2.986	DLA	1.13	RAL	240.19	RAD	6567.3	VEL	11.415	PTH	1.98	VHP	5.431	DPA	-57.13	RAP	233.97	ECC	1.1467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 5 14	2074.64	-15.95	32.81	90.11	113.71	6 39 49	1474.6	-12.60	25.73
90.00	18 20 2	4648.52	13.98	197.55	89.81	65.12	19 37 31	4048.5	10.51	190.59
100.00	7 27 6	1810.56	-16.73	13.02	89.74	115.14	7 57 17	1210.6	-13.20	6.00
100.00	19 40 51	4387.83	14.75	178.00	89.43	63.70	20 53 59	3787.8	11.10	171.11
110.00	8 36 33	1593.17	-18.81	355.40	88.62	119.08	9 3 6	993.2	-14.79	348.59
110.00	20 47 53	4177.98	16.81	160.92*	88.28	59.79	21 57 31	3578.0	12.67	154.26

DIFFERENTIAL CORRECTIONS

TDE	-.0050	TRA	-.7910	TC3	1.2388	BAU	.2825
RDE	.0594	RRA	.5455	RC3	-2.0206	FAU	.05947
FDE	.6000	FRA	1.8171	FC3	-5.7741	BSP	7251
BDE	.0596	BRA	.9609	BC3	2.3701	FSP	-1291

MID-COURSE EXECUTION ACCURACY

SGT	1688.9	SGR	1601.7	SG3	435.3		
RRT	-.9181	RRF	.9845	RTF	-.9234		
SGB	2327.6	R23	-.1619	R13	.9723		
SG1	2279.6	SG2	470.4	THA	136.65		

ORBIT DETERMINATION ACCURACY

ST	456.1	SR	336.1	SS	731.6
CRT	-.9456	CRS	-.8847	CST	.6889
LSA	870.9	MSA	312.3	SSA	14.1
EL1	559.5	EL2	89.1	ALF	144.08

LAUNCH DATE AUG 9 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 339.857

RL	151.67	LAL	.00	LOL	316.01	VL	26.723	GAL	.54	AZL	87.15	HCA	147.33	SMA	128.11	ECC	.18411	INC	2.8534	V1	29.375
RP	107.56	LAP	1.54	LOP	103.36	VP	37.839	GAP	-5.25	AZP	92.40	TAL	177.62	TAP	324.94	RCA	104.53	APO	151.70	V2	35.232
RC	60.358	GL	25.93	GP	-41.32	ZAL	80.04	ZAP	51.61	ETS	39.70	ZAE	131.69	ETE	301.36	ZAC	60.70	ETC	259.85	CLP	-34.22

PLANETOCENTRIC CONIC

C3	9,257	VHL	3.042	DLA	5.78	RAL	240.58	RAD	6567.3	VEL	11.430	PTH	1.98	VHP	5.398	DPA	-61.07	RAP	230.95	ECC	1.1523

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 31 58	2226.96	-19.87	42.27	91.86	110.60	6 9 5	1627.0	-16.89	34.86
90.00	18 56 26	4510.67	9.89	189.49	90.30	63.33	20 11 37	3910.7	6.23	182.72
100.00	6 56 3	1955.77	-20.69	21.98	91.52	112.06	7 28 38	1355.8	-17.52	14.62
100.00	20 15 2	4257.11	10.68	170.43	89.88	61.91	21 25 59	3657.1	6.84	163.75
110.00	8 10 33	1722.57	-22.90	3.21	90.46	116.10	8 39 16	1122.6	-19.20	356.03
110.00	21 17 1	4063.06	12.77	154.47	88.65	58.02	22 24 44	3463.1	8.45	148.04

DIFFERENTIAL CORRECTIONS

TDE	-.0355	TRA	-.7748	TC3	1.1211	BAU	.3059
RDE	.1636	RRA	.6525	RC3	-2.2033	FAU	.05889
FDE	.7886	FRA	1.8873	FC3	-5.5074	BSP	7603
BDE	.1674	BRA	1.0129	BC3	2.4721	FSP	-1318

MID-COURSE EXECUTION ACCURACY

SGT	1618.8	SGR	1848.7	SG3	442.2		
RRT	-.9177	RRF	.9894	RTF	-.9202		
SGB	2457.3	R23	-.1428	R13	.9796		
SG1	2407.2	SG2	493.8	THA	130.87		

ORBIT DETERMINATION ACCURACY

ST	445.5	SR	483.5	SS	855.5
CRT	-.8563	CRS	-.9681	CST	.7012
LSA	1036.3	MSA	300.2	SSA	11.6
EL1	633.6	EL2	175.6	ALF	132.27

LAUNCH DATE AUG 9 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 346.441

RL	151.67	LAL	.00	LOL	316.01	VL	26.766	GAL	.46	AZL	86.52	HCA	150.55	SMA	128.40	ECC	.18142	INC	3.4771	V1	29.375
RP	107.54	LAP	1.71	LOP	106.60	VP	37.875	GAP	-4.70	AZP	93.03	TAL	177.91	TAP	328.47	RCA	105.10	APO	151.69	V2	35.238
RC	62.346	GL	30.99	GP	-46.00	ZAL	81.03	ZAP	56.57	ETS	38.33	ZAE	128.01	ETE	297.42	ZAC	56.04	ETC	259.19	CLP	-37.52

PLANETOCENTRIC CONIC

C3	9.942	VHL	3.153	DLA	10.84	RAL	241.18	RAD	6567.4	VEL	11.460	PTH	1.99	VHP	5.451	DPA	-65.27	RAP	226.36	ECC	1.1636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 54 34	2403.84	-23.67	53.84	94.80	106.02	5 34 38	1803.8	-21.24	46.00
90.00	19 38 37	4361.89	5.24	181.03	91.79	62.13	20 51 19	3761.9	1.47	174.38
100.00	6 21 20	2124.02	-24.59	32.95	94.49	107.55	6 56 44	1524.0	-21.96	25.14
100.00	20 54 32	4116.95	6.09	162.56	91.33	60.68	22 3 9	3516.9	2.14	156.00
110.00	7 41 52	1872.02	-27.04	12.85	93.52	111.76	8 13 4	1272.0	-23.84	5.14
110.00	21 50 30	3941.71	8.31	147.91	89.97	56.72	22 56 12	3341.7	3.87	141.63

DIFFERENTIAL CORRECTIONS

TDE	-.0595	TRA	-.7527	TC3	.9529	BAU	.3318
RDE	.3014	RRA	.7832	RC3	-2.3069	FAU	.05657
FDE	.9806	FRA	1.9246	FC3	-4.9261	BSP	8127
BDE	.3072	BRA	1.0862	BC3	2.4959	FSP	-1319

MID-COURSE EXECUTION ACCURACY

SGT	1520.5	SGR	2125.1	SG3	436.3		
RRT	-.9134	RRF	.9928	RTF	-.9139		
SGB	2613.0	R23	-.1194	R13	.9858		
SG1	2562.0	SG2	513.5	THA	124.76		

ORBIT DETERMINATION ACCURACY

ST	431.9	SR	700.6	SS	979.5
CRT	-.7985	CRS	-.9913	CST	.7133
LSA	1246.4	MSA	288.2	SSA	9.3
EL1	790.1	EL2	230.5	ALF	118.90

LAUNCH DATE AUG 9 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 353.000

RL	151.67	LAL	.00	LOL	316.01	VL	26.803	GAL	.40	AZL	85.76	HCA	153.78	SMA	128.65	ECC	.17910	INC	4.2396	V1	29.375
RP	107.53	LAP	1.87	LOP	109.85	VP	37.908	GAP	-4.16	AZP	93.80	TAL	178.16	TAP	331.94	RCA	105.61	APO	151.69	V2	35.243
RC	64.375	GL	36.43	GP	-51.10	ZAL	82.02	ZAP	61.67	ETS	36.61	ZAE	123.83	ETE	293.47	ZAC	50.96	ETC	258.24	CLP	-40.93

PLANETOCENTRIC CONIC

C3	11.135	VHL	3.337	DLA	16.24	RAL	242.01	RAD	6567.4	VEL	11.512	PTH	2.01	VHP	5.616	DPA	-69.58	RAP	219.26	ECC	1.1833

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 10 22	2614.31	-26.84	68.42	99.18	99.39	4 53 57	2014.3	-25.27	60.10
90.00	20 29 24	4197.31	-.05	171.83	94.63	61.68	21 39 22	3597.3	-3.83	165.19
100.00	5 40 48	2322.69	-27.95	46.74	98.96	101.05	6 19 31	1722.7	-26.14	38.41
100.00	21 41 40	3964.16	.94	154.14	94.08	60.12	22 47 44	3364.2	-3.04	147.62
110.00	7 9 11	2046.18	-30.84	24.96	98.17	105.52	7 43 17	1446.2	-28.41	16.61
110.00	22 29 46	3813.44	3.46	141.14	92.51	55.97	23 33 20	3213.4	-1.03	134.93

DIFFERENTIAL CORRECTIONS

TDE	-.0724	TRA	-.7268	TC3	.7401	BAU	.3582
RDE	.4843	RRA	.9467	RC3	-2.2899	FAU	.05217
FDE	1.1590	FRA	1.9250	FC3	-4.0561	BSP	8618
BDE	.4897	BRA	1.1935	BC3	2.4065	FSP	-1259

MID-COURSE EXECUTION ACCURACY

SGT	1396.0	SGR	2427.6	SG3	415.6		
RRT	-.9026	RRF	.9951	RTF	-.9023		
SGB	2800.4	R23	-.0945	R13	.9906		
SG1	2749.6	SG2	530.7	THA	118.59		

ORBIT DETERMINATION ACCURACY

ST	409.6	SR	975.5	SS	1088.5
CRT	-.7563	CRS	-.9975	CST	.7089
LSA	1492.2	MSA	278.4	SSA	7.3
EL1	1026.9	EL2	254.5	ALF	108.81

LAUNCH DATE AUG 9 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 359.535

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.835 GAL    .36 AZL  84.80 HCA 157.00 SMA 128.86 ECC .17711 INC 5.1991 V1  29.375
RP  107.51 LAP   2.03 LOP 113.09 VP  37.933 GAP  -3.64 AZP  94.79 TAL 178.35 TAP 335.35 RCA 106.04 APO 151.68 V2  35.247
RC  66.441 GL   42.15 GP  -56.56 ZAL  83.00 ZAP  66.80 ETS  34.45 ZAE 119.13 ETE 289.57 ZAC  45.52 ETC 256.89 CLP -44.37
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PLANETOCENTRIC CONIC

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C3  13.129 VHL  3.623 DLA  21.88 RAL 243.08 RAD 6567.5 VEL 11.598 PTH   2.03 VHP  5.929 DPA -73.74 RAP 207.88 ECC 1.2161
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 12 51	2879.37	-28.32	87.63	105.07	89.91	4 0 50	2279.4	-28.03	78.97
90.00	21 35 26	4001.80	-6.32	160.88	99.42	62.34	22 42 8	3401.8	-9.97	154.11
100.00	4 49 38	2567.28	-29.84	64.64	105.05	91.84	5 32 26	1967.3	-29.27	55.88
100.00	22 41 20	3789.12	-4.98	144.52	98.69	60.49	23 44 29	3189.1	-8.87	137.90
110.00	6 30 4	2253.07	-33.59	40.44	104.72	96.76	7 7 37	1653.1	-32.29	31.45
110.00	23 17 23	3676.10	-1.79	133.97	96.70	55.86	24 18 39	3076.1	-6.25	127.73

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.0737 TRA -.6980 TC3  .4769 BAU  .3769   SGT 1244.2 SGR 2746.0 SG3  379.3      ST   375.6 SR  1306.0 SS  1176.3
RDE  .7358 RRA 1.1566 RC3-2.0937 FAU .04489   RRT -.8794 RRF  .9966 RTF -.8802     CRT -.7077 CRS -.9993 CST  .6814
FDE 1.3171 FRA 1.8861 FC3-2.9602 BSP  8949    SGB 3014.7 R23 -.0683 R13  .9943     LSA 1777.1 MSA  268.6 SSA    5.7
BDE  .7395 BRA 1.3509 BC3 2.1473 FSP  -1126   SG1 2964.4 SG2  548.7 THA 112.54     EL1 1333.9 EL2  259.8 ALF 101.96
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 366.038

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.863 GAL    .32 AZL  83.55 HCA 160.21 SMA 129.04 ECC .17543 INC 6.4518 V1  29.375
RP  107.50 LAP   2.18 LOP 116.33 VP  37.956 GAP  -3.14 AZP  96.07 TAL 178.48 TAP 338.69 RCA 106.40 APO 151.68 V2  35.251
RC  68.539 GL   48.02 GP  -62.36 ZAL  83.96 ZAP  71.80 ETS  31.77 ZAE 113.93 ETE 285.75 ZAC  39.77 ETC 254.95 CLP -47.68
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PLANETOCENTRIC CONIC

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C3  16.487 VHL  4.060 DLA  27.64 RAL 244.37 RAD 6567.7 VEL 11.742 PTH   2.07 VHP  6.454 DPA -77.16 RAP 189.05 ECC 1.2713
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 25 37	3314.37	-24.31	118.64	111.03	75.01	2 20 52	2714.4	-26.13	110.45
90.00	23 33 0	3668.21	-16.24	141.41	108.03	66.48	24 34 8	3068.2	-19.28	134.06
100.00	3 29 48	2914.06	-27.85	90.11	111.95	78.67	4 18 22	2314.1	-29.13	81.54
100.00	0 15 26	3543.74	-12.96	130.67	106.42	62.82	1 14 30	2943.7	-16.50	123.67
110.00	5 38 39	2510.85	-33.85	60.50	112.96	84.94	6 20 29	1910.8	-34.18	51.27
110.00	0 23 5	3519.72	-7.72	125.75	103.31	56.60	1 21 45	2919.7	-12.06	119.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.0288 TRA -.6455 TC3  .2726 BAU  .3980   SGT 1052.6 SGR 3063.5 SG3  328.1      ST   311.2 SR  1636.8 SS  1199.9
RDE 1.0563 RRA 1.4124 RC3-1.7852 FAU .03683   RRT -.8357 RRF  .9976 RTF -.8369     CRT -.5282 CRS -.9998 CST  .5124
FDE 1.4001 FRA 1.7810 FC3-1.9341 BSP  9750    SGB 3239.2 R23 -.0455 R13  .9966     LSA 2036.1 MSA  265.1 SSA    4.3
BDE 1.0567 BRA 1.5529 BC3 1.8059 FSP  -995    SG1 3191.4 SG2  554.9 THA 106.54     EL1 1645.3 EL2  262.9 ALF  95.89
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 372.506

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.885 GAL    .31 AZL  81.83 HCA 163.42 SMA 129.19 ECC .17405 INC 8.1671 V1  29.375
RP  107.49 LAP   2.32 LOP 119.58 VP  37.974 GAP  -2.65 AZP  97.83 TAL 178.55 TAP 341.96 RCA 106.71 APO 151.68 V2  35.254
RC  70.666 GL   53.81 GP  -68.45 ZAL  84.92 ZAP  76.48 ETS  28.58 ZAE 108.24 ETE 282.06 ZAC  33.78 ETC 252.10 CLP -50.47
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PLANETOCENTRIC CONIC

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C3  22.392 VHL  4.732 DLA  33.29 RAL 245.87 RAD 6567.9 VEL 11.990 PTH   2.14 VHP  7.298 DPA -78.74 RAP 160.53 ECC 1.3685
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.71	22 14 17	4007.25	-22.10	169.40	117.70	64.44	23 21 4	3407.3	-25.35	161.83
108.29	2 56 17	3119.86	-22.09	103.39	117.69	64.43	3 48 17	2519.9	-25.34	95.82
71.71	22 14 17	4007.25	-22.10	169.40	117.70	64.44	23 21 4	3407.3	-25.35	161.83
108.29	2 56 17	3119.86	-22.09	103.39	117.69	64.43	3 48 17	2519.9	-25.34	95.82
110.00	4 5 44	2906.90	-27.60	89.48	120.31	68.98	4 54 11	2306.9	-30.20	81.26
110.00	2 7 57	3268.21	-16.79	111.92	114.72	59.78	3 2 25	2668.2	-20.68	104.95

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0733 TRA -.5709 TC3  .1095 BAU  .4074   SGT  838.1 SGR 3361.5 SG3  267.2      ST   263.5 SR  1956.4 SS  1172.0
RDE 1.4889 RRA 1.7467 RC3-1.3565 FAU .02760   RRT -.7331 RRF  .9982 RTF -.7362     CRT -.0550 CRS-1.0000 CST  .0483
FDE 1.4185 FRA 1.6333 FC3-1.0670 BSP  10534   SGB 3464.4 R23 -.0241 R13  .9979     LSA 2280.6 MSA  263.2 SSA    3.3
BDE 1.4907 BRA 1.8376 BC3 1.3609 FSP  -827    SG1 3418.8 SG2  560.5 THA 100.65     EL1 1956.5 EL2  263.1 ALF  90.43
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 378.931

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.903 GAL    .31 AZL  79.33 HCA 166.60 SMA 129.32 ECC .17293 INC10.6733 V1  29.375
RP  107.48 LAP   2.46 LOP 122.83 VP  37.989 GAP  -2.18 AZP 100.39 TAL 178.53 TAP 345.13 RCA 106.95 APO 151.68 V2  35.256
RC  72.818 GL   59.23 GP  -74.85 ZAL  85.85 ZAP  80.64 ETS  24.99 ZAE 102.00 ETE 278.61 ZAC  27.57 ETC 247.70 CLP -51.52
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PLANETOCENTRIC CONIC

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C3  33.628 VHL  5.799 DLA  38.56 RAL 247.46 RAD 6568.3 VEL 12.450 PTH   2.25 VHP  8.666 DPA -77.41 RAP 129.62 ECC 1.5534
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.65	21 30 19	4258.61	-21.70	189.20	127.53	57.31	22 41 18	3658.6	-25.85	182.14
117.35	3 52 56	3070.49	-21.69	99.22	127.52	57.30	4 44 7	2470.5	-25.84	92.16
62.65	21 30 19	4258.61	-21.70	189.20	127.53	57.31	22 41 18	3658.6	-25.85	182.14
117.35	3 52 56	3070.49	-21.69	99.22	127.52	57.30	4 44 7	2470.5	-25.84	92.16
62.65	21 30 19	4258.61	-21.70	189.20	127.53	57.31	22 41 18	3658.6	-25.85	182.14
117.35	3 52 56	3070.49	-21.69	99.22	127.52	57.30	4 44 7	2470.5	-25.84	92.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2808 TRA -.4580 TC3  .0084 BAU  .3886   SGT  641.9 SGR 3625.6 SG3  204.2      ST   327.3 SR  2234.3 SS  1102.5
RDE 2.0949 RRA 2.2182 RC3 -.8643 FAU .01782   RRT -.4545 RRF  .9986 RTF -.4623     CRT  .5856 CRS-1.0000 CST -.5841
FDE 1.3796 FRA 1.4690 FC3 -.4589 BSP  11202   SGB 3682.0 R23 -.0035 R13  .9986     LSA 2498.9 MSA  264.6 SSA    2.6
BDE 2.1136 BRA 2.2650 BC3  .8644 FSP  -639    SG1 3637.7 SG2  569.9 THA  94.72     EL1 2242.6 EL2  264.3 ALF  85.03
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 385.289

RL	151.67	LAL	.00	LOL	316.01	VL	26.917	GAL	.33	AZL	75.31	HCA	169.74	SMA	129.41	ECC	.17207	INC	14.6926	V1	29.375
RP	107.48	LAP	2.59	LOP	126.08	VP	38.001	GAP	-1.73	AZP	104.47	TAL	178.42	TAP	348.16	RCA	107.14	APO	151.68	V2	35.258
RC	74.992	GL	63.76	GP	-81.67	ZAL	86.77	ZAP	84.13	ETS	21.74	ZAE	94.98	ETE	276.04	ZAC	21.12	ETC	240.36	CLP	-45.10

PLANETOCENTRIC CONIC

C3 57.932 VHL 7.611 DLA 42.99 RAL 248.85 RAD 6569.1 VEL 13.390 PTH 2.45 VHP 11.009 DPA -73.39 RAP 106.17 ECC 1.9534

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.20	21 7 8	4475.15	-18.10	204.92	138.34	50.32	22 21 43	3875.1	-23.09	198.65
123.80	4 27 12	3126.55	-18.08	101.20	138.32	50.31	5 19 19	2526.6	-23.07	94.94
56.20	21 7 8	4475.15	-18.10	204.92	138.34	50.32	22 21 43	3875.1	-23.09	198.65
123.80	4 27 12	3126.55	-18.08	101.20	138.32	50.31	5 19 19	2526.6	-23.07	94.94
56.20	21 7 8	4475.15	-18.10	204.92	138.34	50.32	22 21 43	3875.1	-23.09	198.65
123.80	4 27 12	3126.55	-18.08	101.20	138.32	50.31	5 19 19	2526.6	-23.07	94.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7308	TRA	-.2439	TC3	-.0220	BAU	.3048	SGT	605.6	SGR	3827.0	SG3	146.4	ST	555.2	SR	2433.4
RDE	2.9981	RRA	2.9466	RC3	-.3929	FAU	.00819	RRT	.2160	RRF	.9989	RTF	.2048	CRT	.8682	CRS	-1.0000
FDE	1.3169	FRA	1.3223	FC3	-.1225	BSP	11803	SGB	3874.6	R23	.0166	R13	.9988	LSA	2682.5	MSA	271.6
BDE	3.0859	BRA	2.9566	BC3	.3936	FSP	-463	SG1	3829.3	SG2	590.9	THA	87.99	EL1	2481.3	EL2	270.2

SS	1019.8	CST	-.8645
SSA	2.1	ALF	78.66

LAUNCH DATE AUG 9 1970 FLIGHT TIME 144.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 391.522

RL	151.67	LAL	.00	LOL	316.01	VL	26.928	GAL	.38	AZL	67.87	HCA	172.79	SMA	129.48	ECC	.17147	INC	22.1341	V1	29.375
RP	107.48	LAP	2.71	LOP	129.32	VP	38.009	GAP	-1.32	AZP	111.98	TAL	178.16	TAP	350.95	RCA	107.28	APO	151.69	V2	35.259
RC	77.186	GL	66.29	GP	-86.20	ZAL	87.65	ZAP	86.79	ETS	89.24	ZAE	86.36	ETE	344.56	ZAC	14.63	ETC	292.67	CLP	32.39

PLANETOCENTRIC CONIC

C3 122.775 VHL 11.080 DLA 45.58 RAL 249.22 RAD 6570.3 VEL 15.624 PTH 2.78 VHP 15.504 DPA -66.95 RAP 89.20 ECC 3.0206

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.66	20 54 52	4679.73	-11.11	216.95	148.15	45.50	22 12 52	4079.7	-16.65	211.42
127.34	4 42 27	3258.60	-11.09	106.64	148.13	45.50	5 36 45	2658.6	-16.63	101.11
52.66	20 54 52	4679.73	-11.11	216.95	148.15	45.50	22 12 52	4079.7	-16.65	211.42
127.34	4 42 27	3258.60	-11.09	106.64	148.13	45.50	5 36 45	2658.6	-16.63	101.11
52.66	20 54 52	4679.73	-11.11	216.95	148.15	45.50	22 12 52	4079.7	-16.65	211.42
127.34	4 42 27	3258.60	-11.09	106.64	148.13	45.50	5 36 45	2658.6	-16.63	101.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.1907	TRA	3.6330	TC3	.0113	BAU	.0304	SGT	2913.5	SGR	2756.3	SG3	100.3	ST	1389.8	SR	2280.7
RDE	-4.3091	RRA	-2.1957	RC3	-.0147	FAU	-.00205	RRT	-.8566	RRF	-.9513	RTF	.9737	CRT	-.9199	CRS	.9845
FDE	1.3192	FRA	1.2704	FC3	.0145	BSP	12303	SGB	4010.7	R23	-.0252	R13	-.9995	LSA	2807.6	MSA	477.4
BDE	4.8340	BRA	4.2449	BC3	.0185	FSP	-322	SG1	3864.7	SG2	1072.1	THA	136.85	EL1	2628.6	EL2	472.8

SS	988.5	CST	-.9745
SSA	.8	ALF	120.36

LAUNCH DATE AUG 9 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 397.414

RL	151.67	LAL	.00	LOL	316.01	VL	26.935	GAL	.51	AZL	50.53	HCA	175.56	SMA	129.53	ECC	.17113	INC	39.4664	V1	29.375
RP	107.48	LAP	2.82	LOP	132.57	VP	38.014	GAP	-1.01	AZP	129.38	TAL	177.55	TAP	353.11	RCA	107.36	APO	151.70	V2	35.259
RC	79.396	GL	63.34	GP	-74.98	ZAL	88.46	ZAP	88.51	ETS	186.06	ZAE	73.18	ETE	82.21	ZAC	12.96	ETC	336.31	CLP	84.26

PLANETOCENTRIC CONIC

C3 366.992 VHL 19.157 DLA 43.18 RAL 246.41 RAD 6572.0 VEL 22.097 PTH 3.24 VHP 25.958 DPA -55.72 RAP 74.41 ECC 7.0398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.93	20 56 18	4810.40	-3.06	221.04	153.15	46.91	22 16 29	4210.4	-8.50	215.56
124.07	4 18 33	3455.99	-3.05	116.81	153.14	46.91	5 16 9	2856.0	-8.49	111.33
55.93	20 56 18	4810.40	-3.06	221.04	153.15	46.91	22 16 29	4210.4	-8.50	215.56
124.07	4 18 33	3455.99	-3.05	116.81	153.14	46.91	5 16 9	2856.0	-8.49	111.33
55.93	20 56 18	4810.40	-3.06	221.04	153.15	46.91	22 16 29	4210.4	-8.50	215.56
124.07	4 18 33	3455.99	-3.05	116.81	153.14	46.91	5 16 9	2856.0	-8.49	111.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6488	TRA	-.1628	TC3	-.0553	BAU	1.0716	SGT	822.8	SGR	3920.6	SG3	71.4	ST	792.5	SR	2602.1
RDE	-8.1794	RRA	-7.2045	RC3	-.2113	FAU	-.02088	RRT	.7151	RRF	-.9992	RTF	-.6933	CRT	.9485	CRS	.9997
FDE	1.6403	FRA	1.5535	FC3	.0493	BSP	11963	SGB	4006.0	R23	-.0523	R13	-.9982	LSA	2955.1	MSA	247.1
BDE	8.5976	BRA	7.2063	BC3	.2184	FSP	-223	SG1	3965.5	SG2	568.6	THA	81.28	EL1	2709.4	EL2	241.1

SS	1180.9	CST	.9407
SSA	1.5	ALF	73.76

LAUNCH DATE AUG 9 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 401.873

RL	151.67	LAL	.00	LOL	316.01	VL	26.938	GAL	.90	AZL	3.53	HCA	177.07	SMA	129.56	ECC	.17139	INC	86.4736	V1	29.375
RP	107.48	LAP	2.92	LOP	135.83	VP	38.016	GAP	-1.07	AZP	176.47	TAL	175.63	TAP	352.70	RCA	107.35	APO	151.76	V2	35.258
RC	81.621	GL	44.12	GP	-48.11	ZAL	88.96	ZAP	89.18	ETS	183.56	ZAE	46.64	ETE	77.19	ZAC	34.26	ETC	291.42	CLP	88.78

PLANETOCENTRIC CONIC

C31491.491 VHL 38.620 DLA 25.36 RAL 237.51 RAD 6573.2 VEL 40.159 PTH 3.56 VHP 51.029 DPA -30.67 RAP 59.89 ECC25.5462

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 57 15	3846.04	-11.13	151.97	154.51	63.79	3 1 21	3246.0	-14.56	144.98
90.00	22 6 35	4594.36	12.41	194.35	143.18	64.34	23 23 10	3994.4	8.85	187.48
100.00	3 42 45	3505.91	-14.12	128.47	156.03	63.38	4 41 11	2905.9	-17.58	121.39
100.00	23 3 47	4409.72	15.41	179.29	141.68	64.07	24 17 16	3809.7	11.80	172.37
110.00	5 35 59	3151.64	-20.65	105.08	159.55	62.14	6 28 31	2551.6	-24.21	97.75
110.00	23 27 2	4336.76	21.99	170.32	138.24	63.15	24 39 19	3736.8	18.21	163.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-5.9535	TRA	-1.1885	TC3	-.1006	BAU	5.0258	SGT	1192.6	SGR	3057.1	SG3	60.6	ST	885.5	SR	1664.4
RD	-10.5115	RR	-11.7605	RC3	-.2311	FAU	-.09201	RRT	.8616	RRF	-.9998	RTF	-.8524	CRT	.9584	CRS	.9998
FDE	2.3243	FRA	2.7446	FC3	.0534	BSP	9937	SGB	3281.5	R23	-.0794	R13	-.9968	LSA	2482.7	MSA	245.3
BDE	12.0804	BRA	11.8203	BC3	.2520	FSP	-192	SG1	3231.1	SG2	572.7	THA	70.79	EL1	1871.9	EL2	224.7

SS	1633.9	CST	.9531
SSA	1.1	ALF	62.55

LAUNCH DATE AUG 9 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 412.723

RL	151.67	LAL	.00	LOL	316.01	VL	26.939	GAL	.13	AZL	134.53	HCA	184.30	SMA	129.56	ECC	.17065	INC	44.5305	V1	29.375
RP	107.48	LAP	3.02	LOP	139.08	VP	38.015	GAP	.54	AZP	45.55	TAL	179.39	TAP	3.69	RCA	107.45	APO	151.67	V2	35.256
RC	83.861	GL	-61.69	GP	74.01	ZAL	89.11	ZAP	90.69	ETS	187.79	ZAE	76.99	ETE	287.64	ZAC	152.92	ETC	298.71	CLP	92.50

PLANETOCENTRIC CONIC

C3	460.451	VHL	21.458	DLA	-71.39	RAL	175.06	RAD	6572.3	VEL	24.119	PTH	3.31	VHP	26.913	DPA	72.70	RAP	319.50	ECC	8.5779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.26	2 35 27	2391.67	2.83	78.05	84.09	161.36	3 15 19	1791.7	10.41	75.88
158.74	13 10 9	629.92	2.84	286.32	84.11	161.36	13 20 39	29.9	10.42	284.15
21.26	2 35 27	2391.67	2.83	78.05	84.09	161.36	3 15 19	1791.7	10.41	75.88
158.74	13 10 9	629.92	2.84	286.32	84.11	161.36	13 20 39	29.9	10.42	284.15
21.26	2 35 27	2391.67	2.83	78.05	84.09	161.36	3 15 19	1791.7	10.41	75.88
158.74	13 10 9	629.92	2.84	286.32	84.11	161.36	13 20 39	29.9	10.42	284.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	5.3877	TRA	1.6031	TC3	-.1155	BAU	1.5952	SGT	2028.3	SGR	3657.8	SG3	75.5	ST	1493.9	SR	3158.4	SS	1762.0
RDE	-11.6856	RRA	-1.9466	RC3	.2320	FAU	-.02608	RRT	-.9659	RRF	.9994	RTF	-.9681	CRT	-.9931	CRS	-1.0000	CST	.9935
FDE	-2.8022	FRA	-.4765	FC3	.0490	BSP	12825	SGB	4182.5	R23	-.0498	R13	.9983	LSA	3909.7	MSA	160.9	SSA	1.8
BDE	12.8678	BRA	2.5218	BC3	.2591	FSP	-233	SG1	4156.9	SG2	461.8	THA	118.56	EL1	3490.2	EL2	158.3	ALF	115.22

LAUNCH DATE AUG 9 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 418.517

RL	151.67	LAL	.00	LOL	316.01	VL	26.937	GAL	.30	AZL	116.19	HCA	187.04	SMA	129.55	ECC	.17084	INC	26.1894	V1	29.375
RP	107.49	LAP	3.10	LOP	142.33	VP	38.011	GAP	.82	AZP	63.98	TAL	178.57	TAP	5.61	RCA	107.42	APO	151.68	V2	35.254
RC	86.111	GL	-66.30	GP	86.89	ZAL	68.17	ZAP	91.79	ETS	198.49	ZAE	90.17	ETE	296.78	ZAC	164.01	ETC	327.24	CLP	125.11

PLANETOCENTRIC CONIC

C3	168.570	VHL	12.983	DLA	-74.49	RAL	162.72	RAD	6570.8	VEL	17.026	PTH	2.93	VHP	15.865	DPA	68.61	RAP	279.45	ECC	3.7742

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.69	1 38 49	2272.32	11.23	78.20	69.54	164.18	2 16 41	1672.3	18.92	76.32
162.31	12 28 20	5782.62	11.24	260.74	69.57	164.18	14 4 43	5182.6	18.92	258.86
17.69	1 38 49	2272.32	11.23	78.20	69.54	164.18	2 16 41	1672.3	18.92	76.32
162.31	12 28 20	5782.62	11.24	260.74	69.57	164.18	14 4 43	5182.6	18.92	258.86
17.69	1 38 49	2272.32	11.23	78.20	69.54	164.18	2 16 41	1672.3	18.92	76.32
162.31	12 28 20	5782.62	11.24	260.74	69.57	164.18	14 4 43	5182.6	18.92	258.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	5.1470	TRA	1.3901	TC3	-.0496	BAU	.2205	SGT	3230.5	SGR	5025.9	SG3	107.3	ST	2373.3	SR	2308.2	SS	1328.7
RDE	-5.0437	RRA	-1.2353	RC3	.0843	FAU	-.00249	RRT	-.9983	RRF	.9986	RTF	-.9970	CRT	-.9997	CRS	-.9999	CST	.9992
FDE	-2.1258	FRA	-.4931	FC3	.0128	BSP	13954	SGB	4426.3	R23	-.0283	R13	.9982	LSA	3566.9	MSA	54.4	SSA	2.4
BDE	7.2062	BRA	1.8597	BC3	.0978	FSP	-342	SG1	4424.4	SG2	129.5	THA	136.88	EL1	3310.4	EL2	43.2	ALF	135.80

LAUNCH DATE AUG 9 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 424.633

RL	151.67	LAL	.00	LOL	316.01	VL	26.932	GAL	.41	AZL	108.44	HCA	190.08	SMA	129.52	ECC	.17119	INC	18.4374	V1	29.375
RP	107.50	LAP	3.17	LOP	145.58	VP	38.005	GAP	1.18	AZP	71.83	TAL	178.00	TAP	8.08	RCA	107.34	APO	151.69	V2	35.251
RC	88.372	GL	-65.66	GP	83.26	ZAL	87.12	ZAP	93.71	ETS	6.83	ZAE	98.17	ETE	104.33	ZAC	167.71	ETC	163.91	CLP	-123.48

PLANETOCENTRIC CONIC

C3	87.400	VHL	9.349	DLA	-75.21	RAL	166.30	RAD	6569.7	VEL	14.448	PTH	2.62	VHP	11.164	DPA	63.07	RAP	263.48	ECC	2.4384

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.86	1 51 27	2143.97	19.80	76.86	70.83	164.25	2 27 11	1544.0	27.48	74.84
163.14	12 44 19	5651.05	19.81	258.57	70.86	164.25	14 18 30	5051.0	27.49	256.55
16.86	1 51 27	2143.97	19.80	76.86	70.83	164.25	2 27 11	1544.0	27.48	74.84
163.14	12 44 19	5651.05	19.81	258.57	70.86	164.25	14 18 30	5051.0	27.49	256.55
16.86	1 51 27	2143.97	19.80	76.86	70.83	164.25	2 27 11	1544.0	27.48	74.84
163.14	12 44 19	5651.05	19.81	258.57	70.86	164.25	14 18 30	5051.0	27.49	256.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.4395	TRA	-.5472	TC3	-.0887	BAU	.1926	SGT	1351.1	SGR	4306.1	SG3	156.7	ST	477.4	SR	3488.0	SS	1428.9
RDE	5.5434	RRA	1.0970	RC3	.1389	FAU	.01009	RRT	-.4446	RRF	-.9989	RTF	.4324	CRT	.3627	CRS	1.0000	CST	.3701
FDE	-2.3586	FRA	-.4497	FC3	-.0999	BSP	14162	SGB	4513.1	R23	.0546	R13	-.9975	LSA	3773.4	MSA	444.3	SSA	2.2
BDE	5.5608	BRA	1.2259	BC3	.1648	FSP	-497	SG1	4351.3	SG2	1197.7	THA	98.60	EL1	3492.4	EL2	444.3	ALF	87.11

LAUNCH DATE AUG 9 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 430.835

RL	151.67	LAL	.00	LOL	316.01	VL	26.925	GAL	.52	AZL	104.29	HCA	193.22	SMA	129.47	ECC	.17171	INC	14.2936	V1	29.375
RP	107.51	LAP	3.24	LOP	148.85	VP	37.997	GAP	1.56	AZP	76.07	TAL	177.48	TAP	10.70	RCA	107.24	APO	151.70	V2	35.247
RC	90.641	GL	-65.43	GP	76.60	ZAL	85.98	ZAP	96.35	ETS	15.62	ZAE	104.19	ETE	112.95	ZAC	166.61	ETC	199.87	CLP	-118.49

PLANETOCENTRIC CONIC

C3	55.239	VHL	7.432	DLA	-75.10	RAL	175.62	RAD	6569.0	VEL	13.289	PTH	2.43	VHP	8.720	DPA	57.99	RAP	254.27	ECC	1.9091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.99	2 28 54	2035.37	26.87	74.96	77.86	163.24	3 2 49	1435.4	34.50	72.58
163.01	13 21 15	5542.94	26.88	256.79	77.88	163.24	14 53 38	4942.9	34.51	254.42
16.99	2 28 54	2035.37	26.87	74.96	77.86	163.24	3 2 49	1435.4	34.50	72.58
163.01	13 21 15	5542.94	26.88	256.79	77.88	163.24	14 53 38	4942.9	34.51	254.42
16.99	2 28 54	2035.37	26.87	74.96	77.86	163.24	3 2 49	1435.4	34.50	72.58
163.01	13 21 15	5542.94	26.88	256.79	77.88	163.24	14 53 38	4942.9	34.51	254.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.4621	TRA	-.5359	TC3	-.3069	BAU	.3616	SGT	2014.9	SGR	4093.3	SG3	220.1	ST	1225.9	SR	3680.1	SS	1702.1
RDE	4.7230	RRA	.5946	RC3	.3816	FAU	.02122	RRT	-.8762	RRF	-.9984	RTF	.8853	CRT	-.9668	CRS	1.0000	CST	-.9678
FDE	-2.8970	FRA	-.3740	FC3	-.3326	BSP	14359	SGB	4562.2	R23	.0675	R13	-.9963	LSA	4225.3	MSA	299.8	SSA	2.9
BDE	4.9441	BRA	.8005	BC3	.4897	FSP	-698	SG1	4474.9	SG2	888.1	THA	114.35	EL1	3867.4	EL2	297.9	ALF	107.96

LAUNCH DATE AUG 9 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 437.062

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RL  151.67 LAL    .00 LOL 316.01 VL  26.916 GAL    .63 AZL 101.73 HCA 196.40 SMA 129.41 ECC .17239 INC11.7265 V1  29.375
RP  107.53 LAP   3.29 LOP 152.08 VP  37.986 GAP   1.95 AZP  78.74 TAL 176.95 TAP  13.35 RCA 107.10 APO 151.71 V2  35.243
RC  92.917 GL  -60.66 GP  70.60 ZAL  84.76 ZAP  99.56 ETS  20.32 ZAE 109.11 ETE 118.16 ZAC 163.06 ETC 220.32 CLP-119.98
PLANETOCENTRIC CONIC
C3  39.380 VHL  6.275 DLA -74.32 RAL 186.21 RAD 6568.5 VEL 12.679 PTH   2.30 VHP  7.281 DPA  53.22 RAP 247.75 ECC 1.6481
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.88	3 12 56	1948.90	32.24	72.42	86.00	161.37	3 45 25	1348.9	39.78	69.52
162.12	14 1 39	5459.97	32.25	255.14	86.02	161.37	15 32 39	4860.0	39.79	252.24
17.88	3 12 56	1948.90	32.24	72.42	86.00	161.37	3 45 25	1348.9	39.78	69.52
162.12	14 1 39	5459.97	32.25	255.14	86.02	161.37	15 32 39	4860.0	39.79	252.24
17.88	3 12 56	1948.90	32.24	72.42	86.00	161.37	3 45 25	1348.9	39.78	69.52
162.12	14 1 39	5459.97	32.25	255.14	86.02	161.37	15 32 39	4860.0	39.79	252.24

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0738 TRA -.4095 TC3 -.5956 BAU  .4506   SGT 2461.4 SGR 3875.8 SG3  291.8      ST  1938.6 SR  3678.8 SS  1983.6
RDE 4.0159 RRA  .2933 RC3  .6146 FAU .03223   RRT -.9319 RRF -.9978 RTF  .9390      CRT -.9909 CRS 1.0000 CST -.9911
FDE-3.4420 FRA -.2547 FC3 -.7085 BSP  14473   SGB 4591.3 R23  .0783 R13 -.9951      LSA 4601.1 MSA  236.6 SSA    3.8
BDE 4.5198 BRA  .5037 BC3  .8559 FSP   -923   SG1 4527.3 SG2  764.1 THA 121.62      EL1 4151.9 EL2  231.2 ALF 117.67
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 443.290

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RL  151.67 LAL    .00 LOL 316.01 VL  26.905 GAL    .76 AZL  99.98 HCA 199.60 SMA 129.33 ECC .17322 INC 9.9773 V1  29.375
RP  107.54 LAP   3.33 LOP 155.33 VP  37.974 GAP   2.34 AZP  80.59 TAL 176.39 TAP  15.98 RCA 106.93 APO 151.73 V2  35.238
RC  95.197 GL  -57.70 GP  65.04 ZAL  83.43 ZAP 103.19 ETS  23.89 ZAE 113.23 ETE 122.90 ZAC 158.69 ETC 231.77 CLP-122.74
PLANETOCENTRIC CONIC
C3  30.408 VHL  5.514 DLA -73.04 RAL 196.14 RAD 6568.2 VEL 12.320 PTH   2.22 VHP  6.372 DPA  48.64 RAP 242.72 ECC 1.5004
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.36	3 55 34	1880.55	36.16	69.26	93.24	158.81	4 26 54	1280.6	43.56	65.69
160.64	14 38 14	5397.89	36.17	253.48	93.26	158.81	16 8 11	4797.9	43.57	249.92
19.36	3 55 34	1880.55	36.16	69.26	93.24	158.81	4 26 54	1280.6	43.56	65.69
160.64	14 38 14	5397.89	36.17	253.48	93.26	158.81	16 8 11	4797.9	43.57	249.92
19.36	3 55 34	1880.55	36.16	69.26	93.24	158.81	4 26 54	1280.6	43.56	65.69
160.64	14 38 14	5397.89	36.17	253.48	93.26	158.81	16 8 11	4797.9	43.57	249.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3796 TRA -.2752 TC3 -.9416 BAU  .5047   SGT 2855.1 SGR 3626.9 SG3  364.7      ST  2490.1 SR  3502.5 SS  2197.1
RDE 3.3696 RRA  .0888 RC3  .8091 FAU .04266   RRT -.9554 RRF -.9972 RTF  .9605      CRT -.9958 CRS 1.0000 CST -.9956
FDE-3.8396 FRA -.0918 FC3-1.2146 BSP  14598   SGB 4615.8 R23  .0869 R13 -.9938      LSA 4822.5 MSA  196.3 SSA    4.8
BDE 4.1251 BRA  .2891 BC3 1.2415 FSP  -1153   SG1 4567.0 SG2  669.8 THA 127.91      EL1 4293.5 EL2  185.3 ALF 125.37
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 449.510

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RL  151.67 LAL    .00 LOL 316.01 VL  26.892 GAL    .89 AZL  98.70 HCA 202.81 SMA 129.24 ECC .17421 INC 8.7038 V1  29.375
RP  107.56 LAP   3.36 LOP 158.58 VP  37.959 GAP   2.73 AZP  81.97 TAL 175.79 TAP  18.59 RCA 106.73 APO 151.76 V2  35.232
RC  97.481 GL  -54.71 GP  59.84 ZAL  82.02 ZAP 107.10 ETS  26.71 ZAE 116.67 ETE 127.51 ZAC 154.17 ETC 238.66 CLP-125.81
PLANETOCENTRIC CONIC
C3  24.848 VHL  4.985 DLA -71.40 RAL 204.80 RAD 6568.0 VEL 12.092 PTH   2.16 VHP  5.777 DPA  44.24 RAP 238.71 ECC 1.4089
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.25	4 34 4	1825.89	38.91	65.61	99.02	155.80	5 4 30	1225.9	46.12	61.31
158.75	15 8 50	5352.10	38.92	251.77	99.04	155.79	16 38 3	4752.1	46.13	247.47
21.25	4 34 4	1825.89	38.91	65.61	99.02	155.80	5 4 30	1225.9	46.12	61.31
158.75	15 8 50	5352.10	38.92	251.77	99.04	155.79	16 38 3	4752.1	46.13	247.47
21.25	4 34 4	1825.89	38.91	65.61	99.02	155.80	5 4 30	1225.9	46.12	61.31
158.75	15 8 50	5352.10	38.92	251.77	99.04	155.79	16 38 3	4752.1	46.13	247.47

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5170 TRA -.1391 TC3-1.3278 BAU  .5427   SGT 3220.7 SGR 3343.0 SG3  431.6      ST  2897.2 SR  3200.1 SS  2317.3
RDE 2.7835 RRA -.0549 RC3  .9518 FAU .05197   RRT -.9671 RRF -.9964 RTF  .9712      CRT -.9975 CRS 1.0000 CST -.9970
FDE-4.0380 FRA  .1072 FC3-1.8108 BSP  14702   SGB 4642.1 R23  .0937 R13 -.9925      LSA 4896.5 MSA  170.3 SSA    5.9
BDE 3.7527 BRA  .1495 BC3 1.6337 FSP  -1367   SG1 4603.8 SG2  594.6 THA 133.90      EL1 4314.1 EL2  151.6 ALF 132.15
```

LAUNCH DATE AUG 9 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 455.717

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.877 GAL   1.03 AZL  97.73 HCA 206.03 SMA 129.14 ECC .17535 INC 7.7308 V1  29.375
RP  107.58 LAP   3.38 LOP 161.83 VP  37.942 GAP   3.12 AZP  83.04 TAL 175.15 TAP  21.17 RCA 106.50 APO 151.79 V2  35.226
RC  99.767 GL  -51.76 GP  54.98 ZAL  80.51 ZAP 111.13 ETS  28.93 ZAE 119.47 ETE 132.02 ZAC 149.77 ETC 243.11 CLP-128.92
PLANETOCENTRIC CONIC
C3  21.182 VHL  4.602 DLA -69.54 RAL 212.21 RAD 6567.9 VEL 11.940 PTH   2.12 VHP  5.384 DPA  40.01 RAP 235.49 ECC 1.3486
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.40	5 8 13	1781.37	40.74	61.67	103.45	152.52	5 37 55	1181.4	47.72	56.61
156.60	15 33 48	5318.89	40.75	250.08	103.46	152.52	17 2 27	4718.9	47.73	245.02
23.40	5 8 13	1781.37	40.74	61.67	103.45	152.52	5 37 55	1181.4	47.72	56.61
156.60	15 33 48	5318.89	40.75	250.08	103.46	152.52	17 2 27	4718.9	47.73	245.02
23.40	5 8 13	1781.37	40.74	61.67	103.45	152.52	5 37 55	1181.4	47.72	56.61
156.60	15 33 48	5318.89	40.75	250.08	103.46	152.52	17 2 27	4718.9	47.73	245.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5526 TRA -.0026 TC3-1.7380 BAU  .5734   SGT 3557.7 SGR 3048.0 SG3  488.0      ST  3178.1 SR  2845.8 SS  2354.8
RDE 2.2819 RRA -.1550 RC3 1.0393 FAU .05969   RRT -.9731 RRF -.9955 RTF  .9769      CRT -.9982 CRS  .9999 CST -.9976
FDE-4.0565 FRA  .3269 FC3-2.4398 BSP  14866   SGB 4684.8 R23  .0983 R13 -.9912      LSA 4870.4 MSA  154.4 SSA    7.0
BDE 3.4239 BRA  .1550 BC3 2.0250 FSP  -1554   SG1 4654.0 SG2  536.3 THA 139.53      EL1 4264.2 EL2  125.7 ALF 138.16
```

LAUNCH DATE AUG 9 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 461.907

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.861 GAL   1.18 AZL  96.96 HCA 209.25 SMA 129.03 ECC .17664 INC 6.9590 VI  29.375
RP  107.60 LAP   3.39 LOP 165.07 VP  37.924 GAP   3.50 AZP  83.92 TAL 174.46 TAP  23.71 RCA 106.24 APO 151.82 V2  35.218
RC 102.053 GL  -48.87 GP   50.47 ZAL  78.91 ZAP 115.18 ETS  30.65 ZAE 121.67 ETE 136.39 ZAC 145.61 ETC 246.17 CLP-131.94
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PLANETOCENTRIC CONIC

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C3  18.660 VHL  4.320 DLA -67.55 RAL 218.57 RAD 6567.8 VEL 11.834 PTH   2.10 VHP  5.129 DPA  35.97 RAP 232.93 ECC 1.3071
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.70	5 38 37	1744.46	41.85	57.59	106.84	149.16	6 7 42	1144.5	48.56	51.82
154.30	15 54 8	5295.53	41.86	248.47	106.86	149.16	17 22 23	4695.5	48.57	242.70
25.70	5 38 37	1744.46	41.85	57.59	106.84	149.16	6 7 42	1144.5	48.56	51.82
154.30	15 54 8	5295.53	41.86	248.47	106.86	149.16	17 22 23	4695.5	48.57	242.70
25.70	5 38 37	1744.46	41.85	57.59	106.84	149.16	6 7 42	1144.5	48.56	51.82
154.30	15 54 8	5295.53	41.86	248.47	106.86	149.16	17 22 23	4695.5	48.57	242.70

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5261 TRA  .1349 TC3-2.1545 BAU  .6006   SGT 3861.4 SGR 2754.5 SG3  530.7     ST  3354.0 SR  2485.4 SS  2323.0
RDE 1.8655 RRA -.2237 RC3 1.0742 FAU .06550   RRT -.9761 RRF -.9942 RTF  .9800     CRT -.9986 CRS  .9999 CST -.9977
FDE-3.9278 FRA  .5528 FC3-3.0389 BSP  15053   SGB 4743.2 R23  .1007 R13 -.9901     LSA 4775.1 MSA  145.0 SSA    8.0
BDE 3.1402 BRA  .2612 BC3 2.4075 FSP  -1700   SG1 4717.8 SG2  490.2 THA 144.71     EL1 4173.2 EL2  104.4 ALF 143.47
```

LAUNCH DATE AUG 9 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 468.079

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.843 GAL   1.35 AZL  96.33 HCA 212.47 SMA 128.91 ECC .17809 INC 6.3286 VI  29.375
RP  107.63 LAP   3.39 LOP 168.32 VP  37.904 GAP   3.88 AZP  84.65 TAL 173.74 TAP  26.21 RCA 105.95 APO 151.87 V2  35.211
RC 104.339 GL  -46.05 GP   46.32 ZAL  77.23 ZAP 119.14 ETS  31.96 ZAE 123.34 ETE 140.56 ZAC 141.75 ETC 248.35 CLP-134.83
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PLANETOCENTRIC CONIC

```
C3  16.879 VHL  4.108 DLA -65.50 RAL 224.10 RAD 6567.7 VEL 11.758 PTH   2.08 VHP  4.973 DPA  32.16 RAP 230.93 ECC 1.2778
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.11	6 6 6	1713.22	42.38	53.51	109.52	145.84	6 34 39	1113.2	48.81	47.11
151.89	16 10 48	5280.13	42.39	247.03	109.53	145.84	17 38 48	4680.1	48.82	240.63
28.11	6 6 6	1713.22	42.38	53.51	109.52	145.84	6 34 39	1113.2	48.81	47.11
151.89	16 10 48	5280.13	42.39	247.03	109.53	145.84	17 38 48	4680.1	48.82	240.63
28.11	6 6 6	1713.22	42.38	53.51	109.52	145.84	6 34 39	1113.2	48.81	47.11
151.89	16 10 48	5280.13	42.39	247.03	109.53	145.84	17 38 48	4680.1	48.82	240.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4622 TRA  .2746 TC3-2.5641 BAU  .6266   SGT 4133.1 SGR 2475.5 SG3  558.9     ST  3445.6 SR  2147.3 SS  2238.4
RDE 1.5271 RRA -.2701 RC3 1.0661 FAU .06940   RRT -.9771 RRF -.9925 RTF  .9818     CRT -.9989 CRS  .9997 CST -.9976
FDE-3.6928 FRA  .7735 FC3-3.5596 BSP  15294   SGB 4817.8 R23  .1008 R13 -.9890     LSA 4633.9 MSA  140.3 SSA    9.1
BDE 2.8974 BRA  .3852 BC3 2.7769 FSP  -1804   SG1 4796.3 SG2  453.8 THA 149.36     EL1 4059.0 EL2   85.9 ALF 148.08
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 474.231

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.823 GAL   1.53 AZL  95.80 HCA 215.70 SMA 128.78 ECC .17969 INC 5.8010 VI  29.375
RP  107.65 LAP   3.38 LOP 171.56 VP  37.883 GAP   4.26 AZP  85.28 TAL 172.98 TAP  28.68 RCA 105.64 APO 151.92 V2  35.202
RC 106.624 GL  -43.32 GP   42.53 ZAL  75.46 ZAP 122.95 ETS  32.96 ZAE 124.55 ETE 144.47 ZAC 138.24 ETC 249.97 CLP-137.57
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PLANETOCENTRIC CONIC

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C3  15.606 VHL  3.950 DLA -63.41 RAL 229.00 RAD 6567.6 VEL 11.704 PTH   2.06 VHP  4.890 DPA  28.59 RAP 229.41 ECC 1.2568
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.56	6 31 19	1686.31	42.45	49.51	111.73	142.65	6 59 26	1086.3	48.59	42.60
149.44	16 24 38	5271.31	42.46	245.82	111.75	142.65	17 52 29	4671.3	48.60	238.90
30.56	6 31 19	1686.31	42.45	49.51	111.73	142.65	6 59 26	1086.3	48.59	42.60
149.44	16 24 38	5271.31	42.46	245.82	111.75	142.65	17 52 29	4671.3	48.60	238.90
30.56	6 31 19	1686.31	42.45	49.51	111.73	142.65	6 59 26	1086.3	48.59	42.60
149.44	16 24 38	5271.31	42.46	245.82	111.75	142.65	17 52 29	4671.3	48.60	238.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3813 TRA  .4119 TC3-2.9648 BAU  .655[illegible]   SGT 4381.5 SGR 2221.9 SG3  574.3     ST  3477.6 SR  1852.0 SS  2124.5
RDE 1.2613 RRA -.2966 RC3 1.0336 FAU .07159   RRT -.9772 RRF -.9903 RTF  .9832     CRT -.9991 CRS  .9995 CST -.9973
FDE-3.4050 FRA  .9684 FC3-3.9936 BSP  15735   SGB 4912.6 R23  .0964 R13 -.9882     LSA 4474.2 MSA  136.9 SSA   10.1
BDE 2.6947 BRA  .5076 BC3 3.1398 FSP  -1893   SG1 4894.5 SG2  421.9 THA 153.43     EL1 3939.4 EL2   67.8 ALF 151.97
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 480.364

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.803 GAL   1.72 AZL  95.35 HCA 218.92 SMA 128.64 ECC .18144 INC 5.3503 VI  29.375
RP  107.68 LAP   3.36 LOP 174.80 VP  37.860 GAP   4.64 AZP  85.83 TAL 172.18 TAP  31.10 RCA 105.30 APO 151.98 V2  35.193
RC 108.906 GL  -40.66 GP   39.10 ZAL  73.62 ZAP 126.57 ETS  33.71 ZAE 125.35 ETE 148.06 ZAC 135.07 ETC 251.21 CLP-140.15
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PLANETOCENTRIC CONIC

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C3  14.701 VHL  3.834 DLA -61.31 RAL 233.40 RAD 6567.6 VEL 11.666 PTH   2.05 VHP  4.863 DPA  25.25 RAP 228.33 ECC 1.2419
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.04	6 54 53	1662.65	42.16	45.66	113.68	139.64	7 22 36	1062.7	48.02	38.33
146.96	16 36 11	5268.16	42.17	244.88	113.69	139.63	18 4 0	4668.2	48.02	237.55
33.04	6 54 53	1662.65	42.16	45.66	113.68	139.64	7 22 36	1062.7	48.02	38.33
146.96	16 36 11	5268.16	42.17	244.88	113.69	139.63	18 4 0	4668.2	48.02	237.55
33.04	6 54 53	1662.65	42.16	45.66	113.68	139.64	7 22 36	1062.7	48.02	38.33
146.96	16 36 11	5268.16	42.17	244.88	113.69	139.63	18 4 0	4668.2	48.02	237.55

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2722 TRA  .5688 TC3-3.2949 BAU  .6739   SGT 4587.8 SGR 1986.1 SG3  576.5     ST  3437.5 SR  1581.8 SS  1967.5
RDE 1.0391 RRA -.3218 RC3  .9488 FAU .07147   RRT -.9751 RRF -.9872 RTF  .9829     CRT -.9993 CRS  .9989 CST -.9967
FDE-3.0457 FRA 1.1754 FC3-4.2086 BSP  15767   SGB 4999.2 R23  .0957 R13 -.9868     LSA 4262.6 MSA  141.1 SSA   11.1
BDE 2.4985 BRA  .6535 BC3 3.4288 FSP  -1877   SG1 4982.8 SG2  405.5 THA 156.95     EL1 3783.6 EL2   53.1 ALF 155.30
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 486.475

RL	151.67	LAL	.00	LOL	316.01	VL	26.781	GAL	1.93	AZL	94.96	HCA	222.15	SMA	128.50	ECC	.18336	INC	4.9586
RP	107.71	LAP	3.32	LOP	178.04	VP	37.836	GAP	5.02	AZP	86.32	TAL	171.35	TAP	33.49	RCA	104.94	APO	152.06
RC	111.186	GL	-38.07	GP	36.00	ZAL	71.71	ZAP	129.98	ETS	34.28	ZAE	125.84	ETE	151.32	ZAC	132.25	ETC	252.18

V1	29.375	V2	35.184	CLP	-142.58														

PLANETOCENTRIC CONIC

C3	14.074	VHL	3.752	DLA	-59.22	RAL	237.40	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	4.879	DPA	22.16	RAP	227.61

ECC	1.2316	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		35.54	7 17 7	1641.57	41.58	41.97	115.48	136.83	7 44 29	1041.6	47.15	34.34							
		144.46	16 45 54	5269.93	41.59	244.24	115.50	136.82	18 13 44	4669.9	47.16	236.61							
		35.54	7 17 7	1641.57	41.58	41.97	115.48	136.83	7 44 29	1041.6	47.15	34.34							
		144.46	16 45 54	5269.93	41.59	244.24	115.50	136.82	18 13 44	4669.9	47.16	236.61							
		35.54	7 17 7	1641.57	41.58	41.97	115.48	136.83	7 44 29	1041.6	47.15	34.34							
		144.46	16 45 54	5269.93	41.59	244.24	115.50	136.82	18 13 44	4669.9	47.16	236.61							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.1643	TRA	.7208	TC3	-3.6060	BAU	.6978	SGT	4782.7	SGR	1782.2	SG3	570.6
RDE	.8706	RRA	-.3327	RC3	.8663	FAU	.07055	RRT	-.9725	RRF	-.9832	RTF	.9829
FDE	-2.6998	FRA	1.3407	FC3	-4.3395	BSP	16086	SGB	5103.9	R23	.0895	R13	-.9858
BDE	2.3328	BRA	.7939	BC3	3.7086	FSP	-1871	SG1	5089.0	SG2	389.9	THA	159.96

ST	3368.8	SR	1362.7	SS	1810.6								
CRT	-.9996	CRS	.9980	CST	-.9959								
LSA	4057.5	MSA	144.5	SSA	12.0								
EL1	3633.8	EL2	37.0	ALF	157.98								

LAUNCH DATE AUG 9 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 492.561

RL	151.67	LAL	.00	LOL	316.01	VL	26.758	GAL	2.15	AZL	94.61	HCA	225.37	SMA	128.35	ECC	.18544	INC	4.6130
RP	107.74	LAP	3.28	LOP	181.28	VP	37.810	GAP	5.39	AZP	86.76	TAL	170.48	TAP	35.85	RCA	104.55	APO	152.15
RC	113.462	GL	-35.57	GP	33.23	ZAL	69.76	ZAP	133.17	ETS	34.72	ZAE	126.08	ETE	154.22	ZAC	129.75	ETC	252.96

V1	29.375	V2	35.174	CLP	-144.87														

PLANETOCENTRIC CONIC

C3	13.666	VHL	3.697	DLA	-57.14	RAL	241.08	RAD	6567.5	VEL	11.621	PTH	2.04	VHP	4.929	DPA	19.30	RAP	227.23

ECC	1.2249	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		38.05	7 38 22	1622.40	40.76	38.47	117.23	134.24	8 5 24	1022.4	46.07	30.63							
		141.95	16 54 1	5276.22	40.78	243.93	117.24	134.23	18 21 57	4676.2	46.08	236.08							
		38.05	7 38 22	1622.40	40.76	38.47	117.23	134.24	8 5 24	1022.4	46.07	30.63							
		141.95	16 54 1	5276.22	40.78	243.93	117.24	134.23	18 21 57	4676.2	46.08	236.08							
		38.05	7 38 22	1622.40	40.76	38.47	117.23	134.24	8 5 24	1022.4	46.07	30.63							
		141.95	16 54 1	5276.22	40.78	243.93	117.24	134.23	18 21 57	4676.2	46.08	236.08							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.0658	TRA	.8625	TC3	-3.9129	BAU	.7296	SGT	4968.9	SGR	1606.5	SG3	558.3
RDE	.7457	RRA	-.3315	RC3	.7980	FAU	.06997	RRT	-.9697	RRF	-.9781	RTF	.9837
FDE	-2.3897	FRA	1.4559	FC3	-4.4324	BSP	16816	SGB	5222.2	R23	.0765	R13	-.9857
BDE	2.1963	BRA	.9240	BC3	3.9935	FSP	-1902	SG1	5208.7	SG2	374.5	THA	162.50

ST	3287.1	SR	1190.3	SS	1664.7								
CRT	-.9998	CRS	.9964	CST	-.9952								
LSA	3869.4	MSA	145.6	SSA	12.9								
EL1	3495.9	EL2	20.5	ALF	160.10								

LAUNCH DATE AUG 9 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 498.627

RL	151.67	LAL	.00	LOL	316.01	VL	26.735	GAL	2.38	AZL	94.30	HCA	228.59	SMA	128.19	ECC	.18769	INC	4.3040
RP	107.77	LAP	3.23	LOP	184.52	VP	37.784	GAP	5.77	AZP	87.15	TAL	169.58	TAP	38.17	RCA	104.13	APO	152.25
RC	115.736	GL	-33.15	GP	30.74	ZAL	67.76	ZAP	136.13	ETS	35.09	ZAE	126.14	ETE	156.79	ZAC	127.55	ETC	253.61

V1	29.375	V2	35.164	CLP	-147.02														

PLANETOCENTRIC CONIC

C3	13.441	VHL	3.666	DLA	-55.09	RAL	244.50	RAD	6567.5	VEL	11.612	PTH	2.03	VHP	5.006	DPA	16.65	RAP	227.13

ECC	1.2212	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		40.55	7 58 53	1604.65	39.76	35.15	118.98	131.88	8 25 37	1004.7	44.81	27.17							
		139.45	17 0 47	5286.71	39.78	243.94	118.99	131.87	18 28 54	4686.7	44.82	235.95							
		40.55	7 58 53	1604.65	39.76	35.15	118.98	131.88	8 25 37	1004.7	44.81	27.17							
		139.45	17 0 47	5286.71	39.78	243.94	118.99	131.87	18 28 54	4686.7	44.82	235.95							
		40.55	7 58 53	1604.65	39.76	35.15	118.98	131.88	8 25 37	1004.7	44.81	27.17							
		139.45	17 0 47	5286.71	39.78	243.94	118.99	131.87	18 28 54	4686.7	44.82	235.95							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.9391	TRA	1.0373	TC3	-4.0915	BAU	.7456	SGT	5119.2	SGR	1450.7	SG3	540.2
RDE	.6370	RRA	-.3390	RC3	.6908	FAU	.06631	RRT	-.9639	RRF	-.9714	RTF	.9826
FDE	-2.0464	FRA	1.5987	FC3	-4.2710	BSP	16848	SGB	5320.8	R23	.0721	R13	-.9842
BDE	2.0410	BRA	1.0913	BC3	4.1494	FSP	-1809	SG1	5307.7	SG2	372.5	THA	164.64

ST	3148.5	SR	1033.7	SS	1495.3								
CRT	-.9999	CRS	.9931	CST	-.9934								
LSA	3632.2	MSA	157.0	SSA	13.6								
EL1	3313.9	EL2	13.7	ALF	161.83								

LAUNCH DATE AUG 9 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 504.668

RL	151.67	LAL	.00	LOL	316.01	VL	26.710	GAL	2.63	AZL	94.02	HCA	231.82	SMA	128.03	ECC	.19013	INC	4.0244
RP	107.80	LAP	3.16	LOP	187.75	VP	37.756	GAP	6.15	AZP	87.51	TAL	168.64	TAP	40.46	RCA	103.69	APO	152.37
RC	118.005	GL	-30.80	GP	28.52	ZAL	65.73	ZAP	138.90	ETS	35.41	ZAE	126.06	ETE	159.05	ZAC	125.62	ETC	254.17

V1	29.375	V2	35.153	CLP	-149.05														

PLANETOCENTRIC CONIC

C3	13.373	VHL	3.657	DLA	-53.06	RAL	247.69	RAD	6567.5	VEL	11.609	PTH	2.03	VHP	5.107	DPA	14.21	RAP	227.29

ECC	1.2201	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		43.06	8 18 50	1587.92	38.62	32.01	120.76	129.72	8 45 18	987.9	43.43	23.95							
		136.94	17 6 16	5301.24	38.63	244.28	120.77	129.71	18 34 37	4701.2	43.44	236.22							
		43.06	8 18 50	1587.92	38.62	32.01	120.76	129.72	8 45 18	987.9	43.43	23.95							
		136.94	17 6 16	5301.24	38.63	244.28	120.77	129.71	18 34 37	4701.2	43.44	236.22							
		43.06	8 18 50	1587.92	38.62	32.01	120.76	129.72	8 45 18	987.9	43.43	23.95							
		136.94	17 6 16	5301.24	38.63	244.28	120.77	129.71	18 34 37	4701.2	43.44	236.22							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.8197	TRA	1.2089	TC3	-4.2413	BAU	.7658	SGT	5261.5	SGR	1318.6	SG3	519.4
RDE	.5565	RRA	-.3400	RC3	.6003	FAU	.06300	RRT	-.9573	RRF	-.9632	RTF	.9821
FDE	-1.7470	FRA	1.7046	FC3	-4.0784	BSP	17127	SGB	5424.2	R23	.0637	R13	-.9833
BDE	1.9029	BRA	1.2558	BC3	4.2835	FSP	-1744	SG1	5411.5	SG2	370.8	THA	166.44

ST	3005.2	SR	911.7	SS	1343.8								
CRT	-.9996	CRS	.9876	CST	-.9912								
LSA	3411.7	MSA	167.8	SSA	14.3								
EL1	3140.4	EL2	25.6	ALF	163.13								

LAUNCH DATE AUG 9 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 510.683
RL 151.67 LAL .00 LOL 316.01 VL 26.685 GAL 2.90 AZL 93.77 HCA 235.04 SMA 127.86 ECC .19275 INC 3.7687 V1 29.375
RP 107.84 LAP 3.09 LOP 190.98 VP 37.728 GAP 6.53 AZP 87.84 TAL 167.68 TAP 42.72 RCA 103.21 APO 152.50 V2 35.141
RC 120.271 GL -28.54 GP 26.54 ZAL 63.69 ZAP 141.46 ETS 35.72 ZAE 125.88 ETE 161.02 ZAC 123.93 ETC 254.66 CLP-150.96
PLANETOCENTRIC CONIC
C3 13.446 VHL 3.667 DLA -51.06 RAL 250.68 RAD 6567.5 VEL 11.612 PTH 2.03 VHP 5.226 DPA 11.94 RAP 227.67 ECC 1.2213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.55	8 38 21	1571.93	37.35	29.02	122.60	127.76	9 4 33	971.9	41.95	20.92
134.45	17 10 37	5319.59	37.36	244.95	122.61	127.75	18 39 16	4719.6	41.96	236.86
45.55	8 38 21	1571.93	37.35	29.02	122.60	127.76	9 4 33	971.9	41.95	20.92
134.45	17 10 37	5319.59	37.36	244.95	122.61	127.75	18 39 16	4719.6	41.96	236.86
45.55	8 38 21	1571.93	37.35	29.02	122.60	127.76	9 4 33	971.9	41.95	20.92
134.45	17 10 37	5319.59	37.36	244.95	122.61	127.75	18 39 16	4719.6	41.96	236.86

DIFFERENTIAL CORRECTIONS
TDE-1.7018 TRA 1.3853 TC3-4.3435 BAU .7863
RDE .4953 RRA -.3394 RC3 .5181 FAU .05955
FDE-1.4786 FRA 1.7908 FC3-3.8342 BSP 17462
BDE 1.7724 BRA 1.4263 BC3 4.3743 FSP -1679

MID-COURSE EXECUTION ACCURACY
SGT 5392.7 SGR 1206.4 SG3 496.9
RRT -.9491 RRF -.9533 RTF .9815
SGB 5526.0 R23 .0551 R13 -.9824
SG1 5513.5 SG2 371.5 THA 167.96

ORBIT DETERMINATION ACCURACY
ST 2854.4 SR 814.3 SS 1205.7
CRT -.9983 CRS .9783 CST -.9882
LSA 3198.7 MSA 180.7 SSA 14.8
EL1 2967.9 EL2 45.3 ALF 164.10

LAUNCH DATE AUG 9 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 516.672
RL 151.67 LAL .00 LOL 316.01 VL 26.659 GAL 3.18 AZL 93.53 HCA 238.26 SMA 127.69 ECC .19557 INC 3.5324 V1 29.375
RP 107.87 LAP 3.00 LOP 194.21 VP 37.699 GAP 6.92 AZP 88.14 TAL 166.69 TAP 44.95 RCA 102.72 APO 152.66 V2 35.130
RC 122.531 GL -26.35 GP 24.77 ZAL 61.64 ZAP 143.85 ETS 36.05 ZAE 125.65 ETE 162.73 ZAC 122.46 ETC 255.10 CLP-152.78
PLANETOCENTRIC CONIC
C3 13.650 VHL 3.695 DLA -49.11 RAL 253.49 RAD 6567.5 VEL 11.620 PTH 2.04 VHP 5.363 DPA 9.83 RAP 228.24 ECC 1.2246

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.04	8 57 34	1556.31	36.00	26.16	124.49	125.99	9 23 30	956.3	40.41	18.07
131.96	17 13 50	5341.77	36.01	245.95	124.50	125.98	18 42 51	4741.8	40.42	237.86
48.04	8 57 34	1556.31	36.00	26.16	124.49	125.99	9 23 30	956.3	40.41	18.07
131.96	17 13 50	5341.77	36.01	245.95	124.50	125.98	18 42 51	4741.8	40.42	237.86
48.04	8 57 34	1556.31	36.00	26.16	124.49	125.99	9 23 30	956.3	40.41	18.07
131.96	17 13 50	5341.77	36.01	245.95	124.50	125.98	18 42 51	4741.8	40.42	237.86

DIFFERENTIAL CORRECTIONS
TDE-1.5839 TRA 1.5688 TC3-4.3933 BAU .8058
RDE .4488 RRA -.3384 RC3 .4440 FAU .05598
FDE-1.2393 FRA 1.8621 FC3-3.5503 BSP 17780
BDE 1.6463 BRA 1.6048 BC3 4.4157 FSP -1609

MID-COURSE EXECUTION ACCURACY
SGT 5512.3 SGR 1111.2 SG3 473.5
RRT -.9394 RRF -.9417 RTF .9809
SGB 5623.2 R23 .0466 R13 -.9815
SG1 5610.7 SG2 374.2 THA 169.23

ORBIT DETERMINATION ACCURACY
ST 2699.4 SR 736.5 SS 1081.9
CRT -.9954 CRS .9635 CST -.9844
LSA 2993.5 MSA 195.9 SSA 15.2
EL1 2797.2 EL2 68.2 ALF 164.80

LAUNCH DATE AUG 9 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 522.634
RL 151.67 LAL .00 LOL 316.01 VL 26.632 GAL 3.48 AZL 93.31 HCA 241.47 SMA 127.51 ECC .19860 INC 3.3123 V1 29.375
RP 107.91 LAP 2.91 LOP 197.44 VP 37.669 GAP 7.31 AZP 88.42 TAL 165.68 TAP 47.15 RCA 102.19 APO 152.84 V2 35.118
RC 124.786 GL -24.25 GP 23.18 ZAL 59.60 ZAP 146.07 ETS 36.42 ZAE 125.37 ETE 164.22 ZAC 121.19 ETC 255.51 CLP-154.50
PLANETOCENTRIC CONIC
C3 13.980 VHL 3.739 DLA -47.20 RAL 256.14 RAD 6567.6 VEL 11.635 PTH 2.04 VHP 5.515 DPA 7.87 RAP 228.99 ECC 1.2301

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.51	9 16 35	1540.82	34.58	23.42	126.46	124.39	9 42 16	940.8	38.82	15.36
129.49	17 15 58	5367.75	34.60	247.27	126.47	124.38	18 45 25	4767.8	38.83	239.21
50.51	9 16 35	1540.82	34.58	23.42	126.46	124.39	9 42 16	940.8	38.82	15.36
129.49	17 15 58	5367.75	34.60	247.27	126.47	124.38	18 45 25	4767.8	38.83	239.21
50.51	9 16 35	1540.82	34.58	23.42	126.46	124.39	9 42 16	940.8	38.82	15.36
129.49	17 15 58	5367.75	34.60	247.27	126.47	124.38	18 45 25	4767.8	38.83	239.21

DIFFERENTIAL CORRECTIONS
TDE-1.4664 TRA 1.7600 TC3-4.3946 BAU .8244
RDE .4139 RRA -.3378 RC3 .3784 FAU .05237
FDE-1.0269 FRA 1.9217 FC3-3.2431 BSP 18100
BDE 1.5237 BRA 1.7921 BC3 4.4109 FSP -1539

MID-COURSE EXECUTION ACCURACY
SGT 5622.0 SGR 1031.0 SG3 450.2
RRT -.9281 RRF -.9284 RTF .9802
SGB 5715.8 R23 .0389 R13 -.9807
SG1 5703.3 SG2 378.3 THA 170.30

ORBIT DETERMINATION ACCURACY
ST 2545.0 SR 674.3 SS 973.3
CRT -.9897 CRS .9410 CST -.9794
LSA 2798.8 MSA 213.7 SSA 15.4
EL1 2631.1 EL2 93.5 ALF 165.29

LAUNCH DATE AUG 9 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 528.567
RL 151.67 LAL .00 LOL 316.01 VL 26.605 GAL 3.80 AZL 93.11 HCA 244.69 SMA 127.34 ECC .20185 INC 3.1053 V1 29.375
RP 107.95 LAP 2.81 LOP 200.66 VP 37.638 GAP 7.71 AZP 88.67 TAL 164.65 TAP 49.33 RCA 101.63 APO 153.04 V2 35.105
RC 127.036 GL -22.24 GP 21.77 ZAL 57.58 ZAP 148.14 ETS 36.84 ZAE 125.06 ETE 165.51 ZAC 120.08 ETC 255.90 CLP-156.14
PLANETOCENTRIC CONIC
C3 14.437 VHL 3.800 DLA -45.34 RAL 258.65 RAD 6567.6 VEL 11.654 PTH 2.05 VHP 5.680 DPA 6.05 RAP 229.90 ECC 1.2376

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.98	9 35 30	1525.18	33.12	20.78	128.49	122.94	10 0 55	925.2	37.19	12.76
127.02	17 17 1	5397.56	33.14	248.91	128.50	122.93	18 46 59	4797.6	37.20	240.89
52.98	9 35 30	1525.18	33.12	20.78	128.49	122.94	10 0 55	925.2	37.19	12.76
127.02	17 17 1	5397.56	33.14	248.91	128.50	122.93	18 46 59	4797.6	37.20	240.89
52.98	9 35 30	1525.18	33.12	20.78	128.49	122.94	10 0 55	925.2	37.19	12.76
127.02	17 17 1	5397.56	33.14	248.91	128.50	122.93	18 46 59	4797.6	37.20	240.89

DIFFERENTIAL CORRECTIONS
TDE-1.3487 TRA 1.9598 TC3-4.3484 BAU .8415
RDE .3882 RRA -.3379 RC3 .3207 FAU .04875
FDE -.8394 FRA 1.9716 FC3-2.9236 BSP 18407
BDE 1.4035 BRA 1.9887 BC3 4.3602 FSP -1469

MID-COURSE EXECUTION ACCURACY
SGT 5721.5 SGR 963.1 SG3 427.1
RRT -.9154 RRF -.9136 RTF .9796
SGB 5802.0 R23 .0320 R13 -.9799
SG1 5789.3 SG2 383.3 THA 171.20

ORBIT DETERMINATION ACCURACY
ST 2395.3 SR 624.5 SS 880.3
CRT -.9798 CRS .9083 CST -.9734
LSA 2616.8 MSA 233.9 SSA 15.6
EL1 2472.4 EL2 121.1 ALF 165.64

LAUNCH DATE AUG 9 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 534.466

RL	151.67	LAL	.00	LOL	316.01	VL	26.577	GAL	4.13	AZL	92.91	HCA	247.90	SMA	127.16	ECC	.20534	INC	2.9091
RP	107.99	LAP	2.70	LOP	203.88	VP	37.607	GAP	8.11	AZP	88.90	TAL	163.59	TAP	51.49	RCA	101.05	APO	153.27
RC	129.278	GL	-20.31	GP	20.50	ZAL	55.59	ZAP	150.07	ETS	37.33	ZAE	124.75	ETE	166.63	ZAC	119.12	ETC	256.27

V1	29.375	V2	35.093	CLP	-157.71														

PLANETOCENTRIC CONIC

C3	15.020	VHL	3.876	DLA	-43.54	RAL	261.01	RAD	6567.6	VEL	11.679	PTH	2.05	VHP	5.859	DPA	4.34	RAP	230.95

ECC	1.2472																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.43	9 54 25	1509.07	31.64	18.19	130.59	121.63	10 19 35	909.1	35.56	10.24
124.57	17 16 59	5431.33	31.65	250.87	130.59	121.62	18 47 30	4831.3	35.57	242.91
55.43	9 54 25	1509.07	31.64	18.19	130.59	121.63	10 19 35	909.1	35.56	10.24
124.57	17 16 59	5431.33	31.65	250.87	130.59	121.62	18 47 30	4831.3	35.57	242.91
55.43	9 54 25	1509.07	31.64	18.19	130.59	121.63	10 19 35	909.1	35.56	10.24
124.57	17 16 59	5431.33	31.65	250.87	130.59	121.62	18 47 30	4831.3	35.57	242.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2479	TRA	2.1517	TC3	-4.3054	BAU	.8664	SGT	5813.5	SGR	906.0	SG3	404.0	ST	2268.6	SR	588.9	SS	808.2
RDE	.3733	RRA	-.3358	RC3	.2804	FAU	.04612	RRT	-.9016	RRF	-.8974	RTF	.9796	CRT	-.9650	CRS	.8699	CST	-.9685
FDE	-.6946	FRA	1.9959	FC3	-2.6585	BSP	19096	SGB	5883.7	R23	.0236	R13	-.9799	LSA	2466.4	MSA	251.5	SSA	15.5
BDE	1.3026	BRA	2.1778	BC3	4.3145	FSP	-1438	SG1	5870.9	SG2	388.1	THA	171.97	EL1	2339.0	EL2	149.8	ALF	165.88

LAUNCH DATE AUG 9 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 540.337

RL	151.67	LAL	.00	LOL	316.01	VL	26.549	GAL	4.49	AZL	92.72	HCA	251.11	SMA	126.97	ECC	.20909	INC	2.7219
RP	108.03	LAP	2.58	LOP	207.10	VP	37.575	GAP	8.52	AZP	89.12	TAL	162.51	TAP	53.63	RCA	100.42	APO	153.52
RC	131.513	GL	-18.47	GP	19.36	ZAL	53.63	ZAP	151.88	ETS	37.92	ZAE	124.43	ETE	167.61	ZAC	118.29	ETC	256.64

V1	29.375	V2	35.080	CLP	-159.20														

PLANETOCENTRIC CONIC

C3	15.738	VHL	3.967	DLA	-41.79	RAL	263.26	RAD	6567.6	VEL	11.710	PTH	2.06	VHP	6.050	DPA	2.75	RAP	232.12

ECC	1.2590																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.88	10 13 28	1492.24	30.13	15.65	132.75	120.45	10 38 20	892.2	33.93	7.76
122.12	17 15 50	5469.17	30.14	253.16	132.75	120.44	18 46 59	4869.2	33.93	245.27
57.88	10 13 28	1492.24	30.13	15.65	132.75	120.45	10 38 20	892.2	33.93	7.76
122.12	17 15 50	5469.17	30.14	253.16	132.75	120.44	18 46 59	4869.2	33.93	245.27
57.88	10 13 28	1492.24	30.13	15.65	132.75	120.45	10 38 20	892.2	33.93	7.76
122.12	17 15 50	5469.17	30.14	253.16	132.75	120.44	18 46 59	4869.2	33.93	245.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1184	TRA	2.3825	TC3	-4.1496	BAU	.8744	SGT	5894.8	SGR	857.8	SG3	383.0	ST	2129.7	SR	553.8	SS	741.8
RDE	.3581	RRA	-.3404	RC3	.2308	FAU	.04199	RRT	-.8863	RRF	-.8804	RTF	.9784	CRT	-.9410	CRS	.8086	CST	-.9596
FDE	-.5356	FRA	2.0454	FC3	-2.3098	BSP	19067	SGB	5956.9	R23	.0204	R13	-.9786	LSA	2305.3	MSA	279.0	SSA	15.6
BDE	1.1743	BRA	2.4067	BC3	4.1560	FSP	-1339	SG1	5943.8	SG2	394.0	THA	172.62	EL1	2193.0	EL2	181.9	ALF	166.15

LAUNCH DATE AUG 9 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 546.172

RL	151.67	LAL	.00	LOL	316.01	VL	26.520	GAL	4.86	AZL	92.54	HCA	254.32	SMA	126.79	ECC	.21312	INC	2.5418
RP	108.07	LAP	2.45	LOP	210.31	VP	37.542	GAP	8.94	AZP	89.31	TAL	161.42	TAP	55.74	RCA	99.77	APO	153.81
RC	133.740	GL	-16.72	GP	18.33	ZAL	51.72	ZAP	153.58	ETS	38.61	ZAE	124.12	ETE	168.46	ZAC	117.57	ETC	257.01

V1	29.375	V2	35.067	CLP	-160.64														

PLANETOCENTRIC CONIC

C3	16.597	VHL	4.074	DLA	-40.10	RAL	265.38	RAD	6567.7	VEL	11.747	PTH	2.07	VHP	6.253	DPA	1.25	RAP	233.40

ECC	1.2731																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.33	10 32 43	1474.36	28.62	13.12	134.97	119.38	10 57 17	874.4	32.30	5.29
119.67	17 13 31	5511.26	28.64	255.79	134.97	119.36	18 45 22	4911.3	32.31	247.95
60.33	10 32 43	1474.36	28.62	13.12	134.97	119.38	10 57 17	874.4	32.30	5.29
119.67	17 13 31	5511.26	28.64	255.79	134.97	119.36	18 45 22	4911.3	32.31	247.95
60.33	10 32 43	1474.36	28.62	13.12	134.97	119.38	10 57 17	874.4	32.30	5.29
119.67	17 13 31	5511.26	28.64	255.79	134.97	119.36	18 45 22	4911.3	32.31	247.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9971	TRA	2.6150	TC3	-3.9862	BAU	.8855	SGT	5969.4	SGR	816.9	SG3	362.7	ST	2014.1	SR	527.0	SS	692.6
RDE	.3495	RRA	-.3444	RC3	.1930	FAU	.03848	RRT	-.8705	RRF	-.8629	RTF	.9776	CRT	-.9080	CRS	.7376	CST	-.9523
FDE	-.4053	FRA	2.0801	FC3	-2.0071	BSP	19227	SGB	6025.1	R23	.0164	R13	-.9777	LSA	2172.8	MSA	304.8	SSA	15.5
BDE	1.0565	BRA	2.6376	BC3	3.9909	FSP	-1265	SG1	6011.8	SG2	399.2	THA	173.18	EL1	2070.8	EL2	214.7	ALF	166.49

LAUNCH DATE AUG 9 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 551.968

RL	151.67	LAL	.00	LOL	316.01	VL	26.491	GAL	5.26	AZL	92.37	HCA	257.53	SMA	126.60	ECC	.21744	INC	2.3674
RP	108.11	LAP	2.31	LOP	213.53	VP	37.510	GAP	9.37	AZP	89.49	TAL	160.31	TAP	57.84	RCA	99.08	APO	154.13
RC	135.957	GL	-15.05	GP	17.41	ZAL	49.86	ZAP	155.17	ETS	39.42	ZAE	123.81	ETE	169.20	ZAC	116.95	ETC	257.39

V1	29.375	V2	35.054	CLP	-162.02														

PLANETOCENTRIC CONIC

C3	17.608	VHL	4.196	DLA	-38.48	RAL	267.39	RAD	6567.7	VEL	11.789	PTH	2.08	VHP	6.469	DPA	-.16	RAP	234.78

ECC	1.2898																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.78	10 52 21	1454.91	27.13	10.56	137.24	118.40	11 16 35	854.9	30.69	2.79
117.22	17 9 56	5557.98	27.14	258.76	137.25	118.39	18 42 34	4958.0	30.70	251.00
62.78	10 52 21	1454.91	27.13	10.56	137.24	118.40	11 16 35	854.9	30.69	2.79
117.22	17 9 56	5557.98	27.14	258.76	137.25	118.39	18 42 34	4958.0	30.70	251.00
62.78	10 52 21	1454.91	27.13	10.56	137.24	118.40	11 16 35	854.9	30.69	2.79
117.22	17 9 56	5557.98	27.14	258.76	137.25	118.39	18 42 34	4958.0	30.70	251.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8784	TRA	2.8554	TC3	-3.8059	BAU	.8967	SGT	6036.8	SGR	782.0	SG3	343.4	ST	1918.3	SR	505.5	SS	656.5
RDE	.3451	RRA	-.3492	RC3	.1625	FAU	.03525	RRT	-.8545	RRF	-.8451	RTF	.9769	CRT	-.8649	CRS	.6582	CST	-.9469
FDE	-.2939	FRA	2.1081	FC3	-1.7334	BSP	19445	SGB	6087.2	R23	.0128	R13	-.9770	LSA	2063.4	MSA	329.6	SSA	15.3
BDE	.9438	BRA	2.8766	BC3	3.8094	FSP	-1199	SG1	6073.8	SG2	403.8	THA	173.66	EL1	1968.3	EL2	247.3	ALF	166.95

LAUNCH DATE AUG 9 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 557.724

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.462 GAL   5.68 AZL  92.20 HCA 260.73 SMA 126.42 ECC .22209 INC 2.1975 V1  29.375
RP  108.15 LAP   2.17 LOP 216.73 VP  37.477 GAP   9.81 AZP  89.65 TAL 159.20 TAP  59.93 RCA  98.34 APO 154.49 V2  35.041
RC 138.166 GL  -13.47 GP   16.57 ZAL  48.06 ZAP 156.68 ETS  40.37 ZAE 123.51 ETE 169.85 ZAC 116.41 ETC 257.77 CLP-163.35
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PLANETOCENTRIC CONIC

```
C3  18.784 VHL  4.334 DLA -36.91 RAL 269.29 RAD 6567.8 VEL 11.839 PTH   2.10 VHP  6.697 DPA  -1.48 RAP 236.26 ECC 1.3091
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.26	11 12 28	1433.50	25.64	7.92	139.56	117.52	11 36 22	833.5	29.11	.22
114.74	17 4 59	5609.61	25.65	262.11	139.57	117.51	18 38 29	5009.6	29.12	254.40
65.26	11 12 28	1433.50	25.64	7.92	139.56	117.52	11 36 22	833.5	29.11	.22
114.74	17 4 59	5609.61	25.65	262.11	139.57	117.51	18 38 29	5009.6	29.12	254.40
65.26	11 12 28	1433.50	25.64	7.92	139.56	117.52	11 36 22	833.5	29.11	.22
114.74	17 4 59	5609.61	25.65	262.11	139.57	117.51	18 38 29	5009.6	29.12	254.40

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.7600 TRA 3.1064 TC3-3.6082 BAU  .9067   SGT 6096.9 SGR  752.0 SG3  325.1      ST  1841.9 SR   487.7 SS   630.8
RDE  .3440 RRA -.3550 RC3  .1373 FAU .03221   RRT -.8384 RRF -.8275 RTF  .9763     CRT -.8111 CRS  .5737 CST -.9440
FDE -.1972 FRA 2.1325 FC3-1.4844 BSP  19668   SGB 6143.1 R23  .0097 R13 -.9764     LSA 1975.8 MSA  352.6 SSA   15.2
BDE  .8342 BRA 3.1266 BC3 3.6108 FSP  -1139   SG1 6129.6 SG2  407.7 THA 174.07     EL1 1884.9 EL2  278.7 ALF 167.60
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 563.435

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.433 GAL   6.13 AZL  92.03 HCA 263.94 SMA 126.23 ECC .22708 INC 2.0307 V1  29.375
RP  108.19 LAP   2.02 LOP 219.94 VP  37.444 GAP  10.27 AZP  89.79 TAL 158.07 TAP  62.00 RCA  97.57 APO 154.90 V2  35.028
RC 140.364 GL  -11.98 GP   15.82 ZAL  46.32 ZAP 158.09 ETS  41.48 ZAE 123.22 ETE 170.42 ZAC 115.95 ETC 258.15 CLP-164.64
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PLANETOCENTRIC CONIC

```
C3  20.142 VHL  4.488 DLA -35.42 RAL 271.10 RAD 6567.8 VEL 11.896 PTH   2.11 VHP  6.940 DPA  -2.72 RAP 237.81 ECC 1.3315
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.78	11 33 22	1409.30	24.18	5.16	141.93	116.71	11 56 51	809.3	27.56	357.51
112.22	16 58 29	5666.87	24.19	265.87	141.94	116.70	18 32 56	5066.9	27.57	258.23
67.78	11 33 22	1409.30	24.18	5.16	141.93	116.71	11 56 51	809.3	27.56	357.51
112.22	16 58 29	5666.87	24.19	265.87	141.94	116.70	18 32 56	5066.9	27.57	258.23
67.78	11 33 22	1409.30	24.18	5.16	141.93	116.71	11 56 51	809.3	27.56	357.51
112.22	16 58 29	5666.87	24.19	265.87	141.94	116.70	18 32 56	5066.9	27.57	258.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.6406 TRA 3.3699 TC3-3.3960 BAU  .9150   SGT 6150.4 SGR  725.8 SG3  307.9      ST  1784.7 SR   472.4 SS   613.7
RDE  .3452 RRA -.3621 RC3  .1161 FAU .02930   RRT -.8227 RRF -.8104 RTF  .9758     CRT -.7474 CRS  .4873 CST -.9440
FDE -.1123 FRA 2.1551 FC3-1.2595 BSP  19863   SGB 6193.1 R23  .0071 R13 -.9759     LSA 1909.3 MSA  373.1 SSA   14.9
BDE  .7277 BRA 3.3893 BC3 3.3980 FSP  -1080   SG1 6179.5 SG2  410.7 THA 174.43     EL1 1820.4 EL2  307.7 ALF 168.48
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 569.097

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.403 GAL   6.61 AZL  91.87 HCA 267.14 SMA 126.04 ECC .23246 INC 1.8660 V1  29.375
RP  108.23 LAP   1.86 LOP 223.14 VP  37.410 GAP  10.75 AZP  89.91 TAL 156.93 TAP  64.07 RCA  96.74 APO 155.34 V2  35.014
RC 142.552 GL  -10.56 GP   15.13 ZAL  44.65 ZAP 159.43 ETS  42.76 ZAE 122.94 ETE 170.91 ZAC 115.54 ETC 258.55 CLP-165.90
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PLANETOCENTRIC CONIC

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C3  21.702 VHL  4.659 DLA -33.98 RAL 272.80 RAD 6567.9 VEL 11.962 PTH   2.13 VHP  7.196 DPA  -3.89 RAP 239.43 ECC 1.3572
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.37	11 55 20	1381.31	22.74	2.18	144.35	115.96	12 18 21	781.3	26.04	354.59
109.63	16 50 8	5730.66	22.75	270.11	144.35	115.95	18 25 39	5130.7	26.05	262.52
70.37	11 55 20	1381.31	22.74	2.18	144.35	115.96	12 18 21	781.3	26.04	354.59
109.63	16 50 8	5730.66	22.75	270.11	144.35	115.95	18 25 39	5130.7	26.05	262.52
110.00	16 24 22	5809.30	20.22	274.85	142.96	118.17	18 1 11	5209.3	23.82	267.56
110.00	17 20 17	5638.71	25.32	264.24	145.66	113.77	18 54 15	5038.7	28.31	256.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.5203 TRA 3.6462 TC3-3.1746 BAU  .9215   SGT 6197.4 SGR  702.6 SG3  291.6      ST  1746.4 SR   459.1 SS   603.0
RDE  .3484 RRA -.3703 RC3  .0984 FAU .02654   RRT -.8074 RRF -.7940 RTF  .9754     CRT -.6758 CRS  .4033 CST -.9467
FDE -.0379 FRA 2.1760 FC3-1.0587 BSP  20054   SGB 6237.1 R23  .0051 R13 -.9754     LSA 1863.3 MSA  389.8 SSA   14.7
BDE  .6262 BRA 3.6650 BC3 3.1762 FSP  -1026   SG1 6223.4 SG2  412.8 THA 174.75     EL1 1774.7 EL2  333.0 ALF 169.56
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 574.705

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.373 GAL   7.11 AZL  91.70 HCA 270.33 SMA 125.86 ECC .23826 INC 1.7023 V1  29.375
RP  108.27 LAP   1.70 LOP 226.34 VP  37.377 GAP  11.24 AZP  90.01 TAL 155.79 TAP  66.13 RCA  95.87 APO 155.84 V2  35.001
RC 144.730 GL   -9.23 GP   14.51 ZAL  43.05 ZAP 160.69 ETS  44.26 ZAE 122.67 ETE 171.35 ZAC 115.19 ETC 258.96 CLP-167.12
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PLANETOCENTRIC CONIC

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C3  23.490 VHL  4.847 DLA -32.62 RAL 274.42 RAD 6568.0 VEL 12.036 PTH   2.15 VHP  7.469 DPA  -4.99 RAP 241.12 ECC 1.3866
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.10	12 18 52	1347.93	21.33	358.87	146.80	115.28	12 41 19	747.9	24.55	351.34
106.90	16 39 30	5802.48	21.34	274.93	146.81	115.27	18 16 12	5202.5	24.57	267.40
73.10	12 18 52	1347.93	21.33	358.87	146.80	115.28	12 41 19	747.9	24.55	351.34
106.90	16 39 30	5802.48	21.34	274.93	146.81	115.27	18 16 12	5202.5	24.57	267.40
110.00	15 40 41	695.93	14.29	307.02	142.82	121.39	15 52 17	95.9	18.34	300.25
110.00	18 16 50	5502.48	28.74	255.13	150.15	109.36	19 48 33	4902.5	31.10	246.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.3995 TRA 3.9361 TC3-2.9485 BAU  .9263   SGT 6237.8 SGR  681.6 SG3  276.3      ST  1725.4 SR   447.1 SS   597.2
RDE  .3532 RRA -.3794 RC3  .0836 FAU .02393   RRT -.7928 RRF -.7785 RTF  .9751     CRT -.5991 CRS  .3249 CST -.9515
FDE  .0270 FRA 2.1958 FC3 -.8821 BSP  20243   SGB 6274.9 R23  .0033 R13 -.9751     LSA 1836.2 MSA  402.0 SSA   14.5
BDE  .5332 BRA 3.9543 BC3 2.9497 FSP   -975   SG1 6261.2 SG2  413.8 THA 175.03     EL1 1747.0 EL2  353.6 ALF 170.79
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 580.253

RL	151.67	LAL	.00	LOL	316.01	VL	26.343	GAL	7.65	AZL	91.54	HCA	273.53	SMA	125.67	ECC	.24452	INC	1.5387	V1	29.375
RP	108.31	LAP	1.54	LOP	229.54	VP	37.344	GAP	11.76	AZP	90.09	TAL	154.65	TAP	68.18	RCA	94.94	APO	156.40	V2	34.988
RC	146.899	GL	-7.98	GP	13.95	ZAL	41.51	ZAP	161.87	ETS	45.98	ZAE	122.40	ETE	171.74	ZAC	114.88	ETC	259.37	CLP	-168.31

PLANETOCENTRIC CONIC

C3	25.532	VHL	5.053	DLA	-31.31	RAL	275.95	RAD	6568.0	VEL	12.121	PTH	2.17	VHP	7.758	DPA	-6.03	RAP	242.87	ECC	1.4202

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.04	12 44 54	1306.12	19.95	355.01	149.29	114.65	13 6 40	706.1	23.11	347.52
103.96	16 25 39	5885.26	19.97	280.54	149.29	114.64	18 3 44	5285.3	23.12	273.05
76.04	12 44 54	1306.12	19.95	355.01	149.29	114.65	13 6 40	706.1	23.11	347.52
103.96	16 25 39	5885.26	19.97	280.54	149.29	114.64	18 3 44	5285.3	23.12	273.05
110.00	15 19 32	803.65	10.39	312.93	143.88	122.75	15 32 56	203.7	14.64	306.40
110.00	18 50 11	5435.72	30.15	250.45	153.55	106.92	20 20 47	4835.7	32.17	241.82

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2777	TRA	4.2401	TC3	-2.7216	BAU	.9293	SGT	6271.6	SGR	662.2	SG3	262.0	ST	1719.3	SR	436.1	SS	594.8
RDE	.3594	RRA	-.3895	RC3	.0712	FAU	.02148	RRT	-.7790	RRF	-.7640	RTF	.9749	CRT	-.5206	CRS	.2535	CST	-.9575
FDE	.0839	FRA	2.2151	FC3	-.7282	BSP	20440	SGB	6306.5	R23	.0019	R13	-.9749	LSA	1825.4	MSA	409.6	SSA	14.2
BDE	.4542	BRA	4.2579	BC3	2.7225	FSP	-928	SG1	6292.9	SG2	413.8	THA	175.28	EL1	1735.0	EL2	368.9	ALF	172.12

LAUNCH DATE AUG 9 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 585.734

RL	151.67	LAL	.00	LOL	316.01	VL	26.313	GAL	8.23	AZL	91.37	HCA	276.72	SMA	125.48	ECC	.25129	INC	1.3741	V1	29.375
RP	108.35	LAP	1.36	LOP	232.73	VP	37.310	GAP	12.30	AZP	90.16	TAL	153.52	TAP	70.24	RCA	93.95	APO	157.01	V2	34.975
RC	149.057	GL	-6.79	GP	13.44	ZAL	40.05	ZAP	163.00	ETS	47.97	ZAE	122.14	ETE	172.08	ZAC	114.61	ETC	259.80	CLP	-169.48

PLANETOCENTRIC CONIC

C3	27.865	VHL	5.279	DLA	-30.07	RAL	277.39	RAD	6568.1	VEL	12.216	PTH	2.20	VHP	8.066	DPA	-7.00	RAP	244.67	ECC	1.4586

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.43	13 15 17	1249.80	18.61	350.15	151.81	114.05	13 36 7	649.8	21.71	342.70
100.57	16 6 47	696.92	18.63	309.47	151.81	114.05	16 18 24	96.9	21.72	302.02
79.43	13 15 17	1249.80	18.61	350.15	151.81	114.05	13 36 7	649.8	21.71	342.70
100.57	16 6 47	696.92	18.63	309.47	151.81	114.05	16 18 24	96.9	21.72	302.02
110.00	15 4 56	892.32	7.09	317.67	145.33	123.53	15 19 48	292.3	11.45	311.29
110.00	19 16 18	5390.44	31.01	247.20	156.66	105.17	20 46 8	4790.4	32.77	238.42

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1548	TRA	4.5594	TC3	-2.4969	BAU	.9304	SGT	6299.2	SGR	644.0	SG3	248.4	ST	1725.6	SR	425.6	SS	594.6
RDE	.3667	RRA	-.4004	RC3	.0607	FAU	.01917	RRT	-.7661	RRF	-.7506	RTF	.9749	CRT	-.4432	CRS	.1901	CST	-.9640
FDE	.1334	FRA	2.2342	FC3	-.5957	BSP	20644	SGB	6332.0	R23	.0008	R13	-.9749	LSA	1828.1	MSA	412.6	SSA	13.9
BDE	.3981	BRA	4.5770	BC3	2.4976	FSP	-884	SG1	6318.6	SG2	412.7	THA	175.50	EL1	1736.4	EL2	379.1	ALF	173.45

LAUNCH DATE AUG 9 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 591.138

RL	151.67	LAL	.00	LOL	316.01	VL	26.284	GAL	8.84	AZL	91.21	HCA	279.91	SMA	125.29	ECC	.25861	INC	1.2074	V1	29.375
RP	108.39	LAP	1.19	LOP	235.92	VP	37.277	GAP	12.87	AZP	90.21	TAL	152.39	TAP	72.30	RCA	92.89	APO	157.70	V2	34.962
RC	151.205	GL	-5.68	GP	12.97	ZAL	38.67	ZAP	164.05	ETS	50.26	ZAE	121.88	ETE	172.39	ZAC	114.38	ETC	260.24	CLP	-170.64

PLANETOCENTRIC CONIC

C3	30.530	VHL	5.525	DLA	-28.89	RAL	278.75	RAD	6568.2	VEL	12.325	PTH	2.22	VHP	8.394	DPA	-7.91	RAP	246.52	ECC	1.5024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.00	13 56 32	1157.77	17.31	342.73	154.35	113.50	14 15 50	557.8	20.34	335.33
96.00	15 36 24	834.63	17.33	319.06	154.36	113.49	15 50 18	234.6	20.36	311.65
100.00	15 3 0	942.08	11.63	324.16	151.54	117.73	15 18 42	342.1	15.25	317.24
100.00	17 12 37	5813.60	23.19	276.59	156.81	109.41	18 49 30	5213.6	25.63	268.64
110.00	14 53 51	970.88	4.12	321.81	147.02	123.96	15 10 2	370.9	8.55	315.53
110.00	19 38 15	5357.56	31.57	244.80	159.63	103.85	21 7 33	4757.6	33.15	235.93

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0306	TRA	4.8952	TC3	-2.2762	BAU	.9293	SGT	6320.1	SGR	626.5	SG3	235.7	ST	1741.3	SR	415.4	SS	596.0
RDE	.3749	RRA	-.4120	RC3	.0516	FAU	.01699	RRT	-.7539	RRF	-.7381	RTF	.9749	CRT	-.3692	CRS	.1344	CST	-.9702
FDE	.1771	FRA	2.2537	FC3	-.4817	BSP	20866	SGB	6351.0	R23	.0000	R13	-.9750	LSA	1841.2	MSA	411.7	SSA	13.6
BDE	.3762	BRA	4.9125	BC3	2.2768	FSP	-844	SG1	6337.8	SG2	410.5	THA	175.71	EL1	1748.4	EL2	384.5	ALF	174.71

LAUNCH DATE AUG 9 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 596.456

RL	151.67	LAL	.00	LOL	316.01	VL	26.254	GAL	9.49	AZL	91.04	HCA	283.10	SMA	125.11	ECC	.26656	INC	1.0376	V1	29.375
RP	108.43	LAP	1.01	LOP	239.11	VP	37.244	GAP	13.47	AZP	90.24	TAL	151.26	TAP	74.37	RCA	91.76	APO	158.46	V2	34.949
RC	153.343	GL	-4.64	GP	12.54	ZAL	37.35	ZAP	165.04	ETS	52.90	ZAE	121.62	ETE	172.66	ZAC	114.16	ETC	260.69	CLP	-171.77

PLANETOCENTRIC CONIC

C3	33.575	VHL	5.794	DLA	-27.78	RAL	280.04	RAD	6568.3	VEL	12.448	PTH	2.25	VHP	8.745	DPA	-8.76	RAP	248.40	ECC	1.5526

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 2 59	1178.20	11.84	341.63	154.95	115.91	14 22 37	578.2	15.23	334.59
90.00	15 40 11	862.06	20.35	322.34	158.71	110.12	15 54 33	262.1	22.91	314.61
100.00	14 38 42	1062.73	7.72	330.99	152.78	118.97	14 56 25	462.7	11.53	324.27
100.00	17 47 9	5740.81	24.75	271.75	160.32	107.31	19 22 49	5140.8	26.89	263.60
110.00	14 45 0	1042.97	1.37	325.58	148.87	124.16	15 2 23	443.0	5.84	319.35
110.00	19 57 20	5333.34	31.95	243.01	162.52	102.86	21 26 14	4733.3	33.39	234.08

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0960	TRA	5.2498	TC3	-2.0610	BAU	.9253	SGT	6335.3	SGR	609.3	SG3	223.7	ST	1764.1	SR	405.2	SS	598.4
RDE	.3838	RRA	-.4241	RC3	.0437	FAU	.01492	RRT	-.7425	RRF	-.7266	RTF	.9752	CRT	-.2999	CRS	.0857	CST	-.9759
FDE	.2158	FRA	2.2746	FC3	-.3847	BSP	21088	SGB	6364.5	R23	-.0006	R13	-.9752	LSA	1862.3	MSA	407.5	SSA	13.3
BDE	.3956	BRA	5.2669	BC3	2.0615	FSP	-807	SG1	6351.5	SG2	407.1	THA	175.90	EL1	1768.5	EL2	385.6	ALF	175.86

LAUNCH DATE AUG 9 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 601.675

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.224 GAL  10.20 AZL  90.86 HCA 286.29 SMA 124.93 ECC .27520 INC  .8633 V1  29.375
RP  108.47 LAP    .83 LOP 242.29 VP  37.212 GAP  14.11 AZP  90.24 TAL 150.16 TAP  76.45 RCA  90.55 APO 159.31 V2  34.937
RC 155.470 GL   -3.66 GP   12.15 ZAL  36.12 ZAP 165.95 ETS  55.94 ZAE 121.36 ETE 172.91 ZAC 113.97 ETC 261.15 CLP-172.90
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PLANETOCENTRIC CONIC

```
C3  37.061 VHL  6.088 DLA -26.71 RAL 281.24 RAD 6568.4 VEL 12.587 PTH   2.28 VHP  9.121 DPA  -9.55 RAP 250.32 ECC 1.6099
```

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 32 54	1318.42	7.55	349.70	156.06	117.37	13 54 52	718.4	11.16	342.88
90.00	16 19 53	771.74	22.36	316.48	162.42	107.85	16 32 45	171.7	24.59	308.52
100.00	14 22 28	1158.34	4.53	336.30	154.42	119.58	14 41 46	558.3	8.44	329.69
100.00	18 13 1	5695.10	25.64	268.64	163.51	105.91	19 47 56	5095.1	27.58	260.37
110.00	14 37 43	1110.47	-1.21	329.10	150.84	124.16	14 56 13	510.5	3.28	322.90
110.00	20 14 15	5315.74	32.21	241.71	165.38	102.13	21 42 51	4715.7	33.54	232.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2261 TRA 5.6257 TC3-1.8511 BAU  .9174   SGT 6345.0 SGR  592.2 SG3  212.6      ST  1792.2 SR   394.9 SS   601.9
RDE  .3931 RRA -.4368 RC3  .0366 FAU .01291   RRT -.7318 RRF -.7161 RTF  .9756     CRT -.2358 CRS  .0430 CST -.9808
FDE  .2508 FRA 2.2979 FC3 -.3015 BSP  21285   SGB 6372.6 R23 -.0010 R13 -.9756     LSA 1889.3 MSA  400.7 SSA   13.0
BDE  .4535 BRA 5.6426 BC3 1.8515 FSP   -770   SG1 6359.8 SG2  402.6 THA 176.08     EL1 1794.7 EL2  383.2 ALF 176.88
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 606.780

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.195 GAL  10.95 AZL  90.68 HCA 289.47 SMA 124.74 ECC .28461 INC  .6836 V1  29.375
RP  108.51 LAP    .64 LOP 245.48 VP  37.179 GAP  14.79 AZP  90.23 TAL 149.08 TAP  78.55 RCA  89.24 APO 160.25 V2  34.925
RC 157.587 GL   -2.74 GP   11.79 ZAL  34.96 ZAP 166.80 ETS  59.43 ZAE 121.09 ETE 173.13 ZAC 113.80 ETC 261.62 CLP-174.02
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PLANETOCENTRIC CONIC

```
C3  41.061 VHL  6.408 DLA -25.71 RAL 282.37 RAD 6568.6 VEL 12.745 PTH   2.32 VHP  9.526 DPA -10.28 RAP 252.26 ECC 1.6758
```

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 18 30	1421.39	4.29	355.51	157.69	118.02	13 38 12	821.4	8.01	348.80
90.00	16 47 18	720.56	23.38	313.08	165.68	106.44	16 59 18	120.6	25.42	305.00
100.00	14 10 9	1241.70	1.72	340.88	156.27	119.85	14 30 51	641.7	5.68	334.33
100.00	18 34 20	5663.52	26.22	266.47	166.55	104.90	20 8 44	5063.5	28.01	258.13
110.00	14 31 35	1174.49	-3.66	332.45	152.92	124.01	14 51 9	574.5	.83	326.24
110.00	20 29 24	5303.49	32.38	240.79	168.22	101.61	21 57 48	4703.5	33.64	231.76

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .3607 TRA 6.0254 TC3-1.6482 BAU  .9049   SGT 6349.9 SGR  574.8 SG3  202.1      ST  1823.7 SR   384.2 SS   606.4
RDE  .4028 RRA -.4498 RC3  .0301 FAU .01095   RRT -.7217 RRF -.7064 RTF  .9761     CRT -.1772 CRS  .0055 CST -.9849
FDE  .2829 FRA 2.3239 FC3 -.2309 BSP  21453   SGB 6375.9 R23 -.0012 R13 -.9761     LSA 1920.3 MSA  391.8 SSA   12.6
BDE  .5407 BRA 6.0422 BC3 1.6485 FSP   -735   SG1 6363.5 SG2  397.0 THA 176.25     EL1 1825.1 EL2  377.9 ALF 177.77
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 611.753

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.165 GAL  11.77 AZL  90.50 HCA 292.65 SMA 124.56 ECC .29489 INC  .4967 V1  29.375
RP  108.54 LAP    .46 LOP 248.66 VP  37.148 GAP  15.52 AZP  90.19 TAL 148.02 TAP  80.67 RCA  87.83 APO 161.30 V2  34.913
RC 159.692 GL   -1.88 GP   11.47 ZAL  33.87 ZAP 167.56 ETS  63.42 ZAE 120.81 ETE 173.33 ZAC 113.64 ETC 262.10 CLP-175.15
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PLANETOCENTRIC CONIC

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C3  45.662 VHL  6.757 DLA -24.76 RAL 283.43 RAD 6568.7 VEL 12.924 PTH   2.36 VHP  9.963 DPA -10.96 RAP 254.23 ECC 1.7515
```

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 0 56	1509.00	1.48	.41	159.55	118.28	13 26 5	909.0	5.25	353.76
90.00	17 9 18	686.44	24.02	310.78	168.75	105.46	17 20 44	86.4	25.91	302.62
100.00	14 0 16	1317.41	-.85	345.04	158.26	119.88	14 22 14	717.4	3.13	338.51
100.00	18 52 38	5641.30	26.60	264.93	169.50	104.18	20 26 39	5041.3	28.28	256.53
110.00	14 26 19	1235.74	-5.98	335.67	155.07	123.72	14 46 54	635.7	-1.51	329.43
110.00	20 43 5	5295.73	32.48	240.21	171.03	101.28	22 11 21	4695.7	33.70	231.19

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .5010 TRA 6.4520 TC3-1.4529 BAU  .8870   SGT 6350.6 SGR  557.1 SG3  192.3      ST  1857.5 SR   373.2 SS   611.8
RDE  .4127 RRA -.4629 RC3  .0242 FAU .00904   RRT -.7122 RRF -.6974 RTF  .9768     CRT -.1237 CRS -.0277 CST -.9883
FDE  .3129 FRA 2.3536 FC3 -.1714 BSP  21580   SGB 6375.0 R23 -.0014 R13 -.9768     LSA 1954.1 MSA  381.1 SSA   12.3
BDE  .6491 BRA 6.4685 BC3 1.4531 FSP   -701   SG1 6363.1 SG2  390.3 THA 176.41     EL1 1858.1 EL2  370.2 ALF 178.52
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LAUNCH DATE AUG 9 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 616.571

```
RL  151.67 LAL    .00 LOL 316.01 VL  26.136 GAL  12.64 AZL  90.30 HCA 295.83 SMA 124.39 ECC .30614 INC  .3010 V1  29.375
RP  108.58 LAP    .27 LOP 251.83 VP  37.116 GAP  16.31 AZP  90.13 TAL 147.00 TAP  82.83 RCA  86.31 APO 162.47 V2  34.901
RC 161.784 GL   -1.08 GP   11.17 ZAL  32.87 ZAP 168.24 ETS  67.96 ZAE 120.52 ETE 173.52 ZAC 113.48 ETC 262.59 CLP-176.28
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PLANETOCENTRIC CONIC

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C3  50.971 VHL  7.139 DLA -23.86 RAL 284.41 RAD 6568.9 VEL 13.128 PTH   2.40 VHP 10.437 DPA -11.59 RAP 256.20 ECC 1.8389
```

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 50 8	1587.56	-1.06	4.79	161.56	118.30	13 16 36	987.6	2.73	358.16
90.00	17 27 54	662.89	24.44	309.18	171.72	104.76	17 38 57	62.9	26.23	300.97
100.00	13 52 3	1387.71	-3.23	348.90	160.35	119.73	14 15 11	787.7	.75	342.38
100.00	19 8 41	5626.01	26.85	263.86	172.39	103.67	20 42 27	5026.0	28.46	255.43
110.00	14 21 43	1294.67	-8.20	338.79	157.29	123.30	14 43 18	694.7	-3.76	332.51
110.00	20 55 30	5291.82	32.54	239.92	173.83	101.12	22 23 42	4691.8	33.72	230.88

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .6492 TRA 6.9096 TC3-1.2644 BAU  .8617   SGT 6348.0 SGR  538.8 SG3  183.2      ST  1893.0 SR   361.6 SS   618.6
RDE  .4226 RRA -.4760 RC3  .0186 FAU .00711   RRT -.7030 RRF -.6888 RTF  .9777     CRT -.0750 CRS -.0576 CST -.9910
FDE  .3420 FRA 2.3880 FC3 -.1207 BSP  21624   SGB 6370.8 R23 -.0014 R13 -.9777     LSA 1990.0 MSA  369.2 SSA   12.0
BDE  .7746 BRA 6.9260 BC3 1.2645 FSP  1-666   SG1 6359.3 SG2  382.5 THA 176.57     EL1 1893.2 EL2  360.5 ALF 179.15
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 19 1970

HELIOCENTRIC CONIC DISTANCE 147.988

RL	151.65	LAL	.00	LOL	316.96	VL	20.161	GAL	7.64	AZL	93.75	HCA	54.90	SMA	98.75	ECC	.54721	INC	3.7501	V1	29.380
RP	108.57	LAP	-3.07	LOP	11.80	VP	33.181	GAP	-32.74	AZP	92.16	TAL	173.58	TAP	228.48	RCA	44.71	APO	152.79	V2	34.905
RC	50.589	GL	-7.52	GP	-5.27	ZAL	72.74	ZAP	22.28	ETS	164.52	ZAE	157.88	ETE	169.70	ZAC	91.50	ETC	256.54	CLP	21.68

PLANETOCENTRIC CONIC

C3	99.594	VHL	9.980	DLA	-28.41	RAL	240.84	RAD	6569.9	VEL	14.864	PTH	2.68	VHP	19.167	DPA	-15.37	RAP	210.00	ECC	2.6391		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.59	11 50 58	1347.88	8.71	352.45	134.37	117.15	12 13 26	747.9	12.28	345.59
92.41	12 31 35	1216.23	8.72	342.83	134.38	117.15	12 51 51	616.2	12.29	335.96
100.00	12 13 44	1273.99	.62	342.66	129.97	119.89	12 34 58	674.0	4.60	336.12
100.00	14 51 30	765.35	16.98	313.77	138.52	114.97	15 4 16	165.4	20.21	306.47
110.00	12 12 27	1278.01	-7.57	337.90	124.92	123.43	12 33 45	678.0	-3.12	331.64
110.00	17 9 16	5622.14	25.77	263.17	142.74	113.28	18 42 59	5022.1	28.69	255.20

DIFFERENTIAL CORRECTIONS

TDE	.2394	TRA	-1.1826	TC3	-.0969	BAU	.1309
RDE	-.7751	RRA	-.0623	RC3	.0165	FAU	.01510
FDE	-.1677	FRA	.5269	FC3	-.1312	BSP	2060
BDE	.8112	BRA	1.1843	BC3	.0983	FSP	-80

MID-COURSE EXECUTION ACCURACY

SGT	807.6	SGR	448.1	SG3	38.3		
RRT	-.1000	RRF	.1019	RTF	-.6376		
SGB	923.6	R23	-.0104	R13	.6387		
SG1	809.4	SG2	444.8	THA	175.45		

ORBIT DETERMINATION ACCURACY

ST	269.4	SR	445.2	SS	234.1
CRT	-.4866	CRS	-.6609	CST	.9740
LSA	508.6	MSA	258.1	SSA	13.9
EL1	470.2	EL2	222.8	ALF	111.45

LAUNCH DATE AUG 10 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 21 1970

HELIOCENTRIC CONIC DISTANCE 154.273

RL	151.65	LAL	.00	LOL	316.96	VL	20.709	GAL	7.31	AZL	93.51	HCA	58.07	SMA	100.43	ECC	.52157	INC	3.5138	V1	29.380		
RP	108.53	LAP	-2.98	LOP	14.99	VP	33.529	GAP	-31.13	AZP	91.86	TAL	173.19	TAP	231.26	RCA	48.05	APO	152.81	V2	34.917		
RC	49.017	GL	-7.67	GP	-5.46	ZAL	71.97	ZAP	20.81	ETS	162.88	ZAE	159.45	ETE	169.70	ZAC	91.61	ETC	256.67	CLP	20.11		

PLANETOCENTRIC CONIC

C3	88.890	VHL	9.428	DLA	-28.71	RAL	241.66	RAD	6569.7	VEL	14.499	PTH	2.63	VHP	18.315	DPA	-16.17	RAP	211.46	ECC	2.4629		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.09	11 33 32	1390.10	9.57	356.00	133.72	117.19	11 56 42	790.1	13.14	349.11
94.91	12 55 36	1124.41	9.58	336.54	133.73	117.19	13 14 20	524.4	13.15	329.66
100.00	12 25 15	1222.21	2.38	339.81	129.80	119.81	12 45 37	622.2	6.33	333.25
100.00	14 46 34	767.53	16.92	313.91	137.42	115.02	14 59 21	167.5	20.15	306.60
110.00	12 19 29	1240.35	-6.15	335.91	124.53	123.69	12 40 9	640.4	-1.68	329.68
110.00	17 8 49	5610.20	26.09	262.38	141.79	112.91	18 42 19	5010.2	28.96	254.38

DIFFERENTIAL CORRECTIONS

TDE	.2345	TRA	-1.1721	TC3	-.0978	BAU	.1179
RDE	-.7412	RRA	-.0486	RC3	.0166	FAU	.01549
FDE	-.1702	FRA	.5450	FC3	-.1509	BSP	2193
BDE	.7774	BRA	1.1731	BC3	.0992	FSP	-89

MID-COURSE EXECUTION ACCURACY

SGT	844.9	SGR	452.8	SG3	41.8		
RRT	-.1114	RRF	.1139	RTF	-.6577		
SGB	958.6	R23	-.0119	R13	.6588		
SG1	847.0	SG2	448.9	THA	175.25		

ORBIT DETERMINATION ACCURACY

ST	282.3	SR	450.6	SS	243.1
CRT	-.4853	CRS	-.6564	CST	.9751
LSA	519.5	MSA	267.8	SSA	14.2
EL1	478.1	EL2	232.6	ALF	112.52

LAUNCH DATE AUG 10 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 23 1970

HELIOCENTRIC CONIC DISTANCE 160.622

RL	151.65	LAL	.00	LOL	316.96	VL	21.219	GAL	6.97	AZL	93.29	HCA	61.25	SMA	102.08	ECC	.49697	INC	3.2931	V1	29.380		
RP	108.49	LAP	-2.89	LOP	18.18	VP	33.859	GAP	-29.60	AZP	91.59	TAL	172.84	TAP	234.09	RCA	51.35	APO	152.81	V2	34.929		
RC	47.541	GL	-7.81	GP	-5.68	ZAL	71.29	ZAP	19.37	ETS	160.96	ZAE	161.19	ETE	169.78	ZAC	91.70	ETC	256.81	CLP	18.55		

PLANETOCENTRIC CONIC

C3	79.369	VHL	8.909	DLA	-28.96	RAL	242.40	RAD	6569.6	VEL	14.167	PTH	2.58	VHP	17.497	DPA	-16.99	RAP	212.94	ECC	2.3062		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.64	11 24 43	1402.52	10.44	357.37	132.93	117.17	11 48 6	802.5	14.00	350.45
96.36	13 10 20	1060.83	10.46	332.33	132.94	117.16	13 28 1	460.8	14.02	325.41
100.00	12 36 22	1170.04	4.14	336.94	129.50	119.63	12 55 52	570.0	8.06	330.34
100.00	14 41 22	768.54	16.89	313.97	136.18	115.03	14 54 11	168.5	20.13	306.67
110.00	12 25 50	1203.20	-4.75	333.95	124.01	123.89	12 45 53	603.2	-.26	327.74
110.00	17 8 24	5596.18	26.46	261.46	140.71	112.48	18 41 40	4996.2	29.26	253.40

DIFFERENTIAL CORRECTIONS

TDE	.2304	TRA	-1.1613	TC3	-.0972	BAU	.1046
RDE	-.7079	RRA	-.0357	RC3	.0163	FAU	.01593
FDE	-.1728	FRA	.5635	FC3	-.1738	BSP	2335
BDE	.7445	BRA	1.1618	BC3	.0986	FSP	-99

MID-COURSE EXECUTION ACCURACY

SGT	883.5	SGR	457.0	SG3	45.7		
RRT	-.1240	RRF	.1272	RTF	-.6770		
SGB	994.7	R23	-.0135	R13	.6783		
SG1	886.0	SG2	452.2	THA	175.03		

ORBIT DETERMINATION ACCURACY

ST	295.9	SR	455.3	SS	252.4
CRT	-.4857	CRS	-.6525	CST	.9764
LSA	530.6	MSA	277.3	SSA	14.4
EL1	486.0	EL2	242.4	ALF	113.77

LAUNCH DATE AUG 10 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 167.031

RL	151.65	LAL	.00	LOL	316.96	VL	21.694	GAL	6.62	AZL	93.09	HCA	64.44	SMA	103.71	ECC	.47343	INC	3.0854	V1	29.380		
RP	108.45	LAP	-2.78	LOP	21.37	VP	34.171	GAP	-28.15	AZP	91.33	TAL	172.52	TAP	236.96	RCA	54.61	APO	152.80	V2	34.942		
RC	46.171	GL	-7.92	GP	-5.91	ZAL	70.69	ZAP	17.97	ETS	158.70	ZAE	163.11	ETE	169.99	ZAC	91.76	ETC	256.97	CLP	17.00		

PLANETOCENTRIC CONIC

C3	70.894	VHL	8.420	DLA	-29.19	RAL	243.06	RAD	6569.4	VEL	13.865	PTH	2.53	VHP	16.711	DPA	-17.82	RAP	214.43	ECC	2.1667		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.62	11 19 8	1402.70	11.33	357.84	132.01	117.08	11 42 30	802.7	14.88	350.90
97.38	13 21 11	1008.10	11.35	328.90	132.02	117.07	13 37 59	408.1	14.89	321.95
100.00	12 46 58	1117.94	5.89	334.06	129.06	119.36	13 5 36	517.9	9.76	327.41
100.00	14 36 2	768.09	16.90	313.94	134.82	115.03	14 48 50	168.1	20.14	306.64
110.00	12 31 26	1166.82	-3.36	332.05	123.35	124.04	12 50 53	566.8	1.13	325.84
110.00	17 8 3	5580.02	26.87	260.39	139.48	111.97	18 41 3	4980.0	29.61	252.27

DIFFERENTIAL CORRECTIONS

TDE	.2272	TRA	-1.1500	TC3	-.0948	BAU	.0910
RDE	-.6752	RRA	-.0235	RC3	.0154	FAU	.01642
FDE	-.1755	FRA	.5824	FC3	-.2005	BSP	2484
BDE	.7124	BRA	1.1503	BC3	.0960	FSP	-110

MID-COURSE EXECUTION ACCURACY

SGT	923.5	SGR	460.6	SG3	50.0		
RRT	-.1381	RRF	.1420	RTF	-.6957		
SGB	1032.0	R23	-.0153	R13	.6971		
SG1	926.4	SG2	454.7	THA	174.81		

ORBIT DETERMINATION ACCURACY

ST	310.2	SR	459.5	SS	261.9
CRT	-.4880	CRS	-.6491	CST	.9779
LSA	542.1	MSA	286.2	SSA	14.6
EL1	493.9	EL2	251.9	ALF	115.22

LAUNCH DATE AUG 10 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 173.495

RL	151.65	LAL	.00	LOL	316.96	VL	22.134	GAL	6.27	AZL	92.89	HCA	67.62	SMA	105.30	ECC	.45098	INC	2.8882	V1	29.380
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.465	GAP	-26.76	AZP	91.10	TAL	172.26	TAP	239.88	RCA	57.81	APO	152.78	V2	34.954
RC	44.918	GL	-8.01	GP	-6.17	ZAL	70.17	ZAP	16.61	ETS	156.01	ZAE	165.19	ETE	170.41	ZAC	91.80	ETC	257.13	CLP	15.45

PLANETOCENTRIC CONIC

C3	63.347	VHL	7.959	DLA	-29.37	RAL	243.63	RAD	6569.2	VEL	13.591	PTH	2.48	VHP	15.955	DPA	-18.66	RAP	215.93	ECC	2.0425

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.87	11 15 29	1394.88	12.23	357.73	130.95	116.91	11 38 44	794.9	15.74	350.74
98.13	13 29 24	962.21	12.25	325.98	130.96	116.90	13 45 26	362.2	15.76	318.99
100.00	12 56 47	1066.74	7.59	331.21	128.45	119.00	13 14 33	466.7	11.40	324.50
100.00	14 30 47	765.59	16.98	313.79	133.34	114.98	14 43 33	165.6	20.20	306.48
110.00	12 36 12	1131.54	-2.02	330.20	122.56	124.13	12 55 4	531.5	2.48	324.00
110.00	17 7 51	5561.59	27.34	259.16	138.12	111.37	18 40 32	4961.6	29.99	250.97

DIFFERENTIAL CORRECTIONS

TDE	.2247	TRA	-1.1382	TC3	-.0900	BAU	.0771
RDE	-.6432	RRA	-.0120	RC3	.0137	FAU	.01696
FDE	-.1784	FRA	.6018	FC3	-.2318	BSP	2636
BDE	.6813	BRA	1.1383	BC3	.0911	FSP	-123

MID-COURSE EXECUTION ACCURACY

SGT	964.7	SGR	463.6	SG3	54.6		
RRT	-.1537	RRF	.1586	RTF	-.7136		
SGB	1070.4	R23	-.0174	R13	.7151		
SG1	968.1	SG2	456.5	THA	174.56		

ORBIT DETERMINATION ACCURACY

ST	325.2	SR	463.0	SS	271.7		
CRT	-.4919	CRS	-.6466	CST	.9796		
LSA	554.1	MSA	294.5	SSA	14.8		
EL1	501.9	EL2	261.2	ALF	116.87		

LAUNCH DATE AUG 10 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 180.009

RL	151.65	LAL	.00	LOL	316.96	VL	22.544	GAL	5.92	AZL	92.70	HCA	70.81	SMA	106.85	ECC	.42959	INC	2.6998	V1	29.380
RP	108.38	LAP	-2.55	LOP	27.76	VP	34.743	GAP	-25.43	AZP	90.89	TAL	172.03	TAP	242.85	RCA	60.95	APO	152.75	V2	34.967
RC	43.790	GL	-8.07	GP	-6.46	ZAL	69.74	ZAP	15.31	ETS	152.77	ZAE	167.44	ETE	171.17	ZAC	91.80	ETC	257.31	CLP	13.91

PLANETOCENTRIC CONIC

C3	56.625	VHL	7.525	DLA	-29.51	RAL	244.12	RAD	6569.0	VEL	13.341	PTH	2.44	VHP	15.228	DPA	-19.52	RAP	217.43	ECC	1.9319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.34	11 13 17	1380.80	13.13	357.16	129.77	116.66	11 36 18	780.8	16.60	350.12
98.66	13 35 27	921.66	13.14	323.44	129.77	116.66	13 50 49	321.7	16.61	316.40
100.00	13 5 23	1017.90	9.19	328.47	127.67	118.57	13 22 21	417.9	12.93	321.68
100.00	14 26 2	759.80	17.14	313.44	131.77	114.87	14 38 41	159.8	20.35	306.12
110.00	12 40 4	1097.71	-.72	328.44	121.62	124.18	12 58 21	497.7	3.76	322.23
110.00	17 7 50	5540.80	27.84	257.75	136.63	110.68	18 40 11	4940.8	30.40	249.49

DIFFERENTIAL CORRECTIONS

TDE	.2229	TRA	-1.1260	TC3	-.0827	BAU	.0632
RDE	-.6119	RRA	-.0010	RC3	.0112	FAU	.01756
FDE	-.1814	FRA	.6218	FC3	-.2685	BSP	2793
BDE	.6512	BRA	1.1260	BC3	.0834	FSP	-137

MID-COURSE EXECUTION ACCURACY

SGT	1007.3	SGR	466.2	SG3	59.8		
RRT	-.1710	RRF	.1770	RTF	-.7307		
SGB	1110.0	R23	-.0198	R13	.7323		
SG1	1011.3	SG2	457.6	THA	174.30		

ORBIT DETERMINATION ACCURACY

ST	340.8	SR	465.9	SS	281.7		
CRT	-.4975	CRS	-.6444	CST	.9814		
LSA	566.7	MSA	302.0	SSA	15.1		
EL1	510.3	EL2	270.0	ALF	118.71		

LAUNCH DATE AUG 10 1970 FLIGHT TIME 82.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 186.567

RL	151.65	LAL	.00	LOL	316.96	VL	22.924	GAL	5.56	AZL	92.52	HCA	74.00	SMA	108.36	ECC	.40928	INC	2.5184	V1	29.380
RP	108.34	LAP	-2.42	LOP	30.95	VP	35.004	GAP	-24.16	AZP	90.69	TAL	171.86	TAP	245.86	RCA	64.01	APO	152.70	V2	34.980
RC	42.797	GL	-8.10	GP	-6.77	ZAL	69.39	ZAP	14.07	ETS	148.86	ZAE	169.85	ETE	172.56	ZAC	91.77	ETC	257.49	CLP	12.36

PLANETOCENTRIC CONIC

C3	50.636	VHL	7.116	DLA	-29.60	RAL	244.51	RAD	6568.9	VEL	13.115	PTH	2.39	VHP	14.528	DPA	-20.41	RAP	218.94	ECC	1.8333

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.01	11 12 14	1361.55	14.00	356.18	128.44	116.34	11 34 55	761.5	17.43	349.09
98.99	13 39 38	885.62	14.02	321.22	128.45	116.34	13 54 24	285.6	17.45	314.13
100.00	13 12 3	973.88	10.61	325.98	126.66	118.11	13 28 17	373.9	14.29	319.12
100.00	14 22 30	748.51	17.46	312.76	130.16	114.65	14 34 59	148.5	20.64	305.41
110.00	12 42 55	1065.72	.50	326.77	120.53	124.18	13 0 41	465.7	4.98	320.55
110.00	17 8 7	5517.48	28.39	256.16	135.01	109.88	18 40 5	4917.5	30.83	247.81

DIFFERENTIAL CORRECTIONS

TDE	.2219	TRA	-1.1133	TC3	-.0721	BAU	.0491
RDE	-.5815	RRA	.0095	RC3	.0075	FAU	.01823
FDE	-.1846	FRA	.6425	FC3	-.3116	BSP	2955
BDE	.6224	BRA	1.1133	BC3	.0725	FSP	-152

MID-COURSE EXECUTION ACCURACY

SGT	1051.3	SGR	468.4	SG3	65.4		
RRT	-.1905	RRF	.1977	RTF	-.7471		
SGB	1150.9	R23	-.0224	R13	.7489		
SG1	1055.9	SG2	457.8	THA	174.02		

ORBIT DETERMINATION ACCURACY

ST	357.2	SR	468.2	SS	292.0		
CRT	-.5051	CRS	-.6432	CST	.9834		
LSA	580.2	MSA	308.6	SSA	15.3		
EL1	519.1	EL2	278.0	ALF	120.76		

LAUNCH DATE AUG 10 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 193.165

RL	151.65	LAL	.00	LOL	316.96	VL	23.278	GAL	5.22	AZL	92.34	HCA	77.20	SMA	109.82	ECC	.39003	INC	2.3426	V1	29.380
RP	108.29	LAP	-2.28	LOP	34.15	VP	35.249	GAP	-22.94	AZP	90.52	TAL	171.74	TAP	248.93	RCA	66.99	APO	152.65	V2	34.993
RC	41.950	GL	-8.09	GP	-7.12	ZAL	69.12	ZAP	12.91	ETS	144.11	ZAE	172.38	ETE	175.32	ZAC	91.71	ETC	257.69	CLP	10.80

PLANETOCENTRIC CONIC

C3	45.302	VHL	6.731	DLA	-29.64	RAL	244.81	RAD	6568.7	VEL	12.910	PTH	2.35	VHP	13.856	DPA	-21.31	RAP	220.44	ECC	1.7456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.87	11 12 22	1337.11	14.86	354.80	127.00	115.94	11 34 39	737.1	18.23	347.65
99.13	13 41 54	854.35	14.87	319.34	127.01	115.93	13 56 9	254.4	18.24	312.18
100.00	13 15 40	938.26	11.75	323.94	125.38	117.69	13 31 18	338.3	15.36	317.02
100.00	14 21 17	728.43	18.03	311.53	128.55	114.25	14 33 25	128.4	21.15	304.13
110.00	12 44 40	1036.00	1.64	325.22	119.30	124.15	13 1 56	436.0	6.11	318.99
110.00	17 8 46	5491.50	28.98	254.37	133.27	108.97	18 40 18	4891.5	31.29	245.93

DIFFERENTIAL CORRECTIONS

TDE	.2218	TRA	-1.0997	TC3	-.0575	BAU	.0349
RDE	-.5520	RRA	.0195	RC3	.0024	FAU	.01897
FDE	-.1881	FRA	.6639	FC3	-.3625	BSP	3127
BDE	.5949	BRA	1.0999	BC3	.0576	FSP	-169

MID-COURSE EXECUTION ACCURACY

SGT	1096.2	SGR	470.3	SG3	71.6		
RRT	-.2125	RRF	.2210	RTF	-.7627		
SGB	1192.8	R23	-.0253	R13	.7647		
SG1	1101.7	SG2	457.2	THA	173.70		

ORBIT DETERMINATION ACCURACY

ST	374.2	SR	469.9	SS	302.6		
CRT	-.5149	CRS	-.6427	CST	.9854		
LSA	594.7	MSA	313.9	SSA	15.5		
EL1	528.8	EL2	285.1	ALF	122.98		

LAUNCH DATE AUG 10 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 199.798

RL	151.65	LAL	.00	LOL	316.96	VL	23.605	GAL	4.87	AZL	92.17	HCA	80.39	SMA	111.23	ECC	.37183	INC	2.1710	V1	29.380		
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.480	GAP	-21.78	AZP	90.36	TAL	171.67	TAP	252.06	RCA	69.87	APO	152.59	V2	35.007		
RC	41.257	GL	-8.04	GP	-7.50	ZAL	68.95	ZAP	11.88	ETS	138.33	ZAE	174.99	ETE	181.69	ZAC	91.59	ETC	257.89	CLP	9.24		

PLANETOCENTRIC CONIC

C3	40.552	VHL	6.368	DLA	-29.62	RAL	245.02	RAD	6568.6	VEL	12.725	PTH	2.31	VHP	13.209	DPA	-22.23	RAP	221.94	ECC	1.6674		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.93	11 13 43	1307.54	19.67	353.01	125.43	115.46	11 35 31	707.5	18.97	345.80
99.07	13 42 13	828.11	15.69	317.80	125.43	115.45	13 56 1	228.1	18.99	310.58
100.00	13 15 18	914.19	12.50	322.55	123.80	117.37	13 30 33	314.2	16.07	315.58
100.00	14 23 19	696.69	18.91	309.58	126.97	113.59	14 34 55	96.7	21.94	302.10
110.00	12 45 14	1009.00	2.67	323.81	117.92	124.09	13 2 3	409.0	7.12	317.56
110.00	17 9 52	5462.69	29.60	252.36	131.41	107.93	18 40 55	4862.7	31.77	243.81

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2216	TRA	-1.0859	TC3	-.0386	BAU	.0211	SGT	1142.5	SGR	471.9	SG3	78.4	ST	391.7	SR	471.0	SS	313.3
RDE	-.5234	RRA	.0292	RC3	-.0046	FAU	.01979	RRT	-.2366	RRF	.2469	RTF	-.7775	CRT	-.5254	CRS	-.6425	CST	.9874
FDE	-.1915	FRA	.6864	FC3	-.4225	BSP	3293	SGB	1236.1	R23	-.0289	R13	.7797	LSA	609.8	MSA	318.4	SSA	15.7
BDE	.5683	BRA	1.0863	BC3	.0389	FSP	-188	SG1	1148.9	SG2	455.9	THA	173.37	EL1	538.9	EL2	291.3	ALF	125.28

LAUNCH DATE AUG 10 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 206.462

RL	151.65	LAL	.00	LOL	316.96	VL	23.909	GAL	4.54	AZL	92.00	HCA	83.59	SMA	112.60	ECC	.35466	INC	2.0026	V1	29.380		
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.696	GAP	-20.66	AZP	90.22	TAL	171.65	TAP	255.24	RCA	72.66	APO	152.53	V2	35.020		
RC	40.727	GL	-7.94	GP	-7.91	ZAL	68.85	ZAP	11.00	ETS	131.35	ZAE	177.47	ETE	203.19	ZAC	91.43	ETC	258.10	CLP	7.67		

PLANETOCENTRIC CONIC

C3	36.324	VHL	6.027	DLA	-29.53	RAL	245.14	RAD	6568.4	VEL	12.558	PTH	2.28	VHP	12.587	DPA	-23.18	RAP	223.42	ECC	1.5978		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.24	11 16 32	1272.18	16.44	350.77	123.74	114.89	11 37 44	672.2	19.66	343.48
98.76	13 40 20	807.83	16.45	316.67	123.75	114.88	13 53 48	207.8	19.67	309.38
100.00	13 10 56	901.92	12.89	321.85	121.95	117.21	13 25 58	301.9	16.43	314.85
100.00	14 28 37	653.32	20.07	306.88	125.42	112.63	14 39 31	53.3	22.96	299.28
110.00	12 44 31	985.16	3.58	322.56	116.39	124.02	13 0 56	385.2	8.02	316.29
110.00	17 11 31	5430.88	30.25	250.10	129.44	106.74	18 42 2	4830.9	32.24	241.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2221	TRA	-1.0712	TC3	-.0144	BAU	.0097	SGT	1189.4	SGR	473.5	SG3	86.0	ST	409.7	SR	471.5	SS	324.2
RDE	-.4958	RRA	.0386	RC3	-.0138	FAU	.02071	RRT	-.2639	RRF	.2760	RTF	-.7916	CRT	-.5381	CRS	-.6428	CST	.9895
FDE	-.1951	FRA	.7101	FC3	-.4935	BSP	3476	SGB	1280.2	R23	-.0327	R13	.7940	LSA	625.9	MSA	321.4	SSA	16.0
BDE	.5433	BRA	1.0719	BC3	.0199	FSP	-209	SG1	1197.1	SG2	453.8	THA	172.99	EL1	550.1	EL2	296.0	ALF	127.66

LAUNCH DATE AUG 10 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 213.151

RL	151.65	LAL	.00	LOL	316.96	VL	24.191	GAL	4.21	AZL	91.84	HCA	86.79	SMA	113.91	ECC	.33849	INC	1.8361	V1	29.380		
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.898	GAP	-19.58	AZP	90.10	TAL	171.68	TAP	258.47	RCA	75.35	APO	152.46	V2	35.033		
RC	40.367	GL	-7.79	GP	-8.38	ZAL	68.85	ZAP	10.34	ETS	123.11	ZAE	178.03	ETE	281.93	ZAC	91.22	ETC	258.32	CLP	6.08		

PLANETOCENTRIC CONIC

C3	32.563	VHL	5.706	DLA	-29.38	RAL	245.16	RAD	6568.3	VEL	12.407	PTH	2.24	VHP	11.988	DPA	-24.15	RAP	224.90	ECC	1.5359		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.83	11 21 17	1229.71	17.13	347.96	121.94	114.24	11 41 47	629.7	20.26	340.60
98.17	13 35 48	795.13	17.15	316.06	121.95	114.23	13 49 3	195.1	20.28	308.70
100.00	13 3 20	899.16	12.97	321.68	119.87	117.17	13 18 19	299.2	16.51	314.68
100.00	14 36 26	600.91	21.40	303.57	123.84	111.38	14 46 27	.9	24.12	295.82
110.00	12 42 27	964.94	4.35	321.50	114.73	123.94	12 58 32	364.9	8.77	315.21
110.00	17 13 48	5395.93	30.91	247.59	127.36	105.39	18 43 44	4795.9	32.71	238.84

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2229	TRA	-1.0561	TC3	.0156	BAU	.0131	SGT	1237.4	SGR	475.3	SG3	94.3	ST	428.2	SR	471.5	SS	335.2
RDE	-.4693	RRA	.0479	RC3	-.0258	FAU	.02172	RRT	-.2943	RRF	.3086	RTF	-.8048	CRT	-.5523	CRS	-.6435	CST	.9916
FDE	-.1986	FRA	.7351	FC3	-.5775	BSP	3655	SGB	1325.5	R23	-.0371	R13	.8074	LSA	642.9	MSA	323.2	SSA	16.2
BDE	.5195	BRA	1.0571	BC3	.0302	FSP	-233	SG1	1246.5	SG2	450.9	THA	172.57	EL1	562.1	EL2	299.4	ALF	130.05

LAUNCH DATE AUG 10 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 219.863

RL	151.65	LAL	.00	LOL	316.96	VL	24.452	GAL	3.89	AZL	91.67	HCA	89.99	SMA	115.16	ECC	.32331	INC	1.6705	V1	29.380		
RP	108.13	LAP	-1.67	LOP	46.96	VP	36.087	GAP	-18.55	AZP	90.00	TAL	171.77	TAP	261.76	RCA	77.93	APO	152.39	V2	35.046		
RC	40.182	GL	-7.56	GP	-8.89	ZAL	68.93	ZAP	9.94	ETS	113.72	ZAE	175.68	ETE	317.22	ZAC	90.94	ETC	258.55	CLP	4.47		

PLANETOCENTRIC CONIC

C3	29.220	VHL	5.406	DLA	-29.14	RAL	245.10	RAD	6568.2	VEL	12.272	PTH	2.21	VHP	11.414	DPA	-25.16	RAP	226.35	ECC	1.4809		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.82	11 28 52	1177.36	17.75	344.38	120.04	113.50	11 48 29	577.4	20.78	336.95
97.18	13 27 43	793.08	17.76	316.20	120.05	113.49	13 40 56	193.1	20.79	308.77
100.00	12 53 21	903.42	12.84	321.93	117.63	117.23	13 8 24	303.4	16.39	314.94
100.00	14 45 55	5830.29	22.81	277.68	122.19	109.86	16 23 5	5230.3	25.31	269.78
110.00	12 38 56	948.75	4.96	320.65	112.93	123.86	12 54 45	348.8	9.37	314.34
110.00	17 16 48	5357.72	31.56	244.81	125.17	103.86	18 46 6	4757.7	33.15	235.94

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2236	TRA	-1.0401	TC3	.0529	BAU	.0262	SGT	1285.6	SGR	477.5	SG3	103.5	ST	446.7	SR	470.8	SS	346.1
RDE	-.4438	RRA	.0571	RC3	-.0413	FAU	.02285	RRT	-.3281	RRF	.3449	RTF	-.8174	CRT	-.5674	CRS	-.6441	CST	.9935
FDE	-.2018	FRA	.7616	FC3	-.6771	BSP	3841	SGB	1371.4	R23	-.0420	R13	.8203	LSA	660.2	MSA	323.8	SSA	16.5
BDE	.4969	BRA	1.0417	BC3	.0671	FSP	-259	SG1	1296.4	SG2	447.3	THA	172.10	EL1	574.9	EL2	301.3	ALF	132.35

LAUNCH DATE AUG 10 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 226.591

RL	151.65	LAL	.00	LOL	316.96	VL	24.693	GAL	3.59	AZL	91.50	HCA	93.20	SMA	116.36	ECC	.30908	INC	1.5048	V1	29.380
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.264	GAP	-17.55	AZP	89.92	TAL	171.91	TAP	265.11	RCA	80.39	APO	152.32	V2	35.060
RC	40.174	GL	-7.26	GP	-9.46	ZAL	69.10	ZAP	9.87	ETS	103.61	ZAE	172.84	ETE	325.86	ZAC	90.60	ETC	258.78	CLP	2.83

PLANETOCENTRIC CONIC

C3	26.252	VHL	5.124	DLA	-28.81	RAL	244.95	RAD	6568.1	VEL	12.150	PTH	2.18	VHP	10.862	DPA	-26.21	RAP	227.77	ECC	1.4320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.46	11 41 30	1108.03	18.27	339.50	118.05	112.67	11 59 58	508.0	21.18	332.01
95.54	13 13 53	809.05	18.28	317.60	118.06	112.66	13 27 22	209.1	21.19	310.10
100.00	12 41 33	913.12	12.54	322.49	115.28	117.36	12 56 46	313.1	16.10	315.52
100.00	14 56 30	5767.24	24.21	273.52	120.42	108.09	16 32 38	5167.2	26.45	265.44
110.00	12 33 58	936.98	5.41	320.03	111.02	123.80	12 49 35	337.0	9.81	313.71
110.00	17 20 35	5316.14	32.20	241.74	122.86	102.14	18 49 11	4716.1	33.54	232.76

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2238	TRA	-1.0243	TC3	.0975	BAU	.0404	SGT	1334.7	SGR	480.6	SG3	113.7	ST	465.2	SR	469.6	SS	356.6
RDE	-.4193	RRA	.0664	RC3	-.0610	FAU	.02410	RRT	-.3654	RRF	.3851	RTF	-.8292	CRT	-.5828	CRS	-.6442	CST	.9952
FDE	-.2045	FRA	.7902	FC3	-.7949	BSP	4019	SGB	1418.6	R23	-.0478	R13	.8325	LSA	677.7	MSA	323.4	SSA	16.7
BDE	.4753	BRA	1.0264	BC3	.1150	FSP	-288	SG1	1347.6	SG2	443.1	THA	171.59	EL1	588.1	EL2	301.9	ALF	134.54

LAUNCH DATE AUG 10 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 233.334

RL	151.65	LAL	.00	LOL	316.96	VL	24.916	GAL	3.29	AZL	91.34	HCA	96.41	SMA	117.50	ECC	.29579	INC	1.3379	V1	29.380
RP	108.05	LAP	-1.33	LOP	53.37	VP	36.428	GAP	-16.59	AZP	89.85	TAL	172.10	TAP	268.51	RCA	82.74	APO	152.25	V2	35.073
RC	40.345	GL	-6.86	GP	-10.10	ZAL	69.36	ZAP	10.16	ETS	93.45	ZAE	169.94	ETE	329.05	ZAC	90.18	ETC	259.01	CLP	1.17

PLANETOCENTRIC CONIC

C3	23.619	VHL	4.860	DLA	-28.38	RAL	244.72	RAD	6568.0	VEL	12.041	PTH	2.15	VHP	10.333	DPA	-27.30	RAP	229.17	ECC	1.3887

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.09	12 10 38	984.83	18.67	330.64	115.97	111.76	12 27 2	384.8	21.46	323.08
91.91	12 42 54	880.23	18.68	323.00	115.98	111.75	12 57 34	280.2	21.47	315.43
100.00	12 28 18	927.48	12.09	323.32	112.84	117.55	12 43 45	327.5	15.68	316.38
100.00	15 7 55	5700.85	25.54	269.04	118.51	106.09	16 42 56	5100.8	27.50	260.78
110.00	12 27 30	929.98	5.67	319.66	109.00	123.77	12 43 0	330.0	10.07	313.33
110.00	17 25 12	5271.11	32.80	238.36	120.46	100.23	18 53 3	4671.1	33.86	229.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2234	TRA	-1.0071	TC3	.1516	BAU	.0550	SGT	1382.8	SGR	485.0	SG3	125.0	ST	483.0	SR	467.8	SS	366.8
RDE	-.3959	RRA	.0760	RC3	-.0860	FAU	.02550	RRT	-.4066	RRF	.4296	RTF	-.8406	CRT	-.5989	CRS	-.6437	CST	.9966
FDE	-.2064	FRA	.8209	FC3	-.9348	BSP	4208	SGB	1465.4	R23	-.0543	R13	.8444	LSA	694.8	MSA	321.9	SSA	17.0
BDE	.4546	BRA	1.0100	BC3	.1743	FSP	-321	SG1	1398.3	SG2	438.2	THA	170.99	EL1	601.3	EL2	300.9	ALF	136.53

LAUNCH DATE AUG 10 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 240.086

RL	151.65	LAL	.00	LOL	316.96	VL	25.122	GAL	3.01	AZL	91.17	HCA	99.62	SMA	118.58	ECC	.28339	INC	1.1688	V1	29.380
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.582	GAP	-15.67	AZP	89.80	TAL	172.34	TAP	271.96	RCA	84.97	APO	152.18	V2	35.086
RC	40.692	GL	-6.37	GP	-10.81	ZAL	69.70	ZAP	10.82	ETS	83.95	ZAE	167.06	ETE	330.33	ZAC	89.68	ETC	259.24	CLP	-.53

PLANETOCENTRIC CONIC

C3	21.288	VHL	4.614	DLA	-27.83	RAL	244.41	RAD	6567.9	VEL	11.944	PTH	2.13	VHP	9.826	DPA	-28.44	RAP	230.52	ECC	1.3503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 39 14	1057.86	15.31	334.50	112.27	114.11	11 56 52	457.9	18.44	327.22
90.00	13 11 50	756.77	22.67	315.49	115.21	107.44	13 24 27	156.8	24.84	307.49
100.00	12 13 47	946.21	11.49	324.40	110.36	117.78	12 29 33	346.2	15.12	317.49
100.00	15 19 59	5631.70	26.75	264.26	116.47	103.86	16 53 51	5031.7	28.39	255.84
110.00	12 19 33	928.07	5.74	319.56	106.89	123.76	12 35 1	328.1	10.14	313.23
110.00	17 30 42	5222.60	33.32	234.67	117.94	98.10	18 57 45	4622.6	34.08	225.51

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2237	TRA	-.9903	TC3	.2142	BAU	.0695	SGT	1431.8	SGR	491.4	SG3	137.6	ST	501.3	SR	465.3	SS	376.4
RDE	-.3735	RRA	.0861	RC3	-.1172	FAU	.02705	RRT	-.4524	RRF	.4781	RTF	-.8510	CRT	-.6175	CRS	-.6419	CST	.9978
FDE	-.2070	FRA	.8543	FC3	-1.0999	BSP	4399	SGB	1513.8	R23	-.0609	R13	.8552	LSA	712.2	MSA	319.1	SSA	17.3
BDE	.4354	BRA	.9941	BC3	.2441	FSP	-358	SG1	1450.7	SG2	432.5	THA	170.30	EL1	615.6	EL2	298.0	ALF	138.44

LAUNCH DATE AUG 10 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 246.844

RL	151.65	LAL	.00	LOL	316.96	VL	25.312	GAL	2.74	AZL	91.00	HCA	102.83	SMA	119.60	ECC	.27186	INC	.9963	V1	29.380
RP	107.97	LAP	-.97	LOP	59.80	VP	36.725	GAP	-14.78	AZP	89.78	TAL	172.62	TAP	275.45	RCA	87.08	APO	152.11	V2	35.098
RC	41.209	GL	-5.75	GP	-11.60	ZAL	70.12	ZAP	11.81	ETS	75.58	ZAE	164.25	ETE	330.70	ZAC	89.08	ETC	259.47	CLP	-2.27

PLANETOCENTRIC CONIC

C3	19.227	VHL	4.385	DLA	-27.14	RAL	244.04	RAD	6567.8	VEL	11.858	PTH	2.10	VHP	9.341	DPA	-29.64	RAP	231.81	ECC	1.3164

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 12 33	1116.46	13.65	338.00	109.32	115.05	11 31 10	516.5	16.92	330.84
90.00	13 35 32	649.60	24.67	308.28	113.49	104.36	13 46 21	49.6	26.40	300.04
100.00	11 58 7	969.28	10.76	325.71	107.84	118.06	12 14 16	369.3	14.43	318.85
100.00	15 32 40	5560.05	27.82	259.20	114.29	101.40	17 5 20	4960.0	29.11	250.64
110.00	12 10 8	931.53	5.61	319.75	104.73	123.77	12 25 40	331.5	10.01	313.42
110.00	17 37 8	5170.57	33.75	230.67	115.34	95.77	19 3 18	4570.6	34.18	221.45

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2218	TRA	-.9728	TC3	.2872	BAU	.0841	SGT	1479.2	SGR	500.6	SG3	151.5	ST	517.4	SR	462.0	SS	384.9
RDE	-.3521	RRA	.0968	RC3	-.1563	FAU	.02877	RRT	-.5008	RRF	.5303	RTF	-.8608	CRT	-.6343	CRS	-.6384	CST	.9984
FDE	-.2060	FRA	.8905	FC3	-1.2954	BSP	4606	SGB	1561.6	R23	-.0692	R13	.8656	LSA	727.5	MSA	315.9	SSA	17.6
BDE	.4161	BRA	.9776	BC3	.3270	FSP	-399	SG1	1502.2	SG2	426.7	THA	169.52	EL1	628.2	EL2	294.2	ALF	140.07

LAUNCH DATE AUG 10 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 253.605

RL	151.65	LAL	.00	LOL	316.96	VL	25.486	GAL	2.48	AZL	90.82	HCA	106.05	SMA	120.56	ECC	.26117	INC	.8192	V1	29.380
RP	107.93	LAP	-.79	LOP	63.01	VP	36.857	GAP	-13.92	AZP	89.77	TAL	172.95	TAP	279.00	RCA	89.08	APO	152.05	V2	35.111
RC	41.891	GL	-5.01	GP	-12.49	ZAL	70.62	ZAP	13.12	ETS	68.54	ZAE	161.53	ETE	330.51	ZAC	88.37	ETC	259.70	CLP	-4.06

PLANETOCENTRIC CONIC

C3	17.409	VHL	4.172	DLA	-26.31	RAL	243.60	RAD	6567.7	VEL	11.781	PTH	2.08	VHP	8.877	DPA	-30.91	RAP	233.05	ECC	1.2865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 49 0	1166.05	12.20	340.92	106.54	115.75	11 8 26	566.0	15.57	333.86
90.00	13 55 38	5841.58	26.12	279.52	111.47	101.33	15 33 0	5241.6	27.42	271.10
100.00	11 41 23	996.85	9.87	327.28	105.33	118.36	11 58 0	396.8	13.59	320.46
100.00	15 45 56	5486.01	28.70	253.88	111.99	98.73	17 17 22	4886.0	29.61	245.19
110.00	11 59 18	940.62	5.27	320.22	102.53	123.82	12 14 58	340.6	9.68	313.91
110.00	17 44 30	5114.99	34.05	226.36	112.64	93.24	19 9 45	4515.0	34.12	217.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2183	TRA	-.9556	TC3	.3693	BAU	.0983	SGT 1525.7 SGR	$13.6 SG3 166.8	ST 531.8 SR 457.7 SS 392.0	
RDE	-.3313	RRA	.1085	RC3	-.2046	FAU	.03066	RRT -.5516 RRF	.5852 RTF -.8697	CRT -.6504 CRS -.6313 CST .9981	
FDE	-.2019	FRA	.9303	FC3	-1.5247	BSP	4781	SGB 1609.9 R23	-.0790 R13 .8753	LSA 740.3 MSA 312.5 SSA 18.0	
BDE	.3968	BRA	.9617	BC3	.4222	FSP	-444	SG1 1553.9 SG2	420.6 THA 168.64	EL1 639.3 EL2 289.2 ALF 141.52	

LAUNCH DATE AUG 10 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 260.367

RL	151.65	LAL	.00	LOL	316.96	VL	25.647	GAL	2.23	AZL	90.64	HCA	109.26	SMA	121.47	ECC	.25128	INC	.6362	V1	29.380
RP	107.89	LAP	-.60	LOP	66.23	VP	36.980	GAP	-13.09	AZP	89.79	TAL	173.31	TAP	282.58	RCA	90.95	APO	151.99	V2	35.123
RC	42.728	GL	-4.10	GP	-13.49	ZAL	71.20	ZAP	14.70	ETS	62.77	ZAE	158.93	ETE	329.92	ZAC	87.54	ETC	259.92	CLP	-5.90

PLANETOCENTRIC CONIC

C3	15.810	VHL	3.976	DLA	-25.32	RAL	243.12	RAD	6567.6	VEL	11.713	PTH	2.06	VHP	8.436	DPA	-32.26	RAP	234.21	ECC	1.2602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 26 20	1214.28	10.76	343.73	103.87	116.35	10 46 34	614.3	14.22	336.76
90.00	14 14 28	5749.20	27.19	272.98	109.26	98.22	15 50 17	5149.2	28.05	264.41
100.00	11 23 40	1029.16	8.82	329.10	102.85	118.68	11 40 49	429.2	12.58	322.33
100.00	15 59 49	5409.55	29.36	248.29	109.56	95.86	17 29 59	4809.6	29.87	239.52
110.00	11 47 6	955.63	4.70	321.01	100.33	123.90	12 3 2	355.6	9.12	314.71
110.00	17 52 52	5055.85	34.18	221.74	109.88	90.51	19 17 8	4455.8	33.87	212.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2135	TRA	-.9382	TC3	.4627	BAU	.1126	SGT 1570.6 SGR	531.7 SG3 183.8	ST 544.1 SR 452.3 SS 397.5	
RDE	-.3112	RRA	.1214	RC3	-.2641	FAU	.03275	RRT -.6042 RRF	.6418 RTF -.8781	CRT -.6667 CRS -.6207 CST .9966	
FDE	-.1947	FRA	.9740	FC3	-1.7932	BSP	4972	SGB 1658.2 R23	-.0895 R13 .8846	LSA 750.4 MSA 308.6 SSA 18.3	
BDE	.3774	BRA	.9460	BC3	.5328	FSP	-495	SG1 1605.6 SG2	414.4 THA 167.60	EL1 648.6 EL2 282.8 ALF 142.79	

LAUNCH DATE AUG 10 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 267.125

RL	151.65	LAL	.00	LOL	316.96	VL	25.794	GAL	2.00	AZL	90.45	HCA	112.48	SMA	122.32	ECC	.24216	INC	.4457	V1	29.380
RP	107.86	LAP	-.41	LOP	69.45	VP	37.093	GAP	-12.29	AZP	89.83	TAL	173.71	TAP	286.20	RCA	92.70	APO	151.94	V2	35.135
RC	43.711	GL	-3.03	GP	-14.61	ZAL	71.85	ZAP	16.52	ETS	58.13	ZAE	156.46	ETE	329.02	ZAC	86.57	ETC	260.13	CLP	-7.80

PLANETOCENTRIC CONIC

C3	14.410	VHL	3.796	DLA	-24.14	RAL	242.61	RAD	6567.6	VEL	11.653	PTH	2.05	VHP	8.017	DPA	-33.71	RAP	235.28	ECC	1.2371

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 3 49	1264.11	9.24	346.60	101.31	116.89	10 24 53	664.1	12.78	339.71
90.00	14 32 54	5657.80	27.91	266.38	106.90	94.99	16 7 12	5057.8	28.31	257.74
100.00	11 5 1	1066.57	7.59	331.20	100.43	119.00	11 22 47	466.6	11.40	324.49
100.00	16 14 23	5330.57	29.77	242.45	107.05	92.82	17 43 14	4730.6	29.84	233.65
110.00	11 33 38	976.83	3.89	322.13	98.15	123.99	11 49 54	376.8	8.33	315.85
110.00	18 2 16	4993.07	34.11	216.84	107.07	87.61	19 25 29	4393.1	33.40	207.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.2065	TRA	-.9211	TC3	.5654	BAU	.1268	SGT 1613.2 SGR	556.4 SG3 202.5	ST 553.3 SR 445.1 SS 401.2	
RDE	-.2915	RRA	.1359	RC3	-.3370	FAU	.03504	RRT -.6568 RRF	.6982 RTF -.8859	CRT -.6822 CRS -.6037 CST .9931	
FDE	-.1823	FRA	1.0227	FC3	-2.1051	BSP	5160	SGB 1706.4 R23	-.1013 R13 .8935	LSA 756.4 MSA 304.8 SSA 18.8	
BDE	.3572	BRA	.9310	BC3	.6582	FSP	-551	SG1 1656.8 SG2	408.5 THA 166.39	EL1 654.7 EL2 275.0 ALF 143.91	

LAUNCH DATE AUG 10 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 273.879

RL	151.65	LAL	.00	LOL	316.96	VL	25.929	GAL	1.78	AZL	90.25	HCA	115.70	SMA	123.11	ECC	.23377	INC	.2455	V1	29.380
RP	107.82	LAP	-.22	LOP	72.67	VP	37.198	GAP	-11.51	AZP	89.89	TAL	174.14	TAP	289.85	RCA	94.33	APO	151.89	V2	35.146
RC	44.829	GL	-1.76	GP	-15.89	ZAL	72.57	ZAP	18.58	ETS	54.41	ZAE	154.11	ETE	327.83	ZAC	85.44	ETC	260.33	CLP	-9.77

PLANETOCENTRIC CONIC

C3	13.189	VHL	3.632	DLA	-22.75	RAL	242.08	RAD	6567.5	VEL	11.601	PTH	2.03	VHP	7.620	DPA	-35.28	RAP	236.24	ECC	1.2171

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 41 7	1317.21	7.59	349.63	98.87	117.36	10 3 4	717.2	11.20	342.81
90.00	14 51 23	5565.94	28.27	259.69	104.46	91.65	16 24 9	4965.9	28.20	251.03
100.00	10 45 28	1109.50	6.17	333.59	98.10	119.31	11 3 58	509.5	10.03	326.93
100.00	16 29 43	5248.88	29.89	236.39	104.48	89.63	17 57 12	4648.9	29.52	227.60
110.00	11 18 57	1004.55	2.84	323.58	96.03	124.08	11 35 41	404.5	7.29	317.32
110.00	18 12 44	4926.59	33.80	211.67	104.25	84.57	19 34 50	4326.6	32.68	202.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.1962	TRA	-.9041	TC3	.6769	BAU	.1410	SGT 1652.3 SGR	589.4 SG3 223.0	ST 558.0 SR 435.6 SS 402.8	
RDE	-.2715	RRA	.1526	RC3	-.4260	FAU	.03755	RRT -.7070 RRF	.7525 RTF -.8930	CRT -.6956 CRS -.5774 CST .9865	
FDE	-.1629	FRA	1.0765	FC3	-2.4648	BSP	5344	SGB 1754.3 R23	-.1145 R13 .9020	LSA 756.1 MSA 301.9 SSA 19.2	
BDE	.3350	BRA	.9169	BC3	.7998	FSP	-614	SG1 1707.3 SG2	403.4 THA 164.99	EL1 655.9 EL2 266.2 ALF 144.89	

LAUNCH DATE AUG 10 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 280.624

RL 151.65 LAL .00 LOL 316.96 VL 26.052 GAL 1.58 AZL 90.04 HCA 118.93 SMA 123.84 ECC .22609 INC .0305 V1 29.380
RP 107.79 LAP -.03 LOP 75.89 VP 37.295 GAP -10.77 AZP 89.98 TAL 174.59 TAP 293.52 RCA 95.84 APO 151.84 V2 35.158
RC 46.073 GL -.26 GP -17.33 ZAL 73.34 ZAP 20.87 ETS 51.44 ZAE 151.88 ETE 326.35 ZAC 84.12 ETC 260.51 CLP -11.82

PLANETOCENTRIC CONIC

C3 12.132 VHL 3.483 DLA -21.14 RAL 241.56 RAD 6567.5 VEL 11.555 PTH 2.02 VHP 7.247 DPA -36.99 RAP 237.07 ECC 1.1997

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 18 3	1374.79	5.78	352.89	96.59	117.77	9 40 57	774.8	9.45	346.14
90.00	15 10 15	5472.64	28.27	252.87	101.98	88.23	16 41 27	4872.6	27.72	244.24
100.00	10 25 5	1158.44	4.53	336.30	95.90	119.58	10 44 23	558.4	8.44	329.69
100.00	16 45 54	5164.23	29.69	230.10	101.90	86.33	18 11 58	4564.2	28.86	221.40
110.00	11 3 8	1039.15	1.52	325.38	94.02	124.15	11 20 28	439.2	5.99	319.15
110.00	18 24 19	4856.28	33.22	206.27	101.46	81.42	19 45 16	4256.3	31.67	197.38

DIFFERENTIAL CORRECTIONS
TDE .1842 TRA -.8868 TC3 .7942 BAU .1552
RDE -.2512 RRA .1719 RC3 -.5334 FAU .04025
FDE -.1360 FRA 1.1357 FC3-2.8720 BSP 5531
BDE .3115 BRA .9033 BC3 .9567 FSP -682

MID-COURSE EXECUTION ACCURACY
SGT 1686.4 SGR 633.0 SG3 245.4
RRT -.7539 RRF .8027 RTF -.8994
SGB 1801.3 R23 -.1282 R13 .9102
SG1 1756.5 SG2 399.2 THA 163.31

ORBIT DETERMINATION ACCURACY
ST 558.7 SR 423.2 SS 403.3
CRT -.7105 CRS -.5422 CST .9747
LSA 750.9 MSA 299.4 SSA 19.7
EL1 653.0 EL2 254.8 ALF 145.80

LAUNCH DATE AUG 10 1970 FLIGHT TIME 112.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 287.359

RL 151.65 LAL .00 LOL 316.96 VL 26.164 GAL 1.38 AZL 89.81 HCA 122.15 SMA 124.52 ECC .21907 INC .1890 V1 29.380
RP 107.76 LAP .16 LOP 79.12 VP 37.383 GAP -10.04 AZP 90.10 TAL 175.06 TAP 297.21 RCA 97.24 APO 151.80 V2 35.168
RC 47.431 GL 1.48 GP -18.96 ZAL 74.17 ZAP 23.40 ETS 49.08 ZAE 149.75 ETE 324.60 ZAC 82.60 ETC 260.66 CLP -13.96

PLANETOCENTRIC CONIC

C3 11.228 VHL 3.351 DLA -19.27 RAL 241.05 RAD 6567.4 VEL 11.516 PTH 2.01 VHP 6.899 DPA -38.85 RAP 237.74 ECC 1.1848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 30	1437.89	3.77	356.43	94.49	118.09	9 18 28	837.9	7.49	349.74
90.00	15 29 45	5377.16	27.87	245.91	99.51	84.77	16 59 23	4777.2	26.85	237.39
100.00	10 3 53	1213.97	2.66	339.36	93.88	119.78	10 24 7	614.0	6.60	332.79
100.00	17 3 3	5076.32	29.13	223.63	99.36	82.96	18 27 39	4476.3	27.85	215.06
110.00	10 46 17	1081.08	-.09	327.57	92.16	124.18	11 4 19	481.1	4.40	321.36
110.00	18 37 8	4781.97	32.32	200.66	98.74	78.21	19 56 50	4182.0	30.36	191.99

DIFFERENTIAL CORRECTIONS
TDE .1685 TRA -.8709 TC3 .9135 BAU .1693
RDE -.2295 RRA .1947 RC3 -.6621 FAU .04314
FDE -.0982 FRA 1.2024 FC3-3.3260 BSP 5723
BDE .2847 BRA .8924 BC3 1.1282 FSP -759

MID-COURSE EXECUTION ACCURACY
SGT 1716.5 SGR 689.4 SG3 269.6
RRT -.7952 RRF .8473 RTF -.9051
SGB 1849.8 R23 -.1428 R13 .9182
SG1 1806.7 SG2 397.2 THA 161.35

ORBIT DETERMINATION ACCURACY
ST 554.4 SR 406.7 SS 404.1
CRT -.7247 CRS -.4929 CST .9548
LSA 739.2 MSA 298.8 SSA 20.1
EL1 643.8 EL2 241.3 ALF 146.73

LAUNCH DATE AUG 10 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 294.083

RL 151.65 LAL .00 LOL 316.96 VL 26.266 GAL 1.21 AZL 89.57 HCA 125.38 SMA 125.15 ECC .21268 INC .4305 V1 29.380
RP 107.72 LAP .35 LOP 82.34 VP 37.464 GAP -9.34 AZP 90.25 TAL 175.53 TAP 300.91 RCA 98.53 APO 151.77 V2 35.179
RC 48.893 GL 3.50 GP -20.82 ZAL 75.04 ZAP 26.16 ETS 47.18 ZAE 147.69 ETE 322.55 ZAC 80.85 ETC 260.78 CLP -16.20

PLANETOCENTRIC CONIC

C3 10.466 VHL 3.235 DLA -17.13 RAL 240.58 RAD 6567.4 VEL 11.483 PTH 2.00 VHP 6.577 DPA -40.90 RAP 238.22 ECC 1.1722

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 23	1507.52	1.53	.32	92.63	118.28	8 55 31	907.5	5.29	353.67
90.00	15 50 9	5278.82	27.06	238.83	97.14	81.31	17 18 8	4678.8	25.58	230.48
100.00	9 41 53	1276.79	.53	342.81	92.07	119.89	10 3 10	676.8	4.50	336.28
100.00	17 21 20	4984.78	28.18	216.99	96.92	79.59	18 44 25	4384.8	26.46	208.61
110.00	10 28 28	1130.88	-1.99	330.17	90.50	124.13	10 47 19	530.9	2.50	323.96
110.00	18 51 15	4703.46	31.08	194.87	96.17	75.00	20 9 39	4103.5	28.71	186.47

DIFFERENTIAL CORRECTIONS
TDE .1498 TRA -.8547 TC3 1.0314 BAU .1839
RDE -.2057 RRA .2217 RC3 -.8147 FAU .04618
FDE -.0470 FRA 1.2748 FC3-3.8200 BSP 5901
BDE .2545 BRA .8829 BC3 1.3144 FSP -839

MID-COURSE EXECUTION ACCURACY
SGT 1739.1 SGR 761.2 SG3 295.5
RRT -.8303 RRF .8849 RTF -.9101
SGB 1898.3 R23 -.1567 R13 .9261
SG1 1856.3 SG2 397.4 THA 159.02

ORBIT DETERMINATION ACCURACY
ST 544.6 SR 384.9 SS 407.6
CRT -.7420 CRS -.4302 CST .9222
LSA 721.3 MSA 300.3 SSA 20.4
EL1 628.3 EL2 223.7 ALF 147.75

LAUNCH DATE AUG 10 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 300.793

RL 151.65 LAL .00 LOL 316.96 VL 26.359 GAL 1.04 AZL 89.31 HCA 128.61 SMA 125.73 ECC .20689 INC .6922 V1 29.380
RP 107.69 LAP .54 LOP 85.57 VP 37.538 GAP -8.66 AZP 90.43 TAL 176.00 TAP 304.61 RCA 99.72 APO 151.74 V2 35.188
RC 50.451 GL 5.83 GP -22.94 ZAL 75.95 ZAP 29.19 ETS 45.64 ZAE 145.66 ETE 320.19 ZAC 78.82 ETC 260.87 CLP -18.55

PLANETOCENTRIC CONIC

C3 9.841 VHL 3.137 DLA -14.67 RAL 240.18 RAD 6567.4 VEL 11.456 PTH 1.99 VHP 6.283 DPA -43.16 RAP 238.47 ECC 1.1620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 38	1584.72	-.97	4.63	91.05	118.30	8 32 3	984.7	2.82	358.00
90.00	16 11 42	5176.96	25.80	231.64	94.92	77.92	17 37 59	4577.0	23.88	223.50
100.00	9 19 5	1347.72	-1.88	346.70	90.55	119.84	9 41 33	747.7	2.11	340.18
100.00	17 40 56	4889.19	26.82	210.21	94.66	76.28	19 2 25	4289.2	24.67	202.08
110.00	10 9 42	1189.19	-4.21	333.22	89.09	123.95	10 29 31	589.2	.27	327.01
110.00	19 6 49	4620.49	29.47	188.95	93.80	71.84	20 23 49	4020.5	26.70	180.86

DIFFERENTIAL CORRECTIONS
TDE .1268 TRA -.8393 TC3 1.1411 BAU .1991
RDE -.1782 RRA .2541 RC3 -.9935 FAU .04933
FDE .0216 FRA 1.3545 FC3-4.3399 BSP 6064
BDE .2187 BRA .8769 BC3 1.5130 FSP -923

MID-COURSE EXECUTION ACCURACY
SGT 1754.2 SGR 851.3 SG3 322.8
RRT -.8585 RRF .9155 RTF -.9145
SGB 1949.8 R23 -.1692 R13 .9340
SG1 1908.0 SG2 401.4 THA 156.27

ORBIT DETERMINATION ACCURACY
ST 529.2 SR 356.3 SS 419.3
CRT -.7645 CRS -.3602 CST .8741
LSA 699.5 MSA 305.2 SSA 20.6
EL1 605.6 EL2 200.7 ALF 148.98

LAUNCH DATE AUG 10 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 307.487

RL	151.65	LAL	.00	LOL	316.96	VL	26.442	GAL	.89	AZL	89.02	HCA	131.83	SMA	126.26	ECC	.20166	INC	.9787	V1	29.380
RP	107.67	LAP	.73	LOP	88.80	VP	37.606	GAP	-8.01	AZP	90.65	TAL	176.47	TAP	308.30	RCA	100.80	APO	151.72	V2	35.198
RC	52.096	GL	8.49	GP	-25.35	ZAL	76.89	ZAP	32.48	ETS	44.38	ZAE	143.60	ETE	317.52	ZAC	76.49	ETC	260.90	CLP	-21.03

PLANETOCENTRIC CONIC

C3	9.351	VHL	3.058	DLA	-11.89	RAL	239.87	RAD	6567.3	VEL	11.434	PTH	1.98	VHP	6.020	DPA	-45.66	RAP	238.42	ECC	1.1539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 8	1670.68	-3.73	9.43	89.82	118.09	8 7 59	1070.7	.05	2.80
90.00	16 34 41	5070.91	24.09	224.35	92.95	74.65	17 59 12	4470.9	21.75	216.46
100.00	8 55 26	1427.75	-4.58	351.11	89.36	119.57	9 19 14	827.7	-.61	344.57
100.00	18 2 5	4789.07	25.02	203.32	92.65	73.08	19 21 54	4189.1	22.46	195.46
110.00	9 50 1	1256.82	-6.77	336.78	88.00	123.59	10 10 58	656.8	-2.31	330.53
110.00	19 23 59	4532.77	27.45	182.92	91.71	68.78	20 39 32	3932.8	24.32	175.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1010	TRA	-.8247	TC3	1.2298	BAU	.2145	SGT	1759.2	SGR	962.1	SG3	350.5	ST	510.6	SR	321.2	SS	446.1
RDE	-.1454	RRA	.2937	RC3	-1.1963	FAU	.05237	RRT	-.8801	RRF	.9393	RTF	-.9179	CRT	-.8046	CRS	-.3115	CST	.8118
FDE	.1094	FRA	1.4413	FC3	-4.8488	BSP	6259	SGB	2005.1	R23	-.1785	R13	.9420	LSA	681.6	MSA	312.9	SSA	20.3
BDE	.1770	BRA	.8754	BC3	1.7157	FSP	-1012	SG1	1962.9	SG2	409.3	THA	153.03	EL1	579.3	EL2	168.1	ALF	150.42

LAUNCH DATE AUG 10 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 314.165

RL	151.65	LAL	.00	LOL	316.96	VL	26.517	GAL	.75	AZL	88.70	HCA	135.06	SMA	126.74	ECC	.19696	INC	1.2957	V1	29.380
RP	107.64	LAP	.92	LOP	92.03	VP	37.667	GAP	-7.37	AZP	90.92	TAL	176.92	TAP	311.99	RCA	101.77	APO	151.70	V2	35.206
RC	53.818	GL	11.53	GP	-28.08	ZAL	77.85	ZAP	36.08	ETS	43.29	ZAE	141.46	ETE	314.53	ZAC	73.82	ETC	260.87	CLP	-23.64

PLANETOCENTRIC CONIC

C3	8.999	VHL	3.000	DLA	-8.74	RAL	239.66	RAD	6567.3	VEL	11.419	PTH	1.98	VHP	5.794	DPA	-48.44	RAP	238.02	ECC	1.1481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 13 45	1766.76	-6.79	14.84	89.01	117.56	7 43 11	1166.8	-3.05	8.16
90.00	16 59 27	4959.96	21.89	216.96	91.30	71.58	18 22 7	4360.0	19.17	209.34
100.00	8 30 50	1518.07	-7.59	356.12	88.58	119.00	8 56 8	918.1	-3.66	349.53
100.00	18 25 2	4683.89	22.75	196.33	90.98	70.07	19 43 6	4083.9	19.83	188.76
110.00	9 29 23	1334.74	-9.69	340.94	87.31	122.94	9 51 38	734.7	-5.28	334.62
110.00	19 42 59	4439.99	25.02	176.81	89.98	65.91	20 56 59	3840.0	21.55	169.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0734	TRA	-.8100	TC3	1.2946	BAU	.2314	SGT	1753.1	SGR	1097.9	SG3	377.8	ST	490.6	SR	283.6	SS	493.1
RDE	-.1054	RRA	.3417	RC3	-1.4230	FAU	.05527	RRT	-.8962	RRF	.9572	RTF	-.9204	CRT	-.8755	CRS	-.3393	CST	.7473
FDE	.2174	FRA	1.5322	FC3	-5.3171	BSP	6472	SGB	2068.5	R23	-.1828	R13	.9501	LSA	679.0	MSA	320.9	SSA	19.5
BDE	.1284	BRA	.8791	BC3	1.9238	FSP	-1101	SG1	2025.0	SG2	421.7	THA	149.22	EL1	553.5	EL2	121.5	ALF	151.67

LAUNCH DATE AUG 10 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 320.824

RL	151.65	LAL	.00	LOL	316.96	VL	26.585	GAL	.63	AZL	88.35	HCA	138.29	SMA	127.17	ECC	.19275	INC	1.6509	V1	29.380
RP	107.61	LAP	1.10	LOP	95.27	VP	37.722	GAP	-6.75	AZP	91.23	TAL	177.35	TAP	315.65	RCA	102.66	APO	151.68	V2	35.214
RC	55.612	GL	14.97	GP	-31.18	ZAL	78.82	ZAP	39.98	ETS	42.29	ZAE	139.14	ETE	311.25	ZAC	70.77	ETC	260.76	CLP	-26.40

PLANETOCENTRIC CONIC

C3	8.796	VHL	2.966	DLA	-5.22	RAL	239.59	RAD	6567.3	VEL	11.410	PTH	1.97	VHP	5.608	DPA	-51.52	RAP	237.15	ECC	1.1448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 46 13	1874.62	-10.13	21.00	88.72	116.58	7 17 27	1274.6	-6.48	14.22
90.00	17 26 24	4843.38	19.20	209.47	90.08	68.78	18 47 7	4243.4	16.14	202.13
100.00	8 5 6	1620.16	-10.91	1.88	88.32	118.00	8 32 6	1020.2	-7.08	355.19
100.00	18 50 12	4573.07	20.00	189.25	89.74	67.31	20 6 25	3973.1	16.76	181.96
110.00	9 7 42	1424.15	-12.95	345.80	87.11	121.91	9 31 26	824.1	-8.64	339.36
110.00	20 4 5	4341.84	22.15	170.64	88.68	63.27	21 16 27	3741.8	18.38	163.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0425	TRA	-.7958	TC3	1.3190	BAU	.2496	SGT	1732.6	SGR	1260.5	SG3	402.9	ST	470.9	SR	257.3	SS	566.5
RDE	-.0541	RRA	.4008	RC3	-1.6632	FAU	.05767	RRT	-.9070	RRF	.9703	RTF	-.9218	CRT	-.9681	CRS	-.5076	CST	.6989
FDE	.3517	FRA	1.6258	FC3	-5.6759	BSP	6659	SGB	2142.5	R23	-.1809	R13	.9584	LSA	709.5	MSA	324.2	SSA	18.0
BDE	.0688	BRA	.8910	BC3	2.1227	FSP	-1177	SG1	2097.2	SG2	438.6	THA	144.82	EL1	533.6	EL2	56.9	ALF	151.77

LAUNCH DATE AUG 10 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 327.464

RL	151.65	LAL	.00	LOL	316.96	VL	26.645	GAL	.52	AZL	87.95	HCA	141.52	SMA	127.56	ECC	.18901	INC	2.0544	V1	29.380
RP	107.59	LAP	1.28	LOP	98.51	VP	37.771	GAP	-6.16	AZP	91.61	TAL	177.76	TAP	319.28	RCA	103.45	APO	151.67	V2	35.222
RC	57.469	GL	18.82	GP	-34.68	ZAL	79.78	ZAP	44.19	ETS	41.31	ZAE	136.58	ETE	307.70	ZAC	67.31	ETC	260.55	CLP	-29.31

PLANETOCENTRIC CONIC

C3	8.765	VHL	2.961	DLA	-1.29	RAL	239.67	RAD	6567.3	VEL	11.409	PTH	1.97	VHP	5.470	DPA	-54.91	RAP	235.66	ECC	1.1442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 17 10	1996.31	-13.74	28.11	89.06	115.00	6 50 27	1396.3	-10.26	21.17
90.00	17 56 5	4720.30	15.99	201.86	89.40	66.32	19 14 45	4120.3	12.65	194.78
100.00	7 37 55	1735.85	-14.51	8.58	88.68	116.42	8 6 51	1135.9	-10.85	1.71
100.00	19 18 2	4455.99	16.77	182.06	89.04	64.89	20 32 18	3856.0	13.25	175.04
110.00	8 44 47	1526.54	-16.56	351.54	87.54	120.34	9 10 14	926.5	-12.41	344.90
110.00	20 27 39	4238.07	18.84	164.40	87.92	60.93	21 38 17	3638.1	14.82	157.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0105	TRA	-.7801	TC3	1.2951	BAU	.2698	SGT	1693.8	SGR	1452.4	SG3	423.5	ST	454.1	SR	277.8	SS	664.1
RDE	.0123	RRA	.4730	RC3	-1.9037	FAU	.05933	RRT	-.9132	RRF	.9795	RTF	-.9217	CRT	-.9889	CRS	-.7696	CST	.6790
FDE	.5096	FRA	1.7141	FC3	-5.8603	BSP	6933	SGB	2231.2	R23	-.1718	R13	.9666	LSA	789.2	MSA	318.2	SSA	15.8
BDE	.0162	BRA	.9123	BC3	2.3024	FSP	-1248	SG1	2183.5	SG2	459.1	THA	139.80	EL1	531.1	EL2	35.2	ALF	148.67

LAUNCH DATE AUG 10 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 334.084

RL	151.65	LAL	.00	LOL	316.96	VL	26.698	GAL	.43	AZL	87.48	HCA	144.75	SMA	127.91	ECC	.18571	INC	2.5197	V1	29.380
RP	107.57	LAP	1.45	LOP	101.74	VP	37.815	GAP	-5.58	AZP	92.06	TAL	178.13	TAP	322.88	RCA	104.16	APO	151.66	V2	35.229
RC	59.382	GL	23.11	GP	-38.60	ZAL	80.74	ZAP	48.71	ETS	40.24	ZAE	133.68	ETE	303.93	ZAC	63.43	ETC	260.21	CLP	-32.39

PLANETOCENTRIC CONIC

C3	8.941	VHL	2.990	DLA	3.04	RAL	239.93	RAD	6567.3	VEL	11.416	PTH	1.98	VHP	5.391	DPA	-58.62	RAP	233.34	ECC	1.1471

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 46 3	2134.51	-17.55	36.47	90.20	112.59	6 21 38	1534.5	-14.34	29.27
90.00	18 29 16	4589.72	12.27	194.08	89.40	64.28	19 45 46	3989.7	8.71	187.21
100.00	7 8 49	1867.56	-18.34	16.48	89.84	114.03	7 39 57	1267.6	-14.94	9.34
100.00	19 49 12	4331.90	13.04	174.73	89.00	62.86	21 1 24	3731.9	9.30	167.94
110.00	8 20 19	1643.76	-20.45	358.40	88.75	118.00	8 47 43	1043.8	-16.55	351.45
110.00	20 54 11	4128.47	15.10	158.11	87.82	58.96	22 2 59	3528.5	10.87	151.55

DIFFERENTIAL CORRECTIONS

TDE	-.0227	TRA	-.7638	TC3	1.2144	BAU	.2920
RDE	.1008	RRA	.5626	RC3	-2.1198	FAU	.05982
FDE	.6926	FRA	1.7938	FC3	-5.7922	BSP	7260
BDE	.1033	BRA	.9487	BC3	2.4430	FSP	-1297

MID-COURSE EXECUTION ACCURACY

SGT	1636.3	SGR	1676.3	SG3	437.2		
RRT	-.9156	RRF	.9860	RTF	-.9200		
SGB	2342.5	R23	-.1553	R13	.9746		
SG1	2292.6	SG2	481.1	THA	134.24		

ORBIT DETERMINATION ACCURACY

ST	442.4	SR	379.0	SS	784.7
CRT	-.9044	CRS	-.9314	CST	.6898
LSA	928.6	MSA	304.3	SSA	13.4
EL1	568.8	EL2	125.8	ALF	139.87

LAUNCH DATE AUG 10 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 340.681

RL	151.65	LAL	.00	LOL	316.96	VL	26.745	GAL	.35	AZL	86.93	HCA	147.98	SMA	128.22	ECC	.18280	INC	3.0658	V1	29.380
RP	107.55	LAP	1.62	LOP	104.98	VP	37.853	GAP	-5.01	AZP	92.60	TAL	178.46	TAP	326.44	RCA	104.78	APO	151.66	V2	35.235
RC	61.346	GL	27.83	GP	-42.95	ZAL	81.68	ZAP	53.49	ETS	38.98	ZAE	130.37	ETE	300.02	ZAC	59.10	ETC	259.69	CLP	-35.63

PLANETOCENTRIC CONIC

C3	9.389	VHL	3.064	DLA	7.78	RAL	240.39	RAD	6567.3	VEL	11.436	PTH	1.98	VHP	5.383	DPA	-62.62	RAP	229.83	ECC	1.1545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 11 54	2293.02	-21.39	46.51	92.34	109.01	5 50 7	1693.0	-18.60	38.95
90.00	19 7 4	4450.14	8.02	186.03	90.23	62.75	20 21 15	3850.1	4.31	179.32
100.00	6 37 0	2018.59	-22.25	26.00	92.01	110.50	7 10 38	1418.6	-19.26	18.48
100.00	20 24 40	4199.80	8.83	167.19	89.80	61.32	21 34 40	3599.8	4.93	160.57
110.00	7 53 47	1778.27	-24.52	6.72	90.98	114.60	8 23 26	1178.3	-20.99	359.35
110.00	21 24 22	4012.89	10.94	151.73	88.53	57.41	22 31 15	3412.9	6.57	145.37

DIFFERENTIAL CORRECTIONS

TDE	-.0485	TRA	-.7439	TC3	1.0726	BAU	.3159
RDE	.2150	RRA	.6724	RC3	-2.2766	FAU	.05867
FDE	.8809	FRA	1.8511	FC3	-5.4100	BSP	7699
BDE	.2204	BRA	1.0027	BC3	2.5166	FSP	-1322

MID-COURSE EXECUTION ACCURACY

SGT	1552.8	SGR	1928.3	SG3	439.8		
RRT	-.9134	RRF	.9904	RTF	-.9151		
SGB	2475.8	R23	-.1345	R13	.9815		
SG1	2424.2	SG2	502.8	THA	128.28		

ORBIT DETERMINATION ACCURACY

ST	431.3	SR	555.3	SS	909.2
CRT	-.8252	CRS	-.9815	CST	.7031
LSA	1111.6	MSA	291.8	SSA	10.9
EL1	673.8	EL2	200.7	ALF	126.40

LAUNCH DATE AUG 10 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 347.255

RL	151.65	LAL	.00	LOL	316.96	VL	26.785	GAL	.28	AZL	86.28	HCA	151.21	SMA	128.49	ECC	.18028	INC	3.7207	V1	29.380
RP	107.53	LAP	1.79	LOP	108.22	VP	37.887	GAP	-4.47	AZP	93.26	TAL	178.74	TAP	329.95	RCA	105.33	APO	151.65	V2	35.240
RC	63.355	GL	32.94	GP	-47.72	ZAL	82.59	ZAP	58.48	ETS	37.44	ZAE	126.59	ETE	296.04	ZAC	54.34	ETC	258.94	CLP	-39.01

PLANETOCENTRIC CONIC

C3	10.216	VHL	3.196	DLA	12.87	RAL	241.06	RAD	6567.4	VEL	11.472	PTH	1.99	VHP	5.466	DPA	-66.82	RAP	224.51	ECC	1.1681

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 33 4	2477.77	-24.96	58.87	95.73	103.82	5 14 21	1877.8	-22.82	50.85
90.00	19 51 19	4298.81	3.22	177.50	92.16	61.85	21 2 58	3698.8	-.57	170.86
100.00	6 1 4	2193.95	-25.94	37.71	95.45	105.40	6 37 38	1593.9	-23.58	29.71
100.00	21 6 0	4057.86	4.11	159.29	91.67	60.37	22 13 37	3457.9	.13	152.76
110.00	7 24 19	1933.44	-28.52	17.01	94.53	109.70	7 56 32	1333.4	-25.57	9.08
110.00	21 59 14	3891.13	6.41	145.22	90.25	56.35	23 4 5	3291.1	1.94	138.98

DIFFERENTIAL CORRECTIONS

TDE	-.0697	TRA	-.7198	TC3	.8915	BAU	.3434
RDE	.3688	RRA	.8077	RC3	-2.3509	FAU	.05595
FDE	1.0740	FRA	1.8769	FC3	-4.7415	BSP	8149
BDE	.3753	BRA	1.0819	BC3	2.5142	FSP	-1296

MID-COURSE EXECUTION ACCURACY

SGT	1446.4	SGR	2213.9	SG3	430.3		
RRT	-.9071	RRF	.9934	RTF	-.9073		
SGB	2644.5	R23	-.1095	R13	.9875		
SG1	2593.0	SG2	519.7	THA	122.10		

ORBIT DETERMINATION ACCURACY

ST	416.6	SR	798.5	SS	1033.4
CRT	-.7825	CRS	-.9949	CST	.7167
LSA	1342.1	MSA	278.5	SSA	8.7
EL1	868.5	EL2	238.5	ALF	114.15

LAUNCH DATE AUG 10 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 353.805

RL	151.65	LAL	.00	LOL	316.96	VL	26.821	GAL	.22	AZL	85.47	HCA	154.43	SMA	128.72	ECC	.17810	INC	4.5253	V1	29.380
RP	107.52	LAP	1.95	LOP	111.47	VP	37.917	GAP	-3.94	AZP	94.08	TAL	178.97	TAP	333.40	RCA	105.80	APO	151.65	V2	35.245
RC	65.403	GL	38.39	GP	-52.88	ZAL	83.48	ZAP	63.58	ETS	35.52	ZAE	122.31	ETE	292.06	ZAC	49.20	ETC	257.88	CLP	-42.50

PLANETOCENTRIC CONIC

C3	11.609	VHL	3.407	DLA	18.27	RAL	241.97	RAD	6567.4	VEL	11.532	PTH	2.01	VHP	5.669	DPA	-71.05	RAP	216.24	ECC	1.1911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 46 6	2700.02	-27.64	74.56	100.58	96.41	4 31 6	2100.0	-26.46	66.09
90.00	20 45 32	4128.90	-2.26	168.01	95.56	61.77	21 54 21	3528.9	-6.01	161.35
100.00	5 18 20	2402.55	-28.86	52.50	100.41	98.15	5 58 23	1802.6	-27.43	43.99
100.00	21 55 58	3901.61	-1.18	150.71	94.96	60.13	23 1 0	3301.6	-5.15	144.17
110.00	6 50 23	2114.58	-31.98	29.97	99.74	102.76	7 25 38	1514.6	-29.90	21.38
110.00	22 40 25	3762.34	1.51	138.47	93.28	55.85	23 43 8	3162.3	-2.98	132.26

DIFFERENTIAL CORRECTIONS

TDE	-.0732	TRA	-.6906	TC3	.6563	BAU	.3679
RDE	.5685	RRA	.9774	RC3	-2.2780	FAU	.05066
FDE	1.2401	FRA	1.8657	FC3	-3.7778	BSP	8684
BDE	.5732	BRA	1.1968	BC3	2.3706	FSP	-1225

MID-COURSE EXECUTION ACCURACY

SGT	1308.0	SGR	2513.9	SG3	404.2		
RRT	-.8907	RRF	.9954	RTF	-.8903		
SGB	2833.8	R23	-.0849	R13	.9918		
SG1	2782.4	SG2	537.2	THA	115.90		

ORBIT DETERMINATION ACCURACY

ST	387.2	SR	1088.9	SS	1131.4
CRT	-.7323	CRS	-.9985	CST	.6945
LSA	1594.5	MSA	270.6	SSA	6.8
EL1	1127.3	EL2	254.7	ALF	105.40

LAUNCH DATE AUG 10 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 360.328

RL	151.65	LAL	.00	LOL	316.96	VL	26.850	GAL	.18	AZL	84.46	HCA	157.65	SMA	128.93	ECC	.17625	INC	5.5448	V1	29.380
RP	107.51	LAP	2.11	LOP	114.71	VP	37.942	GAP	-3.42	AZP	95.13	TAL	179.14	TAP	336.79	RCA	106.20	APO	151.65	V2	35.249
RC	67.486	GL	44.07	GP	-58.38	ZAL	84.33	ZAP	68.64	ETS	33.11	ZAE	117.53	ETE	288.12	ZAC	43.72	ETC	256.36	CLP	-46.00

PLANETOCENTRIC CONIC

C3	13.912	VHL	3.730	DLA	23.85	RAL	243.13	RAD	6567.5	VEL	11.632	PTH	2.04	VHP	6.032	DPA	-74.97	RAP	202.92	ECC	1.2290		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 41 26	2990.30	-28.04	95.73	106.75	85.86	3 31 16	2390.3	-28.32	87.07
90.00	21 59 25	3916.12	-9.00	156.01	101.19	63.04	23 4 41	3316.1	-12.54	149.13
100.00	4 22 11	2665.46	-29.83	71.94	106.86	88.00	5 6 36	2065.5	-29.79	63.13
100.00	23 1 21	3716.18	-7.41	140.47	100.34	60.96	24 3 17	3116.2	-11.23	133.76
110.00	6 8 58	2331.39	-34.05	46.51	106.81	93.20	6 47 49	1731.4	-33.23	37.37
110.00	23 31 4	3623.02	-3.81	131.19	98.12	56.00	24 31 27	3023.0	-8.25	124.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0647	TRA	-.6608	TC3	.3969	BAU	.3855	SGT	1153.0	SGR	2842.5	SG3	365.7	ST	347.6	SR	1437.3	SS	1211.1
RDE	.8479	RRA	1.2026	RC3	-2.0345	FAU	.04287	RRT	-.8606	RRF	.9968	RTF	-.8616	CRT	-.6637	CRS	-.9996	CST	.6423
FDE	1.3886	FRA	1.8259	FC3	-2.6676	BSP	8988	SGB	3067.4	R23	-.0589	R13	.9951	LSA	1893.3	MSA	262.0	SSA	5.3
BDE	.8504	BRA	1.3722	BC3	2.0728	FSP	-1076	SG1	3017.1	SG2	553.1	THA	109.94	EL1	1456.3	EL2	256.6	ALF	99.41

LAUNCH DATE AUG 10 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 366.819

RL	151.65	LAL	.00	LOL	316.96	VL	26.876	GAL	.16	AZL	83.11	HCA	160.86	SMA	129.10	ECC	.17470	INC	6.8873	V1	29.380		
RP	107.50	LAP	2.25	LOP	117.96	VP	37.963	GAP	-2.92	AZP	96.51	TAL	179.25	TAP	340.11	RCA	106.54	APO	151.65	V2	35.253		
RC	69.600	GL	49.83	GP	-64.18	ZAL	85.14	ZAP	73.51	ETS	30.16	ZAE	112.27	ETE	284.25	ZAC	37.97	ETC	254.18	CLP	-49.32		

PLANETOCENTRIC CONIC

C3	17.790	VHL	4.218	DLA	29.48	RAL	244.52	RAD	6567.7	VEL	11.797	PTH	2.09	VHP	6.626	DPA	-77.87	RAP	181.29	ECC	1.2928		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.45	23 13 53	3735.27	-21.09	148.42	111.51	68.91	24 16 8	3135.3	-23.77	140.68
98.55	1 38 1	3282.40	-21.08	115.16	111.51	68.90	2 32 44	2682.4	-23.76	107.42
100.00	2 31 3	3112.69	-24.43	103.86	112.79	72.21	3 22 55	2512.7	-26.63	95.75
100.00	1 7 29	3380.22	-17.81	120.96	110.06	65.59	2 3 49	2780.2	-20.96	113.58
110.00	5 11 48	2609.01	-33.01	68.04	115.16	80.56	5 55 17	2009.0	-33.96	58.93
110.00	0 43 13	3456.66	-10.06	122.37	105.70	57.16	1 40 50	2856.7	-14.32	115.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0030	TRA	-.5965	TC3	.2068	BAU	.4058	SGT	947.0	SGR	3147.5	SG3	311.2	ST	279.3	SR	1762.4	SS	1214.3
RDE	1.1946	RRA	1.4659	RC3	-1.6937	FAU	.03462	RRT	-.7957	RRF	.9977	RTF	-.7972	CRT	-.3764	CRS	-.9999	CST	.3635
FDE	1.4462	FRA	1.7067	FC3	-1.6846	BSP	9790	SGB	3286.9	R23	-.0370	R13	.9970	LSA	2142.8	MSA	259.3	SSA	4.1
BDE	1.1946	BRA	1.5826	BC3	1.7063	FSP	-938	SG1	3239.3	SG2	557.3	THA	103.88	EL1	1765.6	EL2	258.3	ALF	93.49

LAUNCH DATE AUG 10 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 373.273

RL	151.65	LAL	.00	LOL	316.96	VL	26.896	GAL	.15	AZL	81.25	HCA	164.06	SMA	129.23	ECC	.17343	INC	8.7469	V1	29.380		
RP	107.49	LAP	2.39	LOP	121.20	VP	37.980	GAP	-2.44	AZP	98.42	TAL	179.29	TAP	343.35	RCA	106.82	APO	151.65	V2	35.255		
RC	71.740	GL	55.44	GP	-70.25	ZAL	85.93	ZAP	77.99	ETS	26.67	ZAE	106.53	ETE	280.48	ZAC	32.00	ETC	250.95	CLP	-51.97		

PLANETOCENTRIC CONIC

C3	24.668	VHL	4.967	DLA	34.93	RAL	246.09	RAD	6568.0	VEL	12.085	PTH	2.16	VHP	7.571	DPA	-78.59	RAP	151.35	ECC	1.4060		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.64	21 52 46	4087.27	-22.37	175.79	120.01	62.44	23 0 53	3487.3	-25.87	168.32
111.36	3 11 44	3087.14	-22.35	100.98	120.00	62.43	4 3 11	2487.1	-25.86	93.52
68.64	21 52 46	4087.27	-22.37	175.79	120.01	62.44	23 0 53	3487.3	-25.87	168.32
111.36	3 11 44	3087.14	-22.35	100.98	120.00	62.43	4 3 11	2487.1	-25.86	93.52
68.64	21 52 46	4087.27	-22.37	175.79	120.01	62.44	23 0 53	3487.3	-25.87	168.32
111.36	3 11 44	3087.14	-22.35	100.98	120.00	62.43	4 3 11	2487.1	-25.86	93.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1415	TRA	-.5071	TC3	.0622	BAU	.4111	SGT	734.6	SGR	3430.5	SG3	249.7	ST	269.2	SR	2066.9	SS	1169.6
RDE	1.6630	RRA	1.8201	RC3	-1.2450	FAU	.02531	RRT	-.6312	RRF	.9983	RTF	-.6349	CRT	.2673	CRS	-1.0000	CST	-.2713
EDE	1.4409	FRA	1.5583	FC3	-.8882	BSP	10581	SGB	3508.3	R23	-.0164	R13	.9982	LSA	2376.0	MSA	259.3	SSA	3.2
BDE	1.6690	BRA	1.8894	BC3	1.2465	FSP	-770	SG1	3462.6	SG2	564.5	THA	97.91	EL1	2068.2	EL2	259.3	ALF	87.97

LAUNCH DATE AUG 10 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 379.679

RL	151.65	LAL	.00	LOL	316.96	VL	26.913	GAL	.16	AZL	78.49	HCA	167.24	SMA	129.35	ECC	.17242	INC	11.5072	V1	29.380		
RP	107.48	LAP	2.53	LOP	124.45	VP	37.993	GAP	-1.98	AZP	101.23	TAL	179.24	TAP	346.48	RCA	107.04	APO	151.65	V2	35.257		
RC	73.903	GL	60.57	GP	-76.66	ZAL	86.69	ZAP	81.90	ETS	22.75	ZAE	100.23	ETE	276.88	ZAC	25.82	ETC	245.84	CLP	-52.37		

PLANETOCENTRIC CONIC

C3	37.996	VHL	6.164	DLA	39.91	RAL	247.73	RAD	6568.5	VEL	12.624	PTH	2.29	VHP	9.110	DPA	-76.45	RAP	122.76	ECC	1.6253		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.62	21 17 53	4316.84	-21.18	193.70	130.14	55.35	22 29 49	3716.8	-25.57	186.83
119.38	3 59 41	3073.95	-21.17	99.14	130.13	55.35	4 50 55	2474.0	-25.56	92.27
60.62	21 17 53	4316.84	-21.18	193.70	130.14	55.35	22 29 49	3716.8	-25.57	186.83
119.38	3 59 41	3073.95	-21.17	99.14	130.13	55.35	4 50 55	2474.0	-25.56	92.27
60.62	21 17 53	4316.84	-21.18	193.70	130.14	55.35	22 29 49	3716.8	-25.57	186.83
119.38	3 59 41	3073.95	-21.17	99.14	130.13	55.35	4 50 55	2474.0	-25.56	92.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4195	TRA	-.3620	TC3	-.0184	BAU	.3804	SGT	587.3	SGR	3673.8	SG3	188.2	ST	411.5	SR	2319.1	SS	1091.0
RDE	2.3221	RRA	2.3322	RC3	-.7486	FAU	.01553	RRT	-.1747	RRF	.9986	RTF	-.1827	CRT	.7650	CRS	-1.0000	CST	-.7632
FDE	1.3864	FRA	1.4036	FC3	-.3538	BSP	11221	SGB	3720.4	R23	.0038	R13	.9987	LSA	2582.3	MSA	263.2	SSA	2.5
BDE	2.3597	BRA	2.3601	BC3	.7489	FSP	-586	SG1	3675.2	SG2	578.0	THA	91.64	EL1	2340.6	EL2	262.6	ALF	82.17

LAUNCH DATE AUG 10 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 386.011

```
RL  151.65 LAL    .00 LOL 316.96 VL  26.925 GAL    .19 AZL  73.96 HCA 170.37 SMA 129.43 ECC .17166 INC16.0405 V1  29.380
RP  107.48 LAP   2.65 LOP 127.70 VP  38.003 GAP  -1.54 AZP 105.83 TAL 179.09 TAP 349.46 RCA 107.21 APO 151.65 V2  35.258
RC  76.087 GL   64.67 GP  -83.48 ZAL  87.42 ZAP  85.10 ETS  19.09 ZAE  93.04 ETE 274.04 ZAC  19.38 ETC 236.81 CLP -41.24
```

PLANETOCENTRIC CONIC

```
C3  67.755 VHL  8.231 DLA  43.89 RAL 249.07 RAD 6569.3 VEL 13.752 PTH   2.51 VHP 11.783 DPA -71.92 RAP 101.92 ECC 2.1151
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.95	20 59 4	4526.39	-16.73	208.28	140.88	48.81	22 14 31	3926.4	-21.89	202.22
125.05	4 29 10	3150.99	-16.71	102.17	140.87	48.80	5 21 41	2551.0	-21.87	96.11
54.95	20 59 4	4526.39	-16.73	208.28	140.88	48.81	22 14 31	3926.4	-21.89	202.22
125.05	4 29 10	3150.99	-16.71	102.17	140.87	48.80	5 21 41	2551.0	-21.87	96.11
54.95	20 59 4	4526.39	-16.73	208.28	140.88	48.81	22 14 31	3926.4	-21.89	202.22
125.05	4 29 10	3150.99	-16.71	102.17	140.87	48.80	5 21 41	2551.0	-21.87	96.11

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0929 TRA -.0222 TC3 -.0290 BAU  .2710   SGT  762.5 SGR 3821.3 SG3  133.3     ST   760.8 SR  2457.8 SS  1010.3
RDE 3.2816 RRA 3.1307 RC3 -.2978 FAU .00606   RRT  .5821 RRF  .9989 RTF  .5783    CRT  .9262 CRS-1.0000 CST -.9250
FDE 1.3233 FRA 1.2748 FC3 -.0774 BSP  11855   SGB 3896.6 R23  .0230 R13  .9987    LSA 2750.2 MSA  277.5 SSA    2.0
BDE 3.4588 BRA 3.1308 BC3  .2992 FSP   -423   SG1 3847.7 SG2  615.8 THA  83.20    EL1 2558.1 EL2  275.5 ALF  73.81
```

LAUNCH DATE AUG 10 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 392.194

```
RL  151.65 LAL    .00 LOL 316.96 VL  26.934 GAL    .25 AZL  65.25 HCA 173.38 SMA 129.49 ECC .17114 INC24.7538 V1  29.380
RP  107.48 LAP   2.77 LOP 130.95 VP  38.010 GAP  -1.15 AZP 114.61 TAL 178.77 TAP 352.15 RCA 107.33 APO 151.65 V2  35.259
RC  78.289 GL   66.36 GP  -85.02 ZAL  68.13 ZAP  87.45 ETS 185.42 ZAE  83.91 ETE  81.44 ZAC  13.12 ETC  22.60 CLP  59.18
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PLANETOCENTRIC CONIC

```
C3 151.557 VHL 12.311 DLA  45.68 RAL 249.14 RAD 6570.6 VEL 16.519 PTH   2.88 VHP 17.067 DPA -64.83 RAP  86.23 ECC 3.4942
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.53	20 50 8	4720.64	-9.22	218.86	150.03	45.06	22 8 48	4120.6	-14.81	213.43
127.47	4 38 38	3297.12	-9.20	108.33	150.01	45.06	5 33 35	2697.1	-14.80	102.90
52.53	20 50 8	4720.64	-9.22	218.86	150.03	45.06	22 8 48	4120.6	-14.81	213.43
127.47	4 38 38	3297.12	-9.20	108.33	150.01	45.06	5 33 35	2697.1	-14.80	102.90
52.53	20 50 8	4720.64	-9.22	218.86	150.03	45.06	22 8 48	4120.6	-14.81	213.43
127.47	4 38 38	3297.12	-9.20	108.33	150.01	45.06	5 33 35	2697.1	-14.80	102.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.2274 TRA 1.0450 TC3 -.0070 BAU  .1008   SGT  704.3 SGR 3953.0 SG3   91.7     ST   234.1 SR  2715.8 SS  1008.0
RDE-5.5035 RRA-4.5166 RC3 -.0492 FAU-.00480   RRT -.6540 RRF -.9975 RTF  .6981    CRT  .1300 CRS  .9991 CST  .0880
FDE 1.3634 FRA 1.2723 FC3  .0274 BSP  12153   SGB 4015.3 R23 -.0446 R13 -.9983    LSA 2896.7 MSA  235.7 SSA    1.6
BDE 5.5082 BRA 4.6360 BC3  .0497 FSP   -291   SG1 3980.2 SG2  529.1 THA  96.77    EL1 2715.9 EL2  232.1 ALF  89.35
```

LAUNCH DATE AUG 10 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 397.926

```
RL  151.65 LAL    .00 LOL 316.96 VL  26.940 GAL    .41 AZL  43.86 HCA 176.01 SMA 129.53 ECC .17089 INC46.1386 V1  29.380
RP  107.48 LAP   2.87 LOP 134.20 VP  38.013 GAP   -.87 AZP 136.07 TAL 177.99 TAP 354.01 RCA 107.39 APO 151.66 V2  35.258
RC  80.507 GL   61.10 GP  -70.86 ZAL  88.77 ZAP  88.86 ETS 185.99 ZAE  68.92 ETE  82.64 ZAC  14.83 ETC 322.07 CLP  86.53
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PLANETOCENTRIC CONIC

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C3 492.265 VHL 22.187 DLA  41.07 RAL 245.40 RAD 6572.3 VEL 24.770 PTH   3.33 VHP 29.842 DPA -51.74 RAP  71.79 ECC 9.1014
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.92	21 0 57	4803.37	-1.72	219.22	153.44	48.96	22 21 0	4203.4	-6.95	213.56
121.08	3 58 3	3517.62	-1.71	121.00	153.43	48.96	4 56 41	2917.6	-6.94	115.35
58.92	21 0 57	4803.37	-1.72	219.22	153.44	48.96	22 21 0	4203.4	-6.95	213.56
121.08	3 58 3	3517.62	-1.71	121.00	153.43	48.96	4 56 41	2917.6	-6.94	115.35
58.92	21 0 57	4803.37	-1.72	219.22	153.44	48.96	22 21 0	4203.4	-6.95	213.56
121.08	3 58 3	3517.62	-1.71	121.00	153.43	48.96	4 56 41	2917.6	-6.94	115.35

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-3.2394 TRA -.2850 TC3 -.0655 BAU 1.6052   SGT  891.0 SGR 3840.2 SG3   67.4     ST   837.1 SR  2554.2 SS  1285.8
RDE-9.3397 RRA-8.1763 RC3 -.2349 FAU-.02894   RRT  .7582 RRF -.9993 RTF -.7384    CRT  .9553 CRS  .9997 CST  .9483
FDE 1.8085 FRA 1.7010 FC3  .0509 BSP  11321   SGB 3942.2 R23 -.0558 R13 -.9981    LSA 2969.7 MSA  243.3 SSA    1.4
BDE 9.8856 BRA 8.1813 BC3  .2439 FSP   -203   SG1 3900.5 SG2  572.0 THA  79.80    EL1 2677.5 EL2  236.1 ALF  72.48
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 408.502

```
RL  151.65 LAL    .00 LOL 316.96 VL  26.942 GAL   -.32 AZL 170.72 HCA 183.01 SMA 129.54 ECC .17069 INC80.7163 V1  29.380
RP  107.48 LAP   2.97 LOP 137.45 VP  38.014 GAP    .67 AZP   9.29 TAL 181.56 TAP   4.57 RCA 107.43 APO 151.66 V2  35.257
RC  82.739 GL  -46.73 GP   53.08 ZAL  89.79 ZAP  90.51 ETS 184.12 ZAE  56.45 ETE 286.40 ZAC 133.04 ETC 286.96 CLP  90.85
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PLANETOCENTRIC CONIC

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C31333.615 VHL 36.519 DLA -60.26 RAL 200.32 RAD 6573.1 VEL 38.143 PTH   3.55 VHP 46.685 DPA  63.00 RAP  11.55 ECC22.9479
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.30	4 42 7	2408.13	-1.05	72.07	110.91	150.26	5 22 15	1808.1	5.89	68.50
145.70	14 17 12	736.77	-1.04	294.90	110.93	150.26	14 29 29	136.8	5.90	291.34
34.30	4 42 7	2408.13	-1.05	72.07	110.91	150.26	5 22 15	1808.1	5.89	68.50
145.70	14 17 12	736.77	-1.04	294.90	110.93	150.26	14 29 29	136.8	5.90	291.34
34.30	4 42 7	2408.13	-1.05	72.07	110.91	150.26	5 22 15	1808.1	5.89	68.50
145.70	14 17 12	736.77	-1.04	294.90	110.93	150.26	14 29 29	136.8	5.90	291.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 7.2863 TRA 1.8863 TC3 -.1259 BAU 4.8016   SGT 1584.0 SGR 3092.0 SG3   62.4     ST  1157.4 SR  2557.4 SS  2455.5
RD-16.2967 RRA -.0264 RC3  .2380 FAU-.08212   RRT -.9244 RRF  .9995 RTF -.9275    CRT -.9881 CRS-1.0000 CST  .9889
FDE-3.8794 FRA -.0409 FC3  .0533 BSP  10292   SGB 3474.1 R23 -.0679 R13  .9972    LSA 3725.8 MSA  166.8 SSA    2.4
BDE17.8514 BRA 1.8865 BC3  .2693 FSP   -191   SG1 3431.2 SG2  544.5 THA 116.04    EL1 2802.4 EL2  162.4 ALF 114.18
```

LAUNCH DATE AUG 10 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 413.291

RL	151.65	LAL	.00	LOL	316.96	VL	26.941	GAL	.03	AZL	129.35	HCA	184.83	SMA	129.54	ECC	.17064	INC	39.3519
RP	107.49	LAP	3.06	LOP	140.70	VP	38.012	GAP	.68	AZP	50.75	TAL	179.85	TAP	4.68	RCA	107.44	APO	151.65
RC	84.985	GL	-63.41	GP	77.34	ZAL	89.11	ZAP	90.99	ETS	188.56	ZAE	80.28	ETE	287.54	ZAC	155.78	ETC	301.96

V1 29.380 V2 35.255 CLP 94.52

PLANETOCENTRIC CONIC

C3	364.959	VHL	19.104	DLA	-72.69	RAL	171.10	RAD	6572.0	VEL	22.051	PTH	3.24	VHP	23.866	DPA	72.85	RAP	307.85

ECC 7.0063

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.75	2 12 36	2373.05	4.30	78.53	79.75	162.64	2 52 9	1773.0	11.93	76.52
160.25	12 53 36	604.15	4.30	285.26	79.77	162.64	13 3 40	4.2	11.93	283.24
19.75	2 12 36	2373.05	4.30	78.53	79.75	162.64	2 52 9	1773.0	11.93	76.52
160.25	12 53 36	604.15	4.30	285.26	79.77	162.64	13 3 40	4.2	11.93	283.24
19.75	2 12 36	2373.05	4.30	78.53	79.75	162.64	2 52 9	1773.0	11.93	76.52
160.25	12 53 36	604.15	4.30	285.26	79.77	162.64	13 3 40	4.2	11.93	283.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.7734	TRA	1.4883	TC3	-.1062	BAU	1.1553	SGT	2113.1	SGR	3658.3	SG3	79.3	ST	1500.7	SR	3055.3	SS	1587.2
RD	-10.0018	RRA	-1.9161	RC3	.2116	FAU	-.01907	RRT	-.9729	RRF	.9994	RTF	-.9744	CRT	-.9935	CRS	-1.0000	CST	.9938
FDE	-2.5187	FRA	-.4885	FC3	.0452	BSP	12483	SGB	4224.7	R23	-.0487	R13	.9983	LSA	3752.6	MSA	155.7	SSA	1.7
BDE	11.0825	BRA	2.4262	BC3	.2368	FSP	-236	SG1	4203.2	SG2	425.5	THA	119.67	EL1	3400.5	EL2	153.1	ALF	116.07

LAUNCH DATE AUG 10 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 419.182

RL	151.65	LAL	.00	LOL	316.96	VL	26.938	GAL	.19	AZL	114.26	HCA	187.66	SMA	129.52	ECC	.17087	INC	24.2555
RP	107.50	LAP	3.14	LOP	143.95	VP	38.007	GAP	.98	AZP	65.94	TAL	179.10	TAP	6.75	RCA	107.39	APO	151.65
RC	87.241	GL	-66.41	GP	87.52	ZAL	68.25	ZAP	92.34	ETS	200.73	ZAE	91.87	ETE	298.40	ZAC	164.97	ETC	333.75

V1 29.380 V2 35.253 CLP 160.54

PLANETOCENTRIC CONIC

C3	145.824	VHL	12.076	DLA	-74.82	RAL	162.71	RAD	6570.6	VEL	16.345	PTH	2.86	VHP	14.720	DPA	67.73	RAP	275.00

ECC 3.3999

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.30	1 34 6	2247.51	12.93	78.09	69.13	164.42	2 11 33	1647.5	20.62	76.22
162.70	12 25 11	5756.28	12.93	260.24	69.15	164.42	14 1 7	5156.3	20.63	258.37
17.30	1 34 6	2247.51	12.93	78.09	69.13	164.42	2 11 33	1647.5	20.62	76.22
162.70	12 25 11	5756.28	12.93	260.24	69.15	164.42	14 1 7	5156.3	20.63	258.37
17.30	1 34 6	2247.51	12.93	78.09	69.13	164.42	2 11 33	1647.5	20.62	76.22
162.70	12 25 11	5756.28	12.93	260.24	69.15	164.42	14 1 7	5156.3	20.63	258.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	5.5985	TRA	1.4102	TC3	-.0239	BAU	.1050	SGT	3686.7	SGR	2447.7	SG3	114.1	ST	2764.8	SR	1747.1	SS	1297.9
RDE	-3.5033	RRA	-.9893	RC3	.0482	FAU	.00033	RRT	-.9979	RRF	.9941	RTF	-.9991	CRT	-.9995	CRS	-.9986	CST	.9998
FDE	-2.0780	FRA	-.4843	FC3	-.0019	BSP	13826	SGB	4425.2	R23	.0631	R13	.9980	LSA	3518.1	MSA	58.9	SSA	.5
BDE	6.6043	BRA	1.7226	BC3	.0538	FSP	-360	SG1	4423.2	SG2	133.3	THA	146.44	EL1	3270.2	EL2	47.2	ALF	147.72

LAUNCH DATE AUG 10 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 425.316

RL	151.65	LAL	.00	LOL	316.96	VL	26.932	GAL	.30	AZL	107.49	HCA	190.72	SMA	129.48	ECC	.17128	INC	17.4913
RP	107.51	LAP	3.21	LOP	147.20	VP	38.000	GAP	1.35	AZP	72.80	TAL	178.53	TAP	9.26	RCA	107.30	APO	151.66
RC	89.506	GL	-65.34	GP	81.88	ZAL	87.27	ZAP	94.47	ETS	12.44	ZAE	99.32	ETE	109.46	ZAC	167.61	ETC	174.35

V1 29.380 V2 35.249 CLP -123.51

PLANETOCENTRIC CONIC

C3	79.338	VHL	8.907	DLA	-75.30	RAL	167.79	RAD	6569.6	VEL	14.166	PTH	2.58	VHP	10.633	DPA	62.21	RAP	261.10

ECC 2.3057

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.75	1 53 14	2122.27	21.24	76.61	71.92	164.20	2 28 36	1522.3	28.92	74.55
163.25	12 46 31	5628.94	21.25	258.21	71.94	164.20	14 20 20	5028.9	28.93	256.15
16.75	1 53 14	2122.27	21.24	76.61	71.92	164.20	2 28 36	1522.3	28.92	74.55
163.25	12 46 31	5628.94	21.25	258.21	71.94	164.20	14 20 20	5028.9	28.93	256.15
16.75	1 53 14	2122.27	21.24	76.61	71.92	164.20	2 28 36	1522.3	28.92	74.55
163.25	12 46 31	5628.94	21.25	258.21	71.94	164.20	14 20 20	5028.9	28.93	256.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4978	TRA	-.6329	TC3	-.1340	BAU	.2386	SGT	1653.2	SGR	4194.5	SG3	165.2	ST	578.1	SR	3485.7	SS	1444.8
RDE	5.2997	RRA	.9557	RC3	.1807	FAU	.01228	RRT	-.7289	RRF	-.9988	RTF	.7384	CRT	-.7153	CRS	1.0000	CST	-.7181
FDE	-2.3890	FRA	-.4391	FC3	-.1341	BSP	14095	SGB	4508.6	R23	.0609	R13	-.9970	LSA	3796.1	MSA	401.3	SSA	2.3
BDE	5.3231	BRA	1.1463	BC3	.2249	FSP	-522	SG1	4376.1	SG2	1084.8	THA	107.11	EL1	3510.5	EL2	401.1	ALF	96.86

LAUNCH DATE AUG 10 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 431.518

RL	151.65	LAL	.00	LOL	316.96	VL	26.924	GAL	.42	AZL	103.74	HCA	193.87	SMA	129.42	ECC	.17185	INC	13.7389
RP	107.52	LAP	3.26	LOP	150.45	VP	37.990	GAP	1.73	AZP	76.65	TAL	177.99	TAP	11.86	RCA	107.18	APO	151.66
RC	91.778	GL	-62.98	GP	75.40	ZAL	86.18	ZAP	97.28	ETS	18.34	ZAE	105.06	ETE	115.36	ZAC	165.92	ETC	205.14

V1 29.380 V2 35.245 CLP -120.19

PLANETOCENTRIC CONIC

C3	51.521	VHL	7.178	DLA	-75.03	RAL	177.49	RAD	6568.9	VEL	13.148	PTH	2.40	VHP	8.439	DPA	57.16	RAP	252.66

ECC 1.8479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.06	2 32 32	2018.00	27.98	74.58	79.31	162.99	3 6 10	1418.0	35.60	72.12
162.94	13 24 36	5525.83	27.99	256.48	79.33	162.99	14 56 42	4925.8	35.61	254.03
17.06	2 32 32	2018.00	27.98	74.58	79.31	162.99	3 6 10	1418.0	35.60	72.12
162.94	13 24 36	5525.83	27.99	256.48	79.33	162.99	14 56 42	4925.8	35.61	254.03
17.06	2 32 32	2018.00	27.98	74.58	79.31	162.99	3 6 10	1418.0	35.60	72.12
162.94	13 24 36	5525.83	27.99	256.48	79.33	162.99	14 56 42	4925.8	35.61	254.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7377	TRA	-.5397	TC3	-.3720	BAU	.3891	SGT	2234.1	SGR	3976.1	SG3	229.2	ST	1474.6	SR	3605.5	SS	1724.2
RDE	4.4747	RRA	.5296	RC3	.4251	FAU	.02340	RRT	-.9017	RRF	-.9981	RTF	.9120	CRT	-.9781	CRS	1.0000	CST	-.9792
FDE	-2.9327	FRA	-.3602	FC3	-.3931	BSP	14340	SGB	4560.8	R23	.0734	R13	-.9958	LSA	4250.2	MSA	287.5	SSA	3.0
BDE	4.8003	BRA	.7561	BC3	.5649	FSP	-726	SG1	4479.5	SG2	857.2	THA	117.99	EL1	3885.0	EL2	284.9	ALF	111.93

LAUNCH DATE AUG 10 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 437.740

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RL  151.65 LAL    .00 LOL 316.96 VL  26.914 GAL    .53 AZL 101.36 HCA 197.05 SMA 129.35 ECC .17258 INC11.3597 V1  29.380
RP  107.53 LAP   3.31 LOP 153.70 VP  37.978 GAP   2.12 AZP  79.13 TAL 177.44 TAP  14.49 RCA 107.03 APO 151.68 V2  35.240
RC  94.056 GL  -60.16 GP   69.50 ZAL  84.99 ZAP 100.62 ETS  22.36 ZAE 109.79 ETE 120.05 ZAC 162.19 ETC 223.09 CLP-121.76
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PLANETOCENTRIC CONIC

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C3  37.346 VHL  6.111 DLA -74.15 RAL 188.01 RAD 6568.5 VEL 12.598 PTH   2.29 VHP  7.123 DPA  52.39 RAP 246.56 ECC 1.6146
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.08	3 16 34	1935.10	33.08	71.91	87.33	160.97	3 48 49	1335.1	40.59	68.90
161.92	14 4 29	5446.97	33.08	254.84	87.36	160.97	15 35 16	4847.0	40.60	251.83
18.08	3 16 34	1935.10	33.08	71.91	87.33	160.97	3 48 49	1335.1	40.59	68.90
161.92	14 4 29	5446.97	33.08	254.84	87.36	160.97	15 35 16	4847.0	40.60	251.83
18.08	3 16 34	1935.10	33.08	71.91	87.33	160.97	3 48 49	1335.1	40.59	68.90
161.92	14 4 29	5446.97	33.08	254.84	87.36	160.97	15 35 16	4847.0	40.60	251.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.2238 TRA -.4038 TC3 -.6774 BAU  .4681   SGT 2636.9 SGR 3757.9 SG3  299.7          ST  2126.2 SR  3575.0 SS  1993.3
RDE 3.8024 RRA  .2581 RC3  .6482 FAU .03408   RRT -.9402 RRF -.9976 RTF  .9475          CRT -.9925 CRS 1.0000 CST -.9927
FDE-3.4444 FRA -.2382 FC3 -.7901 BSP  14499   SGB 4590.7 R23  .0839 R13 -.9944          LSA 4606.6 MSA  230.3 SSA    3.9
BDE 4.4050 BRA  .4792 BC3  .9376 FSP   -950   SG1 4529.8 SG2  745.3 THA 124.48          EL1 4153.4 EL2  223.7 ALF 120.65
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 443.961

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RL  151.65 LAL    .00 LOL 316.96 VL  26.902 GAL    .66 AZL  99.71 HCA 200.26 SMA 129.27 ECC .17346 INC 9.7129 V1  29.380
RP  107.55 LAP   3.35 LOP 156.95 VP  37.965 GAP   2.51 AZP  80.88 TAL 176.85 TAP  17.11 RCA 106.85 APO 151.69 V2  35.235
RC  96.339 GL  -57.19 GP   64.02 ZAL  63.70 ZAP 104.34 ETS  25.56 ZAE 113.76 ETE 124.56 ZAC 157.80 ETC 233.36 CLP-124.43
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PLANETOCENTRIC CONIC

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C3  29.155 VHL  5.400 DLA -72.79 RAL 197.73 RAD 6568.2 VEL 12.269 PTH   2.21 VHP  6.283 DPA  47.82 RAP 241.82 ECC 1.4798
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.64	3 58 36	1869.35	36.77	68.65	94.33	158.32	4 29 45	1269.3	44.14	64.96
160.36	14 40 3	5388.00	36.78	253.16	94.35	158.32	16 9 51	4788.0	44.15	249.47
19.64	3 58 36	1869.35	36.77	68.65	94.33	158.32	4 29 45	1269.3	44.14	64.96
160.36	14 40 3	5388.00	36.78	253.16	94.35	158.32	16 9 51	4788.0	44.15	249.47
19.64	3 58 36	1869.35	36.77	68.65	94.33	158.32	4 29 45	1269.3	44.14	64.96
160.36	14 40 3	5388.00	36.78	253.16	94.35	158.32	16 9 51	4788.0	44.15	249.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.4673 TRA -.2654 TC3-1.0377 BAU  .5188   SGT 3002.7 SGR 3506.2 SG3  369.9          ST  2633.9 SR  3380.6 SS  2189.1
RDE 3.1850 RRA  .0685 RC3  .8335 FAU .04422   RRT -.9585 RRF -.9969 RTF  .9638          CRT -.9962 CRS 1.0000 CST -.9960
FDE-3.7991 FRA -.0721 FC3-1.3131 BSP  14604   SGB 4616.2 R23  .0924 R13 -.9931          LSA 4808.4 MSA  193.2 SSA    4.9
BDE 4.0289 BRA  .2741 BC3 1.3310 FSP  -1172   SG1 4569.2 SG2  656.8 THA 130.39          EL1 4281.8 EL2  180.6 ALF 127.90
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 450.172

```
RL  151.65 LAL    .00 LOL 316.96 VL  26.887 GAL    .80 AZL  98.50 HCA 203.47 SMA 129.17 ECC .17449 INC 8.5006 V1  29.380
RP  107.57 LAP   3.37 LOP 160.20 VP  37.949 GAP   2.89 AZP  82.19 TAL 176.22 TAP  19.69 RCA 106.63 APO 151.71 V2  35.229
RC  98.624 GL  -54.20 GP   58.89 ZAL  82.30 ZAP 108.29 ETS  28.11 ZAE 117.05 ETE 129.01 ZAC 153.32 ETC 239.65 CLP-127.39
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PLANETOCENTRIC CONIC

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C3  24.006 VHL  4.900 DLA -71.10 RAL 206.20 RAD 6568.0 VEL 12.058 PTH   2.16 VHP  5.731 DPA  43.41 RAP 238.05 ECC 1.3951
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.59	4 36 27	1816.57	39.36	64.93	99.88	155.24	5 6 43	1216.6	46.53	60.49
158.41	15 9 46	5344.48	39.36	251.45	99.90	155.23	16 38 51	4744.5	46.53	247.00
21.59	4 36 27	1816.57	39.36	64.93	99.88	155.24	5 6 43	1216.6	46.53	60.49
158.41	15 9 46	5344.48	39.36	251.45	99.90	155.23	16 38 51	4744.5	46.53	247.00
21.59	4 36 27	1816.57	39.36	64.93	99.88	155.24	5 6 43	1216.6	46.53	60.49
158.41	15 9 46	5344.48	39.36	251.45	99.90	155.23	16 38 51	4744.5	46.53	247.00

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.5675 TRA -.1289 TC3-1.4365 BAU  .5557   SGT 3348.5 SGR 3226.5 SG3  433.5          ST  3005.9 SR  3076.6 SS  2294.6
RDE 2.6302 RRA -.0636 RC3  .9669 FAU .05316   RRT -.9683 RRF -.9961 RTF  .9725          CRT -.9976 CRS 1.0000 CST -.9971
FDE-3.9604 FRA  .1243 FC3-1.9170 BSP  14745   SGB 4650.0 R23  .0985 R13 -.9918          LSA 4872.1 MSA  169.2 SSA    6.0
BDE 3.6756 BRA  .1437 BC3 1.7316 FSP  -1377   SG1 4613.1 SG2  585.0 THA 136.10          EL1 4298.8 EL2  148.3 ALF 134.33
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 456.370

```
RL  151.65 LAL    .00 LOL 316.96 VL  26.872 GAL    .95 AZL  97.57 HCA 206.69 SMA 129.07 ECC .17568 INC 7.5664 V1  29.380
RP  107.59 LAP   3.39 LOP 163.45 VP  37.931 GAP   3.27 AZP  83.23 TAL 175.56 TAP  22.24 RCA 106.39 APO 151.74 V2  35.222
RC 100.910 GL  -51.25 GP   54.10 ZAL  80.80 ZAP 112.33 ETS  30.11 ZAE 119.73 ETE 133.38 ZAC 148.99 ETC 243.78 CLP-130.38
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PLANETOCENTRIC CONIC

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C3  20.578 VHL  4.536 DLA -69.22 RAL 213.46 RAD 6567.8 VEL 11.915 PTH   2.12 VHP  5.367 DPA  39.19 RAP 235.04 ECC 1.3387
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.77	5 10 5	1773.40	41.06	60.94	104.14	151.93	5 39 38	1173.4	47.99	55.74
156.23	15 34 4	5312.99	41.06	249.75	104.16	151.92	17 2 37	4713.0	47.99	244.55
23.77	5 10 5	1773.40	41.06	60.94	104.14	151.93	5 39 38	1173.4	47.99	55.74
156.23	15 34 4	5312.99	41.06	249.75	104.16	151.92	17 2 37	4713.0	47.99	244.55
23.77	5 10 5	1773.40	41.06	60.94	104.14	151.93	5 39 38	1173.4	47.99	55.74
156.23	15 34 4	5312.99	41.06	249.75	104.16	151.92	17 2 37	4713.0	47.99	244.55

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.5784 TRA  .0075 TC3-1.8559 BAU  .5860   SGT 3666.3 SGR 2936.2 SG3  486.0          ST  3257.1 SR  2728.0 SS  2318.5
RDE 2.1557 RRA -.1559 RC3 1.0459 FAU .06045   RRT -.9735 RRF -.9951 RTF  .9774          CRT -.9983 CRS  .9999 CST -.9976
FDE-3.9478 FRA  .3385 FC3-2.5431 BSP  14896   SGB 4697.1 R23  .1021 R13 -.9905          LSA 4837.6 MSA  154.0 SSA    7.1
BDE 3.3608 BRA  .1560 BC3 2.1303 FSP  -1549   SG1 4667.4 SG2  527.6 THA 141.48          EL1 4246.8 EL2  122.9 ALF 140.06
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 462.551
RL 151.65 LAL .00 LOL 316.96 VL 26.854 GAL 1.10 AZL 96.82 HCA 209.91 SMA 128.95 ECC .17701 INC 6.8205 V1 29.380
RP 107.61 LAP 3.39 LOP 166.70 VP 37.912 GAP 3.65 AZP 84.08 TAL 174.85 TAP 24.76 RCA 106.13 APO 151.78 V2 35.215
RC 103.196 GL -48.36 GP 49.66 ZAL 79.19 ZAP 116.35 ETS 31.66 ZAE 121.83 ETE 137.62 ZAC 144.90 ETC 246.64 CLP-133.29
PLANETOCENTRIC CONIC
C3 18.204 VHL 4.267 DLA -67.21 RAL 219.72 RAD 6567.7 VEL 11.815 PTH 2.09 VHP 5.133 DPA 35.17 RAP 232.66 ECC 1.2996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.11	5 40 11	1737.42	42.06	56.84	107.43	148.55	6 9 8	1137.4	48.72	50.94
153.89	15 53 56	5290.99	42.07	248.15	107.45	148.55	17 22 7	4691.0	48.73	242.25
26.11	5 40 11	1737.42	42.06	56.84	107.43	148.55	6 9 8	1137.4	48.72	50.94
153.89	15 53 56	5290.99	42.07	248.15	107.45	148.55	17 22 7	4691.0	48.73	242.25
26.11	5 40 11	1737.42	42.06	56.84	107.43	148.55	6 9 8	1137.4	48.72	50.94
153.89	15 53 56	5290.99	42.07	248.15	107.45	148.55	17 22 7	4691.0	48.73	242.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE-2.5348 TRA .1460 TC3-2.2782 BAU .6128 SGT 3952.4 SGR 2650.6 SG3 524.7 ST 3407.8 SR 2378.0 SS 2275.9
ROE 1.7624 RRA -.2209 RC3 1.0725 FAU .06576 RRT -.9758 RRF -.9937 RTF .9800 CRT -.9986 CRS .9998 CST -.9976
FOE-3.7967 FRA .5601 FC3-3.1272 BSP 15088 SGB 4758.9 R23 .1041 R13 -.9893 LSA 4735.6 MSA 145.6 SSA 8.2
BOE 3.0873 BRA .2648 BC3 2.5180 FSP -1682 SG1 4734.3 SG2 483.7 THA 146.40 EL1 4154.2 EL2 102.3 ALF 145.10

LAUNCH DATE AUG 10 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 468.714
RL 151.65 LAL .00 LOL 316.96 VL 26.835 GAL 1.28 AZL 96.21 HCA 213.13 SMA 128.82 ECC .17849 INC 6.2079 V1 29.380
RP 107.64 LAP 3.39 LOP 169.94 VP 37.892 GAP 4.03 AZP 84.80 TAL 174.11 TAP 27.24 RCA 105.83 APO 151.82 V2 35.207
RC 105.482 GL -45.54 GP 45.59 ZAL 77.49 ZAP 120.27 ETS 32.84 ZAE 123.40 ETE 141.65 ZAC 141.14 ETC 248.71 CLP-136.08
PLANETOCENTRIC CONIC
C3 16.522 VHL 4.065 DLA -65.14 RAL 225.20 RAD 6567.7 VEL 11.743 PTH 2.07 VHP 4.991 DPA 31.39 RAP 230.83 ECC 1.2719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.53	6 7 31	1706.83	42.50	52.74	110.06	145.23	6 35 57	1106.8	48.88	46.22
151.47	16 10 17	5276.72	42.51	246.73	110.07	145.22	17 38 13	4676.7	48.89	240.22
28.53	6 7 31	1706.83	42.50	52.74	110.06	145.23	6 35 57	1106.8	48.88	46.22
151.47	16 10 17	5276.72	42.51	246.73	110.07	145.22	17 38 13	4676.7	48.89	240.22
28.53	6 7 31	1706.83	42.50	52.74	110.06	145.23	6 35 57	1106.8	48.88	46.22
151.47	16 10 17	5276.72	42.51	246.73	110.07	145.22	17 38 13	4676.7	48.89	240.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE-2.4588 TRA .2866 TC3-2.6882 BAU .6380 SGT 4208.5 SGR 2381.0 SG3 549.5 ST 3478.5 SR 2053.3 SS 2184.3
ROE 1.4442 RRA -.2647 RC3 1.0563 FAU .06911 RRT -.9765 RRF -.9918 RTF .9815 CRT -.9989 CRS .9997 CST -.9974
FOE-3.5500 FRA .7745 FC3-3.6212 BSP 15325 SGB 4835.4 R23 .1035 R13 -.9883 LSA 4589.9 MSA 141.2 SSA 9.3
BOE 2.8516 BRA .3901 BC3 2.8882 FSP -1774 SG1 4814.5 SG2 448.6 THA 150.80 EL1 4038.4 EL2 84.0 ALF 149.46

LAUNCH DATE AUG 10 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 474.856
RL 151.65 LAL .00 LOL 316.96 VL 26.815 GAL 1.46 AZL 95.69 HCA 216.35 SMA 128.69 ECC .18013 INC 5.6929 V1 29.380
RP 107.66 LAP 3.37 LOP 173.18 VP 37.869 GAP 4.41 AZP 85.41 TAL 173.32 TAP 29.68 RCA 105.51 APO 151.87 V2 35.198
RC 107.765 GL -42.80 GP 41.88 ZAL 75.71 ZAP 124.02 ETS 33.73 ZAE 124.54 ETE 145.43 ZAC 137.71 ETC 250.25 CLP-138.72
PLANETOCENTRIC CONIC
C3 15.319 VHL 3.914 DLA -63.03 RAL 230.06 RAD 6567.6 VEL 11.692 PTH 2.06 VHP 4.919 DPA 27.84 RAP 229.46 ECC 1.2521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.00	6 32 42	1680.36	42.51	48.73	112.25	142.04	7 0 42	1080.4	48.59	41.71
149.00	16 23 53	5268.88	42.51	245.55	112.27	142.04	17 51 42	4668.9	48.60	238.53
31.00	6 32 42	1680.36	42.51	48.73	112.25	142.04	7 0 42	1080.4	48.59	41.71
149.00	16 23 53	5268.88	42.51	245.55	112.27	142.04	17 51 42	4668.9	48.60	238.53
31.00	6 32 42	1680.36	42.51	48.73	112.25	142.04	7 0 42	1080.4	48.59	41.71
149.00	16 23 53	5268.88	42.51	245.55	112.27	142.04	17 51 42	4668.9	48.60	238.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE-2.3671 TRA .4268 TC3-3.0852 BAU .6653 SGT 4442.7 SGR 2136.7 SG3 562.1 ST 3490.4 SR 1768.5 SS 2062.6
ROE 1.1925 RRA -.2914 RC3 1.0166 FAU .07115 RRT -.9762 RRF -.9894 RTF .9826 CRT -.9991 CRS .9994 CST -.9971
FOE-3.2520 FRA .9676 FC3-4.0210 BSP 15690 SGB 4929.8 R23 .0992 R13 -.9874 LSA 4421.0 MSA 139.0 SSA 10.3
BOE 2.6505 BRA .5168 BC3 3.2484 FSP -1840 SG1 4912.0 SG2 419.1 THA 154.65 EL1 3912.3 EL2 66.5 ALF 153.14

LAUNCH DATE AUG 10 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 480.980
RL 151.65 LAL .00 LOL 316.96 VL 26.794 GAL 1.66 AZL 95.25 HCA 219.58 SMA 128.55 ECC .18192 INC 5.2513 V1 29.380
RP 107.69 LAP 3.34 LOP 176.42 VP 37.846 GAP 4.79 AZP 85.95 TAL 172.50 TAP 32.08 RCA 105.16 APO 151.93 V2 35.189
RC 110.046 GL -40.13 GP 38.52 ZAL 73.84 ZAP 127.58 ETS 34.40 ZAE 125.29 ETE 148.88 ZAC 134.63 ETC 251.43 CLP-141.21
PLANETOCENTRIC CONIC
C3 14.465 VHL 3.803 DLA -60.92 RAL 234.44 RAD 6567.6 VEL 11.655 PTH 2.05 VHP 4.900 DPA 24.55 RAP 228.51 ECC 1.2381

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.51	6 56 16	1657.03	42.15	44.87	114.21	139.04	7 23 53	1057.0	47.95	37.46
146.49	16 35 17	5266.59	42.16	244.65	114.22	139.03	18 3 4	4666.6	47.95	237.24
33.51	6 56 16	1657.03	42.15	44.87	114.21	139.04	7 23 53	1057.0	47.95	37.46
146.49	16 35 17	5266.59	42.16	244.65	114.22	139.03	18 3 4	4666.6	47.95	237.24
33.51	6 56 16	1657.03	42.15	44.87	114.21	139.04	7 23 53	1057.0	47.95	37.46
146.49	16 35 17	5266.59	42.16	244.65	114.22	139.03	18 3 4	4666.6	47.95	237.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE-2.2544 TRA .5815 TC3-3.4198 BAU .6856 SGT 4642.2 SGR 1913.3 SG3 562.9 ST 3439.9 SR 1514.6 SS 1907.7
ROE .9864 RRA -.3139 RC3 .9347 FAU .07061 RRT -.9739 RRF -.9860 RTF .9824 CRT -.9993 CRS .9988 CST -.9964
FOE-2.9031 FRA 1.1624 FC3-4.2261 BSP 15818 SGB 5021.1 R23 .0970 R13 -.9861 LSA 4212.6 MSA 142.6 SSA 11.3
BOE 2.4608 BRA .6609 BC3 3.5453 FSP -1832 SG1 5004.9 SG2 402.6 THA 157.98 EL1 3758.2 EL2 51.4 ALF 156.25

LAUNCH DATE AUG 10 1970 FLIGHT TIME 174.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 487.080

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RL  151.65 LAL    .00 LOL 316.96 VL  26.772 GAL   1.87 AZL  94.87 HCA 222.80 SMA 128.40 ECC .18388 INC 4.8663 V1  29.380
RP  107.72 LAP   3.30 LOP 179.66 VP  37.821 GAP   5.16 AZP  86.43 TAL 171.64 TAP  34.44 RCA 104.79 APO 152.01 V2  35.179
RC 112.324 GL  -37.54 GP   35.50 ZAL  71.91 ZAP 130.92 ETS  34.91 ZAE 125.75 ETE 152.01 ZAC 131.89 ETC 252.37 CLP-143.56
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PLANETOCENTRIC CONIC

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C3  13.878 VHL  3.725 DLA -58.81 RAL 238.44 RAD 6567.5 VEL 11.630 PTH   2.04 VHP  4.922 DPA  21.49 RAP 227.91 ECC 1.2284
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.03	7 18 36	1636.11	41.52	41.18	116.03	136.24	7 45 52	1036.1	47.03	33.48
143.97	16 44 52	5269.22	41.53	244.06	116.04	136.24	18 12 41	4669.2	47.04	236.36
36.03	7 18 36	1636.11	41.52	41.18	116.03	136.24	7 45 52	1036.1	47.03	33.48
143.97	16 44 52	5269.22	41.53	244.06	116.04	136.24	18 12 41	4669.2	47.04	236.36
36.03	7 18 36	1636.11	41.52	41.18	116.03	136.24	7 45 52	1036.1	47.03	33.48
143.97	16 44 52	5269.22	41.53	244.06	116.04	136.24	18 12 41	4669.2	47.04	236.36

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1412 TRA  .7341 TC3-3.7277 BAU  .7095   SGT 4828.4 SGR 1719.3 SG3  555.9      ST  3358.6 SR  1306.7 SS  1750.5
RDE  .8284 RRA -.3246 RC3  .8521 FAU .06953   RRT -.9711 RRF -.9817 RTF  .9824      CRT -.9996 CRS  .9977 CST -.9956
FDE-2.5637 FRA 1.3218 FC3-4.3373 BSP  16156   SGB 5125.3 R23  .0903 R13 -.9851      LSA 4003.8 MSA  146.3 SSA   12.2
BDE 2.2959 BRA  .8027 BC3 3.8239 FSP  -1826   SG1 5110.7 SG2  387.8 THA 160.81      EL1 3603.7 EL2   35.4 ALF 158.75
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 493.157

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RL  151.65 LAL    .00 LOL 316.96 VL  26.748 GAL   2.10 AZL  94.53 HCA 226.03 SMA 128.24 ECC .18600 INC 4.5257 V1  29.380
RP  107.75 LAP   3.26 LOP 182.90 VP  37.795 GAP   5.54 AZP  86.85 TAL 170.75 TAP  36.78 RCA 104.39 APO 152.10 V2  35.169
RC 114.599 GL  -35.03 GP   32.78 ZAL  69.93 ZAP 134.04 ETS  35.32 ZAE 125.97 ETE 154.80 ZAC 129.46 ETC 253.13 CLP-145.77
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PLANETOCENTRIC CONIC

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C3  13.502 VHL  3.675 DLA -56.72 RAL 242.13 RAD 6567.5 VEL 11.614 PTH   2.04 VHP  4.977 DPA  18.66 RAP 227.63 ECC 1.2222
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.56	7 39 59	1616.97	40.65	37.68	117.80	133.67	8 6 56	1017.0	45.89	29.78
141.44	16 52 52	5276.38	40.66	243.80	117.81	133.66	18 20 48	4676.4	45.90	235.90
38.56	7 39 59	1616.97	40.65	37.68	117.80	133.67	8 6 56	1017.0	45.89	29.78
141.44	16 52 52	5276.38	40.66	243.80	117.81	133.66	18 20 48	4676.4	45.90	235.90
38.56	7 39 59	1616.97	40.65	37.68	117.80	133.67	8 6 56	1017.0	45.89	29.78
141.44	16 52 52	5276.38	40.66	243.80	117.81	133.66	18 20 48	4676.4	45.90	235.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0365 TRA  .8787 TC3-4.0231 BAU  .7398   SGT 5005.8 SGR 1552.2 SG3  543.1      ST  3263.8 SR  1142.6 SS  1603.6
RDE  .7109 RRA -.3247 RC3  .7809 FAU .06862   RRT -.9678 RRF -.9762 RTF  .9830      CRT -.9998 CRS  .9959 CST -.9947
FDE-2.2584 FRA 1.4363 FC3-4.3995 BSP  16828   SGB 5241.0 R23  .0773 R13 -.9849      LSA 3808.8 MSA  148.2 SSA   13.0
BDE 2.1570 BRA  .9367 BC3 4.0982 FSP  -1845   SG1 5227.6 SG2  373.9 THA 163.21      EL1 3457.9 EL2   19.2 ALF 160.71
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 499.213

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RL  151.65 LAL    .00 LOL 316.96 VL  26.724 GAL   2.34 AZL  94.22 HCA 229.25 SMA 128.08 ECC .18829 INC 4.2203 V1  29.380
RP  107.79 LAP   3.20 LOP 186.14 VP  37.767 GAP   5.91 AZP  87.24 TAL 169.83 TAP  39.08 RCA 103.97 APO 152.20 V2  35.158
RC 116.871 GL  -32.60 GP   30.36 ZAL  67.90 ZAP 136.94 ETS  35.65 ZAE 126.02 ETE 157.27 ZAC 127.33 ETC 253.77 CLP-147.86
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PLANETOCENTRIC CONIC

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C3  13.305 VHL  3.648 DLA -54.65 RAL 245.55 RAD 6567.5 VEL 11.606 PTH   2.03 VHP  5.058 DPA  16.05 RAP 227.63 ECC 1.2190
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.09	8 0 39	1599.20	39.61	34.35	119.59	131.32	8 27 18	999.2	44.60	26.33
138.91	16 59 30	5287.74	39.62	243.87	119.60	131.31	18 27 38	4687.7	44.61	235.85
41.09	8 0 39	1599.20	39.61	34.35	119.59	131.32	8 27 18	999.2	44.60	26.33
138.91	16 59 30	5287.74	39.62	243.87	119.60	131.31	18 27 38	4687.7	44.61	235.85
41.09	8 0 39	1599.20	39.61	34.35	119.59	131.32	8 27 18	999.2	44.60	26.33
138.91	16 59 30	5287.74	39.62	243.87	119.60	131.31	18 27 38	4687.7	44.61	235.85

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9074 TRA 1.0527 TC3-4.1990 BAU  .7565   SGT 5150.5 SGR 1404.5 SG3  525.0      ST  3117.8 SR   995.3 SS  1438.0
RDE  .6098 RRA -.3317 RC3  .6777 FAU .06509   RRT -.9618 RRF -.9691 RTF  .9820      CRT -.9999 CRS  .9921 CST -.9927
FDE-1.9289 FRA 1.5715 FC3-4.2353 BSP  16893   SGB 5338.6 R23  .0718 R13 -.9835      LSA 3571.2 MSA  159.5 SSA   13.8
BDE 2.0025 BRA 1.1038 BC3 4.2533 FSP  -1759   SG1 5325.6 SG2  371.8 THA 165.23      EL1 3272.8 EL2   14.3 ALF 162.30
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 505.244

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RL  151.65 LAL    .00 LOL 316.96 VL  26.699 GAL   2.59 AZL  93.94 HCA 232.47 SMA 127.92 ECC .19076 INC 3.9433 V1  29.380
RP  107.82 LAP   3.13 LOP 189.37 VP  37.739 GAP   6.29 AZP  87.60 TAL 168.88 TAP  41.35 RCA 103.52 APO 152.32 V2  35.147
RC 119.138 GL  -30.24 GP   28.19 ZAL  65.85 ZAP 139.64 ETS  35.96 ZAE 125.94 ETE 159.43 ZAC 125.46 ETC 254.31 CLP-149.83
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PLANETOCENTRIC CONIC

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C3  13.261 VHL  3.642 DLA -52.60 RAL 248.74 RAD 6567.5 VEL 11.604 PTH   2.03 VHP  5.162 DPA  13.63 RAP 227.87 ECC 1.2182
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.62	8 20 47	1582.37	38.42	31.20	121.41	129.18	8 47 9	982.4	43.18	23.11
136.38	17 4 52	5303.14	38.43	244.28	121.42	129.17	18 33 15	4703.1	43.19	236.19
43.62	8 20 47	1582.37	38.42	31.20	121.41	129.18	8 47 9	982.4	43.18	23.11
136.38	17 4 52	5303.14	38.43	244.28	121.42	129.17	18 33 15	4703.1	43.19	236.19
43.62	8 20 47	1582.37	38.42	31.20	121.41	129.18	8 47 9	982.4	43.18	23.11
136.38	17 4 52	5303.14	38.43	244.28	121.42	129.17	18 33 15	4703.1	43.19	236.19

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7855 TRA 1.2252 TC3-4.3414 BAU  .7767   SGT 5288.2 SGR 1279.7 SG3  504.7      ST  2967.8 SR   880.5 SS  1290.2
RDE  .5348 RRA -.3333 RC3  .5892 FAU .06179   RRT -.9548 RRF -.9604 RTF  .9814      CRT -.9995 CRS  .9858 CST -.9902
FDE-1.6413 FRA 1.6745 FC3-4.0342 BSP  17189   SGB 5440.8 R23  .0633 R13 -.9825      LSA 3349.4 MSA  170.7 SSA   14.5
BDE 1.8639 BRA 1.2698 BC3 4.3812 FSP  -1697   SG1 5428.2 SG2  370.7 THA 166.93      EL1 3095.5 EL2   27.9 ALF 163.48
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LAUNCH DATE AUG 10 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 511.250
RL 151.65 LAL .00 LOL 316.96 VL 26.673 GAL 2.86 AZL 93.69 HCA 235.69 SMA 127.75 ECC .19341 INC 3.6895 V1 29.380
RP 107.86 LAP 3.05 LOP 192.60 VP 37.710 GAP 6.67 AZP 87.92 TAL 167.89 TAP 43.58 RCA 103.04 APO 152.45 V2 35.136
RC 121.402 GL -27.97 GP 26.26 ZAL 63.78 ZAP 142.15 ETS 36.27 ZAE 125.77 ETE 161.32 ZAC 123.82 ETC 254.80 CLP-151.69
PLANETOCENTRIC CONIC
C3 13.356 VHL 3.655 DLA -50.59 RAL 251.74 RAD 6567.5 VEL 11.608 PTH 2.03 VHP 5.284 DPA 11.39 RAP 228.32 ECC 1.2198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.14	8 40 31	1566.14	37.12	28.19	123.28	127.24	9 6 37	966.1	41.66	20.08
133.86	17 9 3	5322.48	37.13	245.03	123.29	127.23	18 37 45	4722.5	41.67	236.91
46.14	8 40 31	1566.14	37.12	28.19	123.28	127.24	9 6 37	966.1	41.66	20.08
133.86	17 9 3	5322.48	37.13	245.03	123.29	127.23	18 37 45	4722.5	41.67	236.91
46.14	8 40 31	1566.14	37.12	28.19	123.28	127.24	9 6 37	966.1	41.66	20.08
133.86	17 9 3	5322.48	37.13	245.03	123.29	127.23	18 37 45	4722.5	41.67	236.91

DIFFERENTIAL CORRECTIONS
TDE-1.6643 TRA 1.4032 TC3-4.4328 BAU .7967
RDE .4776 RRA -.3335 RC3 .5086 FAU .05836
FDE-1.3828 FRA 1.7593 FC3-3.7827 BSP 17499
BDE 1.7315 BRA 1.4423 BC3 4.4618 FSP -1631

MID-COURSE EXECUTION ACCURACY
SGT 5414.4 SGR 1173.6 SG3 482.8
RRT -.9463 RRF -.9500 RTF .9808
SGB 5540.1 R23 .0544 R13 -.9816
SG1 5527.7 SG2 371.8 THA 168.36

ORBIT DETERMINATION ACCURACY
ST 2810.4 SR 788.5 SS 1155.5
CRT -.9980 CRS .9752 CST -.9869
LSA 3133.9 MSA 184.1 SSA 15.0
EL1 2918.6 EL2 48.4 ALF 164.35

LAUNCH DATE AUG 10 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 517.228
RL 151.65 LAL .00 LOL 316.96 VL 26.646 GAL 3.15 AZL 93.45 HCA 238.91 SMA 127.57 ECC .19627 INC 3.4546 V1 29.380
RP 107.89 LAP 2.96 LOP 195.83 VP 37.680 GAP 7.06 AZP 88.21 TAL 166.89 TAP 45.80 RCA 102.53 APO 152.61 V2 35.124
RC 123.660 GL -25.79 GP 24.53 ZAL 61.70 ZAP 144.48 ETS 36.60 ZAE 125.54 ETE 162.97 ZAC 122.40 ETC 255.24 CLP-153.46
PLANETOCENTRIC CONIC
C3 13.582 VHL 3.685 DLA -48.63 RAL 254.56 RAD 6567.5 VEL 11.618 PTH 2.04 VHP 5.423 DPA 9.31 RAP 228.96 ECC 1.2235

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.66	8 59 58	1550.21	35.74	25.32	125.22	125.48	9 25 48	950.2	40.09	17.22
131.34	17 12 5	5345.71	35.75	246.11	125.23	125.47	18 41 11	4745.7	40.10	238.00
48.66	8 59 58	1550.21	35.74	25.32	125.22	125.48	9 25 48	950.2	40.09	17.22
131.34	17 12 5	5345.71	35.75	246.11	125.23	125.47	18 41 11	4745.7	40.10	238.00
48.66	8 59 58	1550.21	35.74	25.32	125.22	125.48	9 25 48	950.2	40.09	17.22
131.34	17 12 5	5345.71	35.75	246.11	125.23	125.47	18 41 11	4745.7	40.10	238.00

DIFFERENTIAL CORRECTIONS
TDE-1.5441 TRA 1.5880 TC3-4.4732 BAU .8161
RDE .4345 RRA -.3334 RC3 .4365 FAU .05485
FDE-1.1537 FRA 1.8297 FC3-3.4963 BSP 17821
BDE 1.6041 BRA 1.6226 BC3 4.4945 FSP -1565

MID-COURSE EXECUTION ACCURACY
SGT 5530.5 SGR 1083.9 SG3 460.3
RRT -.9361 RRF -.9379 RTF .9802
SGB 5635.7 R23 .0458 R13 -.9808
SG1 5623.2 SG2 374.8 THA 169.56

ORBIT DETERMINATION ACCURACY
ST 2651.1 SR 715.4 SS 1036.1
CRT -.9946 CRS .9584 CST -.9826
LSA 2928.0 MSA 199.9 SSA 15.3
EL1 2745.0 EL2 71.9 ALF 164.97

LAUNCH DATE AUG 10 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 523.180
RL 151.65 LAL .00 LOL 316.96 VL 26.619 GAL 3.46 AZL 93.24 HCA 242.12 SMA 127.39 ECC .19934 INC 3.2352 V1 29.380
RP 107.93 LAP 2.86 LOP 199.05 VP 37.650 GAP 7.44 AZP 88.49 TAL 165.86 TAP 47.98 RCA 102.00 APO 152.79 V2 35.112
RC 125.912 GL -23.69 GP 22.98 ZAL 59.64 ZAP 146.65 ETS 36.97 ZAE 125.28 ETE 164.40 ZAC 121.16 ETC 255.66 CLP-155.14
PLANETOCENTRIC CONIC
C3 13.934 VHL 3.733 DLA -46.71 RAL 257.22 RAD 6567.5 VEL 11.633 PTH 2.04 VHP 5.576 DPA 7.38 RAP 229.78 ECC 1.2293

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.17	9 19 15	1534.27	34.29	22.56	127.22	123.90	9 44 49	934.3	38.47	14.49
128.83	17 14 0	5372.85	34.30	247.52	127.23	123.89	18 43 32	4772.9	38.48	239.45
51.17	9 19 15	1534.27	34.29	22.56	127.22	123.90	9 44 49	934.3	38.47	14.49
128.83	17 14 0	5372.85	34.30	247.52	127.23	123.89	18 43 32	4772.9	38.48	239.45
51.17	9 19 15	1534.27	34.29	22.56	127.22	123.90	9 44 49	934.3	38.47	14.49
128.83	17 14 0	5372.85	34.30	247.52	127.23	123.89	18 43 32	4772.9	38.48	239.45

DIFFERENTIAL CORRECTIONS
TDE-1.4243 TRA 1.7805 TC3-4.4624 BAU .8342
RDE .4023 RRA -.3335 RC3 .3721 FAU .05127
FDE -.9506 FRA 1.8884 FC3-3.1855 BSP 18137
BDE 1.4800 BRA 1.8115 BC3 4.4779 FSP -1497

MID-COURSE EXECUTION ACCURACY
SGT 5635.7 SGR 1007.8 SG3 437.6
RRT -.9244 RRF -.9241 RTF .9795
SGB 5725.1 R23 .0381 R13 -.9800
SG1 5712.6 SG2 379.2 THA 170.57

ORBIT DETERMINATION ACCURACY
ST 2493.7 SR 656.8 SS 932.0
CRT -.9880 CRS .9330 CST -.9770
LSA 2733.3 MSA 218.4 SSA 15.6
EL1 2576.9 EL2 98.1 ALF 165.39

LAUNCH DATE AUG 10 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 529.102
RL 151.65 LAL .00 LOL 316.96 VL 26.591 GAL 3.78 AZL 93.03 HCA 245.34 SMA 127.21 ECC .20264 INC 3.0287 V1 29.380
RP 107.97 LAP 2.75 LOP 202.27 VP 37.619 GAP 7.84 AZP 88.74 TAL 164.80 TAP 50.14 RCA 101.44 APO 152.99 V2 35.099
RC 128.158 GL -21.67 GP 21.60 ZAL 57.60 ZAP 148.67 ETS 37.41 ZAE 124.99 ETE 165.65 ZAC 120.09 ETC 256.05 CLP-156.74
PLANETOCENTRIC CONIC
C3 14.413 VHL 3.796 DLA -44.84 RAL 259.73 RAD 6567.6 VEL 11.653 PTH 2.05 VHP 5.743 DPA 5.58 RAP 230.74 ECC 1.2372

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.66	9 38 27	1518.11	32.81	19.88	129.29	122.47	10 3 45	918.1	36.82	11.86
126.34	17 14 49	5403.90	32.82	249.25	129.30	122.45	18 44 53	4803.9	36.83	241.23
53.66	9 38 27	1518.11	32.81	19.88	129.29	122.47	10 3 45	918.1	36.82	11.86
126.34	17 14 49	5403.90	32.82	249.25	129.30	122.45	18 44 53	4803.9	36.83	241.23
53.66	9 38 27	1518.11	32.81	19.88	129.29	122.47	10 3 45	918.1	36.82	11.86
126.34	17 14 49	5403.90	32.82	249.25	129.30	122.45	18 44 53	4803.9	36.83	241.23

DIFFERENTIAL CORRECTIONS
TDE-1.3045 TRA 1.9819 TC3-4.4058 BAU .8511
RDE .3786 RRA -.3344 RC3 .3161 FAU .04774
FDE -.7713 FRA 1.9384 FC3-2.8675 BSP 18431
BDE 1.3583 BRA 2.0099 BC3 4.4171 FSP -1428

MID-COURSE EXECUTION ACCURACY
SGT 5732.2 SGR 943.7 SG3 415.4
RRT -.9113 RRF -.9089 RTF .9789
SGB 5809.3 R23 .0311 R13 -.9792
SG1 5796.6 SG2 384.3 THA 171.43

ORBIT DETERMINATION ACCURACY
ST 2342.5 SR 610.0 SS 843.7
CRT -.9768 CRS .8965 CST -.9702
LSA 2552.2 MSA 239.3 SSA 15.7
EL1 2417.3 EL2 126.6 ALF 165.69

LAUNCH DATE AUG 10 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 534.991
RL 151.65 LAL .00 LOL 316.96 VL 26.563 GAL 4.12 AZL 92.83 HCA 248.55 SMA 127.03 ECC .20618 INC 2.8326 V1 29.380
RP 108.01 LAP 2.64 LOP 205.49 VP 37.587 GAP 8.24 AZP 88.96 TAL 163.73 TAP 52.28 RCA 100.84 APO 153.22 V2 35.086
RC 130.397 GL -19.75 GP 20.36 ZAL 55.59 ZAP 150.57 ETS 37.92 ZAE 124.69 ETE 166.73 ZAC 119.16 ETC 256.43 CLP-158.27
PLANETOCENTRIC CONIC
C3 15.020 VHL 3.876 DLA -43.02 RAL 262.10 RAD 6567.6 VEL 11.679 PTH 2.05 VHP 5.923 DPA 3.89 RAP 231.83 ECC 1.2472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.15	9 57 41	1501.35	31.30	17.26	131.42	121.17	10 22 42	901.3	35.17	9.30
123.85	17 14 29	5439.04	31.31	251.32	131.43	121.16	18 45 8	4839.0	35.18	243.36
56.15	9 57 41	1501.35	31.30	17.26	131.42	121.17	10 22 42	901.3	35.17	9.30
123.85	17 14 29	5439.04	31.31	251.32	131.43	121.16	18 45 8	4839.0	35.18	243.36
56.15	9 57 41	1501.35	31.30	17.26	131.42	121.17	10 22 42	901.3	35.17	9.30
123.85	17 14 29	5439.04	31.31	251.32	131.43	121.16	18 45 8	4839.0	35.18	243.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.1995 TRA 2.1777 TC3-4.3466 BAU .8746 SGT 5821.3 SGR 889.7 SG3 393.3 ST 2213.6 SR 576.1 SS 775.2
RDE .3649 RRA -.3335 RC3 .2758 FAU .04505 RRT -.8972 RRF -.8924 RTF .9789 CRT -.9601 CRS .8531 CST -.9646
FDE -.6307 FRA 1.9656 FC3-2.5965 BSP 19066 SGB 5888.9 R23 .0231 R13 -.9791 LSA 2401.2 MSA 258.3 SSA 15.6
BDE 1.2537 BRA 2.2031 BC3 4.3554 FSP -1395 SG1 5876.0 SG2 389.2 THA 172.16 EL1 2282.0 EL2 156.3 ALF 165.90

LAUNCH DATE AUG 10 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 540.851
RL 151.65 LAL .00 LOL 316.96 VL 26.534 GAL 4.48 AZL 92.65 HCA 251.76 SMA 126.85 ECC .20998 INC 2.6452 V1 29.380
RP 108.05 LAP 2.51 LOP 208.71 VP 37.555 GAP 8.65 AZP 89.17 TAL 162.64 TAP 54.40 RCA 100.21 APO 153.48 V2 35.074
RC 132.627 GL -17.91 GP 19.24 ZAL 53.61 ZAP 152.34 ETS 38.53 ZAE 124.39 ETE 167.68 ZAC 118.35 ETC 256.81 CLP-159.73
PLANETOCENTRIC CONIC
C3 15.763 VHL 3.970 DLA -41.26 RAL 264.34 RAD 6567.6 VEL 11.711 PTH 2.06 VHP 6.115 DPA 2.32 RAP 233.05 ECC 1.2594

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.63	10 17 5	1483.69	29.78	14.67	133.62	120.00	10 41 49	883.7	33.52	6.78
121.37	17 12 59	5478.43	29.79	253.73	133.63	119.99	18 44 18	4878.4	33.53	245.83
58.63	10 17 5	1483.69	29.78	14.67	133.62	120.00	10 41 49	883.7	33.52	6.78
121.37	17 12 59	5478.43	29.79	253.73	133.63	119.99	18 44 18	4878.4	33.53	245.83
58.63	10 17 5	1483.69	29.78	14.67	133.62	120.00	10 41 49	883.7	33.52	6.78
121.37	17 12 59	5478.43	29.79	253.73	133.63	119.99	18 44 18	4878.4	33.53	245.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.0692 TRA 2.4088 TC3-4.1840 BAU .8830 SGT 5899.7 SGR 843.9 SG3 373.0 ST 2077.5 SR 543.2 SS 714.4
RDE .3513 RRA -.3385 RC3 .2282 FAU .04108 RRT -.8817 RRF -.8752 RTF .9777 CRT -.9334 CRS .7865 CST -.9554
FDE -.4800 FRA 2.0139 FC3-2.2563 BSP 19064 SGB 5959.7 R23 .0196 R13 -.9779 LSA 2244.8 MSA 286.1 SSA 15.6
BDE 1.1255 BRA 2.4325 BC3 4.1902 FSP -1302 SG1 5946.6 SG2 395.0 THA 172.78 EL1 2138.9 EL2 189.3 ALF 166.17

LAUNCH DATE AUG 10 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 546.674
RL 151.65 LAL .00 LOL 316.96 VL 26.505 GAL 4.86 AZL 92.46 HCA 254.97 SMA 126.66 ECC .21405 INC 2.4647 V1 29.380
RP 108.09 LAP 2.38 LOP 211.92 VP 37.522 GAP 9.07 AZP 89.36 TAL 161.53 TAP 56.50 RCA 99.55 APO 153.77 V2 35.061
RC 134.850 GL -16.16 GP 18.24 ZAL 51.69 ZAP 154.00 ETS 39.25 ZAE 124.09 ETE 168.50 ZAC 117.65 ETC 257.19 CLP-161.14
PLANETOCENTRIC CONIC
C3 16.648 VHL 4.080 DLA -39.57 RAL 266.46 RAD 6567.7 VEL 11.749 PTH 2.07 VHP 6.320 DPA .84 RAP 234.37 ECC 1.2740

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.12	10 36 45	1464.75	28.26	12.07	135.88	118.94	11 1 10	864.8	31.88	4.25
118.88	17 10 16	5522.28	28.27	256.48	135.89	118.93	18 42 18	4922.3	31.89	248.65
61.12	10 36 45	1464.75	28.26	12.07	135.88	118.94	11 1 10	864.8	31.88	4.25
118.88	17 10 16	5522.28	28.27	256.48	135.89	118.93	18 42 18	4922.3	31.89	248.65
61.12	10 36 45	1464.75	28.26	12.07	135.88	118.94	11 1 10	864.8	31.88	4.25
118.88	17 10 16	5522.28	28.27	256.48	135.89	118.93	18 42 18	4922.3	31.89	248.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.9461 TRA 2.6426 TC3-4.0125 BAU .8941 SGT 5971.7 SGR 805.1 SG3 353.4 ST 1964.8 SR 517.9 SS 670.0
RDE .3437 RRA -.3431 RC3 .1917 FAU .03766 RRT -.8658 RRF -.8574 RTF .9769 CRT -.8969 CRS .7101 CST -.9479
FDE -.3555 FRA 2.0489 FC3-1.9586 BSP 19233 SGB 6025.8 R23 .0157 R13 -.9770 LSA 2116.6 MSA 312.3 SSA 15.5
BDE 1.0066 BRA 2.6648 BC3 4.0170 FSP -1232 SG1 6012.5 SG2 400.1 THA 173.31 EL1 2019.7 EL2 222.8 ALF 166.53

LAUNCH DATE AUG 10 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 552.458
RL 151.65 LAL .00 LOL 316.96 VL 26.476 GAL 5.27 AZL 92.29 HCA 258.17 SMA 126.47 ECC .21843 INC 2.2897 V1 29.380
RP 108.13 LAP 2.24 LOP 215.13 VP 37.489 GAP 9.50 AZP 89.53 TAL 160.41 TAP 58.58 RCA 98.85 APO 154.10 V2 35.047
RC 137.063 GL -14.50 GP 17.33 ZAL 49.82 ZAP 155.56 ETS 40.09 ZAE 123.80 ETE 169.22 ZAC 117.05 ETC 257.57 CLP-162.50
PLANETOCENTRIC CONIC
C3 17.688 VHL 4.206 DLA -37.94 RAL 268.47 RAD 6567.7 VEL 11.793 PTH 2.09 VHP 6.537 DPA -.55 RAP 235.79 ECC 1.2911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.62	10 56 51	1444.07	26.74	9.43	138.19	117.98	11 20 55	844.1	30.26	1.67
116.38	17 6 12	5570.94	26.76	259.60	138.19	117.97	18 39 3	4970.9	30.27	251.84
63.62	10 56 51	1444.07	26.74	9.43	138.19	117.98	11 20 55	844.1	30.26	1.67
116.38	17 6 12	5570.94	26.76	259.60	138.19	117.97	18 39 3	4970.9	30.27	251.84
63.62	10 56 51	1444.07	26.74	9.43	138.19	117.98	11 20 55	844.1	30.26	1.67
116.38	17 6 12	5570.94	26.76	259.60	138.19	117.97	18 39 3	4970.9	30.27	251.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.8255 TRA 2.8851 TC3-3.8234 BAU .9050 SGT 6037.0 SGR 771.9 SG3 334.8 ST 1873.3 SR 497.5 SS 638.2
RDE .3402 RRA -.3485 RC3 .1619 FAU .03451 RRT -.8497 RRF -.8396 RTF .9762 CRT -.8495 CRS .6261 CST -.9429
FDE -.2490 FRA 2.0781 FC3-1.6889 BSP 19445 SGB 6086.1 R23 .0121 R13 -.9764 LSA 2012.5 MSA 337.3 SSA 15.4
BDE .8928 BRA 2.9061 BC3 3.8268 FSP -1169 SG1 6072.7 SG2 404.6 THA 173.77 EL1 1921.3 EL2 255.9 ALF 167.05

LAUNCH DATE AUG 10 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 558.201

RL 151.65 LAL .00 LOL 316.96 VL 26.447 GAL 5.70 AZL 92.12 HCA 261.38 SMA 126.28 ECC .22313 INC 2.1188 V1 29.380
RP 108.17 LAP 2.09 LOP 218.34 VP 37.456 GAP 9.94 AZP 89.68 TAL 159.28 TAP 60.65 RCA 98.11 APO 154.46 V2 35.034
RC 139.266 GL -12.93 GP 16.51 ZAL 48.01 ZAP 157.03 ETS 41.08 ZAE 123.51 ETE 169.85 ZAC 116.52 ETC 257.96 CLP-163.81

PLANETOCENTRIC CONIC

C3 18.897 VHL 4.347 DLA -36.38 RAL 270.38 RAD 6567.8 VEL 11.844 PTH 2.10 VHP 6.768 DPA -1.85 RAP 237.29 ECC 1.3110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.15	11 17 33	1421.02	25.25	6.69	140.54	117.10	11 41 14	821.0	28.67	358.99
113.85	17 0 40	5624.92	25.26	263.12	140.55	117.09	18 34 25	5024.9	28.68	255.42
66.15	11 17 33	1421.02	25.25	6.69	140.54	117.10	11 41 14	821.0	28.67	358.99
113.85	17 0 40	5624.92	25.26	263.12	140.55	117.09	18 34 25	5024.9	28.68	255.42
66.15	11 17 33	1421.02	25.25	6.69	140.54	117.10	11 41 14	821.0	28.67	358.99
113.85	17 0 40	5624.92	25.26	263.12	140.55	117.09	18 34 25	5024.9	28.68	255.42

DIFFERENTIAL CORRECTIONS
TDE -.7097 TRA 3.1337 TC3-3.6275 BAU .9171
RDE .3404 RRA -.3543 RC3 .1386 FAU .03171
FDE -.1605 FRA 2.1000 FC3-1.4526 BSP 19767
BDE .7871 BRA 3.1537 BC3 3.6301 FSP -1118

MID-COURSE EXECUTION ACCURACY
SGT 6094.1 SGR 743.2 SG3 317.0
RRT -.8336 RRF -.8221 RTF .9759
SGB 6139.2 R23 .0089 R13 -.9759
SG1 6125.6 SG2 408.4 THA 174.17

ORBIT DETERMINATION ACCURACY
ST 1803.4 SR 481.2 SS 616.0
CRT -.7925 CRS .5414 CST -.9414
LSA 1932.4 MSA 359.1 SSA 15.2
EL1 1844.3 EL2 287.0 ALF 167.76

LAUNCH DATE AUG 10 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 563.900

RL 151.65 LAL .00 LOL 316.96 VL 26.417 GAL 6.15 AZL 91.95 HCA 264.58 SMA 126.10 ECC .22820 INC 1.9510 V1 29.380
RP 108.21 LAP 1.94 LOP 221.54 VP 37.422 GAP 10.40 AZP 89.82 TAL 158.14 TAP 62.71 RCA 97.32 APO 154.87 V2 35.021
RC 141.459 GL -11.45 GP 15.77 ZAL 46.27 ZAP 158.42 ETS 42.24 ZAE 123.23 ETE 170.40 ZAC 116.07 ETC 258.36 CLP-165.08

PLANETOCENTRIC CONIC

C3 20.292 VHL 4.505 DLA -34.88 RAL 272.18 RAD 6567.8 VEL 11.903 PTH 2.11 VHP 7.012 DPA -3.08 RAP 238.88 ECC 1.3340

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.73	11 39 9	1394.76	23.78	3.79	142.95	116.30	12 2 24	794.8	27.11	356.15
111.27	16 53 27	5684.95	23.80	267.09	142.95	116.29	18 28 12	5084.9	27.13	259.45
68.73	11 39 9	1394.76	23.78	3.79	142.95	116.30	12 2 24	794.8	27.11	356.15
111.27	16 53 27	5684.95	23.80	267.09	142.95	116.29	18 28 12	5084.9	27.13	259.45
68.73	11 39 9	1394.76	23.78	3.79	142.95	116.30	12 2 24	794.8	27.11	356.15
111.27	16 53 27	5684.95	23.80	267.09	142.95	116.29	18 28 12	5084.9	27.13	259.45

DIFFERENTIAL CORRECTIONS
TDE -.5837 TRA 3.4041 TC3-3.3985 BAU .9225
RDE .3415 RRA -.3625 RC3 .1163 FAU .02868
FDE -.0752 FRA 2.1273 FC3-1.2234 BSP 19855
BDE .6762 BRA 3.4233 BC3 3.4005 FSP -1055

MID-COURSE EXECUTION ACCURACY
SGT 6146.6 SGR 718.0 SG3 300.6
RRT -.8179 RRF -.8051 RTF .9752
SGB 6188.4 R23 .0066 R13 -.9753
SG1 6174.7 SG2 411.2 THA 174.52

ORBIT DETERMINATION ACCURACY
ST 1751.1 SR 465.9 SS 602.6
CRT -.7228 CRS .4499 CST -.9420
LSA 1871.4 MSA 379.9 SSA 15.0
EL1 1784.3 EL2 316.0 ALF 168.76

LAUNCH DATE AUG 10 1970 FLIGHT TIME 202.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 569.548

RL 151.65 LAL .00 LOL 316.96 VL 26.387 GAL 6.64 AZL 91.79 HCA 267.78 SMA 125.91 ECC .23365 INC 1.7850 V1 29.380
RP 108.25 LAP 1.78 LOP 224.74 VP 37.389 GAP 10.88 AZP 89.93 TAL 156.99 TAP 64.77 RCA 96.49 APO 155.32 V2 35.008
RC 143.643 GL -10.05 GP 15.10 ZAL 44.59 ZAP 159.72 ETS 43.57 ZAE 122.96 ETE 170.88 ZAC 115.67 ETC 258.76 CLP-166.31

PLANETOCENTRIC CONIC

C3 21.894 VHL 4.679 DLA -33.45 RAL 273.88 RAD 6567.9 VEL 11.970 PTH 2.13 VHP 7.271 DPA -4.23 RAP 240.53 ECC 1.3603

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.41	12 2 1	1364.05	22.34	.63	145.39	115.57	12 24 45	764.0	25.59	353.05
108.59	16 44 10	5752.16	22.36	271.58	145.40	115.55	18 20 3	5152.2	25.61	263.99
71.41	12 2 1	1364.05	22.34	.63	145.39	115.57	12 24 45	764.0	25.59	353.05
108.59	16 44 10	5752.16	22.36	271.58	145.40	115.55	18 20 3	5152.2	25.61	263.99
110.00	15 59 5	602.32	17.54	301.71	142.71	119.82	16 9 7	2.3	21.37	294.68
110.00	17 46 17	5561.90	27.33	259.18	147.78	111.38	19 18 59	4961.9	29.98	250.99

DIFFERENTIAL CORRECTIONS
TDE -.4612 TRA 3.6829 TC3-3.1712 BAU .9287
RDE .3451 RRA -.3712 RC3 .0989 FAU .02597
FDE -.0038 FRA 2.1496 FC3-1.0269 BSP 20040
BDE .5760 BRA 3.7016 BC3 3.1728 FSP -1002

MID-COURSE EXECUTION ACCURACY
SGT 6191.8 SGR 695.6 SG3 284.9
RRT -.8028 RRF -.7888 RTF .9748
SGB 6230.8 R23 .0046 R13 -.9749
SG1 6217.1 SG2 413.1 THA 174.82

ORBIT DETERMINATION ACCURACY
ST 1719.3 SR 453.0 SS 594.8
CRT -.6469 CRS .3654 CST -.9459
LSA 1832.6 MSA 395.4 SSA 14.7
EL1 1745.1 EL2 340.4 ALF 169.94

LAUNCH DATE AUG 10 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 575.142

RL 151.65 LAL .00 LOL 316.96 VL 26.357 GAL 7.15 AZL 91.62 HCA 270.97 SMA 125.72 ECC .23952 INC 1.6199 V1 29.380
RP 108.29 LAP 1.62 LOP 227.94 VP 37.355 GAP 11.38 AZP 90.03 TAL 155.84 TAP 66.81 RCA 95.61 APO 155.83 V2 34.995
RC 145.816 GL -8.73 GP 14.49 ZAL 42.98 ZAP 160.96 ETS 45.12 ZAE 122.70 ETE 171.31 ZAC 115.32 ETC 259.18 CLP-167.52

PLANETOCENTRIC CONIC

C3 23.728 VHL 4.871 DLA -32.08 RAL 275.49 RAD 6568.0 VEL 12.046 PTH 2.15 VHP 7.545 DPA -5.31 RAP 242.25 ECC 1.3905

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.25	12 26 50	1326.67	20.93	357.05	147.87	114.89	12 48 57	726.7	24.11	349.52
105.75	16 32 13	5828.67	20.95	276.73	147.88	114.88	18 9 22	5228.7	24.12	269.20
74.25	12 26 50	1326.67	20.93	357.05	147.87	114.89	12 48 57	726.7	24.11	349.52
105.75	16 32 13	5828.67	20.95	276.73	147.88	114.88	18 9 22	5228.7	24.12	269.20
110.00	15 28 51	737.10	12.82	309.30	143.29	121.96	15 41 8	137.1	16.95	302.63
110.00	18 29 23	5466.23	29.53	252.61	151.61	108.06	20 0 29	4866.2	31.71	244.08

DIFFERENTIAL CORRECTIONS
TDE -.3379 TRA 3.9753 TC3-2.9400 BAU .9330
RDE .3502 RRA -.3808 RC3 .0842 FAU .02341
FDE .0585 FRA 2.1709 FC3 -.8541 BSP 20220
BDE .4866 BRA 3.9935 BC3 2.9413 FSP -952

MID-COURSE EXECUTION ACCURACY
SGT 6230.5 SGR 675.2 SG3 270.2
RRT -.7883 RRF -.7734 RTF .9745
SGB 6267.0 R23 .0030 R13 -.9746
SG1 6253.3 SG2 414.0 THA 175.10

ORBIT DETERMINATION ACCURACY
ST 1704.8 SR 441.4 SS 591.3
CRT -.5668 CRS .2875 CST -.9517
LSA 1812.7 MSA 406.2 SSA 14.5
EL1 1723.9 EL2 359.6 ALF 171.27

LAUNCH DATE AUG 10 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 580.674

RL	151.65	LAL	.00	LOL	316.96	VL	26.327	GAL	7.70	AZL	91.45	HCA	274.17	SMA	125.53	ECC	.24587	INC	1.4546	V1	29.380
RP	108.33	LAP	1.45	LOP	231.13	VP	37.322	GAP	11.89	AZP	90.11	TAL	154.69	TAP	68.85	RCA	94.67	APO	156.39	V2	34.982
RC	147.979	GL	-7.49	GP	13.94	ZAL	41.45	ZAP	162.12	ETS	46.91	ZAE	122.45	ETE	171.69	ZAC	115.02	ETC	259.61	CLP	-168.70

PLANETOCENTRIC CONIC

C3	25.824	VHL	5.082	DLA	-30.78	RAL	277.02	RAD	6568.0	VEL	12.133	PTH	2.17	VHP	7.837	DPA	-6.32	RAP	244.02	ECC	1.4250		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.39	12 54 48	1278.73	19.56	352.76	150.39	114.26	13 16 7	678.7	22.67	345.27
102.61	16 16 25	630.21	19.57	304.93	150.40	114.25	16 26 55	30.2	22.68	297.44
77.39	12 54 48	1278.73	19.56	352.76	150.39	114.26	13 16 7	678.7	22.67	345.27
102.61	16 16 25	630.21	19.57	304.93	150.40	114.25	16 26 55	30.2	22.68	297.44
110.00	15 10 43	836.35	9.18	314.69	144.55	123.07	15 24 39	236.4	13.48	308.22
110.00	18 59 40	5408.63	30.67	248.51	154.87	105.88	20 29 49	4808.6	32.54	239.79

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2138	TRA	4.2820	TC3	-2.7091	BAU	.9356	SGT	6262.6	SGR	656.3	SG3	256.3	ST	1705.1	SR	430.7	SS	590.7
RDE	.3567	RRA	-.3913	RC3	.0718	FAU	.02100	RRT	-.7746	RRF	-.7591	RTF	.9744	CRT	-.4860	CRS	.2176	CST	-.9584
FDE	.1130	FRA	2.1914	FC3	-.7039	BSP	20419	SGB	6296.9	R23	.0017	R13	-.9744	LSA	1808.8	MSA	412.0	SSA	14.2
BDE	.4159	BRA	4.2998	BC3	2.7100	FSP	-907	SG1	6283.3	SG2	413.7	THA	175.34	EL1	1718.5	EL2	373.4	ALF	172.65

LAUNCH DATE AUG 10 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 586.137

RL	151.65	LAL	.00	LOL	316.96	VL	26.297	GAL	8.28	AZL	91.29	HCA	277.36	SMA	125.34	ECC	.25273	INC	1.2881	V1	29.380
RP	108.37	LAP	1.28	LOP	234.33	VP	37.288	GAP	12.44	AZP	90.16	TAL	153.54	TAP	70.90	RCA	93.66	APO	157.02	V2	34.969
RC	150.132	GL	-6.32	GP	13.43	ZAL	39.99	ZAP	163.22	ETS	48.97	ZAE	122.19	ETE	172.03	ZAC	114.75	ETC	260.05	CLP	-169.85

PLANETOCENTRIC CONIC

C3	28.217	VHL	5.312	DLA	-29.55	RAL	278.46	RAD	6568.1	VEL	12.231	PTH	2.20	VHP	8.147	DPA	-7.28	RAP	245.84	ECC	1.4644		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.18	13 29 1	1210.04	18.22	347.01	152.93	113.67	13 49 11	610.0	21.27	339.57
98.82	15 53 40	742.94	18.24	312.71	152.94	113.66	16 6 3	142.9	21.28	305.26
100.00	15 24 39	835.84	14.91	317.98	151.33	116.21	15 38 34	235.8	18.31	310.84
100.00	16 40 44	5880.41	21.61	280.93	154.42	111.17	18 18 45	5280.4	24.30	273.16
110.00	14 57 38	920.96	6.01	319.19	146.12	123.71	15 12 59	321.0	10.40	312.85
110.00	19 24 14	5368.06	31.39	245.57	157.91	104.28	20 53 42	4768.1	33.03	236.73

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0889	TRA	4.6039	TC3	-2.4815	BAU	.9364	SGT	6288.5	SGR	638.4	SG3	243.2	ST	1717.0	SR	420.4	SS	591.9
RDE	.3642	RRA	-.4024	RC3	.0613	FAU	.01874	RRT	-.7616	RRF	-.7457	RTF	.9744	CRT	-.4075	CRS	.1560	CST	-.9653
FDE	.1605	FRA	2.2117	FC3	-.5750	BSP	20630	SGB	6320.8	R23	.0006	R13	-.9744	LSA	1817.7	MSA	413.4	SSA	13.9
BDE	.3749	BRA	4.6215	BC3	2.4823	FSP	-866	SG1	6307.3	SG2	412.4	THA	175.56	EL1	1726.0	EL2	381.9	ALF	174.01

LAUNCH DATE AUG 10 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 591.523

RL	151.65	LAL	.00	LOL	316.96	VL	26.266	GAL	8.90	AZL	91.12	HCA	280.55	SMA	125.15	ECC	.26016	INC	1.1193	V1	29.380
RP	108.41	LAP	1.10	LOP	237.51	VP	37.255	GAP	13.01	AZP	90.20	TAL	152.40	TAP	72.95	RCA	92.59	APO	157.71	V2	34.956
RC	152.275	GL	-5.23	GP	12.97	ZAL	38.60	ZAP	164.25	ETS	51.34	ZAE	121.94	ETE	172.33	ZAC	114.51	ETC	260.50	CLP	-170.99

PLANETOCENTRIC CONIC

C3	30.952	VHL	5.563	DLA	-28.38	RAL	279.81	RAD	6568.2	VEL	12.342	PTH	2.23	VHP	8.479	DPA	-8.16	RAP	247.71	ECC	1.5094		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.08	14 30 33	1052.18	16.93	334.82	155.50	113.12	14 48 5	452.2	19.91	327.41
91.92	15 2 58	947.12	16.94	327.13	155.51	113.11	15 18 45	347.1	19.92	319.73
100.00	14 48 18	994.56	9.95	327.15	152.05	118.33	15 4 53	394.6	13.66	320.33
100.00	17 27 54	5768.02	24.19	273.57	158.42	108.12	19 4 2	5168.0	26.44	265.49
110.00	14 47 30	997.08	3.12	323.19	147.90	124.06	15 4 7	397.1	7.57	316.92
110.00	19 45 11	5338.26	31.87	243.38	160.85	103.06	21 14 10	4738.3	33.34	234.45

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0382	TRA	4.9433	TC3	-2.2581	BAU	.9346	SGT	6308.2	SGR	621.0	SG3	230.9	ST	1737.9	SR	410.3	SS	594.6
RDE	.3725	RRA	-.4142	RC3	.0522	FAU	.01659	RRT	-.7495	RRF	-.7334	RTF	.9745	CRT	-.3331	CRS	.1020	CST	-.9716
FDE	.2028	FRA	2.2330	FC3	-.4641	BSP	20844	SGB	6338.7	R23	-.0002	R13	-.9746	LSA	1836.6	MSA	411.1	SSA	13.6
BDE	.3745	BRA	4.9606	BC3	2.2587	FSP	-827	SG1	6325.5	SG2	410.0	THA	175.76	EL1	1743.6	EL2	385.6	ALF	175.27

LAUNCH DATE AUG 10 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 596.820

RL	151.65	LAL	.00	LOL	316.96	VL	26.236	GAL	9.57	AZL	90.95	HCA	283.74	SMA	124.97	ECC	.26823	INC	.9471	V1	29.380
RP	108.45	LAP	.92	LOP	240.70	VP	37.222	GAP	13.62	AZP	90.22	TAL	151.27	TAP	75.00	RCA	91.45	APO	158.49	V2	34.943
RC	154.408	GL	-4.20	GP	12.55	ZAL	37.30	ZAP	165.21	ETS	54.06	ZAE	121.69	ETE	172.60	ZAC	114.30	ETC	260.96	CLP	-172.12

PLANETOCENTRIC CONIC

C3	34.078	VHL	5.838	DLA	-27.26	RAL	281.09	RAD	6568.3	VEL	12.468	PTH	2.26	VHP	8.833	DPA	-8.99	RAP	249.61	ECC	1.5608		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 44 10	1244.77	9.83	345.49	155.35	116.69	14 4 54	644.8	13.34	338.56
90.00	15 59 33	803.00	21.69	318.53	160.49	108.66	16 12 56	203.0	24.04	310.64
100.00	14 28 18	1102.14	6.41	333.18	153.52	119.26	14 46 40	502.1	10.27	326.51
100.00	17 58 6	5708.90	25.38	269.58	161.76	106.34	19 33 14	5108.9	27.38	261.35
110.00	14 39 20	1067.53	.43	326.86	149.82	124.18	14 57 7	467.5	4.91	320.65
110.00	20 3 34	5316.28	32.20	241.75	163.73	102.15	21 32 10	4716.3	33.54	232.77

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1676	TRA	5.3011	TC3	-2.0409	BAU	.9300	SGT	6321.9	SGR	603.9	SG3	219.3	ST	1765.1	SR	400.2	SS	598.0
RDE	.3815	RRA	-.4265	RC3	.0442	FAU	.01455	RRT	-.7381	RRF	-.7220	RTF	.9748	CRT	-.2641	CRS	.0551	CST	-.9773
FDE	.2402	FRA	2.2553	FC3	-.3697	BSP	21061	SGB	6350.6	R23	-.0008	R13	-.9749	LSA	1862.4	MSA	405.7	SSA	13.2
BDE	.4167	BRA	5.3183	BC3	2.0413	FSP	-791	SG1	6337.6	SG2	406.4	THA	175.95	EL1	1768.4	EL2	385.3	ALF	176.40

LAUNCH DATE AUG 10 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 602.016

RL 151.65 LAL .00 LOL 316.96 VL 26.206 GAL 10.28 AZL 90.77 HCA 286.92 SMA 124.78 ECC .27700 INC .7702 V1 29.380
RP 108.49 LAP .74 LOP 243.89 VP 37.190 GAP 14.26 AZP 90.22 TAL 150.16 TAP 77.08 RCA 90.22 APO 159.35 V2 34.931
RC 156.530 GL -3.24 GP 12.17 ZAL 36.06 ZAP 166.10 ETS 57.19 ZAE 121.43 ETE 172.84 ZAC 114.10 ETC 261.43 CLP-173.24

PLANETOCENTRIC CONIC

C3 37.659 VHL 6.137 DLA -26.21 RAL 282.29 RAD 6568.5 VEL 12.611 PTH 2.29 VHP 9.214 DPA -9.77 RAP 251.54 ECC 1.6198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 20 59	1363.22	6.14	352.24	156.79	117.70	13 43 43	763.2	9.81	345.47
90.00	16 32 18	735.03	23.10	314.05	163.93	106.85	16 44 33	135.0	25.19	306.00
100.00	14 14 0	1192.03	3.40	338.15	155.28	119.72	14 33 52	592.0	7.33	331.57
100.00	18 21 58	5669.49	26.11	266.88	164.88	105.10	19 56 28	5069.5	27.93	258.55
110.00	14 32 33	1133.83	-2.10	330.32	151.85	124.13	14 51 26	533.8	2.39	324.12
110.00	20 19 55	5300.46	32.42	240.56	166.58	101.48	21 48 15	4700.5	33.66	231.55

DIFFERENTIAL CORRECTIONS

TDE .3007 TRA 5.6808 TC3-1.8296 BAU .9213
RDE .3910 RRA -.4392 RC3 .0369 FAU .01257
FDE .2742 FRA 2.2799 FC3 -.2889 BSP 21255
BDE .4933 BRA 5.6977 BC3 1.8300 FSP -756

MID-COURSE EXECUTION ACCURACY

SGT 6330.2 SGR 586.7 SG3 208.5
RRT -.7274 RRF -.7115 RTF .9753
SGB 6357.4 R23 -.0011 R13 -.9753
SG1 6344.7 SG2 401.7 THA 176.13

ORBIT DETERMINATION ACCURACY

ST 1796.9 SR 389.9 SS 602.3
CRT -.2009 CRS .0141 CST -.9821
LSA 1893.5 MSA 397.8 SSA 12.9
EL1 1798.7 EL2 381.6 ALF 177.39

LAUNCH DATE AUG 10 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 607.095

RL 151.65 LAL .00 LOL 316.96 VL 26.177 GAL 11.05 AZL 90.59 HCA 290.10 SMA 124.60 ECC .28657 INC .5874 V1 29.380
RP 108.53 LAP .55 LOP 247.07 VP 37.157 GAP 14.95 AZP 90.20 TAL 149.07 TAP 79.17 RCA 88.89 APO 160.31 V2 34.919
RC 158.641 GL -2.34 GP 11.82 ZAL 34.91 ZAP 166.92 ETS 60.77 ZAE 121.17 ETE 173.06 ZAC 113.93 ETC 261.90 CLP-174.35

PLANETOCENTRIC CONIC

C3 41.769 VHL 6.463 DLA -25.22 RAL 283.41 RAD 6568.6 VEL 12.772 PTH 2.32 VHP 9.624 DPA -10.48 RAP 253.50 ECC 1.6874

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 5 8	1458.44	3.11	357.58	158.56	118.16	13 29 26	858.4	6.85	350.90
90.00	16 57 7	692.13	23.92	311.17	167.09	105.63	17 8 39	92.1	25.83	303.02
100.00	14 2 52	1272.03	.69	342.55	157.22	119.89	14 24 4	672.0	4.66	336.01
100.00	18 42 4	5641.81	26.59	264.96	167.88	104.19	20 16 6	5041.8	28.28	256.57
110.00	14 26 48	1196.93	-4.51	333.62	153.98	123.92	14 46 45	596.9	-.02	327.41
110.00	20 34 37	5289.68	32.56	239.76	169.42	101.02	22 2 47	4689.7	33.74	230.72

DIFFERENTIAL CORRECTIONS

TDE .4386 TRA 6.0846 TC3-1.6260 BAU .9081
RDE .4007 RRA -.4522 RC3 .0303 FAU .01065
FDE .3055 FRA 2.3075 FC3 -.2207 BSP 21421
BDE .5941 BRA 6.1014 BC3 1.6263 FSP -722

MID-COURSE EXECUTION ACCURACY

SGT 6333.9 SGR 569.3 SG3 198.3
RRT -.7172 RRF -.7017 RTF .9759
SGB 6359.4 R23 -.0014 R13 -.9759
SG1 6347.1 SG2 395.9 THA 176.30

ORBIT DETERMINATION ACCURACY

ST 1831.6 SR 379.3 SS 607.4
CRT -.1435 CRS -.0218 CST -.9860
LSA 1927.9 MSA 388.0 SSA 12.6
EL1 1832.4 EL2 375.2 ALF 178.22

LAUNCH DATE AUG 10 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 612.038

RL 151.65 LAL .00 LOL 316.96 VL 26.147 GAL 11.88 AZL 90.40 HCA 293.28 SMA 124.42 ECC .29701 INC .3969 V1 29.380
RP 108.56 LAP .37 LOP 250.25 VP 37.126 GAP 15.69 AZP 90.16 TAL 148.01 TAP 81.29 RCA 87.47 APO 161.38 V2 34.907
RC 160.740 GL -1.49 GP 11.50 ZAL 33.83 ZAP 167.66 ETS 64.86 ZAE 120.89 ETE 173.26 ZAC 113.76 ETC 262.39 CLP-175.47

PLANETOCENTRIC CONIC

C3 46.500 VHL 6.819 DLA -24.28 RAL 284.46 RAD 6568.7 VEL 12.956 PTH 2.36 VHP 10.067 DPA -11.14 RAP 255.48 ECC 1.7653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 52 58	1541.80	.42	2.24	160.51	118.31	13 18 40	941.8	4.20	355.60
90.00	17 17 39	662.76	24.44	309.17	170.12	104.76	17 28 41	62.8	26.23	300.96
100.00	13 53 47	1345.47	-1.80	346.58	159.28	119.84	14 16 12	745.5	2.18	340.06
100.00	18 59 31	5622.36	26.90	263.60	170.81	103.54	20 33 13	5022.4	28.50	255.17
110.00	14 21 51	1257.43	-6.80	336.81	156.18	123.58	14 42 49	657.4	-2.34	330.57
110.00	20 47 56	5283.17	32.65	239.27	172.24	100.75	22 15 59	4683.2	33.78	230.22

DIFFERENTIAL CORRECTIONS

TDE .5830 TRA 6.5162 TC3-1.4296 BAU .8889
RDE .4107 RRA -.4652 RC3 .0242 FAU .00874
FDE .3351 FRA 2.3390 FC3 -.1627 BSP 21530
BDE .7132 BRA 6.5328 BC3 1.4298 FSP -688

MID-COURSE EXECUTION ACCURACY

SGT 6333.7 SGR 551.4 SG3 188.8
RRT -.7075 RRF -.6926 RTF .9767
SGB 6357.7 R23 -.0014 R13 -.9767
SG1 6345.8 SG2 389.0 THA 176.46

ORBIT DETERMINATION ACCURACY

ST 1868.2 SR 368.3 SS 613.6
CRT -.0913 CRS -.0537 CST -.9892
LSA 1964.7 MSA 376.7 SSA 12.3
EL1 1868.5 EL2 366.7 ALF 178.93

LAUNCH DATE AUG 10 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 616.821

RL 151.65 LAL .00 LOL 316.96 VL 26.118 GAL 12.77 AZL 90.20 HCA 296.46 SMA 124.24 ECC .30846 INC .1971 V1 29.380
RP 108.60 LAP .18 LOP 253.42 VP 37.095 GAP 16.49 AZP 90.09 TAL 146.98 TAP 83.44 RCA 85.92 APO 162.57 V2 34.896
RC 162.826 GL -.70 GP 11.20 ZAL 32.83 ZAP 168.30 ETS 69.50 ZAE 120.60 ETE 173.44 ZAC 113.60 ETC 262.88 CLP-176.59

PLANETOCENTRIC CONIC

C3 51.963 VHL 7.209 DLA -23.39 RAL 285.43 RAD 6568.9 VEL 13.165 PTH 2.40 VHP 10.547 DPA -11.74 RAP 257.47 ECC 1.8552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 43 7	1617.59	-2.03	6.46	162.58	118.25	13 10 4	1017.6	1.77	359.84
90.00	17 35 15	642.44	24.79	307.79	173.06	104.15	17 45 58	42.4	26.49	299.53
100.00	13 46 9	1414.12	-4.12	350.35	161.42	119.63	14 9 43	814.1	-.14	343.82
100.00	19 14 54	5609.18	27.11	262.68	173.69	103.10	20 48 23	5009.2	28.64	254.21
110.00	14 17 32	1315.72	-8.98	339.92	158.44	123.12	14 39 27	715.7	-4.56	333.62
110.00	21 0 1	5280.35	32.68	239.05	175.04	100.63	22 28 1	4680.3	33.80	230.00

DIFFERENTIAL CORRECTIONS

TDE .7355 TRA 6.9793 TC3-1.2410 BAU .8622
RDE .4208 RRA -.4781 RC3 .0185 FAU .00682
FDE .3639 FRA 2.3752 FC3 -.1136 BSP 21557
BDE .8474 BRA 6.9957 BC3 1.2412 FSP -653

MID-COURSE EXECUTION ACCURACY

SGT 6330.3 SGR 532.9 SG3 180.0
RRT -.6980 RRF -.6838 RTF .9776
SGB 6352.7 R23 -.0014 R13 -.9776
SG1 6341.2 SG2 380.9 THA 176.62

ORBIT DETERMINATION ACCURACY

ST 1905.9 SR 356.8 SS 621.0
CRT -.0438 CRS -.0825 CST -.9918
LSA 2003.1 MSA 364.3 SSA 11.9
EL1 1905.9 EL2 356.4 ALF 179.51

LAUNCH DATE AUG 11 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 20 1970

HELIOCENTRIC CONIC DISTANCE 148.726

RL	151.62	LAL	.00	LOL	317.92	VL	20.321	GAL	7.17	AZL	93.67	HCA	55.53	SMA	99.21	ECC	.53874	INC	3.6710	V1	29.385
RP	108.55	LAP	-3.03	LOP	13.40	VP	33.280	GAP	-32.20	AZP	92.08	TAL	173.78	TAP	229.30	RCA	45.76	APO	152.66	V2	34.911
RC	49.791	GL	-7.59	GP	-5.40	ZAL	73.19	ZAP	21.87	ETS	163.84	ZAE	158.98	ETE	169.70	ZAC	91.58	ETC	256.63	CLP	21.22

PLANETOCENTRIC CONIC

C3	95.445	VHL	9.770	DLA	-28.57	RAL	241.37	RAD	6569.9	VEL	14.724	PTH	2.66	VHP	18.881	DPA	-15.93	RAP	211.03	ECC	2.5708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.01	11 36 1	1381.29	9.04	355.07	134.37	117.22	11 59 2	781.3	12.62	348.21
93.99	12 42 57	1164.47	9.05	339.21	134.38	117.22	13 2 22	564.5	12.63	332.34
100.00	12 16 23	1250.22	1.43	341.35	130.22	119.86	12 37 13	650.2	5.39	334.81
100.00	14 45 16	770.77	16.83	314.10	138.29	115.08	14 58 7	170.8	20.07	306.81
110.00	12 12 43	1261.74	-6.96	337.04	125.04	123.55	12 33 45	661.7	-2.50	330.79
110.00	17 5 25	5620.06	25.83	263.03	142.61	113.21	18 39 5	5020.1	28.74	255.06

DIFFERENTIAL CORRECTIONS

TDE	.2322	TRA	-1.1590	TC3	-.0943	BAU	.1220
RDE	-.7587	RRA	-.0561	RC3	.0161	FAU	.01525
FDE	-.1641	FRA	.5205	FC3	-.1383	BSP	2059
BDE	.7934	BRA	1.1604	BC3	.0956	FSP	-81

MID-COURSE EXECUTION ACCURACY

SGT	807.2	SGR	447.6	SG3	38.9		
RRT	-.1034	RRF	.1056	RTF	-.6388		
SGB	923.0	R23	-.0109	R13	.6399		
SG1	809.1	SG2	444.2	THA	175.30		

ORBIT DETERMINATION ACCURACY

ST	269.2	SR	445.1	SS	231.9
CRT	-.4838	CRS	-.6583	CST	.9740
LSA	507.4	MSA	258.3	SSA	13.9
EL1	469.9	EL2	223.2	ALF	111.35

LAUNCH DATE AUG 11 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 22 1970

HELIOCENTRIC CONIC DISTANCE 155.032

RL	151.62	LAL	.00	LOL	317.92	VL	20.861	GAL	6.85	AZL	93.44	HCA	58.71	SMA	100.89	ECC	.51329	INC	3.4358	V1	29.385
RP	108.51	LAP	-2.94	LOP	16.58	VP	33.625	GAP	-30.61	AZP	91.79	TAL	173.41	TAP	232.12	RCA	49.10	APO	152.68	V2	34.923
RC	48.266	GL	-7.73	GP	-5.61	ZAL	72.47	ZAP	20.40	ETS	162.10	ZAE	160.62	ETE	169.74	ZAC	91.68	ETC	256.77	CLP	19.65

PLANETOCENTRIC CONIC

C3	85.109	VHL	9.225	DLA	-28.85	RAL	242.16	RAD	6569.7	VEL	14.369	PTH	2.61	VHP	18.036	DPA	-16.73	RAP	212.49	ECC	2.4007

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.24	11 24 38	1402.86	9.91	357.11	133.65	117.23	11 48 1	802.9	13.48	350.22
95.76	13 0 38	1092.21	9.93	334.36	133.66	117.23	13 18 50	492.2	13.50	327.46
100.00	12 27 45	1198.03	3.20	338.48	129.99	119.74	12 47 43	598.0	7.13	331.91
100.00	14 40 12	772.28	16.78	314.19	137.12	115.10	14 53 4	172.3	20.03	306.90
110.00	12 19 26	1224.20	-5.54	335.06	124.58	123.78	12 39 50	624.2	-1.07	328.83
110.00	17 5 1	5606.91	26.18	262.17	141.59	112.81	18 38 27	5006.9	29.03	254.15

DIFFERENTIAL CORRECTIONS

TDE	.2275	TRA	-1.1481	TC3	-.0945	BAU	.1090
RDE	-.7251	RRA	-.0430	RC3	.0160	FAU	.01566
FDE	-.1665	FRA	.5384	FC3	-.1593	BSP	2195
BDE	.7600	BRA	1.1489	BC3	.0958	FSP	-91

MID-COURSE EXECUTION ACCURACY

SGT	844.5	SGR	452.3	SG3	42.6		
RRT	-.1151	RRF	.1179	RTF	-.6588		
SGB	958.0	R23	-.0124	R13	.6601		
SG1	846.7	SG2	448.2	THA	175.10		

ORBIT DETERMINATION ACCURACY

ST	282.2	SR	450.4	SS	240.9
CRT	-.4831	CRS	-.6538	CST	.9752
LSA	518.2	MSA	268.0	SSA	14.2
EL1	477.8	EL2	233.0	ALF	112.45

LAUNCH DATE AUG 11 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 161.400

RL	151.62	LAL	.00	LOL	317.92	VL	21.363	GAL	6.53	AZL	93.22	HCA	61.89	SMA	102.54	ECC	.48890	INC	3.2158	V1	29.385
RP	108.47	LAP	-2.84	LOP	19.77	VP	33.951	GAP	-29.10	AZP	91.52	TAL	173.08	TAP	234.97	RCA	52.41	APO	152.68	V2	34.935
RC	46.842	GL	-7.85	GP	-5.83	ZAL	71.82	ZAP	18.97	ETS	160.06	ZAE	162.44	ETE	169.88	ZAC	91.75	ETC	256.92	CLP	18.09

PLANETOCENTRIC CONIC

C3	75.924	VHL	8.713	DLA	-29.09	RAL	242.87	RAD	6569.5	VEL	14.045	PTH	2.56	VHP	17.225	DPA	-17.55	RAP	213.97	ECC	2.2495

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.05	11 17 51	1407.69	10.80	357.94	132.79	117.17	11 41 19	807.7	14.36	351.01
96.95	13 13 2	1035.18	10.82	330.62	132.80	117.17	13 30 18	435.2	14.38	323.70
100.00	12 38 39	1145.66	4.96	335.60	129.61	119.52	12 57 44	545.7	8.85	328.97
100.00	14 34 56	772.44	16.78	314.20	135.81	115.11	14 47 48	172.4	20.02	306.91
110.00	12 25 25	1187.28	-4.14	333.12	123.99	123.96	12 45 12	587.3	.34	326.91
110.00	17 4 39	5591.62	26.58	261.16	140.43	112.34	18 37 50	4991.6	29.36	253.08

DIFFERENTIAL CORRECTIONS

TDE	.2238	TRA	-1.1368	TC3	-.0929	BAU	.0956
RDE	-.6921	RRA	-.0306	RC3	.0154	FAU	.01612
FDE	-.1691	FRA	.5566	FC3	-.1839	BSP	2336
BDE	.7274	BRA	1.1372	BC3	.0942	FSP	-101

MID-COURSE EXECUTION ACCURACY

SGT	883.0	SGR	456.5	SG3	46.6		
RRT	-.1281	RRF	.1316	RTF	-.6783		
SGB	994.0	R23	-.0141	R13	.6796		
SG1	885.6	SG2	451.4	THA	174.88		

ORBIT DETERMINATION ACCURACY

ST	295.9	SR	455.2	SS	250.1
CRT	-.4843	CRS	-.6501	CST	.9767
LSA	529.3	MSA	277.3	SSA	14.4
EL1	485.7	EL2	242.6	ALF	113.74

LAUNCH DATE AUG 11 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 167.827

RL	151.62	LAL	.00	LOL	317.92	VL	21.830	GAL	6.19	AZL	93.01	HCA	65.07	SMA	104.16	ECC	.46560	INC	3.0084	V1	29.385
RP	108.44	LAP	-2.73	LOP	22.97	VP	34.260	GAP	-27.66	AZP	91.27	TAL	172.80	TAP	237.87	RCA	55.67	APO	152.66	V2	34.948
RC	45.530	GL	-7.95	GP	-6.08	ZAL	71.26	ZAP	17.58	ETS	157.65	ZAE	164.43	ETE	170.18	ZAC	91.80	ETC	257.08	CLP	16.53

PLANETOCENTRIC CONIC

C3	67.757	VHL	8.231	DLA	-29.29	RAL	243.48	RAD	6569.3	VEL	13.752	PTH	2.51	VHP	16.445	DPA	-18.38	RAP	215.46	ECC	2.1151

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.18	11 13 26	1403.05	11.70	358.06	131.79	117.04	11 36 49	803.1	15.24	351.10
97.82	13 22 23	986.30	11.72	327.49	131.80	117.04	13 38 49	386.3	15.25	320.52
100.00	12 48 53	1093.74	6.69	332.72	129.08	119.20	13 7 6	493.7	10.54	326.04
100.00	14 29 37	770.84	16.83	314.11	134.37	115.08	14 42 28	170.8	20.07	306.81
110.00	12 30 36	1151.30	-2.77	331.23	123.25	124.08	12 49 47	551.3	1.72	325.03
110.00	17 4 23	5574.09	27.02	259.99	139.13	111.78	18 37 17	4974.1	29.73	251.85

DIFFERENTIAL CORRECTIONS

TDE	.2211	TRA	-1.1251	TC3	-.0894	BAU	.0820
RDE	-.6598	RRA	-.0189	RC3	.0141	FAU	.01663
FDE	-.1717	FRA	.5751	FC3	-.2125	BSP	2483
BDE	.6958	BRA	1.1252	BC3	.0905	FSP	-113

MID-COURSE EXECUTION ACCURACY

SGT	922.8	SGR	460.1	SG3	50.9		
RRT	-.1427	RRF	.1470	RTF	-.6969		
SGB	1031.2	R23	-.0160	R13	.6984		
SG1	925.9	SG2	453.9	THA	174.64		

ORBIT DETERMINATION ACCURACY

ST	310.3	SR	459.3	SS	259.5
CRT	-.4874	CRS	-.6469	CST	.9783
LSA	540.8	MSA	286.1	SSA	14.6
EL1	493.6	EL2	252.1	ALF	115.23

LAUNCH DATE AUG 11 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 174.308

RL	151.62	LAL	.00	LOL	317.92	VL	22.263	GAL	5.85	AZL	92.81	HCA	68.26	SMA	105.75	ECC	.44339	INC	2.8113	V1	29.385
RP	108.40	LAP	-2.61	LOP	26.16	VP	34.550	GAP	-26.28	AZP	91.04	TAL	172.56	TAP	240.82	RCA	58.86	APO	152.64	V2	34.961
RC	44.337	GL	-8.03	GP	-6.35	ZAL	70.79	ZAP	16.23	ETS	154.76	ZAE	166.59	ETE	170.76	ZAC	91.82	ETC	257.25	CLP	14.97

PLANETOCENTRIC CONIC

C3	60.492	VHL	7.778	DLA	-29.45	RAL	244.01	RAD	6569.1	VEL	13.485	PTH	2.47	VHP	15.696	DPA	-19.23	RAP	216.95	ECC	1.9955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.56	11 10 36	1391.59	12.61	357.69	130.65	116.84	11 33 47	791.6	16.11	350.68
98.44	13 29 25	943.16	12.62	324.77	130.66	116.83	13 45 9	343.2	16.12	317.76
100.00	12 58 7	1043.41	8.35	329.90	128.37	118.81	13 15 31	443.4	12.14	323.16
100.00	14 24 35	766.58	16.95	313.85	132.83	115.00	14 37 22	166.6	20.18	306.54
110.00	12 34 54	1116.58	-1.45	329.42	122.37	124.16	12 53 31	516.6	3.05	323.22
110.00	17 4 18	5554.21	27.52	258.66	137.69	111.13	18 36 52	4954.2	30.13	250.45

DIFFERENTIAL CORRECTIONS

TOE	.2189	TRA	-1.1130	TC3	-.0834	BAU	.0681
ROE	-.6281	RRA	-.0077	RC3	.0121	FAU	.01720
FOE	-.1746	FRA	.5942	FC3	-.2462	BSP	2636
BOE	.6652	BRA	1.1131	BC3	.0842	FSP	-125

MID-COURSE EXECUTION ACCURACY

SGT	964.1	SGR	463.2	SG3	55.7		
RRT	-.1587	RRF	.1641	RTF	-.7149		
SGB	1069.6	R23	-.0182	R13	.7165		
SG1	967.7	SG2	455.6	THA	174.39		

ORBIT DETERMINATION ACCURACY

ST	325.3	SR	462.7	SS	269.2
CRT	-.4920	CRS	-.6445	CST	.9801
LSA	552.8	MSA	294.3	SSA	14.9
EL1	501.7	EL2	261.2	ALF	116.91

LAUNCH DATE AUG 11 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 180.836

RL	151.62	LAL	.00	LOL	317.92	VL	22.665	GAL	5.51	AZL	92.62	HCA	71.45	SMA	107.30	ECC	.42226	INC	2.6226	V1	29.385
RP	108.36	LAP	-2.49	LOP	29.35	VP	34.824	GAP	-24.97	AZP	90.84	TAL	172.36	TAP	243.81	RCA	61.99	APO	152.60	V2	34.974
RC	43.276	GL	-8.07	GP	-6.64	ZAL	70.40	ZAP	14.95	ETS	151.30	ZAE	168.91	ETE	171.81	ZAC	91.81	ETC	257.43	CLP	13.42

PLANETOCENTRIC CONIC

C3	54.027	VHL	7.350	DLA	-29.56	RAL	244.45	RAD	6569.0	VEL	13.243	PTH	2.42	VHP	14.976	DPA	-20.10	RAP	218.45	ECC	1.8892

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.13	11 9 5	1374.33	13.50	356.87	129.38	116.55	11 31 59	774.3	16.96	349.81
98.87	13 34 25	905.00	13.52	322.40	129.39	116.54	13 49 30	305.0	16.97	315.34
100.00	13 5 47	996.64	9.88	327.27	127.46	118.36	13 22 24	396.6	13.59	320.45
100.00	14 20 24	757.92	17.20	313.33	131.23	114.83	14 33 2	157.9	20.40	306.00
110.00	12 38 14	1083.50	-.18	327.70	121.34	124.18	12 56 17	483.5	4.31	321.48
110.00	17 4 27	5531.86	28.06	257.15	136.12	110.38	18 36 39	4931.9	30.57	248.85

DIFFERENTIAL CORRECTIONS

TOE	.2176	TRA	-1.1003	TC3	-.0745	BAU	.0542
ROE	-.5973	RRA	.0028	RC3	.0090	FAU	.01783
FOE	-.1776	FRA	.6139	FC3	-.2857	BSP	2795
BOE	.6357	BRA	1.1003	BC3	.0750	FSP	-140

MID-COURSE EXECUTION ACCURACY

SGT	1006.5	SGR	465.8	SG3	61.0		
RRT	-.1768	RRF	.1833	RTF	-.7319		
SGB	1109.1	R23	-.0206	R13	.7337		
SG1	1010.8	SG2	456.5	THA	174.12		

ORBIT DETERMINATION ACCURACY

ST	341.0	SR	465.6	SS	279.2
CRT	-.4989	CRS	-.6427	CST	.9820
LSA	565.6	MSA	301.5	SSA	15.1
EL1	510.2	EL2	269.7	ALF	118.81

LAUNCH DATE AUG 11 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 187.408

RL	151.62	LAL	.00	LOL	317.92	VL	23.039	GAL	5.17	AZL	92.44	HCA	74.64	SMA	108.80	ECC	.40222	INC	2.4407	V1	29.385
RP	108.32	LAP	-2.35	LOP	32.55	VP	35.081	GAP	-23.72	AZP	90.65	TAL	172.22	TAP	246.86	RCA	65.04	APO	152.56	V2	34.987
RC	42.355	GL	-8.08	GP	-6.97	ZAL	70.09	ZAP	13.73	ETS	147.09	ZAE	171.38	ETE	173.81	ZAC	91.76	ETC	257.62	CLP	11.86

PLANETOCENTRIC CONIC

C3	48.276	VHL	6.948	DLA	-29.63	RAL	244.79	RAD	6568.8	VEL	13.025	PTH	2.38	VHP	14.283	DPA	-20.58	RAP	219.95	ECC	1.7945

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.91	11 8 40	1352.04	14.38	355.66	127.98	116.19	11 31 12	752.0	17.78	348.55
99.09	13 37 34	871.30	14.39	320.35	127.99	116.18	13 52 6	271.3	17.79	313.23
100.00	13 10 55	956.55	11.17	324.99	126.30	117.91	13 26 52	356.5	14.81	318.10
100.00	14 18 0	742.03	17.65	312.36	129.59	114.52	14 30 22	142.0	20.81	305.00
110.00	12 40 30	1052.49	1.01	326.08	120.17	124.17	12 58 2	452.5	5.48	319.85
110.00	17 4 55	5506.89	28.64	255.43	134.42	109.52	18 36 42	4906.9	31.02	247.05

DIFFERENTIAL CORRECTIONS

TOE	.2168	TRA	-1.0873	TC3	-.0621	BAU	.0402
ROE	-.5673	RRA	.0128	RC3	.0047	FAU	.01852
FOE	-.1807	FRA	.6343	FC3	-.3321	BSP	2956
BOE	.6073	BRA	1.0874	BC3	.0623	FSP	-156

MID-COURSE EXECUTION ACCURACY

SGT	1050.4	SGR	468.0	SG3	66.8		
RRT	-.1968	RRF	.2047	RTF	-.7483		
SGB	1149.9	R23	-.0235	R13	.7502		
SG1	1055.4	SG2	456.7	THA	173.83		

ORBIT DETERMINATION ACCURACY

ST	357.4	SR	467.8	SS	289.4
CRT	-.5070	CRS	-.6415	CST	.9840
LSA	579.0	MSA	307.9	SSA	15.3
EL1	519.2	EL2	277.6	ALF	120.87

LAUNCH DATE AUG 11 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 194.018

RL	151.62	LAL	.00	LOL	317.92	VL	23.386	GAL	4.83	AZL	92.26	HCA	77.84	SMA	110.25	ECC	.38325	INC	2.2642	V1	29.385
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.323	GAP	-22.51	AZP	90.48	TAL	172.13	TAP	249.97	RCA	68.00	APO	152.51	V2	35.000
RC	41.583	GL	-8.06	GP	-7.33	ZAL	69.88	ZAP	12.62	ETS	141.98	ZAE	173.95	ETE	178.09	ZAC	91.67	ETC	257.82	CLP	10.30

PLANETOCENTRIC CONIC

C3	43.159	VHL	6.570	DLA	-29.63	RAL	245.04	RAD	6568.6	VEL	12.827	PTH	2.33	VHP	13.617	DPA	-21.89	RAP	221.45	ECC	1.7103

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.88	11 9 26	1324.62	15.22	354.05	126.45	115.74	11 31 31	724.6	18.56	346.87
99.12	13 38 47	842.46	15.23	318.64	126.46	115.73	13 52 50	242.5	18.57	311.45
100.00	13 12 25	926.78	12.11	323.28	124.85	117.54	13 27 52	326.8	15.70	316.33
100.00	14 18 29	715.53	18.39	310.74	127.99	113.99	14 30 24	115.5	21.48	303.31
110.00	12 41 36	1023.97	2.10	324.59	118.84	124.13	12 58 40	424.0	6.56	318.35
110.00	17 5 48	5479.14	29.25	253.51	132.60	108.53	18 37 7	4879.1	31.50	245.02

DIFFERENTIAL CORRECTIONS

TOE	.2176	TRA	-1.0727	TC3	-.0446	BAU	.0258
ROE	-.5382	RRA	.0224	RC3	-.0013	FAU	.01931
FOE	-.1842	FRA	.6552	FC3	-.3873	BSP	3145
BOE	.5805	BRA	1.0729	BC3	.0446	FSP	-174

MID-COURSE EXECUTION ACCURACY

SGT	1094.5	SGR	470.0	SG3	73.2		
RRT	-.2201	RRF	.2289	RTF	-.7643		
SGB	1191.1	R23	-.0260	R13	.7663		
SG1	1100.4	SG2	456.0	THA	173.48		

ORBIT DETERMINATION ACCURACY

ST	374.5	SR	469.5	SS	299.8
CRT	-.5190	CRS	-.6414	CST	.9864
LSA	593.7	MSA	312.8	SSA	15.6
EL1	529.1	EL2	284.0	ALF	123.15

LAUNCH DATE AUG 11 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 200.662

RL	151.62	LAL	.00	LOL	317.92	VL	23.707	GAL	4.50	AZL	92.09	HCA	81.03	SMA	111.66	ECC	.36533	INC	2.0917	V1	29.385
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.550	GAP	-21.36	AZP	90.33	TAL	172.09	TAP	253.12	RCA	70.87	APO	152.45	V2	35.013
RC	40.971	GL	-7.98	GP	-7.72	ZAL	69.75	ZAP	11.63	ETS	135.79	ZAE	176.53	ETE	190.03	ZAC	91.53	ETC	258.03	CLP	8.72

PLANETOCENTRIC CONIC

C3	38.610	VHL	6.214	DLA	-29.58	RAL	245.19	RAD	6568.5	VEL	12.648	PTH	2.30	VHP	12.977	DPA	-22.81	RAP	222.94	ECC	1.6354

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.07	11 11 33	1291.71	16.02	352.01	124.80	115.21	11 33 5	691.7	19.28	344.76
98.93	13 37 55	819.15	16.03	317.30	124.81	115.20	13 51 34	219.1	19.29	310.05
100.00	13 9 48	909.11	12.66	322.26	123.09	117.31	13 24 57	309.1	16.22	315.28
100.00	14 22 21	676.98	19.44	308.36	126.41	113.17	14 33 38	77.0	22.41	300.82
110.00	12 41 28	998.42	3.07	323.26	117.36	124.06	12 58 6	398.4	7.52	317.00
110.00	17 7 11	5448.48	29.90	251.35	130.66	107.40	18 37 59	4848.5	31.98	242.76

DIFFERENTIAL CORRECTIONS

TDE	.2104	TRA	-1.0657	TC3	-.0308	BAU	.0166
RDE	-.5099	RRA	.0320	RC3	-.0091	FAU	.02009
FDE	-.1860	FRA	.6788	FC3	-.4506	BSP	3133
BDE	.5516	BRA	1.0661	BC3	.0321	FSP	-190

MID-COURSE EXECUTION ACCURACY

SGT	1147.1	SGR	471.5	SG3	80.2		
RRT	-.2386	RRF	.2545	RTF	-.7752		
SGB	1240.2	R23	-.0359	R13	.7776		
SG1	1153.6	SG2	455.3	THA	173.36		

ORBIT DETERMINATION ACCURACY

ST	390.6	SR	470.3	SS	309.8
CRT	-.5154	CRS	-.6377	CST	.9865
LSA	605.6	MSA	320.4	SSA	15.9
EL1	536.2	EL2	293.5	ALF	125.04

LAUNCH DATE AUG 11 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 207.334

RL	151.62	LAL	.00	LOL	317.92	VL	24.006	GAL	4.18	AZL	91.92	HCA	84.23	SMA	113.01	ECC	.34845	INC	1.9221	V1	29.385
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.762	GAP	-20.25	AZP	90.19	TAL	172.11	TAP	256.34	RCA	73.63	APO	152.39	V2	35.027
RC	40.525	GL	-7.85	GP	-8.16	ZAL	69.71	ZAP	10.82	ETS	128.37	ZAE	178.35	ETE	244.51	ZAC	91.35	ETC	258.25	CLP	7.14

PLANETOCENTRIC CONIC

C3	34.565	VHL	5.879	DLA	-29.46	RAL	245.25	RAD	6568.4	VEL	12.487	PTH	2.26	VHP	12.364	DPA	-23.77	RAP	224.42	ECC	1.5689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.52	11 15 18	1252.48	16.75	349.46	123.03	114.59	11 36 11	652.5	19.93	342.14
98.48	13 34 38	802.45	16.77	316.42	123.04	114.58	13 48 0	202.4	19.94	309.10
100.00	13 3 31	902.11	12.88	321.86	121.08	117.21	13 18 33	302.1	16.43	314.86
100.00	14 29 7	628.05	20.72	305.29	124.83	112.04	14 39 35	28.1	23.53	297.62
110.00	12 39 59	976.25	3.92	322.10	115.74	123.99	12 56 15	376.3	8.35	315.82
110.00	17 9 8	5414.72	30.56	248.95	128.60	106.12	18 39 23	4814.7	32.46	240.25

DIFFERENTIAL CORRECTIONS

TDE	.2144	TRA	-1.0473	TC3	-.0004	BAU	.0091
RDE	-.4829	RRA	.0409	RC3	-.0197	FAU	.02108
FDE	-.1900	FRA	.7015	FC3	-.5281	BSP	3391
BDE	.5284	BRA	1.0481	BC3	.0197	FSP	-213

MID-COURSE EXECUTION ACCURACY

SGT	1190.7	SGR	473.4	SG3	88.0		
RRT	-.2697	RRF	.2853	RTF	-.7910		
SGB	1281.4	R23	-.0372	R13	.7936		
SG1	1198.7	SG2	452.8	THA	172.85		

ORBIT DETERMINATION ACCURACY

ST	409.1	SR	470.8	SS	320.6
CRT	-.5357	CRS	-.6396	CST	.9896
LSA	623.0	MSA	321.6	SSA	16.1
EL1	548.8	EL2	296.3	ALF	127.62

LAUNCH DATE AUG 11 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 214.031

RL	151.62	LAL	.00	LOL	317.92	VL	24.282	GAL	3.86	AZL	91.75	HCA	87.43	SMA	114.31	ECC	.33257	INC	1.7543	V1	29.385
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.961	GAP	-19.19	AZP	90.08	TAL	172.18	TAP	259.61	RCA	76.29	APO	152.32	V2	35.040
RC	40.252	GL	-7.66	GP	-8.65	ZAL	69.76	ZAP	10.25	ETS	119.71	ZAE	176.81	ETE	309.77	ZAC	91.11	ETC	258.47	CLP	5.53

PLANETOCENTRIC CONIC

C3	30.972	VHL	5.565	DLA	-29.26	RAL	245.22	RAD	6568.2	VEL	12.343	PTH	2.23	VHP	11.770	DPA	-24.75	RAP	225.88	ECC	1.5097

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.31	11 21 24	1204.85	17.42	346.25	121.15	113.89	11 41 29	604.8	20.50	338.86
97.69	13 28 16	794.79	17.43	316.17	121.16	113.88	13 41 31	194.8	20.51	308.78
100.00	12 54 30	903.15	12.85	321.92	118.89	117.22	13 9 33	303.1	16.40	314.92
100.00	14 37 52	5859.77	22.12	279.60	123.19	110.64	16 15 32	5259.8	24.73	271.77
110.00	12 37 6	957.92	4.61	321.13	113.97	123.91	12 53 4	357.9	9.03	314.84
110.00	17 11 45	5377.75	31.23	246.27	126.43	104.67	18 41 23	4777.8	32.92	237.46

DIFFERENTIAL CORRECTIONS

TDE	.2150	TRA	-1.0320	TC3	.0326	BAU	.0193
RDE	-.4569	RRA	.0499	RC3	-.0333	FAU	.02214
FDE	-.1931	FRA	.7263	FC3	-.6189	BSP	3567
BDE	.5049	BRA	1.0332	BC3	.0466	FSP	-237

MID-COURSE EXECUTION ACCURACY

SGT	1238.3	SGR	475.5	SG3	96.5		
RRT	-.3009	RRF	.3189	RTF	-.8042		
SGB	1326.5	R23	-.0421	R13	.8071		
SG1	1247.8	SG2	450.0	THA	172.42		

ORBIT DETERMINATION ACCURACY

ST	427.2	SR	470.7	SS	331.2
CRT	-.5500	CRS	-.6398	CST	.9917
LSA	639.5	MSA	323.3	SSA	16.4
EL1	560.6	EL2	299.5	ALF	129.99

LAUNCH DATE AUG 11 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 220.749

RL	151.62	LAL	.00	LOL	317.92	VL	24.537	GAL	3.56	AZL	91.59	HCA	90.64	SMA	115.55	ECC	.31769	INC	1.5872	V1	29.385
RP	108.11	LAP	-1.59	LOP	48.56	VP	36.147	GAP	-18.16	AZP	89.98	TAL	172.30	TAP	262.94	RCA	78.84	APO	152.26	V2	35.053
RC	40.156	GL	-7.39	GP	-9.18	ZAL	69.90	ZAP	9.97	ETS	110.03	ZAE	174.07	ETE	323.98	ZAC	90.80	ETC	258.70	CLP	3.90

PLANETOCENTRIC CONIC

C3	27.784	VHL	5.271	DLA	-28.97	RAL	245.10	RAD	6568.1	VEL	12.213	PTH	2.19	VHP	11.202	DPA	-25.77	RAP	227.32	ECC	1.4573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.61	11 31 15	1144.42	17.99	342.06	119.17	113.10	11 50 19	544.4	20.96	334.60
96.39	13 17 27	800.85	18.00	316.88	119.18	113.09	13 30 48	200.9	20.98	309.41
100.00	12 43 26	910.21	12.63	322.32	116.56	117.32	12 58 37	310.2	16.19	315.34
100.00	14 47 57	5798.34	23.53	275.59	121.45	108.98	16 24 35	5198.3	25.91	267.59
110.00	12 32 45	943.83	5.15	320.39	112.09	123.84	12 48 29	343.8	9.56	314.08
110.00	17 15 7	5337.48	31.88	243.32	124.15	103.03	18 44 5	4737.5	33.35	234.40

DIFFERENTIAL CORRECTIONS

TDE	.2117	TRA	-1.0199	TC3	.0674	BAU	.0313
RDE	-.4317	RRA	.0590	RC3	-.0504	FAU	.02328
FDE	-.1948	FRA	.7537	FC3	-.7252	BSP	3652
BDE	.4808	BRA	1.0216	BC3	.0842	FSP	-262

MID-COURSE EXECUTION ACCURACY

SGT	1289.9	SGR	477.9	SG3	106.0		
RRT	-.3320	RRF	.3557	RTF	-.8147		
SGB	1375.6	R23	-.0512	R13	.8181		
SG1	1300.9	SG2	447.0	THA	172.04		

ORBIT DETERMINATION ACCURACY

ST	444.4	SR	469.8	SS	341.2
CRT	-.5573	CRS	-.6376	CST	.9930
LSA	654.3	MSA	325.9	SSA	16.7
EL1	571.0	EL2	303.6	ALF	132.15

LAUNCH DATE AUG 11 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 227.482

RL	151.62	LAL	.00	LOL	317.92	VL	24.773	GAL	3.26	AZL	91.42	HCA	93.85	SMA	116.73	ECC	.30375	INC	1.4198	V1	29.385
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.321	GAP	-17.18	AZP	89.90	TAL	172.47	TAP	266.32	RCA	81.27	APO	152.19	V2	35.066
RC	40.238	GL	-7.05	GP	-9.78	ZAL	70.14	ZAP	10.03	ETS	99.86	ZAE	171.18	ETE	328.56	ZAC	90.43	ETC	258.93	CLP	2.25

PLANETOCENTRIC CONIC

C3	24.957	VHL	4.996	DLA	-28.59	RAL	244.89	RAD	6568.0	VEL	12.097	PTH	2.17	VHP	10.657	DPA	-26.83	RAP	228.73	ECC	1.4107

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.91	11 49 13	1057.12	18.46	335.85	117.10	112.22	12 6 50	457.1	21.31	328.32
94.09	12 57 48	834.97	18.47	319.59	117.10	112.21	13 11 43	235.0	21.32	312.06
100.00	12 30 46	922.19	12.25	323.02	114.12	117.48	12 46 8	322.2	15.84	316.06
100.00	14 58 56	5733.17	24.91	271.23	119.58	107.08	16 34 29	5133.2	27.01	263.06
110.00	12 26 54	934.34	5.51	319.89	110.08	123.79	12 42 29	334.3	9.91	313.57
110.00	17 19 17	5293.79	32.51	240.06	121.76	101.20	18 47 30	4693.8	33.71	231.04

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2205	TRA	-.9951	TC3	.1288	BAU	.0494	SGT	1330.4	SGR	481.9	SG3	116.6	ST	464.8	SR	468.8
RDE	-.4081	RRA	.0677	RC3	-.0731	FAU	.02469	RRT	-.3786	RRF	.3990	RTF	-.8307	CRT	-.5908	CRS	-.6422
FDE	-.1992	FRA	.7796	FC3	-.8565	BSP	4038	SGB	1415.0	R23	-.0492	R13	.8342	LSA	675.8	MSA	320.7
BDE	.4639	BRA	.9974	BC3	.1481	FSP	-297	SG1	1344.3	SG2	441.4	THA	171.24	EL1	588.8	EL2	298.6

SS	352.1	V2	35.079	CLP	.57	CST	.9960	INJ 2 LAT	328.32	INJ 2 LONG	312.06	INJ 2 LAT	316.06	INJ 2 LONG	263.06	INJ 2 LAT	313.57
SSA	16.8	ALF	134.58														

LAUNCH DATE AUG 11 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 234.228

RL	151.62	LAL	.00	LOL	317.92	VL	24.991	GAL	2.97	AZL	91.25	HCA	97.05	SMA	117.86	ECC	.29075	INC	1.2510	V1	29.385
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.482	GAP	-16.23	AZP	89.85	TAL	172.70	TAP	269.75	RCA	83.59	APO	152.12	V2	35.079
RC	40.497	GL	-6.60	GP	-10.44	ZAL	70.45	ZAP	10.46	ETS	89.92	ZAE	168.28	ETE	330.40	ZAC	89.97	ETC	259.16	CLP	.57

PLANETOCENTRIC CONIC

C3	22.454	VHL	4.739	DLA	-28.09	RAL	244.60	RAD	6567.9	VEL	11.993	PTH	2.14	VHP	10.135	DPA	-27.93	RAP	230.10	ECC	1.3695

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 51 1	1021.88	16.30	332.32	113.87	113.48	12 8 3	421.9	19.34	324.96
90.00	12 53 40	818.54	21.35	319.54	115.95	109.06	13 7 18	218.5	23.75	311.69
100.00	12 16 46	938.62	11.73	323.96	111.62	117.69	12 32 24	338.6	15.35	317.04
100.00	15 10 37	5665.07	26.19	266.58	117.57	104.95	16 45 2	5065.1	27.99	258.24
110.00	12 19 34	929.79	5.68	319.65	107.98	123.76	12 35 4	329.8	10.08	313.32
110.00	17 24 17	5246.67	33.08	236.51	119.26	99.16	18 51 44	4646.7	33.99	227.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2158	TRA	-.9811	TC3	.1847	BAU	.0632	SGT	1380.9	SGR	487.0	SG3	128.3	ST	480.5	SR	466.8
RDE	-.3851	RRA	.0771	RC3	-.1009	FAU	.02614	RRT	-.4170	RRF	.4445	RTF	-.8408	CRT	-.5990	CRS	-.6401
FDE	-.2001	FRA	.8102	FC3	-1.0077	BSP	4134	SGB	1464.3	R23	-.0602	R13	.8450	LSA	689.9	MSA	321.1
BDE	.4415	BRA	.9841	BC3	.2105	FSP	-331	SG1	1397.4	SG2	437.4	THA	170.72	EL1	599.1	EL2	299.8

SS	361.4	V2	35.092	CLP	-1.15	CST	.9968	INJ 2 LAT	329.39	INJ 2 LONG	303.41	INJ 2 LAT	318.26	INJ 2 LONG	253.14	INJ 2 LAT	313.36
SSA	17.2	ALF	136.38														

LAUNCH DATE AUG 11 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 240.982

RL	151.62	LAL	.00	LOL	317.92	VL	25.192	GAL	2.70	AZL	91.08	HCA	100.27	SMA	118.92	ECC	.27864	INC	1.0796	V1	29.385
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.632	GAP	-15.32	AZP	89.81	TAL	172.97	TAP	273.24	RCA	85.79	APO	152.06	V2	35.092
RC	40.930	GL	-6.05	GP	-11.18	ZAL	70.86	ZAP	11.24	ETS	80.82	ZAE	165.44	ETE	331.06	ZAC	89.43	ETC	259.40	CLP	-1.15

PLANETOCENTRIC CONIC

C3	20.243	VHL	4.499	DLA	-27.47	RAL	244.23	RAD	6567.8	VEL	11.901	PTH	2.11	VHP	9.635	DPA	-29.09	RAP	231.43	ECC	1.3331

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 20 16	1092.80	14.33	336.59	110.73	114.69	11 38 28	492.8	17.54	329.39
90.00	13 21 30	697.70	23.82	311.54	114.43	105.79	13 33 8	97.7	25.75	303.41
100.00	12 1 33	959.36	11.08	325.15	109.08	117.94	12 17 33	359.4	14.73	318.26
100.00	15 22 54	5594.42	27.33	261.64	115.41	102.60	16 56 8	4994.4	28.79	253.14
110.00	12 10 45	930.46	5.65	319.69	105.81	123.77	12 26 16	330.5	10.05	313.36
110.00	17 30 11	5196.08	33.56	232.64	116.66	96.92	18 56 47	4596.1	34.15	223.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2186	TRA	-.9620	TC3	.2534	BAU	.0778	SGT	1426.9	SGR	494.4	SG3	141.2	ST	499.1	SR	464.1
RDE	-.3632	RRA	.0871	RC3	-.1357	FAU	.02774	RRT	-.4665	RRF	.4942	RTF	-.8517	CRT	-.6230	CRS	-.6368
FDE	-.1997	FRA	.8434	FC3	-1.1866	BSP	4399	SGB	1510.1	R23	-.0643	R13	.8563	LSA	707.5	MSA	317.0
BDE	.4239	BRA	.9659	BC3	.2875	FSP	-368	SG1	1447.2	SG2	431.2	THA	169.91	EL1	614.4	EL2	294.9

SS	370.0	V2	35.092	CLP	-1.15	CST	.9981	INJ 2 LAT	329.39	INJ 2 LONG	303.41	INJ 2 LAT	318.26	INJ 2 LONG	253.14	INJ 2 LAT	313.36
SSA	17.5	ALF	138.34														

LAUNCH DATE AUG 11 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 247.741

RL	151.62	LAL	.00	LOL	317.92	VL	25.378	GAL	2.44	AZL	90.90	HCA	103.48	SMA	119.93	ECC	.26740	INC	.9047	V1	29.385
RP	107.95	LAP	-.88	LOP	61.41	VP	36.772	GAP	-14.44	AZP	89.79	TAL	173.29	TAP	276.77	RCA	87.86	APO	152.00	V2	35.105
RC	41.530	GL	-5.37	GP	-12.01	ZAL	71.35	ZAP	12.36	ETS	72.94	ZAE	162.68	ETE	331.08	ZAC	88.78	ETC	259.63	CLP	-2.92

PLANETOCENTRIC CONIC

C3	18.291	VHL	4.277	DLA	-26.72	RAL	243.80	RAD	6567.7	VEL	11.818	PTH	2.09	VHP	9.156	DPA	-30.32	RAP	232.70	ECC	1.3010

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 55 42	1144.53	12.84	339.66	107.86	115.46	11 14 46	544.5	16.16	332.56
90.00	13 42 37	5886.11	25.49	282.63	112.49	102.77	15 20 43	5286.1	27.00	274.29
100.00	11 45 15	984.48	10.27	326.58	106.53	118.23	12 1 39	384.5	13.97	319.74
100.00	15 35 45	5521.40	28.31	256.43	113.12	100.02	17 7 47	4921.4	29.40	247.80
110.00	12 0 29	936.64	5.42	320.02	103.59	123.80	12 16 6	336.6	9.82	313.69
110.00	17 37 0	5142.01	33.92	228.46	113.96	94.47	19 2 42	4542.0	34.17	219.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2161	TRA	-.9445	TC3	.3320	BAU	.0922	SGT	1473.4	SGR	504.9	SG3	155.5	ST	514.3	SR	460.4
RDE	-.3421	RRA	.0977	RC3	-.1790	FAU	.02954	RRT	-.5157	RRF	.5473	RTF	-.8614	CRT	-.6394	CRS	-.6309
FDE	-.1971	FRA	.8793	FC3	-1.3981	BSP	4585	SGB	1557.5	R23	-.0730	R13	.8667	LSA	721.1	MSA	313.9
BDE	.4046	BRA	.9495	BC3	.3772	FSP	-410	SG1	1498.3	SG2	425.4	THA	169.09	EL1	626.0	EL2	290.8

SS	377.4	V2	35.105	CLP	-2.92	CST	.9982	INJ 2 LAT	332.56	INJ 2 LONG	274.29	INJ 2 LAT	319.74	INJ 2 LONG	247.80	INJ 2 LAT	313.69
SSA	17.8	ALF	139.92														

LAUNCH DATE AUG 11 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 254.503

RL	151.62	LAL	.00	LOL	317.92	VL	25.548	GAL	2.19	AZL	90.72	HCA	106.70	SMA	120.88	ECC	.25699	INC	.7247	VI	29.385
RP	107.91	LAP	-.69	LOP	64.62	VP	36.902	GAP	-13.59	AZP	89.79	TAL	173.65	TAP	280.35	RCA	89.81	APO	151.94	V2	35.117
RC	42.291	GL	-4.55	GP	-12.94	ZAL	71.91	ZAP	13.77	ETS	66.38	ZAE	160.02	ETE	330.65	ZAC	88.03	ETC	259.85	CLP	-4.73

PLANETOCENTRIC CONIC

C3	16.575	VHL	4.071	DLA	-25.80	RAL	243.31	RAD	6567.7	VEL	11.746	PTH	2.07	VHP	8.700	DPA	-31.62	RAP	233.91	ECC	1.2728

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 32 43	1192.47	11.42	342.46	105.10	116.09	10 52 35	592.5	14.83	335.45
90.00	14 1 43	5792.53	26.73	276.06	110.32	99.70	15 38 16	5192.5	27.80	267.56
100.00	11 27 55	1014.20	9.31	328.26	104.00	118.53	11 44 50	414.2	13.05	321.47
100.00	15 49 12	5446.04	29.08	250.96	110.71	97.24	17 19 58	4846.0	29.78	242.23
110.00	11 48 50	948.57	4.97	320.64	101.35	123.86	12 4 39	348.6	9.38	314.33
110.00	17 44 46	5084.43	34.14	223.97	111.18	91.83	19 9 30	4484.4	34.02	214.73

DIFFERENTIAL CORRECTIONS

TDE	.2122	TRA	-.9269	TC3	.4209	BAU	.1066
RDE	-.3216	RRA	.1093	RC3	-.2325	FAU	.03152
FDE	-.1913	FRA	.9189	FC3	-1.6461	BSP	4778
BDE	.3853	BRA	.9333	BC3	.4809	FSP	-458

MID-COURSE EXECUTION ACCURACY

SGT	1518.6	SGR	519.6	SG3	171.3		
RRT	-.5674	RRF	.6029	RTF	-.8704		
SGB	1605.0	R23	-.0827	R13	.8765		
SG1	1549.2	SG2	419.4	THA	168.13		

ORBIT DETERMINATION ACCURACY

ST	527.5	SR	455.6	SS	383.2
CRT	-.6555	CRS	-.6210	CST	.9973
LSA	732.0	MSA	310.5	SSA	18.2
EL1	635.9	EL2	285.4	ALF	141.32

LAUNCH DATE AUG 11 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 261.263

RL	151.62	LAL	.00	LOL	317.92	VL	25.704	GAL	1.95	AZL	90.54	HCA	109.91	SMA	121.77	ECC	.24738	INC	.5385	VI	29.385
RP	107.88	LAP	-.51	LOP	67.84	VP	37.022	GAP	-12.77	AZP	89.82	TAL	176.05	TAP	283.96	RCA	91.64	APO	151.89	V2	35.129
RC	43.202	GL	-3.57	GP	-13.99	ZAL	72.56	ZAP	15.44	ETS	61.04	ZAE	157.50	ETE	329.90	ZAC	87.14	ETC	260.07	CLP	-6.61

PLANETOCENTRIC CONIC

C3	15.069	VHL	3.882	DLA	-24.72	RAL	242.78	RAD	6567.6	VEL	11.681	PTH	2.05	VHP	8.266	DPA	-33.00	RAP	235.03	ECC	1.2480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 10 9	1240.86	9.95	345.26	102.45	116.65	10 30 50	640.9	13.45	338.33
90.00	14 20 4	5700.99	27.61	269.51	107.98	96.53	15 55 5	5101.0	28.23	260.90
100.00	11 9 39	1048.80	8.18	330.21	101.50	118.85	11 27 7	448.8	11.97	323.47
100.00	16 3 16	5368.28	29.61	245.25	108.20	94.28	17 32 44	4768.3	29.89	236.45
110.00	11 35 53	966.52	4.29	321.59	99.11	123.95	11 51 59	366.5	8.71	315.30
110.00	17 53 31	5023.55	34.17	219.20	108.35	89.01	19 17 14	4423.3	33.66	210.00

DIFFERENTIAL CORRECTIONS

TDE	.2064	TRA	-.9095	TC3	.5202	BAU	.1208
RDE	-.3017	RRA	.1223	RC3	-.2983	FAU	.03370
FDE	-.1816	FRA	.9625	FC3	-1.9361	BSP	4960
BDE	.3655	BRA	.9177	BC3	.5997	FSP	-510

MID-COURSE EXECUTION ACCURACY

SGT	1561.9	SGR	539.8	SG3	188.8		
RRT	-.6200	RRF	.6696	RTF	-.8787		
SGB	1652.6	R23	-.0938	R13	.8859		
SG1	1600.0	SG2	413.5	THA	167.02		

ORBIT DETERMINATION ACCURACY

ST	538.0	SR	449.3	SS	387.3
CRT	-.6708	CRS	-.6059	CST	.9947
LSA	739.4	MSA	307.1	SSA	18.6
EL1	643.2	EL2	278.8	ALF	142.56

LAUNCH DATE AUG 11 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 268.020

RL	151.62	LAL	.00	LOL	317.92	VL	25.848	GAL	1.73	AZL	90.34	HCA	113.13	SMA	122.60	ECC	.23853	INC	.3446	VI	29.385
RP	107.84	LAP	-.32	LOP	71.06	VP	37.132	GAP	-11.97	AZP	89.86	TAL	174.47	TAP	287.61	RCA	93.35	APO	151.84	V2	35.141
RC	44.254	GL	-2.40	GP	-15.17	ZAL	73.27	ZAP	17.36	ETS	56.75	ZAE	155.10	ETE	328.85	ZAC	86.11	ETC	260.28	CLP	-8.54

PLANETOCENTRIC CONIC

C3	13.755	VHL	3.709	DLA	-23.44	RAL	242.23	RAD	6567.5	VEL	11.625	PTH	2.04	VHP	7.855	DPA	-34.49	RAP	236.06	ECC	1.2264

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 47 32	1291.78	8.39	348.18	99.91	117.15	10 9 4	691.8	11.96	341.33
90.00	14 38 16	5609.65	28.15	262.88	105.53	93.25	16 11 45	5009.7	28.30	254.22
100.00	10 50 28	1088.65	6.86	332.43	99.09	119.17	11 8 36	488.7	10.70	325.75
100.00	16 18 1	5288.01	29.87	239.29	105.61	91.16	17 46 9	4688.0	29.71	230.49
110.00	11 21 41	990.78	3.36	322.86	96.93	124.04	11 38 11	390.8	7.81	316.59
110.00	18 3 18	4958.65	33.98	214.16	105.49	86.03	19 25 56	4358.7	33.06	205.04

DIFFERENTIAL CORRECTIONS

TDE	.1981	TRA	-.8922	TC3	.6292	BAU	.1351
RDE	-.2819	RRA	.1370	RC3	-.3789	FAU	.03611
FDE	-.1660	FRA	1.0108	FC3	-2.2727	BSP	5149
BDE	.3445	BRA	.9026	BC3	.7345	FSP	-569

MID-COURSE EXECUTION ACCURACY

SGT	1602.6	SGR	567.3	SG3	208.2		
RRT	-.6720	RRF	.7156	RTF	-.8863		
SGB	1700.0	R23	-.1061	R13	.8948		
SG1	1650.3	SG2	408.0	THA	165.73		

ORBIT DETERMINATION ACCURACY

ST	544.9	SR	441.0	SS	389.3
CRT	-.6848	CRS	-.5827	CST	.9895
LSA	741.8	MSA	304.0	SSA	19.1
EL1	646.6	EL2	270.9	ALF	143.65

LAUNCH DATE AUG 11 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 274.770

RL	151.62	LAL	.00	LOL	317.92	VL	25.979	GAL	1.51	AZL	90.14	HCA	116.36	SMA	123.37	ECC	.23041	INC	.1402	VI	29.385
RP	107.81	LAP	-.13	LOP	74.28	VP	37.234	GAP	-11.21	AZP	89.94	TAL	174.93	TAP	291.28	RCA	94.94	APO	151.80	V2	35.152
RC	45.436	GL	-1.03	GP	-16.51	ZAL	74.05	ZAP	19.51	ETS	53.31	ZAE	152.82	ETE	327.53	ZAC	84.91	ETC	260.47	CLP	-10.55

PLANETOCENTRIC CONIC

C3	12.614	VHL	3.552	DLA	-21.94	RAL	241.66	RAD	6567.5	VEL	11.576	PTH	2.02	VHP	7.466	DPA	-36.10	RAP	236.96	ECC	1.2076

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 24 38	1346.57	6.67	351.30	97.51	117.58	9 47 4	746.6	10.31	344.51
90.00	14 56 40	5517.40	28.32	256.14	103.02	89.87	16 28 37	4917.4	28.00	247.49
100.00	10 30 26	1134.19	5.54	334.96	96.79	119.45	10 49 20	534.2	9.23	328.33
100.00	16 33 33	5205.02	29.83	233.13	102.99	87.91	18 0 18	4605.0	29.22	224.37
110.00	11 6 20	1021.66	2.18	324.47	94.82	124.12	11 23 22	421.7	6.65	318.23
110.00	18 14 8	4890.31	33.53	208.88	102.64	82.93	19 35 39	4290.3	32.19	199.90

DIFFERENTIAL CORRECTIONS

TDE	.1874	TRA	-.8749	TC3	.7447	BAU	.1491
RDE	-.2618	RRA	.1538	RC3	-.4762	FAU	.03869
FDE	-.1433	FRA	1.0641	FC3	-2.6557	BSP	5325
BDE	.3220	BRA	.8883	BC3	.8839	FSP	-632

MID-COURSE EXECUTION ACCURACY

SGT	1639.0	SGR	603.6	SG3	229.2		
RRT	-.7213	RRF	.7686	RTF	-.8932		
SGB	1746.7	R23	-.1193	R13	.9033		
SG1	1699.5	SG2	403.2	THA	164.21		

ORBIT DETERMINATION ACCURACY

ST	547.7	SR	430.1	SS	389.7
CRT	-.6983	CRS	-.5496	CST	.9799
LSA	738.6	MSA	301.6	SSA	19.5
EL1	645.6	EL2	261.2	ALF	144.64

LAUNCH DATE AUG 11 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 281.511

RL 151.62 LAL .00 LOL 317.92 VL 26.098 GAL 1.32 AZL 89.93 HCA 119.58 SMA 124.09 ECC .22298 INC .0727 V1 29.385
RP 107.77 LAP .06 LOP 77.50 VP 37.328 GAP -10.47 AZP 90.04 TAL 175.40 TAP 294.98 RCA 96.42 APO 151.76 V2 35.163
RC 46.738 GL .57 GP -18.02 ZAL 74.89 ZAP 21.89 ETS 50.56 ZAE 150.67 ETE 325.94 ZAC 83.52 ETC 260.64 CLP -12.65

PLANETOCENTRIC CONIC

C3 11.632 VHL 3.411 DLA -20.21 RAL 241.11 RAD 6567.4 VEL 11.533 PTH 2.01 VHP 7.102 DPA -37.86 RAP 237.73 ECC 1.1914

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 1 19	1406.30	4.78	354.66	95.28	117.94	9 24 45	806.3	8.48	347.94
90.00	15 15 34	5423.44	28.11	249.28	100.50	86.44	16 45 57	4823.4	27.32	240.70
100.00	10 9 36	1185.93	3.61	337.82	94.64	119.69	10 29 22	585.9	7.53	331.23
100.00	16 49 58	5119.04	29.44	226.77	100.38	84.59	18 15 17	4519.0	28.38	218.12
110.00	10 49 56	1059.55	.74	326.45	92.85	124.18	11 7 35	459.5	5.21	320.23
110.00	18 26 7	4818.19	32.79	203.38	99.84	79.76	19 46 26	4218.2	31.03	194.60

DIFFERENTIAL CORRECTIONS
TDE .1731 TRA -.8586 TC3 .8647 BAU .1631
RDE -.2408 RRA .1736 RC3 -.5933 FAU .04149
FDE -.1105 FRA 1.1241 FC3-3.0876 BSP 5514
BDE .2965 BRA .8760 BC3 1.0487 FSP -704

MID-COURSE EXECUTION ACCURACY
SGT 1671.8 SGR 651.2 SG3 252.2
RRT -.7662 RRF .8171 RTF -.8995
SGB 1794.1 R23 -.1336 R13 .9115
SG1 1749.0 SG2 400.0 THA 162.44

ORBIT DETERMINATION ACCURACY
ST 545.4 SR 415.3 SS 389.5
CRT -.7100 CRS -.5014 CST .9633
LSA 728.5 MSA 300.8 SSA 20.0
EL1 638.4 EL2 249.9 ALF 145.62

LAUNCH DATE AUG 11 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 288.242

RL 151.62 LAL .00 LOL 317.92 VL 26.207 GAL 1.13 AZL 89.70 HCA 122.81 SMA 124.75 ECC .21621 INC .3039 V1 29.385
RP 107.74 LAP .26 LOP 80.73 VP 37.414 GAP -9.75 AZP 90.17 TAL 175.88 TAP 298.69 RCA 97.78 APO 151.73 V2 35.174
RC 48.150 GL 2.43 GP -19.73 ZAL 75.77 ZAP 24.51 ETS 48.35 ZAE 148.60 ETE 324.06 ZAC 81.91 ETC 260.78 CLP -14.84

PLANETOCENTRIC CONIC

C3 10.798 VHL 3.286 DLA -18.22 RAL 240.59 RAD 6567.4 VEL 11.497 PTH 2.00 VHP 6.763 DPA -39.78 RAP 238.33 ECC 1.1777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 31	1471.92	2.67	358.34	93.26	118.20	9 2 3	871.9	6.42	351.66
90.00	15 35 12	5327.10	27.51	242.29	98.04	82.99	17 3 59	4727.1	26.25	233.85
100.00	9 48 0	1244.46	1.63	341.04	92.68	119.85	10 8 44	644.5	5.59	334.49
100.00	17 7 23	5029.79	28.69	220.24	97.85	81.23	18 31 13	4429.8	27.18	211.76
110.00	10 32 33	1104.89	-1.00	328.81	91.04	124.17	10 50 58	504.9	3.49	322.60
110.00	18 39 20	4742.13	31.73	197.70	97.16	76.56	19 58 22	4142.1	29.55	189.17

DIFFERENTIAL CORRECTIONS
TDE .1562 TRA -.8426 TC3 .9866 BAU .1775
RDE -.2183 RRA .1970 RC3 -.7332 FAU .04448
FDE -.0668 FRA 1.1903 FC3-3.5663 BSP 5696
BDE .2684 BRA .8653 BC3 1.2293 FSP -781

MID-COURSE EXECUTION ACCURACY
SGT 1699.1 SGR 712.6 SG3 277.0
RRT -.8056 RRF .8595 RTF -.9051
SGB 1842.5 R23 -.1478 R13 .9197
SG1 1798.8 SG2 398.8 THA 160.32

ORBIT DETERMINATION ACCURACY
ST 538.4 SR 396.0 SS 391.2
CRT -.7236 CRS -.4394 CST .9357
LSA 712.9 MSA 301.8 SSA 20.5
EL1 625.6 EL2 235.2 ALF 146.67

LAUNCH DATE AUG 11 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 294.960

RL 151.62 LAL .00 LOL 317.92 VL 26.306 GAL .96 AZL 89.45 HCA 126.03 SMA 125.37 ECC .21007 INC .5517 V1 29.385
RP 107.71 LAP .45 LOP 83.96 VP 37.493 GAP -9.06 AZP 90.32 TAL 176.37 TAP 302.40 RCA 99.03 APO 151.70 V2 35.184
RC 49.661 GL 4.57 GP -21.68 ZAL 76.69 ZAP 27.37 ETS 46.57 ZAE 146.59 ETE 321.89 ZAC 80.06 ETC 260.88 CLP -17.13

PLANETOCENTRIC CONIC

C3 10.103 VHL 3.179 DLA -15.94 RAL 240.12 RAD 6567.4 VEL 11.467 PTH 1.99 VHP 6.450 DPA -41.90 RAP 238.72 ECC 1.1663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 9	1544.39	.34	2.38	91.50	118.32	8 38 53	944.4	4.12	355.74
90.00	15 55 48	5227.75	26.48	235.21	95.70	79.58	17 22 56	4627.7	24.77	226.95
100.00	9 25 38	1310.47	-.61	344.66	90.97	119.89	9 47 29	710.5	3.37	338.13
100.00	17 25 59	4936.89	27.54	213.57	95.46	77.90	18 48 16	4336.9	25.60	205.31
110.00	10 14 15	1158.22	-3.04	331.60	89.46	124.06	10 33 33	558.2	1.46	325.39
110.00	18 53 52	4661.92	30.31	191.88	94.65	73.38	20 11 34	4061.9	27.74	183.63

DIFFERENTIAL CORRECTIONS
TDE .1360 TRA -.8272 TC3 1.1015 BAU .1919
RDE -.1930 RRA .2249 RC3 -.8973 FAU .04758
FDE -.0086 FRA 1.2633 FC3-4.0770 BSP 5849
BDE .2361 BRA .8572 BC3 1.4207 FSP -861

MID-COURSE EXECUTION ACCURACY
SGT 1719.0 SGR 790.1 SG3 303.3
RRT -.8383 RRF .8949 RTF -.9098
SGB 1891.9 R23 -.1616 R13 .9276
SG1 1849.0 SG2 400.5 THA 157.83

ORBIT DETERMINATION ACCURACY
ST 526.2 SR 370.6 SS 398.4
CRT -.7408 CRS -.3645 CST .8930
LSA 692.3 MSA 305.5 SSA 20.8
EL1 606.3 EL2 216.1 ALF 147.89

LAUNCH DATE AUG 11 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 301.664

RL 151.62 LAL .00 LOL 317.92 VL 26.395 GAL .81 AZL 89.18 HCA 129.26 SMA 125.93 ECC .20450 INC .8204 V1 29.385
RP 107.68 LAP .64 LOP 87.19 VP 37.565 GAP -8.39 AZP 90.52 TAL 176.86 TAP 306.12 RCA 100.17 APO 151.68 V2 35.193
RC 51.263 GL 7.03 GP -23.89 ZAL 77.64 ZAP 30.50 ETS 45.12 ZAE 144.59 ETE 319.41 ZAC 77.93 ETC 260.95 CLP -19.54

PLANETOCENTRIC CONIC

C3 9.543 VHL 3.089 DLA -13.35 RAL 239.72 RAD 6567.3 VEL 11.443 PTH 1.98 VHP 6.167 DPA -44.24 RAP 238.86 ECC 1.1570

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 9	1624.75	-2.26	6.86	90.05	118.23	8 15 13	1024.8	1.53	.24
90.00	16 17 38	5124.77	25.01	228.02	93.56	76.27	17 43 3	4524.8	22.88	220.00
100.00	9 2 31	1384.82	-3.13	348.74	89.57	119.74	9 25 35	784.8	.85	342.22
100.00	17 45 57	4839.94	25.98	206.80	93.28	74.67	19 6 37	4239.9	23.62	198.79
110.00	9 55 4	1220.20	-5.39	334.85	88.17	123.81	10 15 24	620.2	-.91	328.62
110.00	19 9 53	4577.32	28.51	185.95	92.38	70.29	20 26 10	3977.3	25.56	178.02

DIFFERENTIAL CORRECTIONS
TDE .1123 TRA -.8120 TC3 1.2040 BAU .2070
RDE -.1635 RRA .2586 RC3-1.0872 FAU .05073
FDE .0676 FRA 1.3430 FC3-4.6022 BSP 6024
BDE .1984 BRA .8522 BC3 1.6223 FSP -946

MID-COURSE EXECUTION ACCURACY
SGT 1730.0 SGR 886.7 SG3 330.8
RRT -.8643 RRF .9233 RTF -.9138
SGB 1944.0 R23 -.1730 R13 .9357
SG1 1901.2 SG2 405.8 THA 154.88

ORBIT DETERMINATION ACCURACY
ST 509.5 SR 338.1 SS 417.2
CRT -.7682 CRS -.2920 CST .8336
LSA 670.7 MSA 312.4 SSA 20.8
EL1 581.2 EL2 189.7 ALF 149.38

LAUNCH DATE AUG 11 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 308.351
RL 151.62 LAL .00 LOL 317.92 VL 26.476 GAL .66 AZL 88.88 HCA 132.49 SMA 126.44 ECC .19950 INC 1.1154 V1 29.385
RP 107.65 LAP .82 LOP 90.42 VP 37.630 GAP -7.74 AZP 90.75 TAL 177.33 TAP 309.82 RCA 101.21 APO 151.66 V2 35.202
RC 52.948 GL 9.83 GP -26.41 ZAL 78.61 ZAP 33.91 ETS 43.89 ZAE 142.55 ETE 316.61 ZAC 75.48 ETC 260.96 CLP -22.08

PLANETOCENTRIC CONIC
C3 9.116 VHL 3.019 DLA -10.43 RAL 239.42 RAD 6567.3 VEL 11.424 PTH 1.98 VHP 5.917 DPA -46.83 RAP 238.68 ECC 1.1500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 22 23	1714.19	-5.12	11.87	88.98	117.89	7 50 58	1114.2	-1.35	5.22
90.00	16 41 0	5017.54	23.08	220.76	91.71	73.12	18 4 38	4417.5	20.55	213.00
100.00	8 38 33	1468.49	-5.94	353.36	88.53	119.35	9 3 1	868.5	-1.99	346.81
100.00	18 7 32	4738.46	23.97	199.93	91.40	71.58	19 26 30	4138.5	21.23	192.20
110.00	9 35 1	1291.65	-8.08	338.63	87.22	123.33	9 56 33	691.7	-3.64	332.36
110.00	19 27 33	4488.07	26.32	179.94	90.43	67.35	20 42 21	3888.1	23.02	172.34

DIFFERENTIAL CORRECTIONS
TDE .0856 TRA -.7973 TC3 1.2809 BAU .2225
RDE -.1280 RRA .2993 RC3-1.3003 FAU .05373
FDE .1641 FRA 1.4281 FC3-5.1021 BSP 6213
BDE .1539 BRA .8516 BC3 1.8252 FSP -1034

MID-COURSE EXECUTION ACCURACY
SGT 1729.6 SGR 1004.5 SG3 358.1
RRT -.8837 RRF .9450 RTF -.9167
SGB 2000.1 R23 -.1811 R13 .9437
SG1 1956.5 SG2 415.7 THA 151.42

ORBIT DETERMINATION ACCURACY
ST 489.8 SR 299.2 SS 454.1
CRT -.8183 CRS -.2627 CST .7658
LSA 657.4 MSA 321.0 SSA 20.3
EL1 553.4 EL2 152.2 ALF 151.04

LAUNCH DATE AUG 11 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 315.022
RL 151.62 LAL .00 LOL 317.92 VL 26.548 GAL .54 AZL 88.56 HCA 135.72 SMA 126.90 ECC .19500 INC 1.4427 V1 29.385
RP 107.63 LAP 1.01 LOP 93.65 VP 37.688 GAP -7.11 AZP 91.03 TAL 177.79 TAP 313.51 RCA 102.15 APO 151.65 V2 35.210
RC 54.707 GL 13.00 GP -29.26 ZAL 79.58 ZAP 37.61 ETS 42.81 ZAE 140.40 ETE 313.51 ZAC 72.69 ETC 260.90 CLP -24.77

PLANETOCENTRIC CONIC
C3 8.830 VHL 2.972 DLA -7.16 RAL 239.24 RAD 6567.3 VEL 11.411 PTH 1.98 VHP 5.704 DPA -49.69 RAP 238.10 ECC 1.1453

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 55 43	1814.08	-8.27	17.53	88.37	117.18	7 25 57	1214.1	-4.56	10.81
90.00	17 6 15	4905.37	20.68	213.42	90.23	70.21	18 28 1	4305.4	17.79	205.93
100.00	8 13 38	1562.72	-9.05	358.63	87.95	118.61	8 39 41	962.7	-5.16	352.00
100.00	18 31 2	4631.96	21.50	192.98	89.89	68.72	19 48 14	4032.0	18.42	185.54
110.00	9 14 3	1373.55	-11.12	343.03	86.71	122.54	9 36 57	773.6	-6.75	336.67
110.00	19 47 6	4393.89	23.70	173.87	88.86	64.62	21 0 20	3793.9	20.09	166.60

DIFFERENTIAL CORRECTIONS
TDE .0554 TRA -.7820 TC3 1.3335 BAU .2401
RDE -.0832 RRA .3489 RC3-1.5357 FAU .05656
FDE .2852 FRA 1.5162 FC3-5.5457 BSP 6441
BDE .1000 BRA .8563 BC3 2.0339 FSP -1122

MID-COURSE EXECUTION ACCURACY
SGT 1717.3 SGR 1148.2 SG3 384.9
RRT -.8981 RRF .9613 RTF -.9190
SGB 2065.8 R23 -.1824 R13 .9523
SG1 2020.7 SG2 429.2 THA 147.36

ORBIT DETERMINATION ACCURACY
ST 468.9 SR 260.5 SS 515.4
CRT -.9050 CRS -.3461 CST .7068
LSA 668.1 MSA 326.5 SSA 19.2
EL1 527.3 EL2 98.6 ALF 152.25

LAUNCH DATE AUG 11 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 321.673
RL 151.62 LAL .00 LOL 317.92 VL 26.613 GAL .42 AZL 88.19 HCA 138.95 SMA 127.32 ECC .19100 INC 1.8102 V1 29.385
RP 107.60 LAP 1.19 LOP 96.89 VP 37.741 GAP -6.50 AZP 91.37 TAL 178.22 TAP 317.17 RCA 103.00 APO 151.64 V2 35.218
RC 56.533 GL 16.56 GP -32.48 ZAL 80.55 ZAP 41.62 ETS 41.79 ZAE 138.05 ETE 310.11 ZAC 69.51 ETC 260.75 CLP -27.60

PLANETOCENTRIC CONIC
C3 8.697 VHL 2.949 DLA -3.50 RAL 239.21 RAD 6567.3 VEL 11.406 PTH 1.97 VHP 5.534 DPA -52.86 RAP 237.02 ECC 1.1431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 27 51	1926.12	-11.69	23.98	88.31	115.98	6 59 57	1326.1	-8.10	17.14
90.00	17 33 51	4787.53	17.78	205.98	89.22	67.59	18 53 39	4187.5	14.59	198.76
100.00	7 47 33	1669.00	-12.45	4.68	87.91	117.40	8 15 22	1069.0	-8.69	357.92
100.00	18 56 50	4519.88	18.57	185.95	88.86	66.15	20 12 10	3919.9	15.19	178.78
110.00	8 52 3	1467.12	-14.49	348.19	86.74	121.71	9 16 30	867.1	-10.24	341.66
110.00	20 8 50	4294.53	20.67	167.76	87.78	62.15	21 20 24	3694.5	16.78	160.79

DIFFERENTIAL CORRECTIONS
TDE .0251 TRA -.7671 TC3 1.3464 BAU .2597
RDE -.0268 RRA .4100 RC3-1.7826 FAU .05891
FDE .4279 FRA 1.6058 FC3-5.8645 BSP 6676
BDE .0367 BRA .8698 BC3 2.2339 FSP -1200

MID-COURSE EXECUTION ACCURACY
SGT 1692.0 SGR 1321.0 SG3 409.1
RRT -.9079 RRF .9732 RTF -.9203
SGB 2146.6 R23 -.1771 R13 .9609
SG1 2099.7 SG2 446.2 THA 142.70

ORBIT DETERMINATION ACCURACY
ST 451.3 SR 247.0 SS 601.3
CRT -.9917 CRS -.5940 CST .6731
LSA 721.9 MSA 323.6 SSA 17.4
EL1 513.7 EL2 27.9 ALF 151.41

LAUNCH DATE AUG 11 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 328.305
RL 151.62 LAL .00 LOL 317.92 VL 26.670 GAL .32 AZL 87.77 HCA 142.18 SMA 127.69 ECC .18745 INC 2.2288 V1 29.385
RP 107.58 LAP 1.37 LOP 100.12 VP 37.788 GAP -5.91 AZP 91.76 TAL 178.62 TAP 320.80 RCA 103.76 APO 151.63 V2 35.225
RC 58.419 GL 20.54 GP -36.10 ZAL 81.50 ZAP 45.94 ETS 40.75 ZAE 135.43 ETE 306.46 ZAC 65.93 ETC 260.50 CLP -30.60

PLANETOCENTRIC CONIC
C3 8.742 VHL 2.957 DLA .54 RAL 239.34 RAD 6567.3 VEL 11.408 PTH 1.97 VHP 5.415 DPA -56.34 RAP 235.25 ECC 1.1439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 58 23	2052.44	-15.33	31.47	88.93	114.10	6 32 36	1452.4	-11.95	24.43
90.00	18 4 23	4663.18	14.40	198.43	88.79	65.35	19 22 6	4063.2	10.95	191.44
100.00	7 19 59	1789.26	-16.11	11.74	88.56	115.53	7 49 48	1189.3	-12.54	4.77
100.00	19 25 28	4401.60	15.17	178.81	88.41	63.93	20 38 50	3801.6	11.54	171.90
110.00	8 28 48	1573.85	-18.17	354.27	87.44	119.47	8 55 1	973.9	-14.10	347.51
110.00	20 33 8	4189.77	17.22	161.60	87.28	60.00	21 42 58	3589.8	13.10	154.91

DIFFERENTIAL CORRECTIONS
TDE -.0081 TRA -.7510 TC3 1.2856 BAU .2790
RDE .0483 RRA .4849 RC3-2.0113 FAU .06002
FDE .5994 FRA 1.6893 FC3-5.9437 BSP 6959
BDE .0490 BRA .8940 BC3 2.3871 FSP -1264

MID-COURSE EXECUTION ACCURACY
SGT 1642.1 SGR 1518.7 SG3 427.0
RRT -.9116 RRF .9814 RTF -.9187
SGB 2236.7 R23 -.1662 R13 .9690
SG1 2187.1 SG2 468.8 THA 137.45

ORBIT DETERMINATION ACCURACY
ST 437.5 SR 299.2 SS 713.4
CRT -.9579 CRS -.8535 CST .6738
LSA 832.6 MSA 310.4 SSA 15.1
EL1 525.2 EL2 71.6 ALF 146.06

LAUNCH DATE AUG 11 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 334.915

RL	151.62	LAL	.00	LOL	317.92	VL	26.721	GAL	.23	AZL	87.29	HCA	145.41	SMA	128.03	ECC	.18431	INC	2.7134
RP	107.56	LAP	1.54	LOP	103.36	VP	37.830	GAP	-5.33	AZP	92.23	TAL	178.98	TAP	324.39	RCA	104.43	APO	151.62
RC	60.358	GL	24.93	GP	-40.14	ZAL	82.41	ZAP	50.54	ETS	39.57	ZAE	132.44	ETE	302.61	ZAC	61.91	ETC	260.10

V1	29.385	V2	35.232	CLP	-33.77														

PLANETOCENTRIC CONIC

C3	9.009	VHL	3.001	DLA	4.96	RAL	239.66	RAD	6567.3	VEL	11.419	PTH	1.98	VHP	5.357	DPA	-60.12	RAP	232.55

ECC	1.1483																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 26 38	2195.94	-19.11	40.30	90.41	111.30	6 3 14	1595.9	-16.05	32.97
90.00	18 38 41	4531.21	10.52	190.68	89.09	63.56	19 54 12	3931.2	6.88	183.88
100.00	6 50 19	1926.04	-19.92	20.11	90.06	112.76	7 22 25	1326.0	-16.67	12.83
100.00	19 57 41	4276.34	11.29	171.53	88.68	62.14	21 8 57	3676.3	7.48	164.82
110.00	8 3 55	1695.69	-22.08	1.55	88.99	116.78	8 32 11	1095.7	-18.31	354.45
110.00	21 0 34	4079.46	13.36	155.38	87.47	58.24	22 8 34	3479.5	9.06	148.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.0383	TRA	-.7349	TC3	1.1788	BAU	.3016	SGT	1577.6	SGR	1750.9	SG3	437.7	ST	429.2	SR	435.2
RDE	.1455	RRA	.5786	RC3	-2.2096	FAU	.06001	RRT	-.9123	RRF	.9872	RTF	-.9159	CRT	-.8655	CRS	-.9606
FDE	.7856	FRA	1.7642	FC3	-5.7670	BSP	7230	SGB	2356.8	R23	-.1477	R13	.9768	LSA	995.5	MSA	294.9
BDE	.1505	BRA	.9354	BC3	2.5043	FSP	-1294	SG1	2305.2	SG2	490.7	THA	131.74	EL1	590.4	EL2	158.5

SS	839.3	CST	.6941	SSA	12.6
ALF	134.55				

LAUNCH DATE AUG 11 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 341.503

RL	151.62	LAL	.00	LOL	317.92	VL	26.766	GAL	.16	AZL	86.72	HCA	148.64	SMA	128.32	ECC	.18158	INC	3.2844
RP	107.54	LAP	1.71	LOP	106.60	VP	37.867	GAP	-4.77	AZP	92.81	TAL	179.30	TAP	327.94	RCA	105.02	APO	151.62
RC	62.346	GL	29.72	GP	-44.59	ZAL	83.29	ZAP	55.39	ETS	38.18	ZAE	129.04	ETE	298.64	ZAC	57.48	ETC	259.50

V1	29.385	V2	35.238	CLP	-37.09														

PLANETOCENTRIC CONIC

C3	9.571	VHL	3.094	DLA	9.76	RAL	240.19	RAD	6567.3	VEL	11.444	PTH	1.99	VHP	5.376	DPA	-64.15	RAP	228.48

ECC	1.1575																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 51 31	2360.81	-22.83	50.96	92.95	107.23	5 30 52	1760.8	-20.25	43.24
90.00	19 18 2	4389.86	6.13	182.61	90.30	62.30	20 31 12	3789.9	2.37	175.94
100.00	6 17 40	2082.96	-23.72	30.21	92.63	108.74	6 52 23	1483.0	-20.94	22.52
100.00	20 34 34	4142.94	6.95	164.01	89.85	60.85	21 43 37	3542.9	3.02	157.43
110.00	7 36 50	1835.21	-26.08	10.41	91.64	112.92	8 7 25	1235.2	-22.75	2.84
110.00	21 31 53	3963.46	9.12	149.07	88.53	56.91	22 37 56	3363.5	4.70	142.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.0622	TRA	-.7149	TC3	1.0178	BAU	.3266	SGT	1488.3	SGR	2013.0	SG3	437.2	ST	419.6	SR	641.1
RDE	.2733	RRA	.6935	RC3	-2.3407	FAU	.05839	RRT	-.9083	RRF	.9912	RTF	-.9096	CRT	-.8055	CRS	-.9895
FDE	.9789	FRA	1.8149	FC3	-5.2822	BSP	7757	SGB	2503.4	R23	-.1251	R13	.9836	LSA	1201.9	MSA	281.6
BDE	.2803	BRA	.9961	BC3	2.5524	FSP	-1316	SG1	2450.7	SG2	511.3	THA	125.67	EL1	734.9	EL2	216.9

SS	968.0	CST	.7124	SSA	10.2
ALF	120.77				

LAUNCH DATE AUG 11 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 348.067

RL	151.62	LAL	.00	LOL	317.92	VL	26.804	GAL	.09	AZL	86.03	HCA	151.86	SMA	128.58	ECC	.17920	INC	3.9721
RP	107.53	LAP	1.87	LOP	109.85	VP	37.899	GAP	-4.23	AZP	93.50	TAL	179.57	TAP	331.43	RCA	105.54	APO	151.62
RC	64.375	GL	34.87	GP	-49.44	ZAL	84.11	ZAP	60.40	ETS	36.46	ZAE	125.16	ETE	294.61	ZAC	52.64	ETC	258.65

V1	29.385	V2	35.243	CLP	-40.57														

PLANETOCENTRIC CONIC

C3	10.550	VHL	3.248	DLA	14.88	RAL	240.95	RAD	6567.4	VEL	11.486	PTH	2.00	VHP	5.491	DPA	-68.32	RAP	222.31

ECC	1.1736																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 10 57	2554.05	-26.10	64.16	96.79	101.40	4 53 31	1954.1	-24.26	55.98
90.00	20 4 37	4235.51	1.19	173.96	92.68	61.71	21 15 13	3635.5	-2.61	167.33
100.00	5 40 20	2265.81	-27.14	42.71	96.54	103.03	6 18 6	1665.8	-25.08	34.52
100.00	21 17 56	3998.99	2.12	156.05	92.16	60.18	22 24 35	3399.0	-1.86	149.53
110.00	7 6 31	1996.14	-29.88	21.38	95.69	107.44	7 39 47	1396.1	-27.20	13.22
110.00	22 8 14	3841.43	4.53	142.60	90.66	56.08	23 12 15	3241.4	.04	136.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.0802	TRA	-.6890	TC3	.8026	BAU	.3516	SGT	1368.7	SGR	2300.8	SG3	422.9	ST	403.2	SR	911.4
RDE	.4461	RRA	.8353	RC3	-2.3601	FAU	.05464	RRT	-.8980	RRF	.9940	RTF	-.8982	CRT	-.7745	CRS	-.9971
FDE	1.1742	FRA	1.8327	FC3	-4.4838	BSP	8251	SGB	2677.1	R23	-.0992	R13	.9891	LSA	1454.4	MSA	267.9
BDE	.4533	BRA	1.0828	BC3	2.4928	FSP	-1279	SG1	2624.6	SG2	528.0	THA	119.42	EL1	967.2	EL2	240.4

SS	1092.7	CST	.7247
ALF	110.22		

LAUNCH DATE AUG 11 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 354.606

RL	151.62	LAL	.00	LOL	317.92	VL	26.837	GAL	.05	AZL	85.18	HCA	155.09	SMA	128.80	ECC	.17717	INC	4.8220
RP	107.51	LAP	2.03	LOP	113.09	VP	37.927	GAP	-3.71	AZP	94.38	TAL	179.78	TAP	334.87	RCA	105.98	APO	151.62
RC	66.441	GL	40.30	GP	-54.65	ZAL	84.88	ZAP	65.47	ETS	34.31	ZAE	120.79	ETE	290.59	ZAC	47.44	ETC	257.46

V1	29.385	V2	35.247	CLP	-44.14														

PLANETOCENTRIC CONIC

C3	12.165	VHL	3.488	DLA	20.24	RAL	241.94	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	5.734	DPA	-72.43	RAP	212.68

ECC	1.2002																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 20 29	2790.21	-28.15	81.11	102.07	93.17	4 6 59	2190.2	-27.42	72.52
90.00	21 3 3	4058.34	-4.52	164.07	96.69	62.02	22 10 42	3458.3	-8.23	157.35
100.00	4 54 55	2485.68	-29.51	58.60	101.96	95.01	5 36 21	1885.7	-28.50	49.94
100.00	22 11 18	3838.11	-3.33	147.22	96.04	60.28	23 15 16	3238.1	-7.26	140.64
110.00	6 31 10	2184.59	-32.92	35.21	101.44	99.79	7 7 34	1584.6	-31.21	26.40
110.00	22 51 33	3711.96	-.41	135.84	94.22	55.82	23 53 25	3112.0	-4.90	129.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.0780	TRA	-.6573	TC3	.5537	BAU	.3737	SGT	1220.7	SGR	2604.3	SG3	393.0	ST	368.5	SR	1223.1
RDE	.6697	RRA	1.0139	RC3	-2.2303	FAU	.04851	RRT	-.8760	RRF	.9958	RTF	-.8763	CRT	-.7219	CRS	-.9991
FDE	1.3347	FRA	1.8140	FC3	-3.4524	BSP	8716	SGB	2876.2	R23	-.0736	R13	.9931	LSA	1722.9	MSA	259.5
BDE	.6742	BRA	1.2084	BC3	2.2980	FSP	-1183	SG1	2824.5	SG2	542.8	THA	113.23	EL1	1252.9	EL2	248.9

SS	1184.8	CST	.6930
ALF	102.78		

LAUNCH DATE AUG 11 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 361.117

RL	151.62	LAL	.00	LOL	317.92	VL	26.865	GAL	.02	AZL	84.09	HCA	158.31	SMA	128.99	ECC	.17545	INC	5.9065	VI	29.385
RP	107.50	LAP	2.18	LOP	116.33	VP	37.950	GAP	-3.20	AZP	95.49	TAL	179.93	TAP	338.23	RCA	106.36	APO	151.62	V2	35.251
RC	68.539	GL	45.92	GP	-60.17	ZAL	85.59	ZAP	70.44	ETS	31.65	ZAE	115.94	ETE	286.61	ZAC	41.94	ETC	255.76	CLP	-47.69

PLANETOCENTRIC CONIC

C3	14.813	VHL	3.849	DLA	25.74	RAL	243.19	RAD	6567.6	VEL	11.670	PTH	2.05	VHP	6.150	DPA	-76.04	RAP	197.16	ECC	1.2438

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 4 29	3118.83	-27.06	105.00	108.28	81.31	2 56 27	2518.8	-27.98	96.45
90.00	22 29 1	3815.36	-12.05	150.18	103.35	64.18	23 32 37	3215.4	-15.42	143.13
100.00	3 51 40	2773.28	-29.31	79.91	108.61	83.84	4 37 53	2173.3	-29.85	71.14
100.00	23 24 31	3636.15	-10.02	135.97	102.30	61.69	24 25 8	3036.1	-13.73	129.14
110.00	5 46 54	2412.72	-34.18	52.86	108.95	89.45	6 27 7	1812.7	-33.88	43.63
110.00	23 45 47	3569.46	-5.84	128.38	99.76	56.26	24 45 16	2969.5	-10.24	122.04

DIFFERENTIAL CORRECTIONS

TOE	-.0938	TRA	-.6257	TC3	.2728	BAU	.3804
RDE	1.0400	RRA	1.2563	RC3	-1.9014	FAU	.03926
FDE	1.5525	FRA	1.7736	FC3	-2.2944	BSP	8345
BDE	1.0442	BRA	1.4035	BC3	1.9209	FSP	-954

MID-COURSE EXECUTION ACCURACY

SGT	1064.4	SGR	2974.8	SG3	356.8		
RRT	-.8434	RRF	.9971	RTF	-.8474		
SGB	3159.5	R23	-.0426	R13	.9963		
SG1	3111.9	SG2	546.7	THA	107.34		

ORBIT DETERMINATION ACCURACY

ST	340.3	SR	1669.3	SS	1314.2		
CRT	-.7214	CRS	-.9998	CST	.7081		
LSA	2138.6	MSA	236.7	SSA	5.0		
EL1	1687.6	EL2	233.1	ALF	98.53		

LAUNCH DATE AUG 11 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 367.604

RL	151.62	LAL	.00	LOL	317.92	VL	26.889	GAL	-.00	AZL	82.65	HCA	161.51	SMA	129.15	ECC	.17402	INC	7.3476	VI	29.385
RP	107.49	LAP	2.32	LOP	119.58	VP	37.969	GAP	-2.71	AZP	96.97	TAL	180.01	TAP	341.53	RCA	106.67	APO	151.62	V2	35.254
RC	70.666	GL	51.54	GP	-65.96	ZAL	86.24	ZAP	75.15	ETS	28.41	ZAE	110.63	ETE	282.67	ZAC	36.20	ETC	253.31	CLP	-51.01

PLANETOCENTRIC CONIC

C3	19.286	VHL	4.392	DLA	31.22	RAL	244.67	RAD	6567.8	VEL	11.860	PTH	2.10	VHP	6.817	DPA	-78.32	RAP	172.91	ECC	1.3174

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.27	22 32 4	3876.66	-21.77	159.28	113.46	67.06	23 36 41	3276.7	-24.69	151.59
103.73	2 13 14	3178.89	-21.76	107.73	113.46	67.05	3 6 12	2578.9	-24.68	100.04
76.27	22 32 4	3876.66	-21.77	159.28	113.46	67.06	23 36 41	3276.7	-24.69	151.59
103.73	2 13 14	3178.89	-21.76	107.73	113.46	67.05	3 6 12	2578.9	-24.68	100.04
110.00	4 41 13	2718.29	-31.49	76.19	117.09	75.95	5 26 31	2118.3	-33.10	67.34
110.00	1 7 11	3385.25	-12.67	118.48	108.51	57.98	2 3 36	2785.2	-16.81	111.82

DIFFERENTIAL CORRECTIONS

TOE	.0763	TRA	-.5702	TC3	.3509	BAU	.5099
RDE	1.2793	RRA	1.5802	RC3	-1.9461	FAU	.04104
FDE	1.4192	FRA	1.6958	FC3	-1.8424	BSP	13857
BDE	1.2815	BRA	1.6800	BC3	1.9775	FSP	-1221

MID-COURSE EXECUTION ACCURACY

SGT	928.3	SGR	3394.0	SG3	308.4		
RRT	-.7801	RRF	.9983	RTF	-.7742		
SGB	3518.7	R23	-.0432	R13	.9974		
SG1	3472.6	SG2	567.6	THA	102.38		

ORBIT DETERMINATION ACCURACY

ST	279.5	SR	1819.7	SS	1182.9		
CRT	-.0453	CRS	-.9999	CST	.0332		
LSA	2170.4	MSA	279.5	SSA	3.6		
EL1	1819.8	EL2	279.2	ALF	90.41		

LAUNCH DATE AUG 11 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 27 1970

HELIOCENIRIC CONIC DISTANCE 374.040

RL	151.62	LAL	.00	LOL	317.92	VL	26.907	GAL	-.01	AZL	80.63	HCA	164.71	SMA	129.27	ECC	.17286	INC	9.3683	VI	29.385
RP	107.48	LAP	2.46	LOP	122.83	VP	37.985	GAP	-2.23	AZP	99.04	TAL	180.03	TAP	344.74	RCA	106.93	APO	151.62	V2	35.256
RC	72.818	GL	56.95	GP	-72.03	ZAL	86.86	ZAP	79.42	ETS	24.59	ZAE	104.84	ETE	278.78	ZAC	30.26	ETC	249.63	CLP	-53.48

PLANETOCENTRIC CONIC

C3	27.306	VHL	5.226	DLA	36.45	RAL	246.33	RAD	6568.1	VEL	12.194	PTH	2.19	VHP	7.875	DPA	-78.17	RAP	142.79	ECC	1.4494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.02	21 35 12	4156.00	-22.42	181.29	122.39	60.47	22 44 28	3556.0	-26.18	173.95
113.98	3 23 20	3068.67	-22.41	99.54	122.38	60.46	4 14 28	2468.7	-26.16	92.21
66.02	21 35 12	4156.00	-22.42	181.29	122.39	60.47	22 44 28	3556.0	-26.18	173.95
113.98	3 23 20	3068.67	-22.41	99.54	122.38	60.46	4 14 28	2468.7	-26.16	92.21
66.02	21 35 12	4156.00	-22.42	181.29	122.39	60.47	22 44 28	3556.0	-26.18	173.95
113.98	3 23 20	3068.67	-22.41	99.54	122.38	60.46	4 14 28	2468.7	-26.16	92.21

DIFFERENTIAL CORRECTIONS

TOE	.2545	TRA	-.4436	TC3	.0831	BAU	.4616
RDE	1.7791	RRA	1.9219	RC3	-1.2618	FAU	.02639
FDE	1.4049	FRA	1.5056	FC3	-.8367	BSP	13927
BDE	1.7972	BRA	1.9725	BC3	1.2645	FSP	-929

MID-COURSE EXECUTION ACCURACY

SGT	671.6	SGR	3522.5	SG3	234.2		
RRT	-.4879	RRF	.9985	RTF	-.4871		
SGB	3586.0	R23	-.0157	R13	.9983		
SG1	3538.2	SG2	583.7	THA	95.46		

ORBIT DETERMINATION ACCURACY

ST	332.9	SR	2103.5	SS	1128.9		
CRT	.5738	CRS	-1.0000	CST	-.5761		
LSA	2395.0	MSA	271.6	SSA	2.9		
EL1	2112.3	EL2	271.5	ALF	84.72		

LAUNCH DATE AUG 11 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 380.421

RL	151.62	LAL	.00	LOL	317.92	VL	26.922	GAL	.01	AZL	77.58	HCA	167.88	SMA	129.37	ECC	.17196	INC	12.4198	VI	29.385
RP	107.48	LAP	2.59	LOP	126.08	VP	37.997	GAP	-1.78	AZP	102.15	TAL	179.95	TAP	347.83	RCA	107.13	APO	151.62	V2	35.258
RC	74.992	GL	61.79	GP	-78.45	ZAL	87.43	ZAP	83.07	ETS	20.24	ZAE	98.46	ETE	274.93	ZAC	24.10	ETC	243.60	CLP	-52.98

PLANETOCENTRIC CONIC

C3	43.173	VHL	6.571	DLA	41.12	RAL	248.01	RAD	6568.6	VEL	12.827	PTH	2.34	VHP	9.606	DPA	-75.35	RAP	116.91	ECC	1.7105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.84	21 7 5	4371.39	-20.45	197.79	132.74	53.52	22 19 57	3771.4	-25.05	191.11
121.16	4 4 50	3083.89	-20.43	99.43	132.73	53.51	4 56 14	2483.9	-25.04	92.75
58.84	21 7 5	4371.39	-20.45	197.79	132.74	53.52	22 19 57	3771.4	-25.05	191.11
121.16	4 4 50	3083.89	-20.43	99.43	132.73	53.51	4 56 14	2483.9	-25.04	92.75
58.84	21 7 5	4371.39	-20.45	197.79	132.74	53.52	22 19 57	3771.4	-25.05	191.11
121.16	4 4 50	3083.89	-20.43	99.43	132.73	53.51	4 56 14	2483.9	-25.04	92.75

DIFFERENTIAL CORRECTIONS

TOE	.6217	TRA	-.2445	TC3	-.0560	BAU	.3468
RDE	2.4473	RRA	2.4484	RC3	-.5982	FAU	.01220
FDE	1.3301	FRA	1.3405	FC3	-.2447	BSP	10404
BDE	2.5251	BRA	2.4606	BC3	.6008	FSP	-497

MID-COURSE EXECUTION ACCURACY

SGT	615.9	SGR	3633.7	SG3	169.7		
RRT	.1845	RRF	.9986	RTF	.1764		
SGB	3685.5	R23	.0133	R13	.9985		
SG1	3635.5	SG2	605.0	THA	88.16		

ORBIT DETERMINATION ACCURACY

ST	548.7	SR	2297.3	SS	1037.3		
CRT	.8605	CRS	-1.0000	CST	-.8593		
LSA	2565.0	MSA	274.9	SSA	2.4		
EL1	2346.0	EL2	273.7	ALF	78.22		

LAUNCH DATE AUG 11 1970 FLIGHT TIME 142.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 386.725

RL	151.62	LAL	.00	LOL	317.92	VL	26.933	GAL	.05	AZL	72.44	HCA	170.99	SMA	129.45	ECC	.17129	INC	17.5619	V1	29.385
RP	107.48	LAP	2.71	LOP	129.32	VP	38.005	GAP	-1.35	AZP	107.36	TAL	179.75	TAP	350.74	RCA	107.27	APO	151.62	V2	35.259
RC	77.186	GL	65.41	GP	-85.20	ZAL	87.99	ZAP	85.98	ETS	15.58	ZAE	91.06	ETE	271.21	ZAC	17.67	ETC	231.87	CLP	-33.03

PLANETOCENTRIC CONIC

C3	79.878	VHL	8.937	DLA	44.62	RAL	249.27	RAD	6569.6	VEL	14.185	PTH	2.58	VHP	12.668	DPA	-70.35	RAP	98.23	ECC	2.3146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.95	20 52 4	4575.08	-15.19	211.28	143.31	47.52	22 8 20	3975.1	-20.50	205.41
126.05	4 29 56	3179.23	-15.18	103.31	143.30	47.52	5 22 55	2579.2	-20.49	97.43
53.95	20 52 4	4575.08	-15.19	211.28	143.31	47.52	22 8 20	3975.1	-20.50	205.41
126.05	4 29 56	3179.23	-15.18	103.31	143.30	47.52	5 22 55	2579.2	-20.49	97.43
53.95	20 52 4	4575.08	-15.19	211.28	143.31	47.52	22 8 20	3975.1	-20.50	205.41
126.05	4 29 56	3179.23	-15.18	103.31	143.30	47.52	5 22 55	2579.2	-20.49	97.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7232	TRA	.3603	TC3	-.0321	BAU	.2273	SGT	1152.8	SGR	3757.7	SG3	122.0	ST	1109.0	SR	2420.1	SS	1012.2
RDE	3.5066	RRA	3.3169	RC3	-.2104	FAU	.00396	RRT	.8020	RRF	.9989	RTF	.8103	CRT	.9578	CRS	-1.0000	CST	-.9604
FDE	1.3448	FRA	1.2382	FC3	-.0429	BSP	12002	SGB	3930.6	R23	.0284	R13	.9986	LSA	2832.8	MSA	293.9	SSA	2.0
BDE	3.9071	BRA	3.3364	BC3	.2128	FSP	-389	SG1	3873.4	SG2	668.0	THA	75.74	EL1	2646.1	EL2	291.5	ALF	65.99

LAUNCH DATE AUG 11 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 392.845

RL	151.62	LAL	.00	LOL	317.92	VL	26.940	GAL	.13	AZL	62.14	HCA	173.95	SMA	129.50	ECC	.17086	INC	27.8585	V1	29.385
RP	107.48	LAP	2.82	LOP	132.57	VP	38.010	GAP	-.98	AZP	117.73	TAL	179.35	TAP	353.31	RCA	107.37	APO	151.62	V2	35.259
RC	79.396	GL	66.11	GP	-82.98	ZAL	88.54	ZAP	88.02	ETS	189.97	ZAE	81.27	ETE	86.69	ZAC	11.85	ETC	18.27	CLP	73.61

PLANETOCENTRIC CONIC

C3	189.586	VHL	13.769	DLA	45.45	RAL	248.95	RAD	6571.0	VEL	17.633	PTH	2.98	VHP	18.924	DPA	-62.51	RAP	83.49	ECC	4.1201

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.83	20 46 35	4755.72	-7.36	220.25	151.66	45.02	22 5 51	4155.7	-12.97	214.87
127.17	4 32 52	3337.93	-7.35	110.25	151.65	45.02	5 28 30	2737.9	-12.96	104.87
52.83	20 46 35	4755.72	-7.36	220.25	151.66	45.02	22 5 51	4155.7	-12.97	214.87
127.17	4 32 52	3337.93	-7.35	110.25	151.65	45.02	5 28 30	2737.9	-12.96	104.87
52.83	20 46 35	4755.72	-7.36	220.25	151.66	45.02	22 5 51	4155.7	-12.97	214.87
127.17	4 32 52	3337.93	-7.35	110.25	151.65	45.02	5 28 30	2737.9	-12.96	104.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.8161	TRA	.7070	TC3	-.0164	BAU	.2636	SGT	541.5	SGR	3973.0	SG3	84.2	ST	362.1	SR	2747.1	SS	1040.2
RDE	-6.2386	RRA	-5.0479	RC3	-.1027	FAU	-.00788	RRT	-.1679	RRF	-.9980	RTF	.2188	CRT	.7726	CRS	.9993	CST	.7488
FDE	1.4256	FRA	1.2918	FC3	.0360	BSP	12107	SGB	4009.8	R23	-.0488	R13	-.9982	LSA	2950.5	MSA	232.9	SSA	1.6
BDE	6.2918	BRA	5.0972	BC3	.1040	FSP	-267	SG1	3974.1	SG2	533.7	THA	91.34	EL1	2761.4	EL2	228.7	ALF	84.14

LAUNCH DATE AUG 11 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 398.362

RL	151.62	LAL	.00	LOL	317.92	VL	26.944	GAL	.34	AZL	35.64	HCA	176.40	SMA	129.52	ECC	.17069	INC	54.3568	V1	29.385
RP	107.48	LAP	2.92	LOP	135.83	VP	38.012	GAP	-.76	AZP	144.30	TAL	178.37	TAP	354.77	RCA	107.41	APO	151.63	V2	35.258
RC	81.621	GL	57.99	GP	-66.01	ZAL	89.01	ZAP	89.13	ETS	185.58	ZAE	63.98	ETE	82.60	ZAC	18.03	ETC	310.07	CLP	87.86

PLANETOCENTRIC CONIC

C3	666.870	VHL	25.824	DLA	38.09	RAL	244.23	RAD	6572.6	VEL	28.074	PTH	3.41	VHP	34.504	DPA	-47.03	RAP	69.30	ECC	11.9750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.39	21 13 14	4766.27	-.68	215.24	153.38	51.92	22 32 40	4166.3	-5.60	209.34
116.61	3 28 31	3599.31	-.66	127.01	153.36	51.92	4 28 31	2999.3	-5.58	121.11
63.39	21 13 14	4766.27	-.68	215.24	153.38	51.92	22 32 40	4166.3	-5.60	209.34
116.61	3 28 31	3599.31	-.66	127.01	153.36	51.92	4 28 31	2999.3	-5.58	121.11
63.39	21 13 14	4766.27	-.68	215.24	153.38	51.92	22 32 40	4166.3	-5.60	209.34
116.61	3 28 31	3599.31	-.66	127.01	153.36	51.92	4 28 31	2999.3	-5.58	121.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.9397	TRA	-.4342	TC3	-.0748	BAU	2.2972	SGT	963.4	SGR	3705.1	SG3	64.2	ST	875.0	SR	2439.0	SS	1404.1
RDE	-10.4136	RRA	-9.2286	RC3	-.2466	FAU	-.03965	RRT	.7928	RRF	-.9994	RTF	-.7754	CRT	.9600	CRS	.9998	CST	.9538
FDE	1.9959	FRA	1.8951	FC3	.0515	BSP	11191	SGB	3828.3	R23	-.0596	R13	-.9980	LSA	2937.4	MSA	240.4	SSA	1.4
BDE	11.1339	BRA	9.2389	BC3	.2577	FSP	-196	SG1	3784.9	SG2	574.8	THA	78.07	EL1	2580.8	EL2	231.5	ALF	70.84

LAUNCH DATE AUG 11 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 408.736

RL	151.62	LAL	.00	LOL	317.92	VL	26.945	GAL	-.36	AZL	159.11	HCA	183.23	SMA	129.53	ECC	.17065	INC	69.1109	V1	29.385
RP	107.48	LAP	3.02	LOP	139.08	VP	38.012	GAP	.72	AZP	20.92	TAL	181.74	TAP	4.97	RCA	107.43	APO	151.63	V2	35.256
RC	83.861	GL	-51.85	GP	59.45	ZAL	89.78	ZAP	90.63	ETS	184.67	ZAE	62.66	ETE	285.32	ZAC	139.01	ETC	288.80	CLP	91.23

PLANETOCENTRIC CONIC

C3	1024.843	VHL	32.013	DLA	-64.81	RAL	195.00	RAD	6573.0	VEL	33.855	PTH	3.50	VHP	40.782	DPA	68.06	RAP	1.75	ECC	17.8663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.92	4 4 1	2419.69	-.45	74.88	105.20	154.81	4 44 20	1819.7	6.79	71.87
151.08	14 5 0	704.32	-.44	291.40	105.22	154.81	14 16 44	104.3	6.80	288.40
28.92	4 4 1	2419.69	-.45	74.88	105.20	154.81	4 44 20	1819.7	6.79	71.87
151.08	14 5 0	704.32	-.44	291.40	105.22	154.81	14 16 44	104.3	6.80	288.40
28.92	4 4 1	2419.69	-.45	74.88	105.20	154.81	4 44 20	1819.7	6.79	71.87
151.08	14 5 0	704.32	-.44	291.40	105.22	154.81	14 16 44	104.3	6.80	288.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	6.9719	TRA	1.8256	TC3	-.1241	BAU	3.7900	SGT	1666.6	SGR	3309.8	SG3	64.3	ST	1269.1	SR	2882.3	SS	2315.4
RDE	-16.0884	RRA	-.9472	RC3	.2472	FAU	-.06207	RRT	-.9348	RRF	.9995	RTF	-.9376	CRT	-.9901	CRS	-1.0000	CST	.9907
FDE	-3.6673	FRA	-.2379	FC3	.0524	BSP	11510	SGB	3705.8	R23	-.0609	R13	.9976	LSA	3905.3	MSA	167.1	SSA	2.3
BDE	17.5341	BRA	2.0567	BC3	.2766	FSP	-204	SG1	3667.0	SG2	534.4	THA	115.79	EL1	3145.1	EL2	163.5	ALF	113.62

LAUNCH DATE AUG 11 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 413.891
RL 151.62 LAL .00 LOL 317.92 VL 26.943 GAL -.07 AZL 125.20 HCA 185.38 SMA 129.52 ECC .17066 INC35.1971 V1 29.385
RP 107.49 LAP 3.10 LOP 142.33 VP 38.008 GAP .83 AZP 54.92 TAL 180.34 TAP 5.72 RCA 107.41 APO 151.62 V2 35.254
RC 86.111 GL -64.61 GP 80.13 ZAL 89.14 ZAP 91.36 ETS 189.07 ZAE 83.08 ETE 287.26 ZAC 158.11 ETC 305.22 CLP 97.93

PLANETOCENTRIC CONIC
C3 295.511 VHL 17.190 DLA -73.61 RAL 168.05 RAD 6571.7 VEL 20.416 PTH 3.16 VHP 21.399 DPA 72.46 RAP 298.02 ECC 5.8634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.70	1 54 20	2351.67	5.87	78.78	76.31	163.52	2 33 31	1751.7	13.53	76.87
161.30	12 39 42	5866.16	5.87	262.33	76.33	163.52	14 17 28	5266.2	13.54	260.42
18.70	1 54 20	2351.67	5.87	78.78	76.31	163.52	2 33 31	1751.7	13.53	76.87
161.30	12 39 42	5866.16	5.87	262.33	76.33	163.52	14 17 28	5266.2	13.54	260.42
18.70	1 54 20	2351.67	5.87	78.78	76.31	163.52	2 33 31	1751.7	13.53	76.87
161.30	12 39 42	5866.16	5.87	262.33	76.33	163.52	14 17 28	5266.2	13.54	260.42

DIFFERENTIAL CORRECTIONS
TDE 4.2878 TRA 1.3881 TC3 -.0927 BAU .8141
RDE-8.6360 RRA-1.8351 RC3 .1840 FAU-.01339
FDE-2.3055 FRA -.4918 FC3 .0392 BSP 13622
BDE 9.6419 BRA 2.3010 BC3 .2061 FSP -272

MID-COURSE EXECUTION ACCURACY
SGT 2198.2 SGR 3658.3 SG3 84.0
RRT -.9785 RRF .9994 RTF -.9791
SGB 4267.9 R23 -.0486 R13 .9982
SG1 4250.1 SG2 390.1 THA 120.74

ORBIT DETERMINATION ACCURACY
ST 1511.4 SR 2951.0 SS 1456.8
CRT -.9940 CRS-1.0000 CST .9941
LSA 3618.4 MSA 149.7 SSA 1.7
EL1 3312.3 EL2 146.9 ALF 117.04

LAUNCH DATE AUG 11 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 419.849
RL 151.62 LAL .00 LOL 317.92 VL 26.939 GAL .08 AZL 112.60 HCA 188.28 SMA 129.49 ECC .17094 INC22.5984 V1 29.385
RP 107.50 LAP 3.17 LOP 145.58 VP 38.002 GAP 1.15 AZP 67.61 TAL 179.63 TAP 7.91 RCA 107.35 APO 151.62 V2 35.251
RC 88.372 GL -66.39 GP 86.97 ZAL 88.35 ZAP 92.94 ETS 206.47 ZAE 93.43 ETE 303.55 ZAC 165.69 ETC 344.02 CLP-165.89

PLANETOCENTRIC CONIC
C3 127.637 VHL 11.298 DLA -75.08 RAL 163.12 RAD 6570.4 VEL 15.779 PTH 2.80 VHP 13.746 DPA 66.81 RAP 271.16 ECC 3.1006

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.00	1 31 10	2222.96	14.59	77.94	69.13	164.57	2 8 13	1623.0	22.29	76.06
163.00	12 23 27	5730.59	14.60	259.79	69.15	164.57	13 58 58	5130.6	22.30	257.91
17.00	1 31 10	2222.96	14.59	77.94	69.13	164.57	2 8 13	1623.0	22.29	76.06
163.00	12 23 27	5730.59	14.60	259.79	69.15	164.57	13 58 58	5130.6	22.30	257.91
17.00	1 31 10	2222.96	14.59	77.94	69.13	164.57	2 8 13	1623.0	22.29	76.06
163.00	12 23 27	5730.59	14.60	259.79	69.15	164.57	13 58 58	5130.6	22.30	257.91

DIFFERENTIAL CORRECTIONS
TDE 6.3421 TRA 1.5954 TC3 .0062 BAU .0245
RDE -.2137 RRA -.1292 RC3 .0129 FAU .00287
FDE-2.1315 FRA -.4756 FC3 -.0195 BSP 13724
BDE 6.3457 BRA 1.6007 BC3 .0143 FSP -380

MID-COURSE EXECUTION ACCURACY
SGT 4497.0 SGR 278.2 SG3 123.7
RRT -.9177 RRF .8900 RTF -.9978
SGB 4505.5 R23 .0663 R13 .9977
SG1 4504.2 SG2 110.3 THA 176.75

ORBIT DETERMINATION ACCURACY
ST 3351.7 SR 132.6 SS 1326.5
CRT -.9464 CRS -.9360 CST .9995
LSA 3606.7 MSA 57.6 SSA .8
EL1 3354.1 EL2 42.8 ALF 177.86

LAUNCH DATE AUG 11 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 425.997
RL 151.62 LAL .00 LOL 317.92 VL 26.932 GAL .20 AZL 106.64 HCA 191.37 SMA 129.44 ECC .17140 INC16.6414 V1 29.385
RP 107.51 LAP 3.24 LOP 148.83 VP 37.994 GAP 1.52 AZP 73.67 TAL 179.05 TAP 10.42 RCA 107.25 APO 151.62 V2 35.247
RC 90.641 GL -64.98 GP 80.53 ZAL 87.43 ZAP 95.28 ETS 16.41 ZAE 100.41 ETE 113.01 ZAC 167.36 ETC 182.83 CLP-124.03

PLANETOCENTRIC CONIC
C3 72.450 VHL 8.512 DLA -75.35 RAL 169.40 RAD 6569.4 VEL 13.921 PTH 2.54 VHP 10.165 DPA 61.33 RAP 258.91 ECC 2.1924

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.70	1 55 38	2101.30	22.63	76.32	73.13	164.09	2 30 39	1501.3	30.30	74.21
163.30	12 49 9	5607.76	22.64	257.87	73.16	164.09	14 22 37	5007.8	30.31	255.75
16.70	1 55 38	2101.30	22.63	76.32	73.13	164.09	2 30 39	1501.3	30.30	74.21
163.30	12 49 9	5607.76	22.64	257.87	73.16	164.09	14 22 37	5007.8	30.31	255.75
16.70	1 55 38	2101.30	22.63	76.32	73.13	164.09	2 30 39	1501.3	30.30	74.21
163.30	12 49 9	5607.76	22.64	257.87	73.16	164.09	14 22 37	5007.8	30.31	255.75

DIFFERENTIAL CORRECTIONS
TDE-1.1075 TRA -.6701 TC3 -.1840 BAU .2796
RDE 4.9883 RRA .8400 RC3 .2225 FAU .01445
FDE-2.4188 FRA -.4278 FC3 -.1727 BSP 14133
BDE 5.1098 BRA 1.0745 BC3 .2887 FSP -552

MID-COURSE EXECUTION ACCURACY
SGT 1958.0 SGR 4051.5 SG3 173.5
RRT -.8330 RRF -.9983 RTF .8483
SGB 4499.8 R23 .0670 R13 -.9965
SG1 4387.2 SG2 1000.5 THA 113.21

ORBIT DETERMINATION ACCURACY
ST 917.6 SR 3424.1 SS 1461.1
CRT -.9109 CRS 1.0000 CST -.9148
LSA 3816.5 MSA 368.4 SSA 2.5
EL1 3525.8 EL2 367.8 ALF 103.87

LAUNCH DATE AUG 11 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 432.199
RL 151.62 LAL .00 LOL 317.92 VL 26.922 GAL .31 AZL 103.22 HCA 194.52 SMA 129.38 ECC .17202 INC13.2249 V1 29.385
RP 107.53 LAP 3.29 LOP 152.08 VP 37.983 GAP 1.90 AZP 77.18 TAL 178.50 TAP 13.02 RCA 107.12 APO 151.63 V2 35.243
RC 92.917 GL -62.50 GP 74.21 ZAL 86.40 ZAP 98.25 ETS 20.77 ZAE 105.89 ETE 117.53 ZAC 165.18 ETC 209.75 CLP-121.83

PLANETOCENTRIC CONIC
C3 48.210 VHL 6.943 DLA -74.93 RAL 179.38 RAD 6568.8 VEL 13.022 PTH 2.38 VHP 8.186 DPA 56.30 RAP 251.14 ECC 1.7934

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.17	2 36 23	2001.21	29.05	74.16	80.77	162.70	3 9 44	1401.2	36.65	71.62
162.83	13 27 59	5509.49	29.05	256.18	80.79	162.70	14 59 48	4909.5	36.66	253.64
17.17	2 36 23	2001.21	29.05	74.16	80.77	162.70	3 9 44	1401.2	36.65	71.62
162.83	13 27 59	5509.49	29.05	256.18	80.79	162.70	14 59 48	4909.5	36.66	253.64
17.17	2 36 23	2001.21	29.05	74.16	80.77	162.70	3 9 44	1401.2	36.65	71.62
162.83	13 27 59	5509.49	29.05	256.18	80.79	162.70	14 59 48	4909.5	36.66	253.64

DIFFERENTIAL CORRECTIONS
TDE-1.9613 TRA -.5385 TC3 -.4407 BAU .4124
RDE 4.2331 RRA .4725 RC3 .4639 FAU .02539
FDE-2.9618 FRA -.3465 FC3 -.4560 BSP 14336
BDE 4.6654 BRA .7164 BC3 .6399 FSP -755

MID-COURSE EXECUTION ACCURACY
SGT 2432.4 SGR 3855.7 SG3 237.9
RRT -.9182 RRF -.9978 RTF .9291
SGB 4558.9 R23 .0790 R13 -.9952
SG1 4482.9 SG2 828.5 THA 121.27

ORBIT DETERMINATION ACCURACY
ST 1697.8 SR 3522.0 SS 1744.3
CRT -.9841 CRS 1.0000 CST -.9851
LSA 4272.5 MSA 276.1 SSA 3.2
EL1 3900.4 EL2 272.7 ALF 115.51

LAUNCH DATE AUG 11 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 438.414
RL 151.62 LAL .00 LOL 317.92 VL 26.911 GAL .43 AZL 101.01 HCA 197.71 SMA 129.30 ECC .17280 INC11.0124 V1 29.385
RP 107.54 LAP 3.33 LOP 155.33 VP 37.970 GAP 2.29 AZP 79.50 TAL 177.92 TAP 15.63 RCA 106.96 APO 151.64 V2 35.238
RC 95.197 GL -59.65 GP 68.40 ZAL 85.25 ZAP 101.71 ETS 24.26 ZAE 110.44 ETE 121.84 ZAC 161.30 ETC 225.58 CLP-123.47
PLANETOCENTRIC CONIC
C3 35.483 VHL 5.957 DLA -73.95 RAL 189.79 RAD 6568.4 VEL 12.524 PTH 2.27 VHP 6.980 DPA 51.54 RAP 245.43 ECC 1.5840

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.31	3 20 15	1921.69	33.87	71.37	88.64	160.54	3 52 17	1321.7	41.36	68.25
161.69	14 7 13	5434.53	33.88	254.53	88.67	160.54	15 37 48	4834.5	41.37	251.41
18.31	3 20 15	1921.69	33.87	71.37	88.64	160.54	3 52 17	1321.7	41.36	68.25
161.69	14 7 13	5434.53	33.88	254.53	88.67	160.54	15 37 48	4834.5	41.37	251.41
18.31	3 20 15	1921.69	33.87	71.37	88.64	160.54	3 52 17	1321.7	41.36	68.25
161.69	14 7 13	5434.53	33.88	254.53	88.67	160.54	15 37 48	4834.5	41.37	251.41

DIFFERENTIAL CORRECTIONS
TDE-2.3492 TRA -.3961 TC3 -.7637 BAU .4854
RDE 3.5944 RRA .2248 RC3 .6811 FAU .03593
FDE-3.4379 FRA -.2202 FC3 -.8766 BSP 14503
BDE 4.2940 BRA .4554 BC3 1.0233 FSP -974

MID-COURSE EXECUTION ACCURACY
SGT 2798.5 SGR 3636.3 SG3 306.8
RRT -.9461 RRF -.9973 RTF .9536
SGB 4588.4 R23 .0897 R13 -.9937
SG1 4530.4 SG2 727.5 THA 127.18

ORBIT DETERMINATION ACCURACY
ST 2297.2 SR 3465.3 SS 1999.1
CRT -.9936 CRS 1.0000 CST -.9938
LSA 4607.8 MSA 224.6 SSA 4.1
EL1 4151.9 EL2 216.7 ALF 123.48

LAUNCH DATE AUG 11 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 444.628
RL 151.62 LAL .00 LOL 317.92 VL 26.898 GAL .57 AZL 99.46 HCA 200.91 SMA 129.21 ECC .17373 INC 9.4585 V1 29.385
RP 107.56 LAP 3.36 LOP 158.58 VP 37.955 GAP 2.67 AZP 81.15 TAL 177.30 TAP 18.22 RCA 106.76 APO 151.65 V2 35.232
RC 97.481 GL -56.67 GP 62.99 ZAL 83.98 ZAP 105.50 ETS 27.12 ZAE 114.26 ETE 126.16 ZAC 156.91 ETC 234.82 CLP-126.06
PLANETOCENTRIC CONIC
C3 27.985 VHL 5.290 DLA -72.52 RAL 199.32 RAD 6568.1 VEL 12.221 PTH 2.20 VHP 6.204 DPA 46.97 RAP 240.98 ECC 1.4606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.95	4 1 37	1858.42	37.36	68.01	95.39	157.79	4 32 36	1258.4	44.69	64.18
160.05	14 41 48	5378.47	37.36	252.84	95.41	157.79	16 11 27	4778.5	44.70	249.01
19.95	4 1 37	1858.42	37.36	68.01	95.39	157.79	4 32 36	1258.4	44.69	64.18
160.05	14 41 48	5378.47	37.36	252.84	95.41	157.79	16 11 27	4778.5	44.70	249.01
19.95	4 1 37	1858.42	37.36	68.01	95.39	157.79	4 32 36	1258.4	44.69	64.18
160.05	14 41 48	5378.47	37.36	252.84	95.41	157.79	16 11 27	4778.5	44.70	249.01

DIFFERENTIAL CORRECTIONS
TDE-2.5394 TRA -.2563 TC3-1.1381 BAU .5329
RDE 3.0058 RRA .0521 RC3 .8564 FAU .04573
FDE-3.7498 FRA -.0550 FC3-1.4146 BSP 14573
BDE 3.9348 BRA .2615 BC3 1.4243 FSP -1183

MID-COURSE EXECUTION ACCURACY
SGT 3141.3 SGR 3384.5 SG3 374.4
RRT -.9611 RRF -.9966 RTF .9665
SGB 4617.6 R23 .0973 R13 -.9924
SG1 4572.8 SG2 642.0 THA 132.78

ORBIT DETERMINATION ACCURACY
ST 2764.5 SR 3256.1 SS 2177.2
CRT -.9965 CRS 1.0000 CST -.9963
LSA 4790.5 MSA 189.8 SSA 5.1
EL1 4267.8 EL2 175.4 ALF 130.32

LAUNCH DATE AUG 11 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 450.831
RL 151.62 LAL .00 LOL 317.92 VL 26.883 GAL .71 AZL 98.30 HCA 204.13 SMA 129.11 ECC .17480 INC 8.3026 V1 29.385
RP 107.58 LAP 3.38 LOP 161.83 VP 37.939 GAP 3.05 AZP 82.41 TAL 176.65 TAP 20.78 RCA 106.54 APO 151.67 V2 35.226
RC 99.767 GL -53.68 GP 57.93 ZAL 82.59 ZAP 109.48 ETS 29.42 ZAE 117.42 ETE 130.46 ZAC 152.48 ETC 240.59 CLP-128.91
PLANETOCENTRIC CONIC
C3 23.209 VHL 4.818 DLA -70.79 RAL 207.59 RAD 6567.9 VEL 12.024 PTH 2.15 VHP 5.692 DPA 42.56 RAP 237.45 ECC 1.3820

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.95	4 38 51	1807.39	39.78	64.22	100.72	154.65	5 8 58	1207.4	46.90	59.63
158.05	15 10 38	5337.15	39.78	251.11	100.74	154.65	16 39 35	4737.2	46.91	246.53
21.95	4 38 51	1807.39	39.78	64.22	100.72	154.65	5 8 58	1207.4	46.90	59.63
158.05	15 10 38	5337.15	39.78	251.11	100.74	154.65	16 39 35	4737.2	46.91	246.53
21.95	4 38 51	1807.39	39.78	64.22	100.72	154.65	5 8 58	1207.4	46.90	59.63
158.05	15 10 38	5337.15	39.78	251.11	100.74	154.65	16 39 35	4737.2	46.91	246.53

DIFFERENTIAL CORRECTIONS
TDE-2.6074 TRA -.1192 TC3-1.5492 BAU .5689
RDE 2.4827 RRA -.0708 RC3 .9804 FAU .05426
FDE-3.8771 FRA .1403 FC3-2.0242 BSP 14765
BDE 3.6003 BRA .1386 BC3 1.8334 FSP -1382

MID-COURSE EXECUTION ACCURACY
SGT 3468.4 SGR 3110.6 SG3 434.8
RRT -.9691 RRF -.9958 RTF .9735
SGB 4658.9 R23 .1031 R13 -.9910
SG1 4623.3 SG2 575.3 THA 138.21

ORBIT DETERMINATION ACCURACY
ST 3104.0 SR 2953.8 SS 2268.9
CRT -.9977 CRS 1.0000 CST -.9972
LSA 4845.6 MSA 168.1 SSA 6.2
EL1 4282.4 EL2 145.1 ALF 136.42

LAUNCH DATE AUG 11 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 457.020
RL 151.62 LAL .00 LOL 317.92 VL 26.866 GAL .86 AZL 97.40 HCA 207.34 SMA 128.99 ECC .17603 INC 7.4046 V1 29.385
RP 107.60 LAP 3.39 LOP 165.07 VP 37.920 GAP 3.43 AZP 83.41 TAL 175.96 TAP 23.31 RCA 106.29 APO 151.70 V2 35.218
RC 102.053 GL -50.73 GP 53.21 ZAL 81.09 ZAP 113.52 ETS 31.23 ZAE 119.98 ETE 134.70 ZAC 148.21 ETC 244.42 CLP-131.79
PLANETOCENTRIC CONIC
C3 20.000 VHL 4.472 DLA -68.87 RAL 214.71 RAD 6567.8 VEL 11.890 PTH 2.11 VHP 5.354 DPA 38.35 RAP 234.64 ECC 1.3292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.17	5 12 1	1765.47	41.35	60.18	104.82	151.31	5 41 26	1165.5	48.23	54.84
155.83	15 34 16	5307.33	41.36	249.42	104.84	151.30	17 2 44	4707.3	48.24	244.07
24.17	5 12 1	1765.47	41.35	60.18	104.82	151.31	5 41 26	1165.5	48.23	54.84
155.83	15 34 16	5307.33	41.36	249.42	104.84	151.30	17 2 44	4707.3	48.24	244.07
24.17	5 12 1	1765.47	41.35	60.18	104.82	151.31	5 41 26	1165.5	48.23	54.84
155.83	15 34 16	5307.33	41.36	249.42	104.84	151.30	17 2 44	4707.3	48.24	244.07

DIFFERENTIAL CORRECTIONS
TDE-2.5963 TRA .0180 TC3-1.9762 BAU .5982
RDE 2.0346 RRA -.1573 RC3 1.0490 FAU .06103
FDE-3.8355 FRA .3514 FC3-2.6418 BSP 14912
BDE 3.2985 BRA .1583 BC3 2.2373 FSP -1539

MID-COURSE EXECUTION ACCURACY
SGT 3767.3 SGR 2826.3 SG3 483.3
RRT -.9735 RRF -.9946 RTF .9776
SGB 4709.6 R23 .1064 R13 -.9898
SG1 4680.7 SG2 520.6 THA 143.33

ORBIT DETERMINATION ACCURACY
ST 3326.8 SR 2612.2 SS 2280.1
CRT -.9983 CRS .9999 CST -.9975
LSA 4802.7 MSA 154.2 SSA 7.3
EL1 4228.1 EL2 120.6 ALF 141.87

LAUNCH DATE AUG 11 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 463.191

```
RL  151.62 LAL    .00 LOL 317.92 VL  26.848 GAL   1.03 AZL  96.68 HCA 210.57 SMA 128.87 ECC .17740 INC 6.6831 V1  29.385
RP  107.63 LAP   3.39 LOP 168.32 VP  37.900 GAR   3.81 AZP  84.24 TAL 175.23 TAP  25.80 RCA 106.01 APO 151.73 V2  35.211
RC 104.339 GL  -47.83 GP   48.85 ZAL  79.47 ZAP 117.51 ETS  32.62 ZAE 121.97 ETE 138.80 ZAC 144.21 ETC 247.10 CLP-134.60
```

PLANETOCENTRIC CONIC

```
C3  17.766 VHL  4.215 DLA -66.85 RAL 220.88 RAD 6567.7 VEL 11.796 PTH   2.09 VHP  5.139 DPA  34.36 RAP 232.44 ECC 1.2924
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.53	5 41 50	1730.37	42.25	56.05	108.02	147.92	6 10 40	1130.4	48.86	50.02
153.47	15 53 40	5286.67	42.25	247.83	108.03	147.91	17 21 47	4686.7	48.86	241.79
26.53	5 41 50	1730.37	42.25	56.05	108.02	147.92	6 10 40	1130.4	48.86	50.02
153.47	15 53 40	5286.67	42.25	247.83	108.03	147.91	17 21 47	4686.7	48.86	241.79
26.53	5 41 50	1730.37	42.25	56.05	108.02	147.92	6 10 40	1130.4	48.86	50.02
153.47	15 53 40	5286.67	42.25	247.83	108.03	147.91	17 21 47	4686.7	48.86	241.79

DIFFERENTIAL CORRECTIONS

```
TDE-2.5380 TRA  .1567 TC3-2.4041 BAU  .6249
RDE 1.6647 RRA -.2179 RC3 1.0688 FAU .06590
FDE-3.6661 FRA  .5666 FC3-3.2111 BSP  15145
BDE 3.0352 BRA  .2684 BC3 2.6309 FSP  -1665
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4037.7 SGR 2549.5 SG3  518.4
RRT -.9754 RRF -.9931 RTF  .9799
SGB 4775.2 R23  .1074 R13 -.9886
SG1 4751.3 SG2  477.5 THA 148.01
```

ORBIT DETERMINATION ACCURACY

```
ST  3454.3 SR  2274.3 SS  2228.2
CRT -.9986 CRS  .9998 CST -.9975
LSA 4695.6 MSA  146.2 SSA    8.4
EL1 4134.6 EL2  100.2 ALF 146.65
```

LAUNCH DATE AUG 11 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 469.345

```
RL  151.62 LAL    .00 LOL 317.92 VL  26.828 GAL   1.20 AZL  96.09 HCA 213.79 SMA 128.74 ECC .17892 INC 6.0874 V1  29.385
RP  107.65 LAP   3.38 LOP 171.56 VP  37.879 GAP   4.18 AZP  84.93 TAL 174.46 TAP  28.25 RCA 105.70 APO 151.77 V2  35.202
RC 106.624 GL  -45.01 GP   44.86 ZAL  77.76 ZAP 121.38 ETS  33.68 ZAE 123.46 ETE 142.70 ZAC 140.53 ETC 249.05 CLP-137.28
```

PLANETOCENTRIC CONIC

```
C3  16.177 VHL  4.022 DLA -64.76 RAL 226.30 RAD 6567.6 VEL 11.729 PTH   2.07 VHP  5.011 DPA  30.60 RAP 230.77 ECC 1.2662
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.97	6 9 1	1700.40	42.61	51.93	110.59	144.59	6 37 21	1100.4	48.93	45.30
151.03	16 9 42	5273.52	42.62	246.43	110.60	144.59	17 37 36	4673.5	48.93	239.80
28.97	6 9 1	1700.40	42.61	51.93	110.59	144.59	6 37 21	1100.4	48.93	45.30
151.03	16 9 42	5273.52	42.62	246.43	110.60	144.59	17 37 36	4673.5	48.93	239.80
28.97	6 9 1	1700.40	42.61	51.93	110.59	144.59	6 37 21	1100.4	48.93	45.30
151.03	16 9 42	5273.52	42.62	246.43	110.60	144.59	17 37 36	4673.5	48.93	239.80

DIFFERENTIAL CORRECTIONS

```
TDE-2.4522 TRA  .2975 TC3-2.8186 BAU  .6504
RDE 1.3662 RRA -.2592 RC3 1.0484 FAU .06890
FDE-3.4110 FRA  .7745 FC3-3.6870 BSP  15399
BDE 2.8071 BRA  .3946 BC3 3.0072 FSP  -1749
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4281.4 SGR 2291.0 SG3  540.3
RRT -.9758 RRF -.9911 RTF  .9812
SGB 4855.9 R23  .1061 R13 -.9875
SG1 4835.5 SG2  443.8 THA 152.18
```

ORBIT DETERMINATION ACCURACY

```
ST  3506.5 SR  1963.6 SS  2130.8
CRT -.9988 CRS  .9997 CST -.9973
LSA 4546.6 MSA  142.3 SSA    9.4
EL1 4018.1 EL2   82.2 ALF 150.77
```

LAUNCH DATE AUG 11 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 475.478

```
RL  151.62 LAL    .00 LOL 317.92 VL  26.807 GAL   1.39 AZL  95.58 HCA 217.01 SMA 128.60 ECC .18060 INC 5.5845 V1  29.385
RP  107.68 LAP   3.36 LOP 174.80 VP  37.855 GAP   4.56 AZP  85.54 TAL 173.65 TAP  30.67 RCA 105.37 APO 151.82 V2  35.193
RC 108.906 GL  -42.26 GP   41.23 ZAL  75.95 ZAP 125.08 ETS  34.47 ZAE 124.53 ETE 146.34 ZAC 137.19 ETC 250.52 CLP-139.83
```

PLANETOCENTRIC CONIC

```
C3  15.041 VHL  3.878 DLA -62.64 RAL 231.13 RAD 6567.6 VEL 11.680 PTH   2.05 VHP  4.950 DPA  27.09 RAP 229.55 ECC 1.2475
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.47	6 34 9	1674.37	42.54	47.92	112.77	141.41	7 2 3	1074.4	48.56	40.80
148.53	16 23 6	5266.63	42.55	245.28	112.78	141.40	17 50 53	4666.6	48.57	238.16
31.47	6 34 9	1674.37	42.54	47.92	112.77	141.41	7 2 3	1074.4	48.56	40.80
148.53	16 23 6	5266.63	42.55	245.28	112.78	141.40	17 50 53	4666.6	48.57	238.16
31.47	6 34 9	1674.37	42.54	47.92	112.77	141.41	7 2 3	1074.4	48.56	40.80
148.53	16 23 6	5266.63	42.55	245.28	112.78	141.40	17 50 53	4666.6	48.57	238.16

DIFFERENTIAL CORRECTIONS

```
TDE-2.3499 TRA  .4411 TC3-3.2083 BAU  .6757
RDE 1.1277 RRA -.2863 RC3  .9995 FAU .07029
FDE-3.1037 FRA  .9666 FC3-4.0461 BSP  15700
BDE 2.6065 BRA  .5259 BC3 3.3604 FSP  -1796
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4500.6 SGR 2055.1 SG3  550.0
RRT -.9750 RRF -.9884 RTF  .9819
SGB 4947.6 R23  .1023 R13 -.9865
SG1 4930.0 SG2  417.0 THA 155.82
```

ORBIT DETERMINATION ACCURACY

```
ST  3498.4 SR  1688.9 SS  2001.4
CRT -.9991 CRS  .9993 CST -.9969
LSA 4367.7 MSA  141.2 SSA   10.4
EL1 3884.2 EL2   65.3 ALF 154.24
```

LAUNCH DATE AUG 11 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 481.591

```
RL  151.62 LAL    .00 LOL 317.92 VL  26.785 GAL   1.60 AZL  95.15 HCA 220.24 SMA 128.45 ECC .18243 INC 5.1517 V1  29.385
RP  107.71 LAP   3.32 LOP 178.04 VP  37.831 GAP   4.93 AZP  86.06 TAL 172.81 TAP  33.04 RCA 105.02 APO 151.89 V2  35.184
RC 111.186 GL  -39.58 GP   37.94 ZAL  74.07 ZAP 128.57 ETS  35.07 ZAE 125.23 ETE 149.67 ZAC 134.19 ETC 251.65 CLP-142.24
```

PLANETOCENTRIC CONIC

```
C3  14.236 VHL  3.773 DLA -60.51 RAL 235.50 RAD 6567.6 VEL 11.646 PTH   2.04 VHP  4.938 DPA  23.83 RAP 228.72 ECC 1.2343
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.00	6 57 45	1651.32	42.13	44.06	114.72	138.42	7 25 16	1051.3	47.85	36.56
146.00	16 34 21	5265.23	42.14	244.43	114.74	138.41	18 2 6	4665.2	47.86	236.93
34.00	6 57 45	1651.32	42.13	44.06	114.72	138.42	7 25 16	1051.3	47.85	36.56
146.00	16 34 21	5265.23	42.14	244.43	114.74	138.41	18 2 6	4665.2	47.86	236.93
34.00	6 57 45	1651.32	42.13	44.06	114.72	138.42	7 25 16	1051.3	47.85	36.56
146.00	16 34 21	5265.23	42.14	244.43	114.74	138.41	18 2 6	4665.2	47.86	236.93

DIFFERENTIAL CORRECTIONS

```
TDE-2.2337 TRA  .5939 TC3-3.5466 BAU  .6974
RDE  .9366 RRA -.3062 RC3  .9207 FAU .06975
FDE-2.7650 FRA 1.1492 FC3-4.2418 BSP  15887
BDE 2.4221 BRA  .6682 BC3 3.6641 FSP  -1792
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4692.9 SGR 1843.3 SG3  549.5
RRT -.9727 RRF -.9848 RTF  .9818
SGB 5042.0 R23  .0982 R13 -.9853
SG1 5026.1 SG2  399.7 THA 158.95
```

ORBIT DETERMINATION ACCURACY

```
ST  3437.1 SR  1450.3 SS  1848.4
CRT -.9993 CRS  .9986 CST -.9962
LSA 4160.9 MSA  144.1 SSA   11.4
EL1 3730.2 EL2   49.7 ALF 157.13
```

LAUNCH DATE AUG 11 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 487.682

```
RL  151.62 LAL    .00 LOL 317.92 VL  26.762 GAL   1.81 AZL  94.77 HCA 223.46 SMA 128.30 ECC .18441 INC 4.7732 V1  29.385
RP  107.74 LAP   3.28 LOP 181.28 VP  37.805 GAP   5.30 AZP  86.53 TAL 171.93 TAP  35.39 RCA 104.64 APO 151.96 V2  35.174
RC 113.462 GL  -36.99 GP   34.99 ZAL  72.11 ZAP 131.84 ETS  35.53 ZAE 125.66 ETE 152.68 ZAC 131.53 ETC 252.55 CLP-144.51
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PLANETOCENTRIC CONIC

```
C3  13.687 VHL  3.700 DLA -58.39 RAL 239.49 RAD 6567.5 VEL 11.622 PTH   2.04 VHP  4.966 DPA  20.81 RAP 228.24 ECC 1.2253
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.54	7 20 10	1630.54	41.43	40.36	116.57	135.64	7 47 21	1030.5	46.88	32.60
143.46	16 43 47	5268.74	41.45	243.89	116.58	135.63	18 11 36	4668.7	46.89	236.12
36.54	7 20 10	1630.54	41.43	40.36	116.57	135.64	7 47 21	1030.5	46.88	32.60
143.46	16 43 47	5268.74	41.45	243.89	116.58	135.63	18 11 36	4668.7	46.89	236.12
36.54	7 20 10	1630.54	41.43	40.36	116.57	135.64	7 47 21	1030.5	46.88	32.60
143.46	16 43 47	5268.74	41.45	243.89	116.58	135.63	18 11 36	4668.7	46.89	236.12

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1155 TRA  .7473 TC3-3.8505 BAU  .7211   SGT 4870.9 SGR 1658.6 SG3  541.5     ST  3343.6 SR  1253.0 SS  1690.8
RDE  .7884 RRA -.3168 RC3  .8378 FAU .06850   RRT -.9695 RRF -.9801 RTF  .9818     CRT -.9996 CRS  .9974 CST -.9952
FDE-2.4319 FRA 1.3030 FC3-4.3327 BSP  16220   SGB 5145.5 R23  .0908 R13 -.9844     LSA 3948.0 MSA  148.0 SSA   12.4
BDE 2.2576 BRA  .8116 BC3 3.9406 FSP  -1781   SG1 5131.0 SG2  385.7 THA 161.62     EL1 3570.5 EL2   33.6 ALF 159.46
```

LAUNCH DATE AUG 11 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 493.749

```
RL  151.62 LAL    .00 LOL 317.92 VL  26.738 GAL   2.04 AZL  94.44 HCA 226.68 SMA 128.14 ECC .18657 INC 4.4373 V1  29.385
RP  107.77 LAP   3.23 LOP 184.52 VP  37.779 GAP   5.68 AZP  86.95 TAL 171.02 TAP  37.70 RCA 104.23 APO 152.05 V2  35.164
RC 115.736 GL  -34.47 GP   32.34 ZAL  70.10 ZAP 134.89 ETS  35.89 ZAE 125.86 ETE 155.36 ZAC 129.18 ETC 253.30 CLP-146.65
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PLANETOCENTRIC CONIC

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C3  13.344 VHL  3.653 DLA -56.28 RAL 243.17 RAD 6567.5 VEL 11.607 PTH   2.03 VHP  5.026 DPA  18.02 RAP 228.06 ECC 1.2196
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.10	7 41 41	1611.45	40.52	36.85	118.37	133.08	8 8 32	1011.4	45.70	28.90
140.90	16 51 39	5276.77	40.53	243.69	118.38	133.07	18 19 36	4676.8	45.71	235.73
39.10	7 41 41	1611.45	40.52	36.85	118.37	133.08	8 8 32	1011.4	45.70	28.90
140.90	16 51 39	5276.77	40.53	243.69	118.38	133.07	18 19 36	4676.8	45.71	235.73
39.10	7 41 41	1611.45	40.52	36.85	118.37	133.08	8 8 32	1011.4	45.70	28.90
140.90	16 51 39	5276.77	40.53	243.69	118.38	133.07	18 19 36	4676.8	45.71	235.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0060 TRA  .8942 TC3-4.1376 BAU  .7507   SGT 5041.8 SGR 1500.7 SG3  528.5     ST  3237.6 SR  1097.5 SS  1544.4
RDE  .6782 RRA -.3181 RC3  .7659 FAU .06740   RRT -.9659 RRF -.9742 RTF  .9823     CRT -.9998 CRS  .9953 CST -.9942
FDE-2.1336 FRA 1.4167 FC3-4.3727 BSP  16849   SGB 5260.4 R23  .0778 R13 -.9841     LSA 3748.2 MSA  150.7 SSA   13.2
BDE 2.1175 BRA  .9491 BC3 4.2079 FSP  -1791   SG1 5247.2 SG2  373.1 THA 163.88     EL1 3418.6 EL2   18.0 ALF 161.28
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LAUNCH DATE AUG 11 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 499.795

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RL  151.62 LAL    .00 LOL 317.92 VL  26.713 GAL   2.29 AZL  94.14 HCA 229.90 SMA 127.97 ECC .18889 INC 4.1355 V1  29.385
RP  107.80 LAP   3.16 LOP 187.75 VP  37.751 GAP   6.05 AZP  87.33 TAL 170.07 TAP  39.98 RCA 103.80 APO 152.15 V2  35.153
RC 118.005 GL  -32.03 GP   29.98 ZAL  68.05 ZAP 137.73 ETS  36.21 ZAE 125.91 ETE 157.72 ZAC 127.11 ETC 253.92 CLP-148.68
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PLANETOCENTRIC CONIC

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C3  13.173 VHL  3.629 DLA -54.19 RAL 246.60 RAD 6567.5 VEL 11.600 PTH   2.03 VHP  5.111 DPA  15.44 RAP 228.15 ECC 1.2168
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.66	8 2 32	1593.56	39.43	33.52	120.19	130.75	8 29 6	993.6	44.36	25.46
138.34	16 58 8	5289.07	39.44	243.83	120.20	130.74	18 26 17	4689.1	44.37	235.76
41.66	8 2 32	1593.56	39.43	33.52	120.19	130.75	8 29 6	993.6	44.36	25.46
138.34	16 58 8	5289.07	39.44	243.83	120.20	130.74	18 26 17	4689.1	44.37	235.76
41.66	8 2 32	1593.56	39.43	33.52	120.19	130.75	8 29 6	993.6	44.36	25.46
138.34	16 58 8	5289.07	39.44	243.83	120.20	130.74	18 26 17	4689.1	44.37	235.76

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8749 TRA 1.0679 TC3-4.3072 BAU  .7675   SGT 5180.2 SGR 1360.4 SG3  510.4     ST  3084.7 SR   959.1 SS  1382.6
RDE  .5842 RRA -.3247 RC3  .6649 FAU .06388   RRT -.9595 RRF -.9666 RTF  .9813     CRT -.9999 CRS  .9910 CST -.9920
FDE-1.8175 FRA 1.5451 FC3-4.1984 BSP  16953   SGB 5355.9 R23  .0716 R13 -.9827     LSA 3510.1 MSA  161.8 SSA   14.0
BDE 1.9638 BRA 1.1161 BC3 4.3582 FSP  -1712   SG1 5343.0 SG2  371.4 THA 165.79     EL1 3230.4 EL2   15.3 ALF 162.73
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LAUNCH DATE AUG 11 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 505.816

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RL  151.62 LAL    .00 LOL 317.92 VL  26.687 GAL   2.55 AZL  93.86 HCA 233.12 SMA 127.80 ECC .19140 INC 3.8611 V1  29.385
RP  107.84 LAP   3.09 LOP 190.98 VP  37.722 GAP   6.43 AZP  87.68 TAL 169.10 TAP  42.22 RCA 103.34 APO 152.27 V2  35.141
RC 120.271 GL  -29.67 GP   27.86 ZAL  65.96 ZAP 140.37 ETS  36.50 ZAE 125.83 ETE 159.80 ZAC 125.30 ETC 254.46 CLP-150.59
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PLANETOCENTRIC CONIC

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C3  13.154 VHL  3.627 DLA -52.13 RAL 249.80 RAD 6567.5 VEL 11.599 PTH   2.03 VHP  5.217 DPA  13.06 RAP 228.47 ECC 1.2165
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.21	8 22 51	1576.58	38.21	30.36	122.05	128.63	8 49 8	976.6	42.90	22.24
135.79	17 3 21	5305.41	38.22	244.31	122.06	128.62	18 31 47	4705.4	42.91	236.19
44.21	8 22 51	1576.58	38.21	30.36	122.05	128.63	8 49 8	976.6	42.90	22.24
135.79	17 3 21	5305.41	38.22	244.31	122.06	128.62	18 31 47	4705.4	42.91	236.19
44.21	8 22 51	1576.58	38.21	30.36	122.05	128.63	8 49 8	976.6	42.90	22.24
135.79	17 3 21	5305.41	38.22	244.31	122.06	128.62	18 31 47	4705.4	42.91	236.19

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7499 TRA 1.2416 TC3-4.4409 BAU  .7875   SGT 5312.9 SGR 1242.5 SG3  490.5     ST  2927.5 SR   850.8 SS  1238.0
RDE  .5142 RRA -.3269 RC3  .5784 FAU .06062   RRT -.9521 RRF -.9575 RTF  .9807     CRT -.9993 CRS  .9837 CST -.9892
FDE-1.5403 FRA 1.6456 FC3-3.9898 BSP  17233   SGB 5456.3 R23  .0626 R13 -.9818     LSA 3285.8 MSA  173.5 SSA   14.6
BDE 1.8239 BRA 1.2839 BC3 4.4784 FSP  -1650   SG1 5443.7 SG2  370.7 THA 167.39     EL1 3048.5 EL2   30.4 ALF 163.80
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LAUNCH DATE AUG 11 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 511.812

RL 151.62 LAL .00 LOL 317.92 VL 26.661 GAL 2.83 AZL 93.61 HCA 236.34 SMA 127.63 ECC .19410 INC 3.6092 V1 29.385
RP 107.87 LAP 3.00 LOP 194.21 VP 37.692 GAP 6.81 AZP 88.00 TAL 168.10 TAP 44.44 RCA 102.86 APO 152.40 V2 35.130
RC 122.531 GL -27.40 GP 25.98 ZAL 63.86 ZAP 142.82 ETS 36.80 ZAE 125.67 ETE 161.62 ZAC 123.72 ETC 254.95 CLP-152.40

PLANETOCENTRIC CONIC

C3 13.272 VHL 3.643 DLA -50.11 RAL 252.80 RAD 6567.5 VEL 11.604 PTH 2.03 VHP 5.342 DPA 10.85 RAP 228.99 ECC 1.2184

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.77	8 42 48	1560.10	36.87	27.34	123.96	126.70	9 8 48	960.1	41.35	19.21
133.23	17 7 22	5325.76	36.88	245.13	123.97	126.69	18 36 8	4725.8	41.36	237.00
46.77	8 42 48	1560.10	36.87	27.34	123.96	126.70	9 8 48	960.1	41.35	19.21
133.23	17 7 22	5325.76	36.88	245.13	123.97	126.69	18 36 8	4725.8	41.36	237.00
46.77	8 42 48	1560.10	36.87	27.34	123.96	126.70	9 8 48	960.1	41.35	19.21
133.23	17 7 22	5325.76	36.88	245.13	123.97	126.69	18 36 8	4725.8	41.36	237.00

DIFFERENTIAL CORRECTIONS
TDE-1.6265 TRA 1.4204 TC3-4.5234 BAU .8075
RDE .4611 RRA -.3278 RC3 .4998 FAU .05723
FDE-1.2929 FRA 1.7281 FC3-3.7332 BSP 17551
BDE 1.6906 BRA 1.4578 BC3 4.5509 FSP -1587

MID-COURSE EXECUTION ACCURACY
SGT 5434.9 SGR 1142.2 SG3 469.2
RRT -.9432 RRF -.9466 RTF .9801
SGB 5553.6 R23 .0536 R13 -.9809
SG1 5541.1 SG2 372.2 THA 168.74

ORBIT DETERMINATION ACCURACY
ST 2765.0 SR 764.4 SS 1107.4
CRT -.9975 CRS .9717 CST -.9854
LSA 3069.3 MSA 187.4 SSA 15.1
EL1 2868.3 EL2 51.7 ALF 164.58

LAUNCH DATE AUG 11 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 517.780

RL 151.62 LAL .00 LOL 317.92 VL 26.634 GAL 3.12 AZL 93.38 HCA 239.56 SMA 127.45 ECC .19699 INC 3.3756 V1 29.385
RP 107.91 LAP 2.91 LOP 197.44 VP 37.662 GAP 7.19 AZP 88.29 TAL 167.08 TAP 46.63 RCA 102.35 APO 152.56 V2 35.118
RC 124.786 GL -25.21 GP 24.29 ZAL 61.77 ZAP 145.10 ETS 37.13 ZAE 125.45 ETE 163.20 ZAC 122.34 ETC 255.39 CLP-154.12

PLANETOCENTRIC CONIC

C3 13.519 VHL 3.677 DLA -48.12 RAL 255.63 RAD 6567.5 VEL 11.615 PTH 2.04 VHP 5.482 DPA 8.79 RAP 229.70 ECC 1.2225

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.31	9 2 29	1543.82	35.46	24.45	125.94	124.97	9 28 13	943.8	39.75	16.34
130.69	17 10 13	5350.07	35.47	246.29	125.95	124.95	18 39 23	4750.1	39.76	238.18
49.31	9 2 29	1543.82	35.46	24.45	125.94	124.97	9 28 13	943.8	39.75	16.34
130.69	17 10 13	5350.07	35.47	246.29	125.95	124.95	18 39 23	4750.1	39.76	238.18
49.31	9 2 29	1543.82	35.46	24.45	125.94	124.97	9 28 13	943.8	39.75	16.34
130.69	17 10 13	5350.07	35.47	246.29	125.95	124.95	18 39 23	4750.1	39.76	238.18

DIFFERENTIAL CORRECTIONS
TDE-1.5037 TRA 1.6066 TC3-4.5517 BAU .8263
RDE .4211 RRA -.3283 RC3 .4290 FAU .05373
FDE-1.0726 FRA 1.7973 FC3-3.4409 BSP 17867
BDE 1.5615 BRA 1.6398 BC3 4.5718 FSP -1522

MID-COURSE EXECUTION ACCURACY
SGT 5546.1 SGR 1057.1 SG3 447.3
RRT -.9326 RRF -.9339 RTF .9794
SGB 5646.0 R23 .0450 R13 -.9801
SG1 5633.5 SG2 375.6 THA 169.87

ORBIT DETERMINATION ACCURACY
ST 2601.2 SR 695.3 SS 991.8
CRT -.9936 CRS .9526 CST -.9805
LSA 2862.1 MSA 203.9 SSA 15.5
EL1 2691.5 EL2 76.0 ALF 165.11

LAUNCH DATE AUG 11 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 523.721

RL 151.62 LAL .00 LOL 317.92 VL 26.606 GAL 3.43 AZL 93.16 HCA 242.77 SMA 127.27 ECC .20010 INC 3.1570 V1 29.385
RP 107.95 LAP 2.81 LOP 200.66 VP 37.631 GAP 7.58 AZP 88.55 TAL 166.03 TAP 48.80 RCA 101.81 APO 152.74 V2 35.105
RC 127.036 GL -23.10 GP 22.78 ZAL 59.68 ZAP 147.22 ETS 37.52 ZAE 125.20 ETE 164.58 ZAC 121.14 ETC 255.81 CLP-155.76

PLANETOCENTRIC CONIC

C3 13.893 VHL 3.727 DLA -46.19 RAL 258.29 RAD 6567.5 VEL 11.631 PTH 2.04 VHP 5.638 DPA 6.89 RAP 230.57 ECC 1.2286

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.85	9 22 2	1527.41	33.99	21.66	127.98	123.40	9 47 30	927.4	38.10	13.59
128.15	17 11 54	5378.41	34.00	247.79	127.99	123.39	18 41 32	4778.4	38.11	239.72
51.85	9 22 2	1527.41	33.99	21.66	127.98	123.40	9 47 30	927.4	38.10	13.59
128.15	17 11 54	5378.41	34.00	247.79	127.99	123.39	18 41 32	4778.4	38.11	239.72
51.85	9 22 2	1527.41	33.99	21.66	127.98	123.40	9 47 30	927.4	38.10	13.59
128.15	17 11 54	5378.41	34.00	247.79	127.99	123.39	18 41 32	4778.4	38.11	239.72

DIFFERENTIAL CORRECTIONS
TDE-1.3814 TRA 1.8008 TC3-4.5299 BAU .8441
RDE .3913 RRA -.3293 RC3 .3665 FAU .05023
FDE -.8781 FRA 1.8560 FC3-3.1302 BSP 18169
BDE 1.4358 BRA 1.8307 BC3 4.5447 FSP -1456

MID-COURSE EXECUTION ACCURACY
SGT 5648.3 SGR 985.5 SG3 425.5
RRT -.9205 RRF -.9196 RTF .9788
SGB 5733.6 R23 .0371 R13 -.9793
SG1 5721.0 SG2 380.1 THA 170.83

ORBIT DETERMINATION ACCURACY
ST 2441.0 SR 640.3 SS 892.3
CRT -.9861 CRS .9239 CST -.9743
LSA 2667.3 MSA 223.1 SSA 15.7
EL1 2521.5 EL2 103.0 ALF 165.47

LAUNCH DATE AUG 11 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 529.633

RL 151.62 LAL .00 LOL 317.92 VL 26.578 GAL 3.76 AZL 92.95 HCA 245.99 SMA 127.09 ECC .20344 INC 2.9509 V1 29.385
RP 107.99 LAP 2.70 LOP 203.88 VP 37.599 GAP 7.97 AZP 88.80 TAL 164.96 TAP 50.94 RCA 101.24 APO 152.95 V2 35.093
RC 129.278 GL -21.09 GP 21.43 ZAL 57.61 ZAP 149.20 ETS 37.97 ZAE 124.93 ETE 165.78 ZAC 120.10 ETC 256.21 CLP-157.33

PLANETOCENTRIC CONIC

C3 14.394 VHL 3.794 DLA -44.31 RAL 260.80 RAD 6567.6 VEL 11.652 PTH 2.05 VHP 5.806 DPA 5.11 RAP 231.59 ECC 1.2369

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.37	9 41 34	1510.61	32.48	18.95	130.09	121.98	10 6 44	910.6	36.44	10.93
125.63	17 12 25	5410.83	32.49	249.64	130.10	121.97	18 42 36	4810.8	36.45	241.61
54.37	9 41 34	1510.61	32.48	18.95	130.09	121.98	10 6 44	910.6	36.44	10.93
125.63	17 12 25	5410.83	32.49	249.64	130.10	121.97	18 42 36	4810.8	36.45	241.61
54.37	9 41 34	1510.61	32.48	18.95	130.09	121.98	10 6 44	910.6	36.44	10.93
125.63	17 12 25	5410.83	32.49	249.64	130.10	121.97	18 42 36	4810.8	36.45	241.61

DIFFERENTIAL CORRECTIONS
TDE-1.2596 TRA 2.0039 TC3-4.4615 BAU .8607
RDE .3696 RRA -.3310 RC3 .3117 FAU .04674
FDE -.7066 FRA 1.9061 FC3-2.8113 BSP 18456
BDE 1.3127 BRA 2.0310 BC3 4.4724 FSP -1390

MID-COURSE EXECUTION ACCURACY
SGT 5741.4 SGR 924.9 SG3 404.1
RRT -.9070 RRF -.9040 RTF .9781
SGB 5815.5 R23 .0304 R13 -.9785
SG1 5802.7 SG2 385.3 THA 171.65

ORBIT DETERMINATION ACCURACY
ST 2288.8 SR 596.2 SS 808.8
CRT -.9734 CRS .8832 CST -.9668
LSA 2487.5 MSA 244.9 SSA 15.8
EL1 2361.5 EL2 132.4 ALF 165.73

LAUNCH DATE AUG 11 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 535.512
RL 151.62 LAL .00 LOL 317.92 VL 26.549 GAL 4.11 AZL 92.76 HCA 249.20 SMA 126.91 ECC .20703 INC 2.7550 VI 29.385
RP 108.03 LAP 2.58 LOP 207.10 VP 37.567 GAP 8.37 AZP 89.02 TAL 163.87 TAP 53.06 RCA 100.63 APO 153.18 V2 35.080
RC 131.513 GL -19.17 GP 20.21 ZAL 55.59 ZAP 151.05 ETS 38.50 ZAE 124.64 ETE 166.83 ZAC 119.20 ETC 256.60 CLP-158.82
PLANETOCENTRIC CONIC
C3 15.025 VHL 3.876 DLA -42.49 RAL 263.17 RAD 6567.6 VEL 11.679 PTH 2.05 VHP 5.988 DPA 3.44 RAP 232.73 ECC 1.2473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.90	10 1 7	1493.14	30.95	16.29	132.26	120.70	10 26 0	893.1	34.76	8.33
123.10	17 11 47	5447.41	30.96	251.82	132.27	120.69	18 42 35	4847.4	34.77	243.86
56.90	10 1 7	1493.14	30.95	16.29	132.26	120.70	10 26 0	893.1	34.76	8.33
123.10	17 11 47	5447.41	30.96	251.82	132.27	120.69	18 42 35	4847.4	34.77	243.86
56.90	10 1 7	1493.14	30.95	16.29	132.26	120.70	10 26 0	893.1	34.76	8.33
123.10	17 11 47	5447.41	30.96	251.82	132.27	120.69	18 42 35	4847.4	34.77	243.86

DIFFERENTIAL CORRECTIONS
TDE-1.1510 TRA 2.2029 TC3-4.3877 BAU .8831
RDE .3570 RRA -.3312 RC3 .2718 FAU .04403
FDE -.5705 FRA 1.9358 FC3-2.5371 BSP 19050
BDE 1.2051 BRA 2.2277 BC3 4.3961 FSP -1354

MID-COURSE EXECUTION ACCURACY
SGT 5827.8 SGR 873.8 SG3 382.8
RRT -.8927 RRF -.8872 RTF .9781
SGB 5892.9 R23 .0225 R13 -.9783
SG1 5880.0 SG2 390.3 THA 172.34

ORBIT DETERMINATION ACCURACY
ST 2158.6 SR 564.0 SS 744.2
CRT -.9546 CRS .8346 CST -.9605
LSA 2336.9 MSA 265.1 SSA 15.7
EL1 2225.1 EL2 163.1 ALF 165.92

LAUNCH DATE AUG 11 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 541.360
RL 151.62 LAL .00 LOL 317.92 VL 26.520 GAL 4.48 AZL 92.57 HCA 252.41 SMA 126.72 ECC .21087 INC 2.5674 VI 29.385
RP 108.07 LAP 2.45 LOP 210.31 VP 37.535 GAP 8.78 AZP 89.22 TAL 162.76 TAP 55.16 RCA 100.00 APO 153.44 V2 35.067
RC 133.740 GL -17.34 GP 19.12 ZAL 53.60 ZAP 152.78 ETS 39.14 ZAE 124.36 ETE 167.74 ZAC 118.41 ETC 256.98 CLP-160.26
PLANETOCENTRIC CONIC
C3 15.793 VHL 3.974 DLA -40.72 RAL 265.42 RAD 6567.6 VEL 11.712 PTH 2.06 VHP 6.181 DPA 1.89 RAP 233.99 ECC 1.2599

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.42	10 20 54	1474.57	29.41	13.64	134.50	119.55	10 45 29	874.6	33.10	5.75
120.58	17 9 56	5488.42	29.42	254.35	134.51	119.53	18 41 24	4888.4	33.11	246.45
59.42	10 20 54	1474.57	29.41	13.64	134.50	119.55	10 45 29	874.6	33.10	5.75
120.58	17 9 56	5488.42	29.42	254.35	134.51	119.53	18 41 24	4888.4	33.11	246.45
59.42	10 20 54	1474.57	29.41	13.64	134.50	119.55	10 45 29	874.6	33.10	5.75
120.58	17 9 56	5488.42	29.42	254.35	134.51	119.53	18 41 24	4888.4	33.11	246.45

DIFFERENTIAL CORRECTIONS
TDE-1.0195 TRA 2.4351 TC3-4.2171 BAU .8917
RDE .3448 RRA -.3367 RC3 .2259 FAU .04020
FDE -.4270 FRA 1.9835 FC3-2.2037 BSP 19066
BDE 1.0762 BRA 2.4583 BC3 4.2231 FSP -1268

MID-COURSE EXECUTION ACCURACY
SGT 5903.9 SGR 830.5 SG3 363.3
RRT -.8770 RRF -.8698 RTF .9770
SGB 5962.0 R23 .0189 R13 -.9771
SG1 5948.8 SG2 396.0 THA 172.94

ORBIT DETERMINATION ACCURACY
ST 2025.4 SR 533.0 SS 688.8
CRT -.9248 CRS .7621 CST -.9507
LSA 2185.0 MSA 293.4 SSA 15.7
EL1 2085.0 EL2 197.0 ALF 166.20

LAUNCH DATE AUG 11 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 547.172
RL 151.62 LAL .00 LOL 317.92 VL 26.491 GAL 4.86 AZL 92.39 HCA 255.61 SMA 126.53 ECC .21500 INC 2.3864 VI 29.385
RP 108.11 LAP 2.31 LOP 213.53 VP 37.502 GAP 9.20 AZP 89.41 TAL 161.63 TAP 57.25 RCA 99.33 APO 153.73 V2 35.054
RC 135.957 GL -15.60 GP 18.14 ZAL 51.66 ZAP 154.41 ETS 39.89 ZAE 124.07 ETE 168.54 ZAC 117.73 ETC 257.37 CLP-161.64
PLANETOCENTRIC CONIC
C3 16.706 VHL 4.087 DLA -39.03 RAL 267.54 RAD 6567.7 VEL 11.751 PTH 2.07 VHP 6.387 DPA .43 RAP 235.35 ECC 1.2749

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.94	10 41 1	1454.46	27.88	10.98	136.79	118.50	11 5 16	854.5	31.45	3.15
118.06	17 6 45	5534.16	27.89	257.24	136.80	118.49	18 38 59	4934.2	31.46	249.42
61.94	10 41 1	1454.46	27.88	10.98	136.79	118.50	11 5 16	854.5	31.45	3.15
118.06	17 6 45	5534.16	27.89	257.24	136.80	118.49	18 38 59	4934.2	31.46	249.42
61.94	10 41 1	1454.46	27.88	10.98	136.79	118.50	11 5 16	854.5	31.45	3.15
118.06	17 6 45	5534.16	27.89	257.24	136.80	118.49	18 38 59	4934.2	31.46	249.42

DIFFERENTIAL CORRECTIONS
TDE -.8950 TRA 2.6707 TC3-4.0367 BAU .9026
RDE .3384 RRA -.3420 RC3 .1904 FAU .03687
FDE -.3084 FRA 2.0193 FC3-1.9107 BSP 19237
BDE .9568 BRA 2.6925 BC3 4.0412 FSP -1200

MID-COURSE EXECUTION ACCURACY
SGT 5973.9 SGR 793.7 SG3 344.6
RRT -.8610 RRF -.8519 RTF .9762
SGB 6026.4 R23 .0150 R13 -.9763
SG1 6013.0 SG2 401.1 THA 173.44

ORBIT DETERMINATION ACCURACY
ST 1916.8 SR 509.2 SS 649.2
CRT -.8844 CRS .6805 CST -.9434
LSA 2062.1 MSA 320.0 SSA 15.6
EL1 1969.7 EL2 231.2 ALF 166.59

LAUNCH DATE AUG 11 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 552.945
RL 151.62 LAL .00 LOL 317.92 VL 26.461 GAL 5.28 AZL 92.21 HCA 258.82 SMA 126.34 ECC .21943 INC 2.2108 VI 29.385
RP 108.15 LAP 2.17 LOP 216.73 VP 37.468 GAP 9.63 AZP 89.57 TAL 160.50 TAP 59.32 RCA 98.62 APO 154.06 V2 35.041
RC 138.166 GL -13.95 GP 17.25 ZAL 49.78 ZAP 155.94 ETS 40.77 ZAE 123.79 ETE 169.23 ZAC 117.14 ETC 257.76 CLP-162.97
PLANETOCENTRIC CONIC
C3 17.777 VHL 4.216 DLA -37.39 RAL 269.55 RAD 6567.7 VEL 11.797 PTH 2.09 VHP 6.606 DPA -.94 RAP 236.80 ECC 1.2926

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.49	11 1 38	1432.36	26.36	8.24	139.14	117.54	11 25 30	832.4	29.82	.49
115.51	17 2 10	5584.96	26.37	260.52	139.14	117.53	18 35 15	4985.0	29.83	252.76
64.49	11 1 38	1432.36	26.36	8.24	139.14	117.54	11 25 30	832.4	29.82	.49
115.51	17 2 10	5584.96	26.37	260.52	139.14	117.53	18 35 15	4985.0	29.83	252.76
64.49	11 1 38	1432.36	26.36	8.24	139.14	117.54	11 25 30	832.4	29.82	.49
115.51	17 2 10	5584.96	26.37	260.52	139.14	117.53	18 35 15	4985.0	29.83	252.76

DIFFERENTIAL CORRECTIONS
TDE -.7723 TRA 2.9149 TC3-3.8390 BAU .9132
RDE .3356 RRA -.3480 RC3 .1612 FAU .03378
FDE -.2064 FRA 2.0491 FC3-1.6449 BSP 19443
BDE .8420 BRA 2.9356 BC3 3.8424 FSP -1140

MID-COURSE EXECUTION ACCURACY
SGT 6036.5 SGR 762.0 SG3 326.6
RRT -.8448 RRF -.8341 RTF .9756
SGB 6084.4 R23 .0116 R13 -.9757
SG1 6070.9 SG2 405.4 THA 173.89

ORBIT DETERMINATION ACCURACY
ST 1829.8 SR 489.8 SS 621.6
CRT -.8325 CRS .5921 CST -.9390
LSA 1963.4 MSA 345.0 SSA 15.4
EL1 1875.6 EL2 264.7 ALF 167.18

LAUNCH DATE AUG 11 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 558.673

RL	151.62	LAL	.00	LOL	317.92	VL	26.431	GAL	5.71	AZL	92.04	HCA	262.02	SMA	126.15	ECC	.22420	INC	2.0391
RP	108.19	LAP	2.02	LOP	219.94	VP	37.435	GAP	10.08	AZP	89.72	TAL	159.35	TAP	61.37	RCA	97.87	APO	154.43
RC	140.364	GL	-12.39	GP	16.45	ZAL	47.96	ZAP	157.38	ETS	41.80	ZAE	123.52	ETE	169.85	ZAC	116.63	ETC	258.16

V1	29.385	V2	35.028	CLP	-164.26														

PLANETOCENTRIC CONIC

C3	19.018	VHL	4.361	DLA	-35.83	RAL	271.45	RAD	6567.8	VEL	11.849	PTH	2.10	VHP	6.838	DPA	-2.22	RAP	238.34
ECC	1.3130																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.07	11 22 57	1407.55	24.85	5.39	141.52	116.68	11 46 25	807.5	28.22	357.70
112.93	16 56 0	5641.41	24.87	264.22	141.53	116.67	18 30 1	5041.4	28.24	256.52
67.07	11 22 57	1407.55	24.85	5.39	141.52	116.68	11 46 25	807.5	28.22	357.70
112.93	16 56 0	5641.41	24.87	264.22	141.53	116.67	18 30 1	5041.4	28.24	256.52
67.07	11 22 57	1407.55	24.85	5.39	141.52	116.68	11 46 25	807.5	28.22	357.70
112.93	16 56 0	5641.41	24.87	264.22	141.53	116.67	18 30 1	5041.4	28.24	256.52

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.6725	TRA	3.1472	TC3	-3.6737	BAU	.9348	SGT	6087.4	SGR	734.4	SG3	308.5	ST	1769.4	SR	477.0	SS	601.0
RDE	.3389	RRA	-.3520	RC3	.1441	FAU	.03176	RRT	-.8287	RRF	-.8164	RTF	.9759	CRT	-.7767	CRS	.5177	CST	-.9406
FDE	-.1366	FRA	2.0583	FC3	-1.4457	BSP	20207	SGB	6131.6	R23	.0072	R13	-.9759	LSA	1894.1	MSA	362.8	SSA	15.1
BDE	.7531	BRA	3.1668	BC3	3.6766	FSP	-1123	SG1	6117.9	SG2	409.0	THA	174.27	EL1	1808.9	EL2	293.9	ALF	167.85

LAUNCH DATE AUG 11 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 564.360

RL	151.62	LAL	.00	LOL	317.92	VL	26.401	GAL	6.18	AZL	91.87	HCA	265.22	SMA	125.96	ECC	.22933	INC	1.8702
RP	108.23	LAP	1.86	LOP	223.14	VP	37.401	GAP	10.54	AZP	89.84	TAL	158.20	TAP	63.42	RCA	97.07	APO	154.85
RC	142.552	GL	-10.92	GP	15.73	ZAL	46.21	ZAP	158.74	ETS	43.00	ZAE	123.25	ETE	170.38	ZAC	116.18	ETC	258.57

V1	29.385	V2	35.014	CLP	-165.50														

PLANETOCENTRIC CONIC

C3	20.451	VHL	4.522	DLA	-34.33	RAL	273.25	RAD	6567.8	VEL	11.909	PTH	2.12	VHP	7.084	DPA	-3.43	RAP	239.96
ECC	1.3366																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.72	11 45 21	1378.92	23.38	2.33	143.96	115.89	12 8 20	778.9	26.66	354.70
110.28	16 47 58	5704.52	23.39	268.41	143.97	115.88	18 23 2	5104.5	26.67	260.77
69.72	11 45 21	1378.92	23.38	2.33	143.96	115.89	12 8 20	778.9	26.66	354.70
110.28	16 47 58	5704.52	23.39	268.41	143.97	115.88	18 23 2	5104.5	26.67	260.77
69.72	11 45 21	1378.92	23.38	2.33	143.96	115.89	12 8 20	778.9	26.66	354.70
110.28	16 47 58	5704.52	23.39	268.41	143.97	115.88	18 23 2	5104.5	26.67	260.77

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5261	TRA	3.4387	TC3	-3.3993	BAU	.9300	SGT	6142.6	SGR	710.4	SG3	293.6	ST	1719.8	SR	459.6	SS	593.0
RDE	.3379	RRA	-.3631	RC3	.1165	FAU	.02806	RRT	-.8131	RRF	-.7997	RTF	.9746	CRT	-.6960	CRS	.4116	CST	-.9405
FDE	-.0398	FRA	2.1009	FC3	-1.1879	BSP	19841	SGB	6183.5	R23	.0062	R13	-.9747	LSA	1836.1	MSA	386.3	SSA	15.0
BDE	.6252	BRA	3.4579	BC3	3.4013	FSP	-1029	SG1	6169.8	SG2	411.7	THA	174.60	EL1	1750.4	EL2	324.2	ALF	169.08

LAUNCH DATE AUG 11 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 569.995

RL	151.62	LAL	.00	LOL	317.92	VL	26.371	GAL	6.67	AZL	91.70	HCA	268.42	SMA	125.77	ECC	.23485	INC	1.7030
RP	108.27	LAP	1.70	LOP	226.34	VP	37.367	GAP	11.01	AZP	89.95	TAL	157.04	TAP	65.46	RCA	96.23	APO	155.31
RC	144.730	GL	-9.53	GP	15.07	ZAL	44.53	ZAP	160.02	ETS	44.39	ZAE	122.99	ETE	170.86	ZAC	115.79	ETC	258.98

V1	29.385	V2	35.001	CLP	-166.72														

PLANETOCENTRIC CONIC

C3	22.095	VHL	4.701	DLA	-32.90	RAL	274.95	RAD	6567.9	VEL	11.978	PTH	2.13	VHP	7.345	DPA	-4.56	RAP	241.64
ECC	1.3636																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.50	12 9 17	1344.93	21.94	358.95	146.44	115.16	12 31 42	744.9	25.14	351.37
107.50	16 37 36	5775.71	21.95	273.19	146.44	115.15	18 13 52	5175.7	25.15	265.60
72.50	12 9 17	1344.93	21.94	358.95	146.44	115.16	12 31 42	744.9	25.14	351.37
107.50	16 37 36	5775.71	21.95	273.19	146.44	115.15	18 13 52	5175.7	25.15	265.60
110.00	15 42 24	657.60	15.64	304.87	142.91	120.79	15 53 22	57.6	19.61	297.99
110.00	18 3 40	5511.03	28.54	255.72	149.45	109.66	19 35 31	4911.0	30.95	247.35

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4016	TRA	3.7198	TC3	-3.1666	BAU	.9358	SGT	6186.0	SGR	688.7	SG3	278.5	ST	1694.8	SR	447.2	SS	587.8
RDE	.3419	RRA	-.3722	RC3	.0993	FAU	.02542	RRT	-.7980	RRF	-.7835	RTF	.9743	CRT	-.6161	CRS	.3273	CST	-.9456
FDE	.0285	FRA	2.1242	FC3	-.9959	BSP	20024	SGB	6224.2	R23	.0042	R13	-.9743	LSA	1804.8	MSA	400.5	SSA	14.7
BDE	.5275	BRA	3.7384	BC3	3.1681	FSP	-979	SG1	6210.4	SG2	413.4	THA	174.90	EL1	1718.0	EL2	347.5	ALF	170.37

LAUNCH DATE AUG 11 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 575.574

RL	151.62	LAL	.00	LOL	317.92	VL	26.340	GAL	7.19	AZL	91.54	HCA	271.61	SMA	125.58	ECC	.24080	INC	1.5364
RP	108.31	LAP	1.54	LOP	229.54	VP	37.334	GAP	11.51	AZP	90.04	TAL	155.88	TAP	67.49	RCA	95.34	APO	155.82
RC	146.899	GL	-8.23	GP	14.47	ZAL	42.92	ZAP	161.23	ETS	45.99	ZAE	122.74	ETE	171.27	ZAC	115.45	ETC	259.41

V1	29.385	V2	34.988	CLP	-167.91														

PLANETOCENTRIC CONIC

C3	23.977	VHL	4.897	DLA	-31.54	RAL	276.56	RAD	6568.0	VEL	12.056	PTH	2.15	VHP	7.621	DPA	-5.62	RAP	243.38
ECC	1.3946																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.49	12 35 38	1302.76	20.53	355.04	148.95	114.49	12 57 20	702.8	23.66	347.51
104.51	16 24 6	5857.69	20.54	278.74	148.96	114.48	18 1 43	5257.7	23.67	271.21
75.49	12 35 38	1302.76	20.53	355.04	148.95	114.49	12 57 20	702.8	23.66	347.51
104.51	16 24 6	5857.69	20.54	278.74	148.96	114.48	18 1 43	5257.7	23.67	271.21
110.00	15 18 21	774.47	11.46	311.35	143.85	122.43	15 31 16	174.5	15.66	304.76
110.00	18 40 32	5433.98	30.19	250.32	152.98	106.86	20 11 6	4834.0	32.20	241.69

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2763	TRA	4.0145	TC3	-2.9305	BAU	.9398	SGT	6222.5	SGR	668.9	SG3	264.2	ST	1687.0	SR	435.9	SS	586.4
RDE	.3474	RRA	-.3822	RC3	.0847	FAU	.02290	RRT	-.7836	RRF	-.7682	RTF	.9740	CRT	-.5329	CRS	.2502	CST	-.9522
FDE	.0885	FRA	2.1466	FC3	-.8268	BSP	20210	SGB	6258.4	R23	.0026	R13	-.9740	LSA	1792.2	MSA	409.6	SSA	14.5
BDE	.4438	BRA	4.0326	BC3	2.9317	FSP	-931	SG1	6244.7	SG2	414.1	THA	175.16	EL1	1703.7	EL2	365.2	ALF	171.78

LAUNCH DATE AUG 11 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 581.090

RL 151.62 LAL .00 LOL 317.92 VL 26.310 GAL 7.75 AZL 91.37 HCA 274.81 SMA 125.39 ECC .24724 INC 1.3695 V1 29.385
RP 108.35 LAP 1.36 LOP 232.73 VP 37.300 GAP 12.03 AZP 90.11 TAL 154.71 TAP 69.52 RCA 94.39 APO 156.39 V2 34.975
RC 149.057 GL -7.00 GP 13.93 ZAL 41.39 ZAP 162.37 ETS 47.84 ZAE 122.49 ETE 171.64 ZAC 115.15 ETC 259.85 CLP-169.07

PLANETOCENTRIC CONIC

C3 26.127 VHL 5.111 DLA -30.25 RAL 278.08 RAD 6568.1 VEL 12.145 PTH 2.18 VHP 7.916 DPA -6.62 RAP 245.18 ECC 1.4300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.90	13 6 10	1246.57	19.16	350.16	151.49	113.87	13 26 56	646.6	22.22	342.68
101.10	16 5 41	668.15	19.17	307.58	151.50	113.85	16 16 49	68.2	22.23	300.10
78.90	13 6 10	1246.57	19.16	350.16	151.49	113.87	13 26 56	646.6	22.22	342.68
101.10	16 5 41	668.15	19.17	307.58	151.50	113.85	16 16 49	68.2	22.23	300.10
110.00	15 2 29	867.48	8.02	316.35	145.26	123.34	15 16 56	267.5	12.35	309.94
110.00	19 8 32	5383.28	31.13	246.68	156.13	104.89	20 38 15	4783.3	32.86	237.88

DIFFERENTIAL CORRECTIONS
TDE -.1500 TRA 4.3239 TC3-2.6959 BAU .9420
RDE .3541 RRA -.3929 RC3 .0724 FAU .02054
FDE .1408 FRA 2.1684 FC3 -.6807 BSP 20402
BDE .3845 BRA 4.3417 BC3 2.6969 FSP -888

MID-COURSE EXECUTION ACCURACY
SGT 6253.3 SGR 650.3 SG3 250.8
RRT -.7700 RRF -.7540 RTF .9739
SGB 6287.0 R23 .0013 R13 -.9739
SG1 6273.4 SG2 413.6 THA 175.40

ORBIT DETERMINATION ACCURACY
ST 1693.6 SR 425.3 SS 587.5
CRT -.4503 CRS .1821 CST -.9596
LSA 1795.2 MSA 413.8 SSA 14.2
EL1 1704.9 EL2 377.3 ALF 173.21

LAUNCH DATE AUG 11 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 586.536

RL 151.62 LAL .00 LOL 317.92 VL 26.280 GAL 8.34 AZL 91.20 HCA 278.00 SMA 125.20 ECC .25420 INC 1.2011 V1 29.385
RP 108.39 LAP 1.19 LOP 235.92 VP 37.267 GAP 12.58 AZP 90.17 TAL 153.56 TAP 71.55 RCA 93.37 APO 157.03 V2 34.962
RC 151.205 GL -5.85 GP 13.43 ZAL 39.93 ZAP 163.44 ETS 49.97 ZAE 122.25 ETE 171.97 ZAC 114.88 ETC 260.30 CLP-170.22

PLANETOCENTRIC CONIC

C3 28.583 VHL 5.346 DLA -29.02 RAL 279.52 RAD 6568.1 VEL 12.246 PTH 2.20 VHP 8.229 DPA -7.55 RAP 247.02 ECC 1.4704

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.38	13 46 40	1157.50	17.83	342.95	154.06	113.28	14 5 58	557.5	20.83	335.51
96.62	15 36 37	801.91	17.84	316.88	154.07	113.27	15 49 59	201.9	20.84	309.44
100.00	15 2 21	912.02	12.57	322.43	151.49	117.34	15 17 33	312.0	16.14	315.45
100.00	17 3 37	5810.67	23.26	276.40	156.33	109.33	18 40 28	5210.7	25.68	268.44
110.00	14 50 40	948.76	4.96	320.65	146.94	123.86	15 6 29	348.8	9.37	314.34
110.00	19 31 47	5346.69	31.74	244.00	159.13	103.41	21 0 54	4746.7	33.26	235.10

DIFFERENTIAL CORRECTIONS
TDE -.0225 TRA 4.6488 TC3-2.4651 BAU .9423
RDE .3618 RRA -.4043 RC3 .0619 FAU .01832
FDE .1867 FRA 2.1902 FC3 -.5548 BSP 20614
BDE .3625 BRA 4.6663 BC3 2.4659 FSP -848

MID-COURSE EXECUTION ACCURACY
SGT 6277.5 SGR 632.7 SG3 238.1
RRT -.7571 RRF -.7408 RTF .9739
SGB 6309.3 R23 .0003 R13 -.9740
SG1 6295.8 SG2 412.1 THA 175.62

ORBIT DETERMINATION ACCURACY
ST 1711.2 SR 415.3 SS 590.1
CRT -.3710 CRS .1224 CST -.9667
LSA 1810.4 MSA 413.6 SSA 13.9
EL1 1718.5 EL2 384.0 ALF 174.58

LAUNCH DATE AUG 11 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 591.902

RL 151.62 LAL .00 LOL 317.92 VL 26.249 GAL 8.97 AZL 91.03 HCA 281.18 SMA 125.01 ECC .26174 INC 1.0301 V1 29.385
RP 108.43 LAP 1.01 LOP 239.11 VP 37.233 GAP 13.16 AZP 90.20 TAL 152.41 TAP 73.59 RCA 92.29 APO 157.73 V2 34.949
RC 153.343 GL -4.77 GP 12.98 ZAL 38.54 ZAP 164.44 ETS 52.42 ZAE 122.00 ETE 172.27 ZAC 114.64 ETC 260.76 CLP-171.35

PLANETOCENTRIC CONIC

C3 31.390 VHL 5.603 DLA -27.85 RAL 280.87 RAD 6568.3 VEL 12.360 PTH 2.23 VHP 8.564 DPA -8.42 RAP 248.90 ECC 1.5166

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 2 4	1149.38	12.69	339.94	154.88	115.53	14 21 13	549.4	16.03	332.85
90.00	15 32 0	856.98	20.47	322.02	158.28	110.00	15 46 17	257.0	23.01	314.27
100.00	14 35 54	1040.00	8.47	329.71	152.68	118.78	14 53 14	440.0	12.24	322.96
100.00	17 40 51	5729.64	24.98	270.99	159.92	106.98	19 16 21	5129.6	27.07	262.81
110.00	14 41 23	1022.78	2.14	324.53	148.80	124.12	14 58 25	422.8	6.60	318.29
110.00	19 51 52	5319.62	32.15	241.99	162.05	102.29	21 20 31	4719.6	33.51	233.03

DIFFERENTIAL CORRECTIONS
TDE .1070 TRA 4.9910 TC3-2.2395 BAU .9401
RDE .3703 RRA -.4163 RC3 .0527 FAU .01621
FDE .2273 FRA 2.2126 FC3 -.4471 BSP 20826
BDE .3855 BRA 5.0003 BC3 2.2402 FSP -810

MID-COURSE EXECUTION ACCURACY
SGT 6295.7 SGR 615.4 SG3 226.2
RRT -.7450 RRF -.7285 RTF .9741
SGB 6325.7 R23 -.0004 R13 -.9742
SG1 6312.4 SG2 409.5 THA 175.82

ORBIT DETERMINATION ACCURACY
ST 1737.0 SR 405.3 SS 593.7
CRT -.2967 CRS .0705 CST -.9732
LSA 1834.6 MSA 409.8 SSA 13.5
EL1 1741.3 EL2 386.1 ALF 175.83

LAUNCH DATE AUG 11 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 597.178

RL 151.62 LAL .00 LOL 317.92 VL 26.219 GAL 9.65 AZL 90.86 HCA 284.37 SMA 124.83 ECC .26993 INC .8555 V1 29.385
RP 108.47 LAP .83 LOP 242.29 VP 37.200 GAP 13.77 AZP 90.21 TAL 151.27 TAP 75.64 RCA 91.13 APO 158.52 V2 34.937
RC 155.470 GL -3.76 GP 12.56 ZAL 37.24 ZAP 165.38 ETS 55.23 ZAE 121.76 ETE 172.53 ZAC 114.42 ETC 261.23 CLP-172.46

PLANETOCENTRIC CONIC

C3 34.600 VHL 5.882 DLA -26.75 RAL 282.14 RAD 6568.4 VEL 12.489 PTH 2.26 VHP 8.923 DPA -9.23 RAP 250.83 ECC 1.5694

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 29 31	1298.05	8.19	348.54	155.94	117.20	13 51 9	698.1	11.77	341.69
90.00	16 14 42	757.39	22.65	315.53	162.08	107.46	16 27 19	157.4	24.83	307.54
100.00	14 18 48	1138.87	5.19	335.22	154.31	119.48	14 37 47	538.9	9.08	328.59
100.00	18 8 6	5679.85	25.92	267.60	163.14	105.43	19 42 46	5079.8	27.79	259.29
110.00	14 33 48	1091.76	-.50	328.13	150.78	124.18	14 52 0	491.8	3.99	321.92
110.00	20 9 35	5299.72	32.43	240.51	164.92	101.45	21 37 55	4699.7	33.67	231.49

DIFFERENTIAL CORRECTIONS
TDE .2395 TRA 5.3525 TC3-2.0201 BAU .9346
RDE .3794 RRA -.4287 RC3 .0446 FAU .01420
FDE .2636 FRA 2.2364 FC3 -.3552 BSP 21036
BDE .4487 BRA 5.3697 BC3 2.0206 FSP -775

MID-COURSE EXECUTION ACCURACY
SGT 6308.0 SGR 598.4 SG3 215.0
RRT -.7336 RRF -.7172 RTF .9745
SGB 6336.3 R23 -.0009 R13 -.9745
SG1 6323.3 SG2 405.7 THA 176.00

ORBIT DETERMINATION ACCURACY
ST 1768.5 SR 395.3 SS 598.0
CRT -.2284 CRS .0254 CST -.9788
LSA 1865.1 MSA 403.2 SSA 13.2
EL1 1770.9 EL2 384.3 ALF 176.93

LAUNCH DATE AUG 11 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 602.350

RL	151.62	LAL	.00	LOL	317.92	VL	26.189	GAL	10.37	AZL	90.68	HCA	287.55	SMA	124.64	ECC	.27884	INC	.6759	V1	29.385
RP	108.51	LAP	.64	LOP	245.48	VP	37.168	GAP	14.42	AZP	90.20	TAL	150.15	TAP	77.70	RCA	89.89	APO	159.40	V2	34.925
RC	157.587	GL	-2.82	GP	12.19	ZAL	36.01	ZAP	166.25	ETS	58.45	ZAE	121.51	ETE	172.77	ZAC	114.23	ETC	261.70	CLP	-173.57

PLANETOCENTRIC CONIC

C3	38.278	VHL	6.187	DLA	-25.70	RAL	283.33	RAD	6568.5	VEL	12.635	PTH	2.29	VHP	9.308	DPA	-9.98	RAP	252.78	ECC	1.6300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 10 22	1404.04	4.85	354.53	157.58	117.93	13 33 46	804.0	8.55	347.81
90.00	16 43 23	702.45	23.73	311.86	165.37	105.93	16 55 5	102.4	25.69	303.74
100.00	14 6 2	1224.27	2.31	339.93	156.18	119.81	14 26 26	624.3	6.26	333.37
100.00	18 30 23	5645.49	26.53	265.22	166.21	104.31	20 4 29	5045.5	28.23	256.83
110.00	14 27 29	1156.97	-2.99	331.53	152.88	124.07	14 46 46	557.0	1.50	325.33
110.00	20 25 26	5285.56	32.62	239.45	167.77	100.85	21 53 31	4685.6	33.77	230.40

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3756	TRA	5.7359	TC3	-1.8077	BAU	.9253	SGT	6315.0	SGR	581.2	SG3	204.5	ST	1803.7	SR	385.1	SS	603.0
RDE	.3890	RRA	-.4415	RC3	.0372	FAU	.01224	RRT	-.7228	RRF	-.7067	RTF	.9750	CRT	-.1663	CRS	-.0138	CST	-.9834
FDE	.2967	FRA	2.2625	FC3	-.2769	BSP	21230	SGB	6341.7	R23	-.0012	R13	-.9750	LSA	1899.9	MSA	394.3	SSA	12.9
BDE	.5407	BRA	5.7529	BC3	1.8081	FSP	-741	SG1	6329.0	SG2	400.8	THA	176.18	EL1	1804.9	EL2	379.5	ALF	177.87

LAUNCH DATE AUG 11 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 607.402

RL	151.62	LAL	.00	LOL	317.92	VL	26.159	GAL	11.15	AZL	90.49	HCA	290.73	SMA	124.46	ECC	.28855	INC	.4900	V1	29.385
RP	108.54	LAP	.46	LOP	248.66	VP	37.135	GAP	15.12	AZP	90.17	TAL	149.06	TAP	79.79	RCA	88.55	APO	160.37	V2	34.913
RC	159.692	GL	-1.93	GP	11.84	ZAL	34.86	ZAP	167.04	ETS	62.12	ZAE	121.24	ETE	172.99	ZAC	114.04	ETC	262.19	CLP	-174.68

PLANETOCENTRIC CONIC

C3	42.502	VHL	6.519	DLA	-24.72	RAL	284.45	RAD	6568.6	VEL	12.801	PTH	2.33	VHP	9.723	DPA	-10.67	RAP	254.75	ECC	1.6995

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 56 24	1493.50	1.98	359.54	159.46	118.25	13 21 18	893.5	5.74	352.88
90.00	17 6 15	665.84	24.39	309.38	168.48	104.85	17 17 21	65.8	26.19	301.18
100.00	13 55 53	1301.46	-.31	344.16	158.19	119.89	14 17 35	701.5	3.67	337.64
100.00	18 49 27	5621.15	26.92	263.52	169.19	103.50	20 23 8	5021.2	28.51	255.08
110.00	14 22 7	1219.21	-5.35	334.80	155.05	123.81	14 42 26	619.2	-.88	328.57
110.00	20 39 43	5276.17	32.73	238.74	170.61	100.45	22 7 39	4676.2	33.83	229.67

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5171	TRA	6.1442	TC3	-1.6029	BAU	.9109	SGT	6317.7	SGR	563.6	SG3	194.6	ST	1841.4	SR	374.5	SS	608.9
RDE	.3988	RRA	-.4544	RC3	.0305	FAU	.01033	RRT	-.7125	RRF	-.6969	RTF	.9757	CRT	-.1102	CRS	-.0484	CST	-.9872
FDE	.3274	FRA	2.2917	FC3	-.2105	BSP	21383	SGB	6342.7	R23	-.0014	R13	-.9757	LSA	1937.6	MSA	383.8	SSA	12.5
BDE	.6531	BRA	6.1610	BC3	1.6032	FSP	-708	SG1	6330.5	SG2	394.7	THA	176.35	EL1	1841.9	EL2	372.1	ALF	178.66

LAUNCH DATE AUG 11 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 612.315

RL	151.62	LAL	.00	LOL	317.92	VL	26.129	GAL	12.00	AZL	90.30	HCA	293.91	SMA	124.28	ECC	.29917	INC	.2962	V1	29.385
RP	108.58	LAP	.27	LOP	251.83	VP	37.104	GAP	15.87	AZP	90.12	TAL	147.99	TAP	81.90	RCA	87.10	APO	161.46	V2	34.901
RC	161.784	GL	-1.10	GP	11.52	ZAL	33.79	ZAP	167.74	ETS	66.31	ZAE	120.97	ETE	173.19	ZAC	113.87	ETC	262.68	CLP	-175.79

PLANETOCENTRIC CONIC

C3	47.367	VHL	6.882	DLA	-23.79	RAL	285.49	RAD	6568.8	VEL	12.990	PTH	2.37	VHP	10.171	DPA	-11.31	RAP	256.74	ECC	1.7795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 45 25	1573.39	-.60	4.00	161.49	118.31	13 11 38	973.4	3.19	357.37
90.00	17 25 33	640.43	24.82	307.65	171.47	104.09	17 36 13	40.4	26.52	299.39
100.00	13 47 31	1372.93	-2.73	348.09	160.31	119.78	14 10 24	772.9	1.25	341.56
100.00	19 6 8	5604.16	27.19	262.33	172.10	102.93	20 39 32	5004.2	28.70	253.85
110.00	14 17 28	1279.00	-7.61	337.96	157.30	123.43	14 38 47	679.0	-3.16	331.69
110.00	20 52 40	5270.86	32.80	238.34	173.43	100.22	22 20 30	4670.9	33.86	229.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6655	TRA	6.5806	TC3	-1.4061	BAU	.8906	SGT	6316.4	SGR	545.6	SG3	185.4	ST	1880.5	SR	363.5	SS	615.7
RDE	.4089	RRA	-.4673	RC3	.0242	FAU	.00844	RRT	-.7025	RRF	-.6876	RTF	.9765	CRT	-.0593	CRS	-.0791	CST	-.9902
FDE	.3567	FRA	2.3248	FC3	-.1542	BSP	21487	SGB	6339.9	R23	-.0015	R13	-.9765	LSA	1977.1	MSA	372.0	SSA	12.2
BDE	.7810	BRA	6.5972	BC3	1.4063	FSP	-675	SG1	6328.1	SG2	387.6	THA	176.51	EL1	1880.6	EL2	362.8	ALF	179.32

LAUNCH DATE AUG 11 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 617.063

RL	151.62	LAL	.00	LOL	317.92	VL	26.100	GAL	12.91	AZL	90.09	HCA	297.09	SMA	124.10	ECC	.31081	INC	.0915	V1	29.385
RP	108.61	LAP	.08	LOP	255.01	VP	37.073	GAP	16.67	AZP	90.04	TAL	146.97	TAP	84.05	RCA	85.53	APO	162.67	V2	34.890
RC	163.865	GL	-.33	GP	11.23	ZAL	32.80	ZAP	168.36	ETS	71.05	ZAE	120.68	ETE	173.37	ZAC	113.71	ETC	263.18	CLP	-176.91

PLANETOCENTRIC CONIC

C3	52.990	VHL	7.279	DLA	-22.91	RAL	286.46	RAD	6568.9	VEL	13.204	PTH	2.41	VHP	10.658	DPA	-11.89	RAP	258.74	ECC	1.8721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 36 22	1646.80	-2.97	8.10	163.63	118.17	13 3[illegible]49	1046.8	.82	1.47
90.00	17 42 17	622.93	25.11	306.44	174.39	103.55	17 52 40	22.9	26.72	298.15
100.00	13 40 25	1440.08	-4.99	351.79	162.51	119.51	14 4 25	840.1	-1.02	345.25
100.00	19 20 55	5592.93	27.36	261.53	174.97	102.54	20 54 8	4992.9	28.81	253.03
110.00	14 13 23	1336.68	-9.76	341.04	159.60	122.92	14 35 40	736.7	-5.35	334.72
110.00	21 4 26	5269.09	32.82	238.20	176.24	100.14	22 32 15	4669.1	33.87	229.13

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8223	TRA	7.0494	TC3	-1.2172	BAU	.8624	SGT	6312.1	SGR	526.9	SG3	176.9	ST	1920.2	SR	352.0	SS	623.8
RDE	.4190	RRA	-.4799	RC3	.0184	FAU	.00653	RRT	-.6928	RRF	-.6786	RTF	.9775	CRT	-.0132	CRS	-.1067	CST	-.9926
FDE	.3851	FRA	2.3628	FC3	-.1067	BSP	21499	SGB	6334.1	R23	-.0015	R13	-.9775	LSA	2017.7	MSA	359.1	SSA	11.9
BDE	.9229	BRA	7.0657	BC3	1.2173	FSP	-641	SG1	6322.7	SG2	379.3	THA	176.68	EL1	1920.2	EL2	352.0	ALF	179.86

LAUNCH DATE AUG 12 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 21 1970

HELIOCENTRIC CONIC DISTANCE 149.470

RL	151.59	LAL	.00	LOL	318.88	VL	20.482	GAL	6.70	AZL	93.59	HCA	56.16	SMA	99.68	ECC	.53027	INC	3.5907	V1	29.391
RP	108.53	LAP	-2.98	LOP	14.99	VP	33.380	GAP	-31.66	AZP	92.00	TAL	173.99	TAP	230.15	RCA	46.82	APO	152.53	V2	34.917
RC	49.017	GL	-7.66	GP	-5.54	ZAL	73.68	ZAP	21.46	ETS	163.13	ZAE	160.10	ETE	169.72	ZAC	91.65	ETC	256.73	CLP	20.76

PLANETOCENTRIC CONIC

C3	91.417	VHL	9.561	DLA	-28.73	RAL	241.88	RAD	6569.8	VEL	14.586	PTH	2.64	VHP	18.595	DPA	-16.49	RAP	212.06	ECC	2.5045

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.96	11 25 30	1399.71	9.38	356.60	134.33	117.28	11 48 49	799.7	12.96	349.73
95.04	12 49 40	1127.20	9.39	336.65	134.33	117.27	13 8 27	527.2	12.97	329.77
100.00	12 18 52	1226.42	2.24	340.05	130.42	119.82	12 39 19	626.4	6.19	333.49
100.00	14 38 58	775.72	16.68	314.40	138.02	115.17	14 51 54	175.7	19.94	307.12
110.00	12 12 46	1245.64	-6.35	336.19	125.12	123.66	12 33 31	645.6	-1.89	329.95
110.00	17 1 34	5617.30	25.90	262.85	142.44	113.13	18 35 12	5017.3	28.80	254.87

DIFFERENTIAL CORRECTIONS

TDE	.2252	TRA	-1.1356	TC3	-.0913	BAU	.1132
RDE	-.7424	RRA	-.0504	RC3	.0156	FAU	.01541
FDE	-.1606	FRA	.5141	FC3	-.1459	BSP	2059
BDE	.7758	BRA	1.1367	BC3	.0926	FSP	-83

MID-COURSE EXECUTION ACCURACY

SGT	806.7	SGR	447.2	SG3	39.6		
RRT	-.1067	RRF	.1092	RTF	-.6399		
SGB	922.4	R23	-.0114	R13	.6412		
SG1	808.8	SG2	443.5	THA	175.15		

ORBIT DETERMINATION ACCURACY

ST	269.1	SR	445.0	SS	229.7
CRT	-.4812	CRS	-.6557	CST	.9740
LSA	506.2	MSA	258.4	SSA	14.0
EL1	469.5	EL2	223.6	ALF	111.27

LAUNCH DATE AUG 12 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 23 1970

HELIOCENTRIC CONIC DISTANCE 155.796

RL	151.59	LAL	.00	LOL	318.88	VL	21.013	GAL	6.40	AZL	93.36	HCA	59.34	SMA	101.36	ECC	.50502	INC	3.3566	V1	29.391
RP	108.49	LAP	-2.89	LOP	18.18	VP	33.721	GAP	-30.09	AZP	91.71	TAL	173.64	TAP	232.98	RCA	50.17	APO	152.54	V2	34.929
RC	47.541	GL	-7.79	GP	-5.76	ZAL	72.99	ZAP	20.00	ETS	161.28	ZAE	161.83	ETE	169.80	ZAC	91.74	ETC	256.87	CLP	19.18

PLANETOCENTRIC CONIC

C3	81.442	VHL	9.025	DLA	-28.98	RAL	242.63	RAD	6569.6	VEL	14.240	PTH	2.59	VHP	17.757	DPA	-17.29	RAP	213.52	ECC	2.3403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.55	11 17 2	1410.75	10.26	357.88	133.53	117.25	11 40 33	810.8	13.84	350.98
96.45	13 4 7	1064.38	10.28	332.49	133.54	117.25	13 21 51	464.4	13.85	325.59
100.00	12 30 2	1173.93	4.01	337.16	130.12	119.65	12 49 36	573.9	7.93	330.56
100.00	14 33 48	776.43	16.66	314.44	136.77	115.18	14 46 44	176.4	19.92	307.16
110.00	12 19 7	1208.27	-4.94	334.22	124.59	123.87	12 39 16	608.3	-.46	328.00
110.00	17 1 12	5602.90	26.28	261.91	141.35	112.69	18 34 35	5002.9	29.12	253.87

DIFFERENTIAL CORRECTIONS

TDE	.2211	TRA	-1.1242	TC3	-.0906	BAU	.1000
RDE	-.7092	RRA	-.0377	RC3	.0152	FAU	.01584
FDE	-.1630	FRA	.5317	FC3	-.1684	BSP	2198
BDE	.7428	BRA	1.1248	BC3	.0919	FSP	-93

MID-COURSE EXECUTION ACCURACY

SGT	843.9	SGR	451.9	SG3	43.4		
RRT	-.1189	RRF	.1221	RTF	-.6601		
SGB	957.3	R23	-.0130	R13	.6614		
SG1	846.3	SG2	447.4	THA	174.94		

ORBIT DETERMINATION ACCURACY

ST	282.2	SR	450.3	SS	238.7
CRT	-.4814	CRS	-.6516	CST	.9754
LSA	517.1	MSA	268.0	SSA	14.2
EL1	477.5	EL2	233.3	ALF	112.41

LAUNCH DATE AUG 12 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 162.184

RL	151.59	LAL	.00	LOL	318.88	VL	21.507	GAL	6.09	AZL	93.14	HCA	62.52	SMA	103.01	ECC	.48085	INC	3.1374	V1	29.391
RP	108.45	LAP	-2.78	LOP	21.37	VP	34.044	GAP	-28.59	AZP	91.45	TAL	173.34	TAP	235.86	RCA	53.48	APO	152.54	V2	34.942
RC	46.171	GL	-7.90	GP	-5.99	ZAL	72.39	ZAP	18.57	ETS	159.11	ZAE	163.72	ETE	170.02	ZAC	91.80	ETC	257.03	CLP	17.61

PLANETOCENTRIC CONIC

C3	72.587	VHL	8.520	DLA	-29.20	RAL	243.30	RAD	6569.4	VEL	13.926	PTH	2.54	VHP	16.953	DPA	-18.11	RAP	215.00	ECC	2.1946

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.55	11 11 40	1409.94	11.17	358.29	132.59	117.16	11 35 10	809.9	14.72	351.35
97.45	13 14 47	1011.96	11.19	329.10	132.60	117.15	13 31 59	412.0	14.74	322.16
100.00	12 40 38	1121.55	5.77	334.26	129.66	119.38	12 59 19	521.6	9.64	327.61
100.00	14 28 30	775.58	16.69	314.39	135.38	115.17	14 41 26	175.6	19.94	307.11
110.00	12 24 43	1171.66	-3.55	332.30	123.91	124.02	12 44 14	571.7	.94	326.09
110.00	17 0 55	5586.27	26.71	260.81	140.10	112.17	18 34 1	4986.3	29.48	252.71

DIFFERENTIAL CORRECTIONS

TDE	.2177	TRA	-1.1126	TC3	-.0883	BAU	.0868
RDE	-.6765	RRA	-.0258	RC3	.0143	FAU	.01632
FDE	-.1655	FRA	.5495	FC3	-.1947	BSP	2336
BDE	.7106	BRA	1.1129	BC3	.0894	FSP	-103

MID-COURSE EXECUTION ACCURACY

SGT	882.5	SGR	456.0	SG3	47.5		
RRT	-.1322	RRF	.1363	RTF	-.6794		
SGB	993.3	R23	-.0148	R13	.6808		
SG1	885.3	SG2	450.6	THA	174.72		

ORBIT DETERMINATION ACCURACY

ST	295.9	SR	455.0	SS	247.8
CRT	-.4832	CRS	-.6480	CST	.9769
LSA	528.1	MSA	277.3	SSA	14.4
EL1	485.4	EL2	242.8	ALF	113.73

LAUNCH DATE AUG 12 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 168.629

RL	151.59	LAL	.00	LOL	318.88	VL	21.965	GAL	5.77	AZL	92.93	HCA	65.71	SMA	104.63	ECC	.45779	INC	2.9303	V1	29.391
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.348	GAP	-27.17	AZP	91.21	TAL	173.09	TAP	238.79	RCA	56.73	APO	152.52	V2	34.954
RC	44.918	GL	-7.98	GP	-6.25	ZAL	71.87	ZAP	17.19	ETS	156.53	ZAE	165.79	ETE	170.45	ZAC	91.83	ETC	257.19	CLP	16.05

PLANETOCENTRIC CONIC

C3	64.721	VHL	8.045	DLA	-29.38	RAL	243.87	RAD	6569.2	VEL	13.641	PTH	2.49	VHP	16.181	DPA	-18.94	RAP	216.48	ECC	2.0652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.82	11 8 12	1401.20	12.08	358.12	131.51	116.99	11 31 33	801.2	15.60	351.14
98.18	13 22 49	966.23	12.09	326.20	131.52	116.98	13 38 56	366.2	15.62	319.22
100.00	12 50 23	1070.17	7.47	331.40	129.03	119.03	13 8 13	470.2	11.29	324.69
100.00	14 23 19	772.49	16.78	314.21	133.88	115.11	14 36 11	172.5	20.02	306.91
110.00	12 29 26	1136.15	-2.19	330.44	123.09	124.12	12 48 23	536.1	2.30	324.24
110.00	17 0 45	5567.32	27.19	259.54	138.72	111.56	18 33 32	4967.3	29.87	251.37

DIFFERENTIAL CORRECTIONS

TDE	.2152	TRA	-1.1005	TC3	-.0835	BAU	.0731
RDE	-.6445	RRA	-.0146	RC3	.0127	FAU	.01685
FDE	-.1681	FRA	.5677	FC3	-.2255	BSP	2482
BDE	.6795	BRA	1.1006	BC3	.0845	FSP	-115

MID-COURSE EXECUTION ACCURACY

SGT	922.3	SGR	459.6	SG3	51.9		
RRT	-.1472	RRF	.1521	RTF	-.6981		
SGB	1030.5	R23	-.0168	R13	.6997		
SG1	925.6	SG2	453.0	THA	174.48		

ORBIT DETERMINATION ACCURACY

ST	310.4	SR	459.0	SS	257.1
CRT	-.4871	CRS	-.6450	CST	.9787
LSA	539.6	MSA	285.9	SSA	14.7
EL1	493.4	EL2	252.2	ALF	115.26

LAUNCH DATE AUG 12 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 175.125

RL	151.59	LAL	.00	LOL	318.88	VL	22.391	GAL	5.44	AZL	92.73	HCA	68.90	SMA	106.21	ECC	.43583	INC	2.7332	V1	29.391
RP	108.38	LAP	-2.55	LOP	27.76	VP	34.635	GAP	-25.81	AZP	90.98	TAL	172.88	TAP	241.77	RCA	59.92	APO	152.50	V2	34.967
RC	43.790	GL	-8.04	GP	-6.53	ZAL	71.44	ZAP	15.86	ETS	153.44	ZAE	168.02	ETE	171.25	ZAC	91.84	ETC	257.37	CLP	14.49

PLANETOCENTRIC CONIC

C3 57.733 VHL 7.598 DLA -29.51 RAL 244.35 RAD 6569.1 VEL 13.382 PTH 2.45 VHP 15.438 DPA -19.80 RAP 217.98 ECC 1.9501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.31	11 6 7	1386.29	12.98	357.49	130.30	116.74	11 29 13	786.3	16.47	350.46
98.69	13 28 44	925.68	13.00	323.67	130.30	116.73	13 44 10	325.7	16.48	316.64
100.00	12 58 52	1021.32	9.08	328.66	128.21	118.60	13 15 53	421.3	12.83	321.88
100.00	14 18 40	765.88	16.97	313.81	132.29	114.98	14 31 26	165.9	20.20	306.50
110.00	12 33 14	1102.09	-.89	328.67	122.12	124.17	12 51 36	502.1	3.60	322.46
110.00	17 0 48	5545.92	27.72	258.10	137.20	110.85	18 33 13	4945.9	30.30	249.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2135	TRA	-1.0879	TC3	-.0761	BAU	.0593	SGT	963.3	SGR	462.7	SG3	56.8	ST	325.4	SR	462.4	SS	266.8
RDE	-.6132	RRA	-.0039	RC3	.0102	FAU	.01745	RRT	-.1639	RRF	.1699	RTF	-.7160	CRT	-.4928	CRS	-.6428	CST	.9806
FDE	-.1709	FRA	.5865	FC3	-.2616	BSP	2635	SGB	1068.7	R23	-.0191	R13	.7177	LSA	551.7	MSA	293.9	SSA	14.9
BDE	.6493	BRA	1.0879	BC3	.0768	FSP	-128	SG1	967.1	SG2	454.6	THA	174.22	EL1	501.6	EL2	261.1	ALF	116.98

LAUNCH DATE AUG 12 1970 FLIGHT TIME 80.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 181.668

RL	151.59	LAL	.00	LOL	318.88	VL	22.787	GAL	5.11	AZL	92.54	HCA	72.09	SMA	107.75	ECC	.41497	INC	2.5443	V1	29.391
RP	108.34	LAP	-2.42	LOP	30.95	VP	34.905	GAP	-24.52	AZP	90.78	TAL	172.71	TAP	244.80	RCA	63.04	APO	152.46	V2	34.980
RC	42.797	GL	-8.07	GP	-6.84	ZAL	71.09	ZAP	14.59	ETS	149.72	ZAE	170.41	ETE	172.72	ZAC	91.81	ETC	257.56	CLP	12.92

PLANETOCENTRIC CONIC

C3 51.522 VHL 7.178 DLA -29.60 RAL 244.73 RAD 6568.9 VEL 13.148 PTH 2.40 VHP 14.725 DPA -20.66 RAP 219.47 ECC 1.8479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.99	11 5 11	1366.10	13.88	356.45	128.94	116.41	11 27 57	766.1	17.31	349.37
99.01	13 32 45	889.69	13.89	321.46	128.95	116.40	13 47 34	289.7	17.33	314.37
100.00	13 5 16	977.58	10.49	326.19	127.16	118.15	13 21 34	377.6	14.18	319.33
100.00	14 15 21	753.43	17.32	313.05	130.66	114.75	14 27 54	153.4	20.52	305.72
110.00	12 36 0	1069.88	.34	326.99	121.00	124.18	12 53 50	469.9	4.82	320.77
110.00	17 1 7	5521.94	28.29	256.47	135.55	110.04	18 33 9	4921.9	30.75	248.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2133	TRA	-1.0741	TC3	-.0649	BAU	.0449	SGT	1005.0	SGR	465.4	SG3	62.3	ST	341.3	SR	465.2	SS	276.6
RDE	-.5828	RRA	.0062	RC3	.0066	FAU	.01811	RRT	-.1832	RRF	.1898	RTF	-.7335	CRT	-.5019	CRS	-.6415	CST	.9829
FDE	-.1740	FRA	.6056	FC3	-.3043	BSP	2809	SGB	1107.5	R23	-.0211	R13	.7354	LSA	564.7	MSA	300.6	SSA	15.1
BDE	.6206	BRA	1.0741	BC3	.0653	FSP	-143	SG1	1009.5	SG2	455.4	THA	173.91	EL1	510.4	EL2	269.1	ALF	118.96

LAUNCH DATE AUG 12 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 188.253

RL	151.59	LAL	.00	LOL	318.88	VL	23.153	GAL	4.78	AZL	92.36	HCA	75.28	SMA	109.24	ECC	.39521	INC	2.3619	V1	29.391
RP	108.29	LAP	-2.28	LOP	34.15	VP	35.159	GAP	-23.27	AZP	90.60	TAL	172.60	TAP	247.88	RCA	66.07	APO	152.42	V2	34.993
RC	41.950	GL	-8.06	GP	-7.17	ZAL	70.84	ZAP	13.41	ETS	145.20	ZAE	172.93	ETE	175.71	ZAC	91.74	ETC	257.75	CLP	11.35

PLANETOCENTRIC CONIC

C3 46.002 VHL 6.783 DLA -29.64 RAL 245.03 RAD 6568.7 VEL 12.937 PTH 2.36 VHP 14.039 DPA -21.55 RAP 220.97 ECC 1.7571

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.87	11 5 24	1340.81	14.74	355.02	127.45	116.00	11 27 45	740.8	18.12	347.87
99.13	13 34 51	858.35	14.76	319.58	127.46	115.99	13 49 9	258.4	18.13	312.43
100.00	13 8 31	942.56	11.61	324.19	125.83	117.74	13 24 14	342.6	15.23	317.27
100.00	14 14 25	731.84	17.93	311.74	129.02	114.32	14 26 37	131.8	21.07	304.35
110.00	12 37 38	1039.96	1.48	325.43	119.73	124.15	12 54 58	440.0	5.96	319.19
110.00	17 1 47	5495.25	28.90	254.63	133.77	109.11	18 33 23	4895.2	31.23	246.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2117	TRA	-1.0618	TC3	-.0515	BAU	.0317	SGT	1049.7	SGR	467.6	SG3	68.2	ST	357.6	SR	467.4	SS	286.6
RDE	-.5533	RRA	.0158	RC3	.0015	FAU	.01883	RRT	-.2029	RRF	.2119	RTF	-.7492	CRT	-.5088	CRS	-.6401	CST	.9846
FDE	-.1769	FRA	.6258	FC3	-.3543	BSP	2940	SGB	1149.1	R23	-.0251	R13	.7513	LSA	577.8	MSA	307.3	SSA	15.4
BDE	.5924	BRA	1.0619	BC3	.0515	FSP	-159	SG1	1055.0	SG2	455.6	THA	173.64	EL1	519.1	EL2	277.1	ALF	120.97

LAUNCH DATE AUG 12 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 194.875

RL	151.59	LAL	.00	LOL	318.88	VL	23.494	GAL	4.46	AZL	92.18	HCA	78.47	SMA	110.69	ECC	.37652	INC	2.1846	V1	29.391
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.397	GAP	-22.08	AZP	90.44	TAL	172.55	TAP	251.02	RCA	69.01	APO	152.37	V2	35.007
RC	41.257	GL	-8.01	GP	-7.55	ZAL	70.67	ZAP	12.33	ETS	139.71	ZAE	175.52	ETE	182.98	ZAC	91.62	ETC	257.96	CLP	9.78

PLANETOCENTRIC CONIC

C3 41.098 VHL 6.411 DLA -29.61 RAL 245.22 RAD 6568.6 VEL 12.746 PTH 2.32 VHP 13.380 DPA -22.46 RAP 222.46 ECC 1.6764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.96	11 6 52	1310.20	15.57	353.16	125.84	115.51	11 28 42	710.2	18.88	345.95
99.04	13 34 55	832.20	15.58	318.05	125.85	115.50	13 48 48	232.2	18.89	310.84
100.00	13 7 44	919.16	12.35	322.84	124.19	117.44	13 23 3	319.2	15.93	315.88
100.00	14 16 44	698.47	18.86	309.69	127.41	113.63	14 28 23	98.5	21.89	302.21
110.00	12 38 3	1012.76	2.52	324.01	118.30	124.10	12 54 56	412.8	6.98	317.76
110.00	17 2 55	5465.68	29.54	252.57	131.86	108.04	18 34 1	4865.7	31.72	244.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2129	TRA	-1.0464	TC3	-.0316	BAU	.0176	SGT	1093.1	SGR	469.7	SG3	74.8	ST	374.6	SR	469.0	SS	296.9
RDE	-.5247	RRA	.0250	RC3	-.0054	FAU	.01965	RRT	-.2271	RRF	.2370	RTF	-.7652	CRT	-.5219	CRS	-.6402	CST	.9871
FDE	-.1803	FRA	.6463	FC3	-.4138	BSP	3131	SGB	1189.8	R23	-.0276	R13	.7674	LSA	592.5	MSA	311.7	SSA	15.6
BDE	.5662	BRA	1.0467	BC3	.0320	FSP	-178	SG1	1099.4	SG2	454.8	THA	173.27	EL1	529.3	EL2	283.2	ALF	123.26

LAUNCH DATE AUG 12 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 201.528

RL	151.59	LAL	.00	LOL	318.88	VL	23.809	GAL	4.14	AZL	92.01	HCA	81.67	SMA	112.08	ECC	.35889	INC	2.0113	V1	29.391		
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.620	GAP	-20.94	AZP	90.29	TAL	172.54	TAP	254.21	RCA	71.86	APO	152.31	V2	35.020		
RC	40.727	GL	-7.90	GP	-7.96	ZAL	70.60	ZAP	11.40	ETS	133.09	ZAE	177.89	ETE	210.66	ZAC	91.47	ETC	258.17	CLP	8.19		

PLANETOCENTRIC CONIC

C3	36.743	VHL	6.062	DLA	-29.52	RAL	245.32	RAD	6568.4	VEL	12.574	PTH	2.28	VHP	12.746	DPA	-23.40	RAP	223.94	ECC	1.8047		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.29	11 9 48	1273.74	16.35	350.84	124.10	114.93	11 31 2	673.7	19.57	343.56
98.71	13 32 46	812.07	16.36	316.94	124.11	114.92	13 46 18	212.1	19.58	309.66
100.00	13 3 0	907.34	12.72	322.16	122.27	117.28	13 18 7	307.3	16.27	315.17
100.00	14 22 15	653.70	20.06	306.91	125.82	112.64	14 33 9	53.7	22.95	299.31
110.00	12 37 10	988.76	3.44	322.75	116.72	124.03	12 53 38	388.8	7.88	316.48
110.00	17 4 34	5433.09	30.21	250.26	129.84	106.82	18 35 8	4833.1	32.21	241.62

DIFFERENTIAL CORRECTIONS

TDE	.2137	TRA	-1.0316	TC3	-.0069	BAU	.0079
RDE	-.4971	RRA	.0339	RC3	-.0146	FAU	.02055
FDE	-.1835	FRA	.6681	FC3	-.4842	BSP	3306
BDE	.5411	BRA	1.0321	BC3	.0161	FSP	-198

MID-COURSE EXECUTION ACCURACY

SGT	1138.6	SGR	471.6	SG3	82.0		
RRT	-.2533	RRF	.2650	RTF	-.7801		
SGB	1232.4	R23	-.0311	R13	.7826		
SG1	1146.0	SG2	453.3	THA	172.89		

ORBIT DETERMINATION ACCURACY

ST	392.2	SR	470.0	SS	307.2
CRT	-.5350	CRS	-.6402	CST	.9893
LSA	607.7	MSA	315.4	SSA	15.9
EL1	539.9	EL2	288.4	ALF	125.60

LAUNCH DATE AUG 12 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 208.209

RL	151.59	LAL	.00	LOL	318.88	VL	24.101	GAL	3.82	AZL	91.84	HCA	84.87	SMA	113.43	ECC	.34230	INC	1.8406	V1	29.391		
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.829	GAP	-19.85	AZP	90.16	TAL	172.59	TAP	257.47	RCA	74.60	APO	152.25	V2	35.033		
RC	40.367	GL	-7.74	GP	-8.42	ZAL	70.62	ZAP	10.68	ETS	125.22	ZAE	177.81	ETE	294.65	ZAC	91.25	ETC	258.39	CLP	6.59		

PLANETOCENTRIC CONIC

C3	32.878	VHL	5.734	DLA	-29.36	RAL	245.32	RAD	6568.3	VEL	12.420	PTH	2.24	VHP	12.137	DPA	-24.36	RAP	225.41	ECC	1.5411		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.92	11 14 42	1229.97	17.05	347.94	122.25	114.26	11 35 12	630.0	20.19	340.59
98.08	13 27 52	799.72	17.07	316.36	122.25	114.25	13 41 12	199.7	20.20	309.01
100.00	12 55 6	904.72	12.80	322.01	120.12	117.25	13 10 11	304.7	16.35	315.02
100.00	14 30 9	600.20	21.42	303.52	124.19	111.36	14 40 9	.2	24.13	295.77
110.00	12 34 53	968.38	4.21	321.68	115.00	123.95	12 51 2	368.4	8.64	315.40
110.00	17 6 51	5397.34	30.88	247.70	127.69	105.44	18 36 49	4797.3	32.69	238.94

DIFFERENTIAL CORRECTIONS

TDE	.2147	TRA	-1.0161	TC3	.0240	BAU	.0157
RDE	-.4705	RRA	.0426	RC3	-.0266	FAU	.02156
FDE	-.1867	FRA	.6909	FC3	-.5677	BSP	3494
BDE	.5172	BRA	1.0170	BC3	.0358	FSP	-221

MID-COURSE EXECUTION ACCURACY

SGT	1184.8	SGR	473.7	SG3	90.0		
RRT	-.2827	RRF	.2963	RTF	-.7942		
SGB	1276.0	R23	-.0351	R13	.7970		
SG1	1193.6	SG2	451.0	THA	172.47		

ORBIT DETERMINATION ACCURACY

ST	410.1	SR	470.4	SS	317.5
CRT	-.5495	CRS	-.6406	CST	.9915
LSA	623.7	MSA	317.8	SSA	16.1
EL1	551.4	EL2	292.3	ALF	127.97

LAUNCH DATE AUG 12 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 214.914

RL	151.59	LAL	.00	LOL	318.88	VL	24.372	GAL	3.52	AZL	91.67	HCA	88.08	SMA	114.71	ECC	.32672	INC	1.6715	V1	29.391		
RP	108.13	LAP	-1.67	LOP	46.96	VP	36.025	GAP	-18.79	AZP	90.06	TAL	172.70	TAP	260.77	RCA	77.23	APO	152.19	V2	35.046		
RC	40.182	GL	-7.51	GP	-8.92	ZAL	70.73	ZAP	10.20	ETS	116.18	ZAE	175.27	ETE	320.84	ZAC	90.98	ETC	258.62	CLP	4.97		

PLANETOCENTRIC CONIC

C3	29.449	VHL	5.427	DLA	-29.11	RAL	245.22	RAD	6568.2	VEL	12.281	PTH	2.21	VHP	11.553	DPA	-25.35	RAP	226.86	ECC	1.4847		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.95	11 22 33	1175.90	17.68	344.24	120.28	113.51	11 42 9	575.9	20.71	336.81
97.05	13 19 16	798.45	17.69	316.56	120.29	113.50	13 32 35	198.4	20.72	309.13
100.00	12 44 53	908.90	12.67	322.25	117.82	117.30	13 0 2	308.9	16.23	315.27
100.00	14 39 37	5828.72	22.85	277.58	122.47	109.82	16 16 46	5228.7	25.34	269.67
110.00	12 31 10	952.05	4.83	320.83	113.14	123.88	12 47 2	352.1	9.25	314.52
110.00	17 9 49	5358.33	31.55	244.85	125.43	103.88	18 39 8	4758.3	33.14	235.99

DIFFERENTIAL CORRECTIONS

TDE	.2156	TRA	-1.0001	TC3	.0614	BAU	.0293
RDE	-.4450	RRA	.0512	RC3	-.0419	FAU	.02267
FDE	-.1896	FRA	.7151	FC3	-.6664	BSP	3666
BDE	.4945	BRA	1.0014	BC3	.0744	FSP	-246

MID-COURSE EXECUTION ACCURACY

SGT	1231.7	SGR	476.1	SG3	98.9		
RRT	-.3151	RRF	.3312	RTF	-.8074		
SGB	1320.5	R23	-.0399	R13	.8105		
SG1	1242.2	SG2	448.0	THA	172.01		

ORBIT DETERMINATION ACCURACY

ST	428.1	SR	470.2	SS	327.7
CRT	-.5647	CRS	-.6408	CST	.9934
LSA	640.0	MSA	319.1	SSA	16.4
EL1	563.4	EL2	294.9	ALF	130.28

LAUNCH DATE AUG 12 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 221.637

RL	151.59	LAL	.00	LOL	318.88	VL	24.622	GAL	3.22	AZL	91.50	HCA	91.28	SMA	115.94	ECC	.31213	INC	1.5029	V1	29.391		
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.207	GAP	-17.78	AZP	89.97	TAL	172.85	TAP	264.14	RCA	79.75	APO	152.13	V2	35.060		
RC	40.174	GL	-7.21	GP	-9.48	ZAL	70.93	ZAP	10.04	ETS	106.29	ZAE	172.41	ETE	327.68	ZAC	90.65	ETC	258.85	CLP	3.33		

PLANETOCENTRIC CONIC

C3	26.412	VHL	5.139	DLA	-28.77	RAL	245.04	RAD	6568.1	VEL	12.157	PTH	2.18	VHP	10.992	DPA	-26.38	RAP	228.28	ECC	1.4347		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.68	11 35 45	1103.82	18.20	339.17	118.22	112.67	11 54 9	503.8	21.12	331.67
95.32	13 4 35	816.27	18.22	318.11	118.23	112.66	13 18 11	216.3	21.13	310.61
100.00	12 32 53	918.40	12.37	322.80	115.40	117.43	12 48 11	318.4	15.95	315.83
100.00	14 50 9	5764.97	24.26	273.37	120.63	108.03	16 26 14	5165.0	26.49	265.28
110.00	12 25 57	940.16	5.29	320.20	111.16	123.82	12 41 38	340.2	9.69	313.88
110.00	17 13 33	5315.97	32.20	241.72	123.06	102.14	18 42 9	4716.0	33.54	232.75

DIFFERENTIAL CORRECTIONS

TDE	.2160	TRA	-.9842	TC3	.1064	BAU	.0434
RDE	-.4205	RRA	.0599	RC3	-.0615	FAU	.02390
FDE	-.1919	FRA	.7411	FC3	-.7835	BSP	3842
BDE	.4727	BRA	.9861	BC3	.1229	FSP	-274

MID-COURSE EXECUTION ACCURACY

SGT	1279.5	SGR	479.2	SG3	108.7		
RRT	-.3510	RRF	.3700	RTF	-.8197		
SGB	1366.3	R23	-.0457	R13	.8232		
SG1	1292.0	SG2	444.3	THA	171.50		

ORBIT DETERMINATION ACCURACY

ST	446.1	SR	469.4	SS	337.5
CRT	-.5801	CRS	-.6403	CST	.9952
LSA	656.5	MSA	319.4	SSA	16.7
EL1	575.9	EL2	296.2	ALF	132.49

LAUNCH DATE AUG 12 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 228.375

RL	151.59	LAL	.00	LOL	318.88	VL	24.853	GAL	2.93	AZL	91.33	HCA	94.49	SMA	117.11	ECC	.29850	INC	1.3337	V1	29.391
RP	108.05	LAP	-1.33	LOP	53.37	VP	36.377	GAP	-16.81	AZP	89.90	TAL	173.06	TAP	267.55	RCA	82.15	APO	152.07	V2	35.073
RC	40.345	GL	-6.81	GP	-10.11	ZAL	71.23	ZAP	10.24	ETS	96.16	ZAE	169.51	ETE	330.29	ZAC	90.24	ETC	259.08	CLP	1.66

PLANETOCENTRIC CONIC

C3	23.724	VHL	4.871	DLA	-28.33	RAL	244.76	RAD	6568.0	VEL	12.046	PTH	2.15	VHP	10.453	DPA	-27.46	RAP	229.67	ECC	1.3904		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
89.10	12 11 27	958.36	18.61	328.68	116.08	111.75	12 27 25	358.4	21.41	321.12
90.90	12 26 43	908.86	18.63	325.07	116.09	111.74	12 41 52	308.9	21.42	317.50
100.00	12 19 25	932.50	11.93	323.61	112.90	117.61	12 34 58	332.5	15.53	316.67
100.00	15 1 26	5697.99	25.59	268.84	118.65	106.00	16 36 24	5098.0	27.54	260.58
110.00	12 19 15	933.05	5.56	319.83	109.07	123.78	12 34 48	333.0	9.96	313.50
110.00	17 18 6	5270.21	32.81	238.29	120.57	100.19	18 45 56	4670.2	33.86	229.21

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2153	TRA	-.9683	TC3	.1590	BAU	.0574	SGT	1327.6	SGR	483.4	SG3	119.6	ST	463.5	SR	467.9	SS	346.9
RDE	-.3971	RRA	.0688	RC3	-.0863	FAU	.02527	RRT	-.3899	RRF	.4128	RTF	-.8309	CRT	-.5949	CRS	-.6387	CST	.9966
FDE	-.1933	FRA	.7691	FC3	-.9223	BSP	4019	SGB	1412.9	R23	-.0529	R13	.8349	LSA	672.3	MSA	319.0	SSA	17.0
BDE	.4517	BRA	.9707	BC3	.1809	FSP	-305	SG1	1342.6	SG2	440.2	THA	170.94	EL1	588.2	EL2	296.4	ALF	134.55

LAUNCH DATE AUG 12 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 235.124

RL	151.59	LAL	.00	LOL	318.88	VL	25.066	GAL	2.66	AZL	91.16	HCA	97.70	SMA	118.22	ECC	.28580	INC	1.1629	V1	29.391
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.535	GAP	-15.87	AZP	89.84	TAL	173.32	TAP	271.03	RCA	84.43	APO	152.00	V2	35.086
RC	40.692	GL	-6.31	GP	-10.80	ZAL	71.61	ZAP	10.80	ETS	86.50	ZAE	166.64	ETE	331.32	ZAC	89.75	ETC	259.32	CLP	-.05

PLANETOCENTRIC CONIC

C3	21.349	VHL	4.620	DLA	-27.77	RAL	244.41	RAD	6567.9	VEL	11.947	PTH	2.13	VHP	9.938	DPA	-28.58	RAP	231.03	ECC	1.3513		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 28 53	1066.73	15.07	335.03	112.21	114.26	11 46 39	466.7	18.22	327.77
90.00	13 6 28	749.28	22.82	314.99	115.31	107.24	13 18 58	149.3	24.96	306.98
100.00	12 4 42	950.93	11.34	324.67	110.34	117.84	12 20 33	350.9	14.98	317.77
100.00	15 13 20	5628.35	26.81	264.02	116.53	103.74	16 47 9	5028.3	28.43	255.60
110.00	12 11 2	931.02	5.63	319.72	106.90	123.77	12 26 33	331.0	10.03	313.39
110.00	17 23 29	5221.02	33.34	234.55	117.98	98.03	18 50 30	4621.0	34.09	225.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2111	TRA	-.9540	TC3	.2153	BAU	.0699	SGT	1376.9	SGR	489.1	SG3	131.6	ST	479.0	SR	465.4	SS	355.0
RDE	-.3744	RRA	.0782	RC3	-.1169	FAU	.02673	RRT	-.4299	RRF	.4589	RTF	-.8402	CRT	-.6043	CRS	-.6329	CST	.9975
FDE	-.1922	FRA	.8005	FC3	-1.0841	BSP	4108	SGB	1461.2	R23	-.0635	R13	.8447	LSA	685.5	MSA	319.2	SSA	17.4
BDE	.4298	BRA	.9572	BC3	.2450	FSP	-337	SG1	1394.6	SG2	435.9	THA	170.37	EL1	598.3	EL2	296.9	ALF	136.37

LAUNCH DATE AUG 12 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 241.880

RL	151.59	LAL	.00	LOL	318.88	VL	25.263	GAL	2.39	AZL	90.99	HCA	100.91	SMA	119.27	ECC	.27398	INC	.9894	V1	29.391
RP	107.97	LAP	-.97	LOP	59.80	VP	36.683	GAP	-14.97	AZP	89.81	TAL	173.63	TAP	274.55	RCA	86.59	APO	151.95	V2	35.098
RC	41.209	GL	-5.70	GP	-11.58	ZAL	72.08	ZAP	11.71	ETS	77.84	ZAE	163.84	ETE	331.56	ZAC	89.16	ETC	259.55	CLP	-1.80

PLANETOCENTRIC CONIC

C3	19.253	VHL	4.388	DLA	-27.08	RAL	243.98	RAD	6567.8	VEL	11.859	PTH	2.10	VHP	9.445	DPA	-29.76	RAP	232.33	ECC	1.3168		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 2 36	1123.03	13.46	338.39	109.21	115.15	11 21 19	523.0	16.74	331.25
90.00	13 29 21	643.66	24.77	307.87	113.48	104.18	13 40 4	43.7	26.48	299.62
100.00	11 48 50	973.68	10.62	325.96	107.76	118.11	12 5 3	373.7	14.29	319.10
100.00	15 25 48	5556.28	27.87	258.93	114.26	101.27	16 58 24	4956.3	29.14	250.36
110.00	12 1 21	934.35	5.51	319.89	104.66	123.79	12 16 55	334.3	9.91	313.57
110.00	17 29 46	5168.38	33.77	230.50	115.28	95.67	18 55 54	4568.4	34.18	221.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2143	TRA	-.9327	TC3	.2986	BAU	.0867	SGT	1420.6	SGR	497.9	SG3	145.0	ST	496.7	SR	462.7	SS	363.0
RDE	-.3531	RRA	.0877	RC3	-.1563	FAU	.02850	RRT	-.4818	RRF	.5108	RTF	-.8529	CRT	-.6303	CRS	-.6311	CST	.9982
FDE	-.1921	FRA	.8315	FC3	-1.2818	BSP	4412	SGB	1505.3	R23	-.0666	R13	.8579	LSA	702.5	MSA	314.3	SSA	17.6
BDE	.4130	BRA	.9368	BC3	.3370	FSP	-380	SG1	1442.7	SG2	429.6	THA	169.47	EL1	613.3	EL2	290.9	ALF	138.22

LAUNCH DATE AUG 12 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 248.640

RL	151.59	LAL	.00	LOL	318.88	VL	25.443	GAL	2.14	AZL	90.81	HCA	104.13	SMA	120.26	ECC	.26303	INC	.8119	V1	29.391
RP	107.93	LAP	-.79	LOP	63.01	VP	36.819	GAP	-14.09	AZP	89.80	TAL	173.98	TAP	278.11	RCA	88.63	APO	151.89	V2	35.111
RC	41.891	GL	-4.95	GP	-12.44	ZAL	72.64	ZAP	12.94	ETS	70.46	ZAE	161.14	ETE	331.30	ZAC	88.47	ETC	259.78	CLP	-3.59

PLANETOCENTRIC CONIC

C3	17.408	VHL	4.172	DLA	-26.24	RAL	243.50	RAD	6567.7	VEL	11.781	PTH	2.08	VHP	8.974	DPA	-31.00	RAP	233.57	ECC	1.2865		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 39 5	1171.49	12.04	341.24	106.37	115.82	10 58 36	571.5	15.42	334.19
90.00	13 48 58	5836.12	26.20	279.14	111.36	101.15	15 26 14	5236.1	27.47	270.71
100.00	11 31 54	1000.90	9.74	327.51	105.17	118.40	11 48 35	400.9	13.46	320.70
100.00	15 38 49	5481.95	28.74	253.58	111.86	98.58	17 10 11	4881.9	29.63	244.89
110.00	11 50 15	943.30	5.17	320.37	102.39	123.84	12 5 59	343.3	9.58	314.05
110.00	17 36 58	5112.31	34.06	226.15	112.50	93.11	19 2 10	4512.3	34.11	216.90

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2107	TRA	-.9160	TC3	.3805	BAU	.1005	SGT	1466.8	SGR	509.7	SG3	159.7	ST	510.7	SR	458.5	SS	369.1
RDE	-.3323	RRA	.0982	RC3	-.2042	FAU	.03036	RRT	-.5311	RRF	.5646	RTF	-.8620	CRT	-.6451	CRS	-.6222	CST	.9978
FDE	-.1878	FRA	.8675	FC3	-1.5098	BSP	4574	SGB	1552.8	R23	-.0767	R13	.8678	LSA	714.0	MSA	311.7	SSA	18.0
BDE	.3935	BRA	.9212	BC3	.4319	FSP	-423	SG1	1493.8	SG2	424.1	THA	168.61	EL1	623.5	EL2	287.0	ALF	139.75

LAUNCH DATE AUG 12 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 255.401

RL 151.59 LAL .00 LOL 318.88 VL 25.609 GAL 1.90 AZL 90.63 HCA 107.35 SMA 121.19 ECC .25291 INC .6292 V1 29.391
RP 107.89 LAP -.60 LOP 66.23 VP 36.946 GAP -13.25 AZP 89.81 TAL 174.38 TAP 281.72 RCA 90.54 APO 151.84 V2 35.123
RC 42.728 GL -4.06 GP -13.42 ZAL 73.27 ZAP 14.46 ETS 64.37 ZAE 158.56 ETE 330.70 ZAC 87.66 ETC 260.00 CLP -5.43

PLANETOCENTRIC CONIC

C3 15.790 VHL 3.974 DLA -25.24 RAL 242.96 RAD 6567.6 VEL 11.712 PTH 2.06 VHP 8.525 DPA -32.33 RAP 234.74 ECC 1.2599

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 22	1218.90	10.62	344.00	103.63	116.40	10 36 41	618.9	14.08	337.03
90.00	14 7 23	5744.00	27.24	272.60	109.06	98.04	15 43 7	5144.0	28.07	264.04
100.00	11 14 0	1032.82	8.70	329.31	102.62	118.71	11 31 13	432.8	12.47	322.55
100.00	15 52 26	5405.32	29.39	247.98	109.35	95.70	17 22 31	4805.3	29.87	239.21
110.00	11 37 49	958.12	4.60	321.14	100.11	123.91	11 53 47	358.1	9.03	314.85
110.00	17 45 6	5052.78	34.18	221.50	109.65	90.37	19 9 19	4452.8	33.85	212.27

DIFFERENTIAL CORRECTIONS
TDE .2058 TRA -.8984 TC3 .4756 BAU .1148
RDE -.3120 RRA .1098 RC3 -.2634 FAU .03243
FDE -.1797 FRA .9067 FC3-1.7780 BSP 4764
BDE .3738 BRA .9051 BC3 .5437 FSP -472

MID-COURSE EXECUTION ACCURACY
SGT 1510.7 SGR 526.2 SG3 176.1
RRT -.5830 RRF .6206 RTF -.8709
SGB 1599.7 R23 -.0869 R13 .8776
SG1 1544.1 SG2 418.3 THA 167.60

ORBIT DETERMINATION ACCURACY
ST 522.3 SR 453.0 SS 373.4
CRT -.6600 CRS -.6081 CST .9959
LSA 722.4 MSA 308.7 SSA 18.4
EL1 631.5 EL2 281.5 ALF 141.11

LAUNCH DATE AUG 12 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 262.160

RL 151.59 LAL .00 LOL 318.88 VL 25.762 GAL 1.67 AZL 90.44 HCA 110.56 SMA 122.06 ECC .24358 INC .4399 V1 29.391
RP 107.86 LAP -.41 LOP 69.45 VP 37.063 GAP -12.44 AZP 89.85 TAL 174.80 TAP 285.37 RCA 92.33 APO 151.79 V2 35.135
RC 43.711 GL -2.99 GP -14.52 ZAL 73.99 ZAP 16.23 ETS 59.42 ZAE 156.10 ETE 329.79 ZAC 86.71 ETC 260.22 CLP -7.34

PLANETOCENTRIC CONIC

C3 14.375 VHL 3.791 DLA -24.06 RAL 242.38 RAD 6567.6 VEL 11.652 PTH 2.05 VHP 8.098 DPA -33.75 RAP 235.83 ECC 1.2366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 53 46	1267.99	9.12	346.82	101.00	116.92	10 14 54	668.0	12.66	339.93
90.00	14 25 23	5652.87	27.94	266.03	106.61	94.81	15 59 36	5052.9	28.31	257.38
100.00	10 55 11	1069.77	7.49	331.38	100.12	119.02	11 13 1	469.8	11.30	324.67
100.00	16 6 40	5326.32	29.79	242.14	106.75	92.65	17 35 26	4726.3	29.84	233.33
110.00	11 24 6	979.06	3.81	322.24	97.86	124.00	11 40 25	379.1	8.25	315.97
110.00	17 54 14	4989.79	34.10	216.58	106.76	87.46	19 17 23	4389.8	33.37	207.42

DIFFERENTIAL CORRECTIONS
TDE .1988 TRA -.8811 TC3 .5802 BAU .1288
RDE -.2921 RRA .1229 RC3 -.3359 FAU .03470
FDE -.1670 FRA .9502 FC3-2.0899 BSP 4940
BDE .3534 BRA .8896 BC3 .6704 FSP -526

MID-COURSE EXECUTION ACCURACY
SGT 1552.4 SGR 548.7 SG3 194.1
RRT -.6353 RRF .6771 RTF -.8790
SGB 1646.5 R23 -.0985 R13 .8869
SG1 1594.0 SG2 412.7 THA 166.42

ORBIT DETERMINATION ACCURACY
ST 530.8 SR 445.7 SS 375.8
CRT -.6738 CRS -.5871 CST .9919
LSA 726.5 MSA 305.9 SSA 18.9
EL1 636.4 EL2 274.7 ALF 142.31

LAUNCH DATE AUG 12 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 268.914

RL 151.59 LAL .00 LOL 318.88 VL 25.901 GAL 1.45 AZL 90.24 HCA 113.79 SMA 122.88 ECC .23500 INC .2422 V1 29.391
RP 107.82 LAP -.22 LOP 72.67 VP 37.171 GAP -11.66 AZP 89.90 TAL 175.26 TAP 289.04 RCA 94.00 APO 151.75 V2 35.146
RC 44.829 GL -1.73 GP -15.75 ZAL 74.77 ZAP 18.24 ETS 55.45 ZAE 153.78 ETE -328.62 ZAC 85.62 ETC 260.42 CLP -9.31

PLANETOCENTRIC CONIC

C3 13.145 VHL 3.626 DLA -22.68 RAL 241.79 RAD 6567.5 VEL 11.599 PTH 2.03 VHP 7.695 DPA -35.28 RAP 236.81 ECC 1.2163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 0	1320.32	7.50	349.81	98.49	117.39	9 53 0	720.3	11.11	342.99
90.00	14 43 25	5561.37	28.28	259.36	104.08	91.49	16 16 6	4961.4	28.19	250.69
100.00	10 35 30	1112.13	6.08	333.74	97.73	119.32	10 54 2	512.1	9.94	327.08
100.00	16 21 36	5244.80	29.89	236.08	104.10	89.47	17 49 1	4644.8	29.49	227.30
110.00	11 9 13	1006.42	2.77	323.67	95.67	124.08	11 25 59	406.4	7.22	317.42
110.00	18 4 22	4923.28	33.78	211.42	103.85	84.42	19 26 25	4323.3	32.64	202.37

DIFFERENTIAL CORRECTIONS
TDE .1895 TRA -.8642 TC3 .6952 BAU .1431
RDE -.2722 RRA .1378 RC3 -.4243 FAU .03720
FDE -.1482 FRA .9987 FC3-2.4503 BSP 5131
BDE .3317 BRA .8751 BC3 .8144 FSP -587

MID-COURSE EXECUTION ACCURACY
SGT 1592.1 SGR 579.2 SG3 214.0
RRT -.6868 RRF .7325 RTF -.8868
SGB 1694.2 R23 -.1109 R13 .8961
SG1 1644.4 SG2 407.6 THA 165.03

ORBIT DETERMINATION ACCURACY
ST 535.8 SR 436.1 SS 376.7
CRT -.6866 CRS -.5568 CST .9843
LSA 725.7 MSA 303.5 SSA 19.4
EL1 637.4 EL2 266.6 ALF 143.40

LAUNCH DATE AUG 12 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 275.661

RL 151.59 LAL .00 LOL 318.88 VL 26.029 GAL 1.25 AZL 90.03 HCA 117.01 SMA 123.63 ECC .22715 INC .0328 V1 29.391
RP 107.79 LAP -.03 LOP 75.89 VP 37.270 GAP -10.90 AZP 89.98 TAL 175.74 TAP 292.75 RCA 95.55 APO 151.72 V2 35.158
RC 46.073 GL -.26 GP -17.15 ZAL 75.61 ZAP 20.48 ETS 52.26 ZAE 151.59 ETE 327.18 ZAC 84.35 ETC 260.60 CLP -11.36

PLANETOCENTRIC CONIC

C3 12.082 VHL 3.476 DLA -21.07 RAL 241.19 RAD 6567.5 VEL 11.553 PTH 2.02 VHP 7.315 DPA -36.94 RAP 237.66 ECC 1.1988

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 52	1377.02	5.71	353.01	96.14	117.78	9 30 49	777.0	9.38	346.26
90.00	15 1 47	5468.63	28.26	252.57	101.52	88.09	16 32 56	4868.6	27.69	243.95
100.00	10 15 1	1160.35	4.47	336.41	95.46	119.59	10 34 21	560.3	8.37	329.80
100.00	16 37 20	5160.54	29.67	229.83	101.44	86.18	18 3 21	4560.5	28.83	221.13
110.00	10 53 15	1040.50	1.46	325.45	93.59	124.16	11 10 35	440.5	5.94	319.22
110.00	18 15 35	4853.16	33.18	206.03	100.99	81.28	19 36 28	4253.2	31.62	197.15

DIFFERENTIAL CORRECTIONS
TDE .1775 TRA -.8473 TC3 .8149 BAU .1571
RDE -.2518 RRA .1550 RC3 -.5308 FAU .03991
FDE -.1211 FRA 1.0522 FC3-2.8596 BSP 5309
BDE .3081 BRA .8613 BC3 .9726 FSP -652

MID-COURSE EXECUTION ACCURACY
SGT 1626.9 SGR 619.3 SG3 235.8
RRT -.7349 RRF .7843 RTF -.8935
SGB 1740.7 R23 -.1246 R13 .9046
SG1 1693.3 SG2 403.5 THA 163.40

ORBIT DETERMINATION ACCURACY
ST 536.2 SR 423.3 SS 376.2
CRT -.6985 CRS -.5133 CST .9706
LSA 718.7 MSA 302.2 SSA 19.9
EL1 633.2 EL2 256.6 ALF 144.43

LAUNCH DATE AUG 12 1970 FLIGHT TIME 110.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 282.398

RL	151.59	LAL	.00	LOL	318.88	VL	26.145	GAL	1.06	AZL	89.81	HCA	120.23	SMA	124.33	ECC	.21998	INC	.1854	V1	29.391
RP	107.76	LAP	.16	LOP	79.12	VP	37.361	GAP	-10.17	AZP	90.09	TAL	176.23	TAP	296.46	RCA	96.98	APO	151.69	V2	35.168
RC	47.431	GL	1.45	GP	-18.73	ZAL	76.50	ZAP	22.95	ETS	49.71	ZAE	149.50	ETE	325.46	ZAC	82.88	ETC	260.76	CLP	-13.50

PLANETOCENTRIC CONIC

C3	11.172	VHL	3.343	DLA	-19.22	RAL	240.61	RAD	6567.4	VEL	11.513	PTH	2.01	VHP	6.959	DPA	-38.75	RAP	238.36	ECC	1.1839

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 44 19	1439.04	3.73	356.50	93.98	118.09	9 8 18	839.0	7.46	349.80
90.00	15 20 45	5373.96	27.85	245.68	98.98	84.66	16 50 19	4774.0	26.82	237.17
100.00	9 53 46	1214.93	2.63	339.41	93.37	119.79	10 14 1	614.9	6.57	332.85
100.00	16 53 59	5073.31	29.10	223.41	98.82	82.85	18 18 32	4473.3	27.81	214.84
110.00	10 36 17	1081.69	-.11	327.60	91.66	124.18	10 54 19	481.7	4.37	321.39
110.00	18 27 57	4779.32	32.28	200.46	98.20	78.10	19 47 36	4179.3	30.31	191.80

DIFFERENTIAL CORRECTIONS

TDE	.1623	TRA	-.8304	TC3	.9367	BAU	.1710														
RDE	-.2303	RRA	.1750	RC3	-.6579	FAU	.04277														
FDE	-.0838	FRA	1.1109	FC3	-3.3145	BSP	5475														
BDE	.2817	BRA	.8486	BC3	1.1446	FSP	-724														

MID-COURSE EXECUTION ACCURACY

SGT	1655.8	SGR	671.0	SG3	259.2						
RRT	-.7778	RRF	.8308	RTF	-.8995						
SGB	1786.6	R23	-.1389	R13	.9128						
SG1	1741.0	SG2	401.1	THA	161.49						

ORBIT DETERMINATION ACCURACY

ST	531.3	SR	406.3	SS	376.0				
CRT	-.7096	CRS	-.4537	CST	.9476				
LSA	704.7	MSA	302.7	SSA	20.4				
EL1	622.6	EL2	244.3	ALF	145.47				

LAUNCH DATE AUG 12 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 289.124

RL	151.59	LAL	.00	LOL	318.88	VL	26.250	GAL	.89	AZL	89.58	HCA	123.46	SMA	124.98	ECC	.21346	INC	.4210	V1	29.391
RP	107.72	LAP	.35	LOP	82.34	VP	37.445	GAP	-9.46	AZP	90.23	TAL	176.73	TAP	300.19	RCA	98.30	APO	151.66	V2	35.179
RC	48.893	GL	3.43	GP	-20.53	ZAL	77.44	ZAP	25.66	ETS	47.65	ZAE	147.49	ETE	323.47	ZAC	81.18	ETC	260.88	CLP	-15.74

PLANETOCENTRIC CONIC

C3	10.407	VHL	3.226	DLA	-17.10	RAL	240.08	RAD	6567.4	VEL	11.480	PTH	2.00	VHP	6.629	DPA	-40.74	RAP	238.88	ECC	1.1713

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 16	1507.28	1.53	.31	92.05	118.28	8 45 23	907.3	5.30	353.66
90.00	15 40 31	5276.76	27.04	238.69	96.54	81.24	17 8 28	4676.8	25.55	230.33
100.00	9 31 47	1276.49	.54	342.79	91.50	119.89	9 53 4	676.5	4.51	336.26
100.00	17 11 41	4982.78	28.16	216.85	96.32	79.52	18 34 43	4382.8	26.42	208.47
110.00	10 18 25	1130.44	-1.98	330.15	89.92	124.13	10 37 15	530.4	2.52	323.94
110.00	18 41 33	4701.60	31.05	194.74	95.57	74.92	19 59 54	4101.6	28.67	186.35

DIFFERENTIAL CORRECTIONS

TDE	.1444	TRA	-.8145	TC3	1.0596	BAU	.1855														
RDE	-.2067	RRA	.1990	RC3	-.8095	FAU	.04588														
FDE	-.0340	FRA	1.1771	FC3	-3.8168	BSP	5676														
BDE	.2521	BRA	.8385	BC3	1.3334	FSP	-805														

MID-COURSE EXECUTION ACCURACY

SGT	1680.4	SGR	737.8	SG3	284.6						
RRT	-.8154	RRF	.8711	RTF	-.9049						
SGB	1835.3	R23	-.1528	R13	.9212						
SG1	1791.0	SG2	400.8	THA	159.21						

ORBIT DETERMINATION ACCURACY

ST	521.8	SR	383.9	SS	379.8				
CRT	-.7230	CRS	-.3778	CST	.9102				
LSA	685.7	MSA	305.4	SSA	20.8				
EL1	606.3	EL2	228.3	ALF	146.67				

LAUNCH DATE AUG 12 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 295.836

RL	151.59	LAL	.00	LOL	318.88	VL	26.346	GAL	.72	AZL	89.33	HCA	126.69	SMA	125.58	ECC	.20755	INC	.6746	V1	29.391
RP	107.69	LAP	.54	LOP	85.57	VP	37.521	GAP	-8.77	AZP	90.40	TAL	177.23	TAP	303.92	RCA	99.51	APO	151.64	V2	35.188
RC	50.451	GL	5.69	GP	-22.57	ZAL	78.40	ZAP	28.63	ETS	45.97	ZAE	145.53	ETE	321.18	ZAC	79.23	ETC	260.98	CLP	-18.09

PLANETOCENTRIC CONIC

C3	9.778	VHL	3.127	DLA	-14.69	RAL	239.61	RAD	6567.4	VEL	11.453	PTH	1.99	VHP	6.327	DPA	-42.92	RAP	239.17	ECC	1.1609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 40	1582.68	-.90	4.52	90.40	118.30	8 22 3	982.7	2.89	357.89
90.00	16 1 21	5176.43	25.80	231.60	94.26	77.90	17 27 37	4576.4	23.87	223.46
100.00	9 9 6	1345.73	-1.81	346.59	89.90	119.84	9 31 32	745.7	2.18	340.07
100.00	17 30 36	4888.62	26.81	210.17	94.00	76.26	18 52 4	4288.6	24.65	202.04
110.00	9 59 41	1187.30	-4.14	333.12	88.44	123.96	10 19 28	587.3	.34	326.91
110.00	18 56 30	4619.81	29.45	188.90	93.14	71.81	20 13 30	4019.8	26.69	180.81

DIFFERENTIAL CORRECTIONS

TDE	.1218	TRA	-.7994	TC3	1.1667	BAU	.1995														
RDE	-.1795	RRA	.2278	RC3	-.9839	FAU	.04896														
FDE	.0333	FRA	1.2501	FC3	-4.3352	BSP	5827														
BDE	.2169	BRA	.8312	BC3	1.5262	FSP	-885														

MID-COURSE EXECUTION ACCURACY

SGT	1695.7	SGR	820.4	SG3	311.1						
RRT	-.8453	RRF	.9040	RTF	-.9092						
SGB	1883.7	R23	-.1662	R13	.9291						
SG1	1839.9	SG2	404.0	THA	156.56						

ORBIT DETERMINATION ACCURACY

ST	506.6	SR	354.0	SS	392.3				
CRT	-.7396	CRS	-.2890	CST	.8551				
LSA	661.9	MSA	311.9	SSA	21.1				
EL1	582.2	EL2	207.3	ALF	148.17				

LAUNCH DATE AUG 12 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 302.533

RL	151.59	LAL	.00	LOL	318.88	VL	26.432	GAL	.57	AZL	89.05	HCA	129.92	SMA	126.12	ECC	.20221	INC	.9508	V1	29.391
RP	107.67	LAP	.73	LOP	88.80	VP	37.590	GAP	-8.11	AZP	90.61	TAL	177.73	TAP	307.65	RCA	100.62	APO	151.62	V2	35.198
RC	52.096	GL	8.28	GP	-24.88	ZAL	79.39	ZAP	31.86	ETS	44.59	ZAE	143.56	ETE	318.57	ZAC	76.99	ETC	261.02	CLP	-20.57

PLANETOCENTRIC CONIC

C3	9.281	VHL	3.046	DLA	-11.98	RAL	239.22	RAD	6567.3	VEL	11.431	PTH	1.98	VHP	6.056	DPA	-45.34	RAP	239.19	ECC	1.1527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 26	1666.24	-3.59	9.18	89.09	118.11	7 58 12	1066.2	.20	2.55
90.00	16 23 30	5072.42	24.12	224.45	92.22	74.69	17 48 2	4472.4	21.78	216.56
100.00	8 45 41	1423.49	-4.43	350.87	88.63	119.59	9 9 24	823.5	-.46	344.34
100.00	17 50 56	4790.40	25.04	203.41	91.93	73.12	19 10 47	4190.4	22.49	195.54
110.00	9 40 8	1252.92	-6.63	336.57	87.27	123.61	10 1 1	652.9	-2.16	330.33
110.00	19 12 58	4533.73	27.48	182.99	90.99	68.82	20 28 32	3933.7	24.35	175.22

DIFFERENTIAL CORRECTIONS

TDE	.0970	TRA	-.7848	TC3	1.2645	BAU	.2151														
RDE	-.1477	RRA	.2626	RC3	-1.1857	FAU	.05217														
FDE	.1177	FRA	1.3294	FC3	-4.8661	BSP	6002														
BDE	.1767	BRA	.8276	BC3	1.7334	FSP	-971														

MID-COURSE EXECUTION ACCURACY

SGT	1704.0	SGR	924.2	SG3	338.7						
RRT	-.8694	RRF	.9303	RTF	-.9131						
SGB	1938.5	R23	-.1761	R13	.9376						
SG1	1894.5	SG2	410.7	THA	153.41						

ORBIT DETERMINATION ACCURACY

ST	488.6	SR	317.2	SS	420.2				
CRT	-.7727	CRS	-.2220	CST	.7869				
LSA	642.5	MSA	320.5	SSA	20.9				
EL1	554.9	EL2	177.3	ALF	149.98				

LAUNCH DATE AUG 12 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 309.214

RL 151.59 LAL .00 LOL 318.88 VL 26.510 GAL .44 AZL 88.75 HCA 133.14 SMA 126.61 ECC .19742 INC 1.2543 V1 29.391
RP 107.64 LAP .92 LOP 92.03 VP 37.653 GAP -7.47 AZP 90.86 TAL 178.21 TAP 311.36 RCA 101.62 APO 151.61 V2 35.206
RC 53.818 GL 11.21 GP -27.51 ZAL 80.37 ZAP 35.37 ETS 43.39 ZAE 141.53 ETE 315.65 ZAC 74.43 ETC 261.00 CLP -23.18

PLANETOCENTRIC CONIC

C3 8.918 VHL 2.986 DLA -8.93 RAL 238.94 RAD 6567.3 VEL 11.415 PTH 1.98 VHP 5.818 DPA -48.01 RAP 238.86 ECC 1.1468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 4 27	1759.17	-6.55	14.41	88.19	117.61	7 33 46	1159.2	-2.80	7.74
90.00	16 47 16	4964.09	21.98	217.23	90.51	71.69	18 10 1	4364.1	19.28	209.60
100.00	8 21 26	1510.79	-7.35	355.71	87.76	119.06	8 46 37	910.8	-3.42	349.13
100.00	18 12 58	4687.71	22.84	196.58	90.19	70.17	19 31 6	4087.7	19.93	189.00
110.00	9 19 46	1328.14	-9.44	340.58	86.49	123.01	9 41 54	728.1	-5.03	334.27
110.00	19 31 8	4443.12	25.10	177.01	89.19	66.00	20 45 11	3843.1	21.65	169.57

DIFFERENTIAL CORRECTIONS
TDE .0687 TRA -.7695 TC3 1.3348 BAU .2316
RDE -.1086 RRA .3047 RC3-1.4107 FAU .05523
FDE .2250 FRA 1.4128 FC3-5.3610 BSP 6201
BDE .1285 BRA .8276 BC3 1.9421 FSP -1060

MID-COURSE EXECUTION ACCURACY
SGT 1698.9 SGR 1050.5 SG3 366.2
RRT -.8873 RRF .9503 RTF -.9160
SGB 1997.4 R23 -.1813 R13 .9461
SG1 1952.4 SG2 421.5 THA 149.69

ORBIT DETERMINATION ACCURACY
ST 467.9 SR 274.8 SS 469.7
CRT -.8370 CRS -.2283 CST .7192
LSA 637.9 MSA 328.3 SSA 20.2
EL1 525.9 EL2 133.8 ALF 151.83

LAUNCH DATE AUG 12 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 315.877

RL 151.59 LAL .00 LOL 318.88 VL 26.579 GAL .32 AZL 88.41 HCA 136.38 SMA 127.06 ECC .19314 INC 1.5921 V1 29.391
RP 107.61 LAP 1.10 LOP 95.27 VP 37.710 GAP -6.85 AZP 91.15 TAL 178.67 TAP 315.05 RCA 102.52 APO 151.60 V2 35.214
RC 55.612 GL 14.50 GP -30.47 ZAL 81.35 ZAP 39.19 ETS 42.31 ZAE 139.35 ETE 312.42 ZAC 71.52 ETC 260.91 CLP -25.93

PLANETOCENTRIC CONIC

C3 8.697 VHL 2.949 DLA -5.52 RAL 238.80 RAD 6567.3 VEL 11.406 PTH 1.97 VHP 5.620 DPA -50.97 RAP 238.11 ECC 1.1431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 37 31	1862.85	-9.78	20.32	87.78	116.71	7 8 34	1262.9	-6.11	13.56
90.00	17 13 4	4850.82	19.38	209.94	89.21	68.94	18 33 54	4250.8	16.34	202.58
100.00	7 56 15	1608.76	-10.55	1.24	87.38	118.13	8 23 3	1008.8	-6.70	354.56
100.00	18 37 1	4580.04	20.18	189.69	88.87	67.47	19 53 21	3980.0	16.96	182.38
110.00	8 58 31	1413.93	-12.58	345.24	86.17	122.05	9 22 5	813.9	-8.26	338.81
110.00	19 51 14	4347.75	22.33	171.00	87.82	63.42	21 3 42	3747.7	18.58	163.87

DIFFERENTIAL CORRECTIONS
TDE .0386 TRA -.7558 TC3 1.3556 BAU .2480
RDE -.0595 RRA .3566 RC3-1.6463 FAU .05770
FDE .3553 FRA 1.5009 FC3-5.7434 BSP 6375
BDE .0709 BRA .8357 BC3 2.1326 FSP -1138

MID-COURSE EXECUTION ACCURACY
SGT 1679.6 SGR 1200.4 SG3 391.5
RRT -.8987 RRF .9650 RTF -.9169
SGB 2064.4 R23 -.1822 R13 .9544
SG1 2017.4 SG2 438.2 THA 145.42

ORBIT DETERMINATION ACCURACY
ST 449.5 SR 240.4 SS 544.8
CRT -.9418 CRS -.3956 CST .6732
LSA 669.7 MSA 328.5 SSA 18.8
EL1 504.6 EL2 72.0 ALF 152.66

LAUNCH DATE AUG 12 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 322.520

RL 151.59 LAL .00 LOL 318.88 VL 26.641 GAL .21 AZL 88.03 HCA 139.61 SMA 127.46 ECC .18933 INC 1.9725 V1 29.391
RP 107.59 LAP 1.28 LOP 98.51 VP 37.760 GAP -6.24 AZP 91.50 TAL 179.10 TAP 318.71 RCA 103.33 APO 151.60 V2 35.222
RC 57.469 GL 18.18 GP -33.81 ZAL 82.30 ZAP 43.30 ETS 41.25 ZAE 136.96 ETE 308.92 ZAC 68.21 ETC 260.73 CLP -28.85

PLANETOCENTRIC CONIC

C3 8.635 VHL 2.938 DLA -1.76 RAL 238.81 RAD 6567.3 VEL 11.403 PTH 1.97 VHP 5.466 DPA -54.22 RAP 236.78 ECC 1.1421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 9 20	1979.05	-13.25	27.09	87.97	115.26	6 42 19	1379.0	-9.73	20.17
90.00	17 41 20	4731.88	16.31	202.57	88.43	66.52	19 0 12	4131.9	12.99	195.46
100.00	7 29 51	1719.29	-14.01	7.61	87.59	116.68	7 58 30	1119.3	-10.32	.76
100.00	19 3 30	4466.87	17.08	182.72	88.07	65.09	20 17 57	3866.9	13.58	175.67
110.00	8 36 13	1511.52	-16.04	350.69	86.44	120.60	9 1 25	911.5	-11.86	344.07
110.00	20 13 37	4247.39	19.15	164.95	86.96	61.13	21 24 24	3647.4	15.15	158.12

DIFFERENTIAL CORRECTIONS
TDE .0071 TRA -.7407 TC3 1.3375 BAU .2671
RDE .0038 RRA .4201 RC3-1.8880 FAU .05964
FDE .5103 FRA 1.5871 FC3-5.9798 BSP 6621
BDE .0081 BRA .8516 BC3 2.3137 FSP -1211

MID-COURSE EXECUTION ACCURACY
SGT 1645.0 SGR 1379.4 SG3 413.7
RRT -.9062 RRF .9756 RTF -.9169
SGB 2146.8 R23 -.1747 R13 .9630
SG1 2097.5 SG2 457.5 THA 140.53

ORBIT DETERMINATION ACCURACY
ST 434.4 SR 248.2 SS 644.8
CRT -.9949 CRS -.7057 CST .6599
LSA 751.4 MSA 317.9 SSA 16.8
EL1 499.8 EL2 21.8 ALF 150.32

LAUNCH DATE AUG 12 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 329.143

RL 151.59 LAL .00 LOL 318.88 VL 26.696 GAL .12 AZL 87.59 HCA 142.84 SMA 127.82 ECC .18596 INC 2.4071 V1 29.391
RP 107.57 LAP 1.45 LOP 101.74 VP 37.806 GAP -5.66 AZP 91.92 TAL 179.50 TAP 322.33 RCA 104.05 APO 151.59 V2 35.229
RC 59.382 GL 22.26 GP -37.55 ZAL 83.22 ZAP 47.72 ETS 40.12 ZAE 134.27 ETE 305.17 ZAC 64.50 ETC 260.42 CLP -31.94

PLANETOCENTRIC CONIC

C3 8.759 VHL 2.960 DLA 2.38 RAL 239.00 RAD 6567.3 VEL 11.408 PTH 1.97 VHP 5.366 DPA -57.78 RAP 234.70 ECC 1.1442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 39 25	2110.00	-16.90	34.97	88.90	113.06	6 14 35	1510.0	-13.63	27.81
90.00	18 12 46	4606.38	12.76	195.06	88.28	64.50	19 29 32	4006.4	9.22	188.17
100.00	7 1 52	1844.05	-17.68	15.05	88.54	114.50	7 32 36	1244.0	-14.23	7.96
100.00	19 33 0	4347.56	13.53	175.64	87.89	63.09	20 45 27	3747.6	9.81	168.82
110.00	8 12 39	1622.48	-19.77	357.13	87.44	118.47	8 39 42	1022.5	-15.81	350.24
110.00	20 38 42	4141.90	15.57	158.87	86.73	59.18	21 47 43	3541.9	11.36	152.28

DIFFERENTIAL CORRECTIONS
TDE -.0266 TRA -.7242 TC3 1.2506 BAU .2867
RDE .0879 RRA .4985 RC3-2.1047 FAU .06033
FDE .6928 FRA 1.6674 FC3-5.9627 BSP 6838
BDE .0918 BRA .8791 BC3 2.4482 FSP -1255

MID-COURSE EXECUTION ACCURACY
SGT 1587.2 SGR 1585.6 SG3 429.3
RRT -.9084 RRF .9831 RTF -.9147
SGB 2243.5 R23 -.1600 R13 .9714
SG1 2191.6 SG2 480.0 THA 135.03

ORBIT DETERMINATION ACCURACY
ST 424.7 SR 338.1 SS 768.7
CRT -.9164 CRS -.9150 CST .6809
LSA 892.1 MSA 299.3 SSA 14.4
EL1 531.9 EL2 108.0 ALF 142.04

LAUNCH DATE AUG 12 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 335.743

RL	151.59	LAL	.00	LOL	318.88	VL	26.744	GAL	.03	AZL	87.09	HCA	146.07	SMA	128.14	ECC	.18300	INC	2.9118	V1	29.391
RP	107.55	LAP	1.62	LOP	104.98	VP	37.845	GAP	-5.09	AZP	92.42	TAL	179.85	TAP	325.91	RCA	104.69	APO	151.59	V2	35.235
RC	61.346	GL	26.73	GP	-41.70	ZAL	84.07	ZAP	52.40	ETS	38.84	ZAE	131.21	ETE	301.24	ZAC	60.37	ETC	259.95	CLP	-35.20

PLANETOCENTRIC CONIC

C3	9.121	VHL	3.020	DLA	6.88	RAL	239.39	RAD	6567.3	VEL	11.424	PTH	1.98	VHP	5.331	DPA	-61.61	RAP	231.56	ECC	1.1501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 6 59	2258.84	-20.62	44.30	90.73	109.85	5 44 38	1658.8	-17.73	36.82
90.00	18 48 16	4473.09	8.74	187.34	88.90	62.96	20 2 49	3873.1	5.04	180.61
100.00	6 31 37	1985.89	-21.45	23.89	90.39	111.33	7 4 43	1385.9	-18.36	16.46
100.00	20 6 20	4221.27	9.52	168.40	88.48	61.53	21 16 41	3621.3	5.65	161.76
110.00	7 47 23	1748.80	-23.67	4.85	89.36	115.41	8 16 31	1148.8	-20.05	357.58
110.00	21 7 4	4031.12	11.61	152.72	87.23	57.62	22 14 15	3431.1	7.26	146.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0674	TRA	-.7147	TC3	1.0990	BAU	.3074	SGT	1523.9	SGR	1830.6	SG3	438.8	ST	429.7	SR	522.0	SS	921.6
RDE	.2054	RRA	.6016	RC3	-2.2685	FAU	.05944	RRT	-.9068	RRF	.9884	RTF	-.9113	CRT	-.8559	CRS	-.9801	CST	.7378
FDE	.9107	FRA	1.7512	FC3	-5.6419	BSP	6856	SGB	2381.9	R23	-.1375	R13	.9794	LSA	1109.0	MSA	276.2	SSA	11.9
BDE	.2162	BRA	.9343	BC3	2.5206	FSP	-1236	SG1	2327.7	SG2	505.3	THA	129.25	EL1	652.3	EL2	177.8	ALF	128.56

LAUNCH DATE AUG 12 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 342.323

RL	151.59	LAL	.00	LOL	318.88	VL	26.786	GAL	-.03	AZL	86.49	HCA	149.29	SMA	128.42	ECC	.18043	INC	3.5091	V1	29.391
RP	107.53	LAP	1.79	LOP	108.22	VP	37.880	GAP	-4.54	AZP	93.02	TAL	180.15	TAP	329.45	RCA	105.25	APO	151.59	V2	35.240
RC	63.355	GL	31.58	GP	-46.24	ZAL	84.86	ZAP	57.29	ETS	37.28	ZAE	127.71	ETE	297.21	ZAC	55.84	ETC	259.28	CLP	-38.62

PLANETOCENTRIC CONIC

C3	9.804	VHL	3.131	DLA	11.71	RAL	239.99	RAD	6567.4	VEL	11.454	PTH	1.99	VHP	5.377	DPA	-65.65	RAP	226.85	ECC	1.1613

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 30 45	2430.34	-24.15	55.63	93.68	105.25	5 11 15	1830.3	-21.83	47.73
90.00	19 29 21	4329.83	4.22	179.23	90.49	61.97	20 41 31	3729.8	.44	172.59
100.00	5 58 2	2148.84	-25.09	34.63	93.39	106.81	6 33 51	1548.8	-22.55	26.75
100.00	20 44 45	4086.56	5.07	160.88	90.02	60.50	21 52 52	3486.6	1.11	154.34
110.00	7 19 42	1893.26	-27.56	14.27	92.44	111.07	7 51 16	1293.3	-24.45	6.49
110.00	21 39 34	3914.91	7.30	146.48	88.65	56.51	22 44 49	3314.9	2.85	140.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0652	TRA	-.6383	TC3	1.0650	BAU	.3544	SGT	1371.9	SGR	2084.8	SG3	429.1	ST	377.8	SR	710.7	SS	999.5
RDE	.3289	RRA	.6689	RC3	-2.4850	FAU	.06056	RRT	-.9093	RRF	.9919	RTF	-.9071	CRT	-.7708	CRS	-.9941	CST	.6980
FDE	1.0576	FRA	1.6668	FC3	-5.3476	BSP	8106	SGB	2495.7	R23	-.1115	R13	.9857	LSA	1256.2	MSA	261.8	SSA	9.5
BDE	.3353	BRA	.9246	BC3	2.7036	FSP	-1348	SG1	2447.9	SG2	486.1	THA	122.32	EL1	773.9	EL2	221.0	ALF	114.40

LAUNCH DATE AUG 12 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 348.876

RL	151.59	LAL	.00	LOL	318.88	VL	26.823	GAL	-.09	AZL	85.77	HCA	152.52	SMA	128.67	ECC	.17820	INC	4.2318	V1	29.391
RP	107.52	LAP	1.95	LOP	111.47	VP	37.911	GAP	-4.00	AZP	93.76	TAL	180.40	TAP	332.92	RCA	105.74	APO	151.59	V2	35.245
RC	65.403	GL	36.74	GP	-51.16	ZAL	85.58	ZAP	62.31	ETS	35.36	ZAE	123.73	ETE	293.14	ZAC	50.93	ETC	258.32	CLP	-42.19

PLANETOCENTRIC CONIC

C3	10.949	VHL	3.309	DLA	16.83	RAL	240.84	RAD	6567.4	VEL	11.504	PTH	2.00	VHP	5.526	DPA	-69.77	RAP	219.70	ECC	1.1802

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 48 8	2632.96	-27.04	69.75	97.97	98.75	4 32 1	2033.0	-25.55	61.40
90.00	20 18 41	4171.73	-.87	170.40	93.37	61.70	21 28 12	3571.7	-4.65	163.76
100.00	5 19 4	2339.74	-28.17	47.96	97.76	100.44	5 58 4	1739.7	-26.44	39.59
100.00	21 30 26	3940.19	.13	152.83	92.81	60.11	22 36 6	3340.2	-3.85	146.30
110.00	6 48 28	2060.04	-31.09	25.96	97.00	104.98	7 22 48	1460.0	-28.72	17.56
110.00	22 17 32	3792.66	2.67	140.05	91.22	55.91	23 20 44	3192.7	-1.82	133.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0682	TRA	-.6466	TC3	.7574	BAU	.3687	SGT	1278.1	SGR	2381.4	SG3	412.5	ST	370.6	SR	995.4	SS	1114.1
RDE	.5086	RRA	.8506	RC3	-2.4024	FAU	.05446	RRT	-.8874	RRF	.9944	RTF	-.8860	CRT	-.7231	CRS	-.9981	CST	.6799
FDE	1.2285	FRA	1.7610	FC3	-4.3065	BSP	8516	SGB	2702.7	R23	-.0915	R13	.9902	LSA	1516.3	MSA	264.7	SSA	7.6
BDE	.5131	BRA	1.0685	BC3	2.5189	FSP	-1278	SG1	2650.3	SG2	529.4	THA	116.61	EL1	1033.1	EL2	246.6	ALF	106.00

LAUNCH DATE AUG 12 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 355.404

RL	151.59	LAL	.00	LOL	318.88	VL	26.854	GAL	-.13	AZL	84.87	HCA	155.74	SMA	128.87	ECC	.17631	INC	5.1304	V1	29.391
RP	107.51	LAP	2.11	LOP	114.71	VP	37.936	GAP	-3.49	AZP	94.68	TAL	180.59	TAP	336.34	RCA	106.15	APO	151.59	V2	35.249
RC	67.486	GL	42.15	GP	-56.41	ZAL	86.21	ZAP	67.33	ETS	32.98	ZAE	119.28	ETE	289.07	ZAC	45.69	ETC	256.98	CLP	-45.84

PLANETOCENTRIC CONIC

C3	12.807	VHL	3.579	DLA	22.15	RAL	241.93	RAD	6567.5	VEL	11.584	PTH	2.03	VHP	5.811	DPA	-73.69	RAP	208.50	ECC	1.2108

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 53 1	2886.43	-28.31	88.14	103.61	89.65	3 41 7	2286.4	-28.06	79.49
90.00	21 22 30	3984.05	-6.88	159.88	98.06	62.46	22 28 54	3384.1	-10.51	153.09
100.00	4 30 15	2572.91	-29.85	65.06	103.59	91.62	5 13 8	1972.9	-29.31	56.30
100.00	22 27 57	3772.80	-5.52	143.62	97.32	60.58	23 30 50	3172.8	-9.40	136.98
110.00	6 11 26	2256.34	-33.61	40.70	103.27	96.62	6 49 3	1656.3	-32.33	31.70
110.00	23 3 15	3662.14	-2.32	133.24	95.33	55.89	24 4 17	3062.1	-6.78	126.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0540	TRA	-.6115	TC3	.5124	BAU	.3940	SGT	1122.2	SGR	2686.3	SG3	379.2	ST	328.9	SR	1315.1	SS	1194.8
RDE	.7493	RRA	1.0347	RC3	-2.2432	FAU	.04814	RRT	-.8569	RRF	.9961	RTF	-.8554	CRT	-.6344	CRS	-.9994	CST	.6084
FDE	1.3757	FRA	1.7338	FC3	-3.2539	BSP	9120	SGB	2911.3	R23	-.0668	R13	.9938	LSA	1788.6	MSA	257.3	SSA	5.9
BDE	.7513	BRA	1.2019	BC3	2.3009	FSP	-1182	SG1	2860.1	SG2	543.3	THA	110.47	EL1	1332.2	EL2	251.0	ALF	99.35

LAUNCH DATE AUG 12 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 361.904
RL 151.59 LAL .00 LOL 318.88 VL 26.880 GAL -.15 AZL 83.71 HCA 158.96 SMA 129.05 ECC .17472 INC 6.2855 V1 29.391
RP 107.50 LAP 2.25 LOP 117.96 VP 37.958 GAP -2.98 AZP 95.87 TAL 180.72 TAP 339.68 RCA 106.50 APO 151.60 V2 35.253
RC 69.608 GL 47.67 GP -61.93 ZAL 86.77 ZAP 72.19 ETS 30.04 ZAE 114.37 ETE 285.03 ZAC 40.19 ETC 255.08 CLP -49.45
PLANETOCENTRIC CONIC
C3 15.844 VHL 3.981 DLA 27.55 RAL 243.27 RAD 6567.6 VEL 11.714 PTH 2.06 VHP 6.283 DPA -76.91 RAP 190.60 ECC 1.2608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 13 5	3293.36	-24.67	117.21	109.32	75.64	2 7 58	2693.4	-26.41	108.97
90.00	23 13 11	3671.11	-16.16	141.59	106.20	66.43	24 14 22	3071.1	-19.21	134.24
100.00	3 15 37	2898.36	-28.05	88.99	110.16	79.23	4 3 55	2298.4	-29.25	80.39
100.00	23 53 20	3541.33	-13.03	130.53	104.67	62.86	24 52 21	2941.3	-16.57	123.52
110.00	5 23 34	2497.95	-33.92	59.50	111.08	85.53	6 5 12	1897.9	-34.17	50.26
110.00	0 5 48	3514.51	-7.91	125.47	101.64	56.64	1 4 23	2914.5	-12.25	119.05

DIFFERENTIAL CORRECTIONS
TDE -.0109 TRA -.5661 TC3 .2505 BAU .4050
RDE 1.0774 RRA 1.2758 RC3-1.8953 FAU .03898
FDE 1.4865 FRA 1.6742 FC3-2.1300 BSP 9348
BDE 1.0775 BRA 1.3958 BC3 1.9118 FSP -1001

MID-COURSE EXECUTION ACCURACY
SGT 940.6 SGR 2995.3 SG3 332.8
RRT -.7911 RRF .9972 RTF -.7919
SGB 3139.5 R23 -.0413 R13 .9963
SG1 3089.5 SG2 557.8 THA 104.43

ORBIT DETERMINATION ACCURACY
ST 276.2 SR 1671.3 SS 1243.4
CRT -.4242 CRS -.9998 CST .4087
LSA 2086.2 MSA 251.0 SSA 4.7
EL1 1675.5 EL2 249.5 ALF 94.10

LAUNCH DATE AUG 12 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 368.368
RL 151.59 LAL .00 LOL 318.88 VL 26.901 GAL -.16 AZL 82.16 HCA 162.16 SMA 129.19 ECC .17341 INC 7.8354 V1 29.391
RP 107.49 LAP 2.39 LOP 121.20 VP 37.975 GAP -2.50 AZP 97.46 TAL 180.78 TAP 342.95 RCA 106.79 APO 151.60 V2 35.255
RC 71.740 GL 53.16 GP -67.71 ZAL 87.26 ZAP 76.72 ETS 26.50 ZAE 109.02 ETE 281.00 ZAC 34.47 ETC 252.32 CLP -52.74
PLANETOCENTRIC CONIC
C3 21.000 VHL 4.583 DLA 32.86 RAL 244.85 RAD 6567.9 VEL 11.932 PTH 2.12 VHP 7.030 DPA -78.49 RAP 164.24 ECC 1.3456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.59	22 4 0	3974.50	-22.27	166.96	115.50	65.19	23 10 14	3374.5	-25.43	159.34
107.41	2 34 49	3121.63	-22.26	103.62	115.50	65.19	3 26 51	2521.6	-25.42	95.99
72.59	22 4 0	3974.50	-22.27	166.96	115.50	65.19	23 10 14	3374.5	-25.43	159.34
107.41	2 34 49	3121.63	-22.26	103.62	115.50	65.19	3 26 51	2521.6	-25.42	95.99
110.00	4 2 46	2851.06	-28.90	85.66	118.46	70.90	4 50 17	2251.1	-31.23	77.23
110.00	1 39 9	3293.07	-15.94	113.34	111.98	59.35	2 34 2	2693.1	-19.88	106.44

DIFFERENTIAL CORRECTIONS
TDE .1127 TRA -.4833 TC3 .0908 BAU .4218
RDE 1.4807 RRA 1.5708 RC3-1.4995 FAU .03039
FDE 1.5003 FRA 1.5554 FC3-1.2531 BSP 10226
BDE 1.4850 BRA 1.6435 BC3 1.5023 FSP -855

MID-COURSE EXECUTION ACCURACY
SGT 737.8 SGR 3283.7 SG3 275.9
RRT -.6338 RRF .9979 RTF -.6353
SGB 3365.6 R23 -.0213 R13 .9977
SG1 3317.8 SG2 564.8 THA 98.35

ORBIT DETERMINATION ACCURACY
ST 257.8 SR 1980.2 SS 1215.2
CRT .2142 CRS-1.0000 CST -.2216
LSA 2324.0 MSA 251.7 SSA 3.6
EL1 1981.0 EL2 251.7 ALF 88.38

LAUNCH DATE AUG 12 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 374.792
RL 151.59 LAL .00 LOL 318.88 VL 26.918 GAL -.16 AZL 79.96 HCA 165.35 SMA 129.31 ECC .17236 INC10.0366 V1 29.391
RP 107.48 LAP 2.53 LOP 124.45 VP 37.989 GAP -2.03 AZP 99.72 TAL 180.76 TAP 346.12 RCA 107.02 APO 151.60 V2 35.257
RC 73.903 GL 58.35 GP -73.76 ZAL 87.70 ZAP 80.77 ETS 22.31 ZAE 103.18 ETE 276.94 ZAC 28.55 ETC 248.10 CLP -54.98
PLANETOCENTRIC CONIC
C3 30.367 VHL 5.511 DLA 37.86 RAL 246.58 RAD 6568.2 VEL 12.318 PTH 2.22 VHP 8.212 DPA -77.53 RAP 135.11 ECC 1.4998

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.74	21 20 29	4217.19	-22.27	186.17	124.81	58.56	22 30 46	3617.2	-26.26	178.98
116.26	3 32 12	3060.58	-22.25	98.79	124.80	58.55	4 23 13	2460.6	-26.25	91.60
63.74	21 20 29	4217.19	-22.27	186.17	124.81	58.56	22 30 46	3617.2	-26.26	178.98
116.26	3 32 12	3060.58	-22.25	98.79	124.80	58.55	4 23 13	2460.6	-26.25	91.60
63.74	21 20 29	4217.19	-22.27	186.17	124.81	58.56	22 30 46	3617.2	-26.26	178.98
116.26	3 32 12	3060.58	-22.25	98.79	124.80	58.55	4 23 13	2460.6	-26.25	91.60

DIFFERENTIAL CORRECTIONS
TDE .3498 TRA -.3527 TC3 -.0167 BAU .4140
RDE 2.0282 RRA 1.9759 RC3-1.0196 FAU .02089
FDE 1.4601 FRA 1.4170 FC3 -.5956 BSP 11059
BDE 2.0581 BRA 2.0071 BC3 1.0197 FSP -685

MID-COURSE EXECUTION ACCURACY
SGT 590.2 SGR 3532.8 SG3 215.4
RRT -.2019 RRF .9984 RTF -.2056
SGB 3581.7 R23 -.0016 R13 .9984
SG1 3534.8 SG2 577.7 THA 91.99

ORBIT DETERMINATION ACCURACY
ST 389.5 SR 2248.9 SS 1148.1
CRT .7515 CRS-1.0000 CST -.7523
LSA 2542.1 MSA 255.2 SSA 2.9
EL1 2268.1 EL2 254.8 ALF 82.49

LAUNCH DATE AUG 12 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 381.159
RL 151.59 LAL .00 LOL 318.88 VL 26.931 GAL -.13 AZL 76.58 HCA 168.51 SMA 129.40 ECC .17155 INC13.4232 V1 29.391
RP 107.48 LAP 2.65 LOP 127.70 VP 38.000 GAP -1.58 AZP 103.16 TAL 180.65 TAP 349.16 RCA 107.20 APO 151.60 V2 35.258
RC 76.087 GL 62.88 GP -80.22 ZAL 88.10 ZAP 84.16 ETS 17.37 ZAE 96.70 ETE 272.65 ZAC 22.40 ETC 240.85 CLP -53.20
PLANETOCENTRIC CONIC
C3 49.339 VHL 7.024 DLA 42.19 RAL 248.29 RAD 6568.8 VEL 13.065 PTH 2.38 VHP 10.163 DPA -74.14 RAP 111.91 ECC 1.8120

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.31	20 57 42	4423.01	-19.50	201.51	135.31	51.81	22 11 25	3823.0	-24.31	195.04
122.69	4 8 37	3099.25	-19.49	100.00	135.30	51.80	5 0 16	2499.2	-24.30	93.52
57.31	20 57 42	4423.01	-19.50	201.51	135.31	51.81	22 11 25	3823.0	-24.31	195.04
122.69	4 8 37	3099.25	-19.49	100.00	135.30	51.80	5 0 16	2499.2	-24.30	93.52
57.31	20 57 42	4423.01	-19.50	201.51	135.31	51.81	22 11 25	3823.0	-24.31	195.04
122.69	4 8 37	3099.25	-19.49	100.00	135.30	51.80	5 0 16	2499.2	-24.30	93.52

DIFFERENTIAL CORRECTIONS
TDE .8542 TRA -.0928 TC3 -.0555 BAU .3562
RDE 2.7798 RRA 2.5618 RC3 -.5371 FAU .01136
FDE 1.3844 FRA 1.2786 FC3 -.1994 BSP 11665
BDE 2.9081 BRA 2.5635 BC3 .5399 FSP -509

MID-COURSE EXECUTION ACCURACY
SGT 708.6 SGR 3696.8 SG3 157.8
RRT .5156 RRF .9987 RTF .5138
SGB 3764.1 R23 .0178 R13 .9985
SG1 3715.3 SG2 604.1 THA 84.20

ORBIT DETERMINATION ACCURACY
ST 697.5 SR 2420.3 SS 1058.6
CRT .9206 CRS-1.0000 CST -.9203
LSA 2719.4 MSA 264.7 SSA 2.3
EL1 2505.0 EL2 263.2 ALF 74.97

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LAUNCH DATE  AUG 12 1970                          FLIGHT TIME 142.00                          ARRIVAL DATE  JAN  1 1971

  HELIOCENTRIC CONIC                                  DISTANCE 387.428
   RL  151.59 LAL     .00 LOL 318.88 VL  26.941 GAL   -.08 AZL  70.71 HCA 171.60 SMA 129.46 ECC .17098 INC19.2927 VI  29.391
   RP  107.48 LAP    2.77 LOP 130.95 VP  38.006 GAP  -1.16 AZP 109.10 TAL 180.41 TAP 352.01 RCA 107.33 APO 151.59 V2  35.259
   RC  78.289 GL    65.96 GP  -86.66 ZAL  88.49 ZAP  86.77 ETS   9.40 ZAE  89.03 ETE 265.72 ZAC  15.98 ETC 223.52 CLP -14.48
  PLANETOCENTRIC CONIC
   C3  94.987 VHL  9.746 DLA  45.17 RAL 249.45 RAD 6569.9 VEL 14.708 PTH    2.66 VHP 13.684 DPA -68.68 RAP  94.97 ECC 2.5633
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      53.21     20 46  4   4621.06     -13.54     213.91     145.62      46.48    22  3  5    4021.1     -18.97     208.20
     126.79      4 29 30   3210.65     -13.52     104.60     145.60      46.48     5 23  0    2610.7     -18.95      98.89
      53.21     20 46  4   4621.06     -13.54     213.91     145.62      46.48    22  3  5    4021.1     -18.97     208.20
     126.79      4 29 30   3210.65     -13.52     104.60     145.60      46.48     5 23  0    2610.7     -18.95      98.89
      53.21     20 46  4   4621.06     -13.54     213.91     145.62      46.48    22  3  5    4021.1     -18.97     208.20
     126.79      4 29 30   3210.65     -13.52     104.60     145.60      46.48     5 23  0    2610.7     -18.95      98.89
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 3.0275 TRA 1.2182 TC3 -.0330 BAU  .1707      SGT 2050.3 SGR 3340.9 SG3  110.5       ST  1805.7 SR  2008.8 SS   999.7
   RDE 3.1073 RRA 3.3407 RC3 -.1303 FAU .00187      RRT  .8901 RRF  .9951 RTF  .9265       CRT  .9665 CRS -.9979 CST -.9810
   FDE 1.3438 FRA 1.2052 FC3 -.0171 BSP  12168      SGB 3919.8 R23  .0331 R13  .9985       LSA 2858.8 MSA  350.7 SSA    1.8
   BDE 4.3384 BRA 3.5558 BC3  .1344 FSP   -360      SG1 3834.4 SG2  814.0 THA  59.85       EL1 2678.7 EL2  347.5 ALF  48.15

LAUNCH DATE  AUG 12 1970                          FLIGHT TIME 144.00                          ARRIVAL DATE  JAN  3 1971

  HELIOCENTRIC CONIC                                  DISTANCE 393.470
   RL  151.59 LAL     .00 LOL 318.88 VL  26.946 GAL    .02 AZL  58.42 HCA 174.51 SMA 129.50 ECC .17061 INC31.5793 VI  29.391
   RP  107.48 LAP    2.87 LOP 134.20 VP  38.010 GAP   -.81 AZP 121.46 TAL 179.92 TAP 354.42 RCA 107.40 APO 151.59 V2  35.258
   RC  80.507 GL    65.47 GP  -80.40 ZAL  68.88 ZAP  88.51 ETS 190.32 ZAE  78.38 ETE  87.73 ZAC  11.02 ETC   6.48 CLP  81.00
  PLANETOCENTRIC CONIC
   C3 240.604 VHL 15.511 DLA  44.85 RAL 248.66 RAD 6571.4 VEL 19.024 PTH    3.08 VHP 21.146 DPA -59.91 RAP  80.91 ECC 4.9597
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      53.65     20 44 34   4783.21      -5.59     221.02     153.03      45.43    22  4 17    4183.2     -11.17     215.64
     126.35      4 24 43   3381.38      -5.58     112.50     153.01      45.43     5 21  4    2781.4     -11.15     107.12
      53.65     20 44 34   4783.21      -5.59     221.02     153.03      45.43    22  4 17    4183.2     -11.17     215.64
     126.35      4 24 43   3381.38      -5.58     112.50     153.01      45.43     5 21  4    2781.4     -11.15     107.12
      53.65     20 44 34   4783.21      -5.59     221.02     153.03      45.43    22  4 17    4183.2     -11.17     215.64
     126.35      4 24 43   3381.38      -5.58     112.50     153.01      45.43     5 21  4    2781.4     -11.15     107.12
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE-1.3106 TRA  .5197 TC3 -.0254 BAU  .5021      SGT  560.2 SGR 3948.0 SG3   77.7       ST   490.9 SR  2745.0 SS  1081.4
   RDE-7.0393 RRA-5.6281 RC3 -.1540 FAU-.01199      RRT  .2272 RRF -.9982 RTF -.1794       CRT  .8812 CRS  .9994 CST  .8646
   FDE 1.4994 FRA 1.3348 FC3  .0431 BSP  11995      SGB 3987.6 R23 -.0532 R13 -.9980       LSA 2981.7 MSA  234.1 SSA    1.6
   BDE 7.1603 BRA 5.6521 BC3  .1561 FSP   -245      SG1 3950.1 SG2  545.3 THA  88.12       EL1 2779.1 EL2  229.2 ALF  80.98

LAUNCH DATE  AUG 12 1970                          FLIGHT TIME 146.00                          ARRIVAL DATE  JAN  5 1971

  HELIOCENTRIC CONIC                                  DISTANCE 398.696
   RL  151.59 LAL     .00 LOL 318.88 VL  26.949 GAL    .28 AZL  25.72 HCA 176.70 SMA 129.52 ECC .17052 INC64.2803 VI  29.391
   RP  107.48 LAP    2.97 LOP 137.45 VP  38.011 GAP   -.68 AZP 154.24 TAL 178.64 TAP 355.35 RCA 107.43 APO 151.60 V2  35.257
   RC  82.739 GL    53.91 GP  -60.37 ZAL  89.19 ZAP  89.32 ETS 185.04 ZAE  58.29 ETE  82.24 ZAC  22.48 ETC 301.00 CLP  88.62
  PLANETOCENTRIC CONIC
   C3 902.725 VHL 30.045 DLA  34.13 RAL 242.94 RAD 6572.9 VEL 32.000 PTH    3.48 VHP 39.912 DPA -41.53 RAP  67.02 ECC15.8566
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      70.09     21 40 52   4674.17        .04     207.35     153.01      55.87    22 58 46    4074.2      -4.44     201.13
     109.91      2 42 44   3725.92        .06     136.61     153.00      55.87     3 44 50    3125.9      -4.42     130.39
      70.09     21 40 52   4674.17        .04     207.35     153.01      55.87    22 58 46    4074.2      -4.44     201.13
     109.91      2 42 44   3725.92        .06     136.61     153.00      55.87     3 44 50    3125.9      -4.42     130.39
     110.00      2 57  7   3682.08      -1.56     134.28     154.10      55.85     3 58 29    3082.1      -6.03     128.05
     110.00      2 29 35   3766.00       1.65     138.66     151.92      55.85     3 32 21    3166.0      -2.84     132.45
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE-4.7000 TRA -.6070 TC3 -.0836 BAU 3.1626      SGT 1037.0 SGR 3517.2 SG3   61.9       ST   897.4 SR  2248.7 SS  1523.5
   RD-11.1872 RR-10.2642 RC3 -.2484 FAU-.05397      RRT  .8205 RRF -.9995 RTF -.8057       CRT  .9626 CRS  .9998 CST  .9570
   FDE 2.1827 FRA 1.1381 FC3  .0518 BSP  10894      SGB 3666.9 R23 -.0646 R13 -.9977       LSA 2850.7 MSA  238.1 SSA    1.3
   BDE12.1344 BRA10.2821 BC3  .2621 FSP   -192      SG1 3621.4 SG2  575.7 THA  76.04       EL1 2410.5 EL2  226.7 ALF  68.79

LAUNCH DATE  AUG 12 1970                          FLIGHT TIME 148.00                          ARRIVAL DATE  JAN  7 1971

  HELIOCENTRIC CONIC                                  DISTANCE 409.090
   RL  151.59 LAL     .00 LOL 318.88 VL  26.948 GAL   -.42 AZL 149.30 HCA 183.56 SMA 129.51 ECC .17063 INC59.3021 VI  29.391
   RP  107.49 LAP    3.06 LOP 140.70 VP  38.009 GAP    .81 AZP  30.75 TAL 182.02 TAP   5.58 RCA 107.41 APO 151.61 V2  35.255
   RC  84.985 GL   -56.00 GP   64.99 ZAL  89.79 ZAP  90.81 ETS 185.23 ZAE  68.09 ETE 284.63 ZAC 144.15 ETC 290.94 CLP  91.91
  PLANETOCENTRIC CONIC
   C3 781.285 VHL 27.951 DLA -68.30 RAL 189.17 RAD 6572.8 VEL 30.043 PTH    3.45 VHP 35.480 DPA  71.70 RAP 349.16 ECC13.8580
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      24.84      3 27 38   2419.48        .40      76.80      98.99     158.30     4  7 57    1819.5       7.83      74.24
     155.16     13 46 58    677.22        .41     288.85      99.02     158.30    13 58 16      77.2       7.84     286.29
      24.84      3 27 38   2419.48        .40      76.80      98.99     158.30     4  7 57    1819.5       7.83      74.24
     155.16     13 46 58    677.22        .41     288.85      99.02     158.30    13 58 16      77.2       7.84     286.29
      24.84      3 27 38   2419.48        .40      76.80      98.99     158.30     4  7 57    1819.5       7.83      74.24
     155.16     13 46 58    677.22        .41     288.85      99.02     158.30    13 58 16      77.2       7.84     286.29
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 6.3687 TRA 1.7294 TC3 -.1204 BAU 2.8674      SGT 1753.9 SGR 3464.7 SG3   66.7       ST  1336.9 SR  3071.4 SS  2120.6
   RD-14.9294 RRA-1.5481 RC3  .2467 FAU-.04598      RRT -.9456 RRF  .9995 RTF -.9476       CRT -.9912 CRS-1.0000 CST  .9916
   FDE-3.3617 FRA -.3610 FC3  .0510 BSP  12605      SGB 3883.3 R23 -.0574 R13  .9978       LSA 3961.1 MSA  165.8 SSA    2.0
   BDE16.2311 BRA 2.3211 BC3  .2745 FSP   -219      SG1 3849.2 SG2  513.7 THA 116.08       EL1 3345.8 EL2  162.6 ALF 113.40
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LAUNCH DATE AUG 12 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 414.510

RL 151.59 LAL .00 LOL 318.88 VL 26.945 GAL -.17 AZL 121.82 HCA 185.96 SMA 129.49 ECC .17071 INC31.8153 V1 29.391
RP 107.50 LAP 3.14 LOP 143.95 VP 38.004 GAP .99 AZP 58.32 TAL 180.84 TAP 6.80 RCA 107.39 APO 151.60 V2 35.253
RC 87.241 GL -65.43 GP 82.46 ZAL 89.21 ZAP 91.79 ETS 189.09 ZAE 85.50 ETE 286.55 ZAC 160.01 ETC 308.28 CLP 103.73

PLANETOCENTRIC CONIC

C3 243.977 VHL 15.620 DLA -74.27 RAL 165.87 RAD 6571.4 VEL 19.113 PTH 3.09 VHP 19.384 DPA 71.75 RAP 289.94 ECC 5.0152

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.94	1 40 7	2328.54	7.50	78.87	73.73	164.13	2 18 56	1728.5	15.19	77.03
162.06	12 28 35	5839.88	7.51	261.66	73.75	164.13	14 5 55	5239.9	15.20	259.82
17.94	1 40 7	2328.54	7.50	78.87	73.73	164.13	2 18 56	1728.5	15.19	77.03
162.06	12 28 35	5839.88	7.51	261.66	73.75	164.13	14 5 55	5239.9	15.20	259.82
17.94	1 40 7	2328.54	7.50	78.87	73.73	164.13	2 18 56	1728.5	15.19	77.03
162.06	12 28 35	5839.88	7.51	261.66	73.75	164.13	14 5 55	5239.9	15.20	259.82

DIFFERENTIAL CORRECTIONS
TOE 3.9097 TRA 1.2959 TC3 -.0754 BAU .5580
RDE-7.5179 RRA-1.7523 RC3 .1536 FAU-.00888
FDE-2.1431 FRA -.4948 FC3 .0315 BSP 13734
BOE 8.4738 BRA 2.1794 BC3 .1711 FSP -288

MID-COURSE EXECUTION ACCURACY
SGT 2277.0 SGR 3667.8 SG3 89.6
RRT -.9845 RRF .9993 RTF -.9840
SGB 4317.2 R23 -.0479 R13 .9982
SG1 4303.8 SG2 339.9 THA 121.65

ORBIT DETERMINATION ACCURACY
ST 1527.5 SR 2847.9 SS 1358.9
CRT -.9951 CRS-1.0000 CST .9949
LSA 3503.1 MSA 136.7 SSA 1.8
EL1 3229.0 EL2 133.3 ALF 118.14

LAUNCH DATE AUG 12 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 420.521

RL 151.59 LAL .00 LOL 318.88 VL 26.939 GAL -.03 AZL 111.16 HCA 188.91 SMA 129.45 ECC .17104 INC21.1615 V1 29.391
RP 107.51 LAP 3.21 LOP 147.20 VP 37.997 GAP 1.32 AZP 69.07 TAL 180.16 TAP 9.07 RCA 107.31 APO 151.59 V2 35.249
RC 89.506 GL -66.27 GP 85.79 ZAL 88.49 ZAP 93.60 ETS 20.38 ZAE 94.86 ETE 116.91 ZAC 166.21 ETC 162.64 CLP-148.88

PLANETOCENTRIC CONIC

C3 112.856 VHL 10.623 DLA -75.27 RAL 163.86 RAD 6570.1 VEL 15.303 PTH 2.74 VHP 12.909 DPA 65.87 RAP 267.79 ECC 2.8573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.78	1 29 45	2198.84	16.22	77.74	69.46	164.65	2 6 24	1598.8	23.92	75.85
163.22	12 22 55	5705.63	16.22	259.37	69.48	164.65	13 58 1	5105.6	23.92	257.48
16.78	1 29 45	2198.84	16.22	77.74	69.46	164.65	2 6 24	1598.8	23.92	75.85
163.22	12 22 55	5705.63	16.22	259.37	69.48	164.65	13 58 1	5105.6	23.92	257.48
16.78	1 29 45	2198.84	16.22	77.74	69.46	164.65	2 6 24	1598.8	23.92	75.85
163.22	12 22 55	5705.63	16.22	259.37	69.48	164.65	13 58 1	5105.6	23.92	257.48

DIFFERENTIAL CORRECTIONS
TOE 3.1799 TRA -.5721 TC3 -.0450 BAU .0927
RDE 4.7938 RRA 1.4256 RC3 .0419 FAU .00598
FDE-2.0529 FRA -.4848 FC3 -.0459 BSP 14602
BOE 5.7526 BRA 1.5361 BC3 .0615 FSP -431

MID-COURSE EXECUTION ACCURACY
SGT 2103.2 SGR 3980.0 SG3 130.8
RRT .0901 RRF -.9925 RTF -.2013
SGB 4501.6 R23 .0780 R13 -.9958
SG1 3986.2 SG2 2091.4 THA 86.23

ORBIT DETERMINATION ACCURACY
ST 1753.2 SR 2740.1 SS 1282.0
CRT .8542 CRS .9978 CST .8865
LSA 3404.3 MSA 797.6 SSA 2.2
EL1 3155.2 EL2 791.6 ALF 59.19

LAUNCH DATE AUG 12 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 426.676

RL 151.59 LAL .00 LOL 318.88 VL 26.931 GAL .09 AZL 105.87 HCA 192.02 SMA 129.40 ECC .17155 INC15.8724 V1 29.391
RP 107.52 LAP 3.26 LOP 150.45 VP 37.987 GAP 1.69 AZP 74.46 TAL 179.57 TAP 11.59 RCA 107.20 APO 151.59 V2 35.245
RC 91.778 GL -64.58 GP 79.21 ZAL 87.63 ZAP 96.13 ETS 19.53 ZAE 101.44 ETE 115.75 ZAC 166.99 ETC 190.07 CLP-124.81

PLANETOCENTRIC CONIC

C3 66.508 VHL 8.155 DLA -75.35 RAL 171.12 RAD 6569.3 VEL 13.706 PTH 2.50 VHP 9.749 DPA 60.44 RAP 256.89 ECC 2.0946

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.69	1 58 32	2081.05	23.96	76.00	74.44	163.94	2 33 13	1481.1	31.62	73.83
163.31	12 52 7	5587.47	23.96	257.54	74.47	163.94	14 25 14	4987.5	31.63	255.36
16.69	1 58 32	2081.05	23.96	76.00	74.44	163.94	2 33 13	1481.1	31.62	73.83
163.31	12 52 7	5587.47	23.96	257.54	74.47	163.94	14 25 14	4987.5	31.63	255.36
16.69	1 58 32	2081.05	23.96	76.00	74.44	163.94	2 33 13	1481.1	31.62	73.83
163.31	12 52 7	5587.47	23.96	257.54	74.47	163.94	14 25 14	4987.5	31.63	255.36

DIFFERENTIAL CORRECTIONS
TOE-1.5257 TRA -.6864 TC3 -.2377 BAU .3127
RDE 4.6869 RRA .7482 RC3 .2591 FAU .01639
FDE-2.4537 FRA -.4189 FC3 -.2133 BSP 14065
BOE 4.9290 BRA 1.0153 BC3 .3516 FSP -576

MID-COURSE EXECUTION ACCURACY
SGT 2222.0 SGR 3917.1 SG3 182.2
RRT -.8799 RRF -.9979 RTF .8969
SGB 4503.4 R23 .0726 R13 -.9960
SG1 4404.5 SG2 938.8 THA 117.90

ORBIT DETERMINATION ACCURACY
ST 1215.1 SR 3351.4 SS 1481.5
CRT -.9544 CRS .9999 CST -.9581
LSA 3845.1 MSA 343.9 SSA 2.6
EL1 3548.4 EL2 342.7 ALF 109.27

LAUNCH DATE AUG 12 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 432.876

RL 151.59 LAL .00 LOL 318.88 VL 26.921 GAL .21 AZL 102.75 HCA 195.18 SMA 129.33 ECC .17222 INC12.7464 V1 29.391
RP 107.53 LAP 3.31 LOP 153.70 VP 37.976 GAP 2.07 AZP 77.68 TAL 178.99 TAP 14.17 RCA 107.05 APO 151.60 V2 35.240
RC 94.056 GL -62.01 GP 73.02 ZAL 86.64 ZAP 99.26 ETS 22.96 ZAE 106.69 ETE 119.49 ZAC 164.40 ETC 213.79 CLP-123.42

PLANETOCENTRIC CONIC

C3 45.244 VHL 6.726 DLA -74.81 RAL 181.29 RAD 6568.7 VEL 12.908 PTH 2.35 VHP 7.957 DPA 55.43 RAP 249.72 ECC 1.7446

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.32	2 40 22	1985.00	30.06	73.71	82.23	162.37	3 13 27	1385.0	37.65	71.07
162.68	13 31 22	5493.85	30.07	255.87	82.25	162.37	15 2 56	4893.9	37.66	253.24
17.32	2 40 22	1985.00	30.06	73.71	82.23	162.37	3 13 27	1385.0	37.65	71.07
162.68	13 31 22	5493.85	30.07	255.87	82.25	162.37	15 2 56	4893.9	37.66	253.24
17.32	2 40 22	1985.00	30.06	73.71	82.23	162.37	3 13 27	1385.0	37.65	71.07
162.68	13 31 22	5493.85	30.07	255.87	82.25	162.37	15 2 56	4893.9	37.66	253.24

DIFFERENTIAL CORRECTIONS
TOE-2.1437 TRA -.5340 TC3 -.5152 BAU .4360
RDE 3.9962 RRA .4208 RC3 .5041 FAU .02747
FDE-2.9820 FRA -.3318 FC3 -.5256 BSP 14280
BOE 4.5349 BRA .6799 BC3 -.7208 FSP -778

MID-COURSE EXECUTION ACCURACY
SGT 2612.9 SGR 3730.7 SG3 246.1
RRT -.9294 RRF -.9975 RTF .9405
SGB 4554.7 R23 .0850 R13 -.9945
SG1 4483.4 SG2 802.3 THA 124.31

ORBIT DETERMINATION ACCURACY
ST 1899.0 SR 3428.7 SS 1760.6
CRT -.9876 CRS 1.0000 CST -.9886
LSA 4288.4 MSA 266.1 SSA 3.4
EL1 3910.7 EL2 261.7 ALF 118.82

LAUNCH DATE AUG 12 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 439.086

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RL  151.59 LAL    .00 LOL 318.88 VL  26.908 GAL    .34 AZL 100.68 HCA 198.37 SMA 129.24 ECC .17305 INC10.6824 V1  29.391
RP  107.55 LAP   3.35 LOP 156.95 VP  37.962 GAP   2.45 AZP  79.85 TAL 178.39 TAP  16.76 RCA 106.88 APO 151.61 V2  35.235
RC  96.339 GL  -59.12 GP   67.31 ZAL  85.52 ZAP 102.82 ETS  26.03 ZAE 111.08 ETE 123.53 ZAC 160.41 ETC 227.83 CLP-125.11
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PLANETOCENTRIC CONIC

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C3  33.772 VHL  5.811 DLA -73.72 RAL 191.57 RAD 6568.3 VEL 12.456 PTH   2.25 VHP  6.850 DPA  50.67 RAP 244.38 ECC 1.5558
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.57	3 23 57	1908.66	34.62	70.79	89.93	160.08	3 55 46	1308.7	42.09	67.55
161.43	14 9 52	5422.59	34.63	254.22	89.95	160.08	15 40 14	4822.6	42.10	250.97
18.57	3 23 57	1908.66	34.62	70.79	89.93	160.08	3 55 46	1308.7	42.09	67.55
161.43	14 9 52	5422.59	34.63	254.22	89.95	160.08	15 40 14	4822.6	42.10	250.97
18.57	3 23 57	1908.66	34.62	70.79	89.93	160.08	3 55 46	1308.7	42.09	67.55
161.43	14 9 52	5422.59	34.63	254.22	89.95	160.08	15 40 14	4822.6	42.10	250.97

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4537 TRA -.3878 TC3 -.8559 BAU  .5036   SGT 2950.0 SGR 3516.9 SG3  313.7   ST  2453.7 SR  3353.9 SS  2002.8
RDE 3.3952 RRA  .1955 RC3  .7152 FAU .03784   RRT -.9506 RRF -.9970 RTF  .9582   CRT -.9944 CRS 1.0000 CST -.9946
FDE-3.4253 FRA -.2027 FC3 -.9700 BSP  14457   SGB 4590.3 R23  .0953 R13 -.9930   LSA 4607.8 MSA  219.3 SSA    4.3
BDE 4.1890 BRA  .4343 BC3 1.1154 FSP   -992   SG1 4535.1 SG2  709.9 THA 129.73   EL1 4150.3 EL2  210.0 ALF 126.14
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LAUNCH DATE AUG 12 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 445.291

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RL  151.59 LAL    .00 LOL 318.88 VL  26.894 GAL    .47 AZL  99.21 HCA 201.57 SMA 129.14 ECC .17402 INC 9.2132 V1  29.391
RP  107.57 LAP   3.37 LOP 160.20 VP  37.946 GAP   2.83 AZP  81.42 TAL 177.75 TAP  19.32 RCA 106.67 APO 151.62 V2  35.229
RC  98.624 GL  -56.13 GP   61.97 ZAL  64.27 ZAP 106.67 ETS  28.60 ZAE 114.75 ETE 127.68 ZAC 156.03 ETC 236.17 CLP-127.62
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PLANETOCENTRIC CONIC

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C3  26.890 VHL  5.186 DLA -72.22 RAL 200.89 RAD 6568.1 VEL 12.176 PTH   2.19 VHP  6.131 DPA  46.09 RAP 240.20 ECC 1.4425
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.29	4 4 40	1847.71	37.91	67.33	96.42	157.24	4 35 28	1247.7	45.21	63.37
159.71	14 43 27	5369.32	37.92	252.51	96.44	157.23	16 12 56	4769.3	45.22	248.54
20.29	4 4 40	1847.71	37.91	67.33	96.42	157.24	4 35 28	1247.7	45.21	63.37
159.71	14 43 27	5369.32	37.92	252.51	96.44	157.23	16 12 56	4769.3	45.22	248.54
20.29	4 4 40	1847.71	37.91	67.33	96.42	157.24	4 35 28	1247.7	45.21	63.37
159.71	14 43 27	5369.32	37.92	252.51	96.44	157.23	16 12 56	4769.3	45.22	248.54

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5993 TRA -.2476 TC3-1.2433 BAU  .5470   SGT 3273.2 SGR 3267.5 SG3  378.6   ST  2884.8 SR  3135.8 SS  2165.3
RDE 2.8377 RRA  .0371 RC3  .8772 FAU .04714   RRT -.9629 RRF -.9963 RTF  .9685   CRT -.9968 CRS 1.0000 CST -.9965
FDE-3.6988 FRA -.0379 FC3-1.5178 BSP  14637   SGB 4625.0 R23  .1025 R13 -.9916   LSA 4775.9 MSA  187.4 SSA    5.3
BDE 3.8483 BRA  .2504 BC3 1.5216 FSP   -1202  SG1 4581.9 SG2  630.1 THA 135.05   EL1 4257.5 EL2  171.1 ALF 132.60
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LAUNCH DATE AUG 12 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 451.486

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RL  151.59 LAL    .00 LOL 318.88 VL  26.878 GAL    .62 AZL  98.11 HCA 204.78 SMA 129.04 ECC .17514 INC 8.1093 V1  29.391
RP  107.59 LAP   3.39 LOP 163.45 VP  37.928 GAP   3.21 AZP  82.63 TAL 177.08 TAP  21.86 RCA 106.44 APO 151.63 V2  35.222
RC 100.910 GL  -53.14 GP   56.97 ZAL  82.88 ZAP 110.68 ETS  30.66 ZAE 117.78 ETE 131.85 ZAC 151.64 ETC 241.46 CLP-130.38
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PLANETOCENTRIC CONIC

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C3  22.454 VHL  4.739 DLA -70.45 RAL 208.98 RAD 6567.9 VEL 11.993 PTH   2.14 VHP  5.657 DPA  41.69 RAP 236.90 ECC 1.3695
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.34	4 41 17	1798.34	40.17	63.47	101.53	154.03	5 11 15	1198.3	47.26	58.74
157.66	15 11 25	5330.11	40.18	250.77	101.55	154.03	16 40 16	4730.1	47.26	246.04
22.34	4 41 17	1798.34	40.17	63.47	101.53	154.03	5 11 15	1198.3	47.26	58.74
157.66	15 11 25	5330.11	40.18	250.77	101.55	154.03	16 40 16	4730.1	47.26	246.04
22.34	4 41 17	1798.34	40.17	63.47	101.53	154.03	5 11 15	1198.3	47.26	58.74
157.66	15 11 25	5330.11	40.18	250.77	101.55	154.03	16 40 16	4730.1	47.26	246.04

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6370 TRA -.1097 TC3-1.6648 BAU  .5817   SGT 3579.6 SGR 2995.0 SG3  435.1   ST  3191.1 SR  2831.6 SS  2240.1
RDE 2.3407 RRA -.0767 RC3  .9914 FAU .05525   RRT -.9698 RRF -.9954 RTF  .9744   CRT -.9978 CRS 1.0000 CST -.9973
FDE-3.7877 FRA  .1550 FC3-2.1304 BSP  14790   SGB 4667.3 R23  .1074 R13 -.9903   LSA 4815.8 MSA  166.8 SSA    6.4
BDE 3.5260 BRA  .1339 BC3 1.9377 FSP   -1385  SG1 4633.0 SG2  564.5 THA 140.24   EL1 4264.0 EL2  141.5 ALF 138.42
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LAUNCH DATE AUG 12 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 457.665

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RL  151.59 LAL    .00 LOL 318.88 VL  26.860 GAL    .78 AZL  97.25 HCA 208.00 SMA 128.92 ECC .17640 INC 7.2452 V1  29.391
RP  107.61 LAP   3.39 LOP 166.70 VP  37.909 GAP   3.59 AZP  83.60 TAL 176.36 TAP  24.36 RCA 106.18 APO 151.66 V2  35.215
RC 103.196 GL  -50.18 GP   52.33 ZAL  81.38 ZAP 114.71 ETS  32.29 ZAE 120.21 ETE 135.96 ZAC 147.44 ETC 245.03 CLP-133.15
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PLANETOCENTRIC CONIC

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C3  19.448 VHL  4.410 DLA -68.51 RAL 215.97 RAD 6567.8 VEL 11.867 PTH   2.11 VHP  5.345 DPA  37.50 RAP 234.29 ECC 1.3201
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.59	5 14 0	1757.60	41.62	59.39	105.48	150.66	5 43 18	1157.6	48.45	53.91
155.41	15 34 26	5301.91	41.63	249.07	105.50	150.65	17 2 47	4701.9	48.46	243.59
24.59	5 14 0	1757.60	41.62	59.39	105.48	150.66	5 43 18	1157.6	48.45	53.91
155.41	15 34 26	5301.91	41.63	249.07	105.50	150.65	17 2 47	4701.9	48.46	243.59
24.59	5 14 0	1757.60	41.62	59.39	105.48	150.66	5 43 18	1157.6	48.45	53.91
155.41	15 34 26	5301.91	41.63	249.07	105.50	150.65	17 2 47	4701.9	48.46	243.59

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6066 TRA  .0283 TC3-2.1001 BAU  .6106   SGT 3861.3 SGR 2717.7 SG3  479.9   ST  3387.1 SR  2498.1 SS  2238.8
RDE 1.9183 RRA -.1581 RC3 1.0513 FAU .06156   RRT -.9733 RRF -.9941 RTF  .9778   CRT -.9983 CRS  .9999 CST -.9975
FDE-3.7191 FRA  .3633 FC3-2.7402 BSP  14982   SGB 4721.8 R23  .1103 R13 -.9890   LSA 4764.6 MSA  154.2 SSA    7.5
BDE 3.2364 BRA  .1606 BC3 2.3485 FSP   -1536  SG1 4693.9 SG2  512.8 THA 145.11   EL1 4207.1 EL2  118.1 ALF 143.60
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LAUNCH DATE AUG 12 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 463.828
RL 151.59 LAL .00 LOL 318.88 VL 26.841 GAL .95 AZL 96.55 HCA 211.22 SMA 128.79 ECC .17781 INC 6.5467 V1 29.391
RP 107.64 LAP 3.39 LOP 169.94 VP 37.888 GAP 3.96 AZP 84.39 TAL 175.60 TAP 26.83 RCA 105.89 APO 151.69 V2 35.207
RC 105.482 GL -47.28 GP 48.05 ZAL 79.76 ZAP 118.66 ETS 33.53 ZAE 122.11 ETE 139.94 ZAC 143.52 ETC 247.54 CLP-135.85
PLANETOCENTRIC CONIC
C3 17.344 VHL 4.165 DLA -66.46 RAL 222.05 RAD 6567.7 VEL 11.778 PTH 2.08 VHP 5.147 DPA 33.53 RAP 232.27 ECC 1.2854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.98	5 43 33	1723.33	42.42	55.23	108.58	147.25	6 12 16	1123.3	48.97	49.06
153.02	15 53 22	5282.56	42.42	247.50	108.60	147.25	17 21 25	4682.6	48.98	241.33
26.98	5 43 33	1723.33	42.42	55.23	108.58	147.25	6 12 16	1123.3	48.97	49.06
153.02	15 53 22	5282.56	42.42	247.50	108.60	147.25	17 21 25	4682.6	48.98	241.33
26.98	5 43 33	1723.33	42.42	55.23	108.58	147.25	6 12 16	1123.3	48.97	49.06
153.02	15 53 22	5282.56	42.42	247.50	108.60	147.25	17 21 25	4682.6	48.98	241.33

DIFFERENTIAL CORRECTIONS
TDE-2.5358 TRA .1673 TC3-2.5343 BAU .6374
RDE 1.5714 RRA -.2150 RC3 1.0650 FAU .06601
FDE-3.5346 FRA .5733 FC3-3.2950 BSP 15199
BDE 2.9832 BRA .2724 BC3 2.7489 FSP -1646

MID-COURSE EXECUTION ACCURACY
SGT 4118.1 SGR 2451.4 SG3 511.7
RRT -.9749 RRF -.9925 RTF .9797
SGB 4792.5 R23 .1107 R13 -.9878
SG1 4769.2 SG2 471.5 THA 149.54

ORBIT DETERMINATION ACCURACY
ST 3493.5 SR 2173.4 SS 2178.9
CRT -.9986 CRS .9998 CST -.9974
LSA 4653.5 MSA 147.0 SSA 8.5
EL1 4113.3 EL2 98.2 ALF 148.13

LAUNCH DATE AUG 12 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 469.971
RL 151.59 LAL .00 LOL 318.88 VL 26.821 GAL 1.13 AZL 95.97 HCA 214.45 SMA 128.65 ECC .17937 INC 5.9672 V1 29.391
RP 107.66 LAP 3.37 LOP 173.18 VP 37.865 GAP 4.33 AZP 85.07 TAL 174.81 TAP 29.26 RCA 105.58 APO 151.73 V2 35.198
RC 107.765 GL -44.46 GP 44.13 ZAL 78.03 ZAP 122.48 ETS 34.48 ZAE 123.52 ETE 143.71 ZAC 139.93 ETC 249.38 CLP-138.44
PLANETOCENTRIC CONIC
C3 15.844 VHL 3.980 DLA -64.36 RAL 227.41 RAD 6567.6 VEL 11.714 PTH 2.06 VHP 5.033 DPA 29.81 RAP 230.75 ECC 1.2608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.44	6 10 34	1693.96	42.69	51.10	111.11	143.93	6 38 48	1094.0	48.95	44.35
150.56	16 9 7	5270.49	42.70	246.13	111.12	143.92	17 36 57	4670.5	48.96	239.38
29.44	6 10 34	1693.96	42.69	51.10	111.11	143.93	6 38 48	1094.0	48.95	44.35
150.56	16 9 7	5270.49	42.70	246.13	111.12	143.92	17 36 57	4670.5	48.96	239.38
29.44	6 10 34	1693.96	42.69	51.10	111.11	143.93	6 38 48	1094.0	48.95	44.35
150.56	16 9 7	5270.49	42.70	246.13	111.12	143.92	17 36 57	4670.5	48.96	239.38

DIFFERENTIAL CORRECTIONS
TDE-2.4406 TRA .3082 TC3-2.9516 BAU .6629
RDE 1.2913 RRA -.2536 RC3 1.0402 FAU .06865
FDE-3.2716 FRA .7736 FC3-3.7508 BSP 15453
BDE 2.7611 BRA .3991 BC3 3.1295 FSP -1719

MID-COURSE EXECUTION ACCURACY
SGT 4349.0 SGR 2202.7 SG3 530.6
RRT -.9750 RRF -.9903 RTF .9809
SGB 4875.0 R23 .1084 R13 -.9868
SG1 4855.2 SG2 438.3 THA 153.49

ORBIT DETERMINATION ACCURACY
ST 3527.2 SR 1876.0 SS 2075.5
CRT -.9988 CRS .9996 CST -.9972
LSA 4499.7 MSA 143.1 SSA 9.6
EL1 3994.2 EL2 80.2 ALF 152.01

LAUNCH DATE AUG 12 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 476.095
RL 151.59 LAL .00 LOL 318.88 VL 26.799 GAL 1.33 AZL 95.48 HCA 217.67 SMA 128.51 ECC .18108 INC 5.4758 V1 29.391
RP 107.69 LAP 3.34 LOP 176.42 VP 37.841 GAP 4.71 AZP 85.66 TAL 173.98 TAP 31.65 RCA 105.24 APO 151.78 V2 35.189
RC 110.046 GL -41.70 GP 40.58 ZAL 76.20 ZAP 126.12 ETS 35.18 ZAE 124.52 ETE 147.22 ZAC 136.68 ETC 250.78 CLP-140.90
PLANETOCENTRIC CONIC
C3 14.771 VHL 3.843 DLA -62.22 RAL 232.21 RAD 6567.6 VEL 11.669 PTH 2.05 VHP 4.981 DPA 26.33 RAP 229.67 ECC 1.2431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.96	6 35 41	1668.32	42.55	47.08	113.27	140.75	7 3 29	1068.3	48.51	39.86
148.04	16 22 17	5264.60	42.56	245.02	113.29	140.75	17 50 1	4664.6	48.52	237.80
31.96	6 35 41	1668.32	42.55	47.08	113.27	140.75	7 3 29	1068.3	48.51	39.86
148.04	16 22 17	5264.60	42.56	245.02	113.29	140.75	17 50 1	4664.6	48.52	237.80
31.96	6 35 41	1668.32	42.55	47.08	113.27	140.75	7 3 29	1068.3	48.51	39.86
148.04	16 22 17	5264.60	42.56	245.02	113.29	140.75	17 50 1	4664.6	48.52	237.80

DIFFERENTIAL CORRECTIONS
TDE-2.3303 TRA .4541 TC3-3.3371 BAU .6871
RDE 1.0671 RRA -.2806 RC3 .9852 FAU .06957
FDE-2.9614 FRA .9631 FC3-4.0773 BSP 15725
BDE 2.5630 BRA .5338 BC3 3.4795 FSP -1755

MID-COURSE EXECUTION ACCURACY
SGT 4556.2 SGR 1977.3 SG3 538.2
RRT -.9738 RRF -.9874 RTF .9813
SGB 4966.8 R23 .1046 R13 -.9857
SG1 4949.5 SG2 414.0 THA 156.92

ORBIT DETERMINATION ACCURACY
ST 3502.1 SR 1613.6 SS 1941.6
CRT -.9991 CRS .9992 CST -.9967
LSA 4314.8 MSA 143.0 SSA 10.6
EL1 3855.4 EL2 63.8 ALF 155.27

LAUNCH DATE AUG 12 1970 FLIGHT TIME 172.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 482.199
RL 151.59 LAL .00 LOL 318.88 VL 26.776 GAL 1.54 AZL 95.05 HCA 220.89 SMA 128.36 ECC .18295 INC 5.0516 V1 29.391
RP 107.72 LAP 3.30 LOP 179.66 VP 37.816 GAP 5.08 AZP 86.18 TAL 173.11 TAP 34.00 RCA 104.87 APO 151.84 V2 35.179
RC 112.324 GL -39.02 GP 37.37 ZAL 74.29 ZAP 129.54 ETS 35.71 ZAE 125.18 ETE 150.42 ZAC 133.77 ETC 251.87 CLP-143.23
PLANETOCENTRIC CONIC
C3 14.014 VHL 3.744 DLA -60.08 RAL 236.56 RAD 6567.6 VEL 11.636 PTH 2.04 VHP 4.977 DPA 23.11 RAP 228.97 ECC 1.2306

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.51	6 59 20	1645.49	42.08	43.21	115.24	137.78	7 26 46	1045.5	47.74	35.63
145.49	16 33 21	5264.14	42.09	244.21	115.25	137.77	18 1 5	4664.1	47.75	236.63
34.51	6 59 20	1645.49	42.08	43.21	115.24	137.78	7 26 46	1045.5	47.74	35.63
145.49	16 33 21	5264.14	42.09	244.21	115.25	137.77	18 1 5	4664.1	47.75	236.63
34.51	6 59 20	1645.49	42.08	43.21	115.24	137.78	7 26 46	1045.5	47.74	35.63
145.49	16 33 21	5264.14	42.09	244.21	115.25	137.77	18 1 5	4664.1	47.75	236.63

DIFFERENTIAL CORRECTIONS
TDE-2.2100 TRA .6060 TC3-3.6756 BAU .7093
RDE .8889 RRA -.2989 RC3 .9070 FAU .06890
FDE-2.6296 FRA 1.1364 FC3-4.2562 BSP 15967
BDE 2.3821 BRA .6757 BC3 3.7859 FSP -1753

MID-COURSE EXECUTION ACCURACY
SGT 4740.4 SGR 1775.7 SG3 536.2
RRT -.9713 RRF -.9835 RTF .9813
SGB 5062.1 R23 .0994 R13 -.9845
SG1 5046.5 SG2 396.9 THA 159.88

ORBIT DETERMINATION ACCURACY
ST 3429.2 SR 1388.2 SS 1788.7
CRT -.9993 CRS .9985 CST -.9959
LSA 4106.6 MSA 145.6 SSA 11.6
EL1 3699.2 EL2 48.0 ALF 157.97

LAUNCH DATE AUG 12 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 488.280

RL	151.59	LAL	.00	LOL	318.88	VL	26.753	GAL	1.76	AZL	94.68	HCA	224.11	SMA	128.20	ECC	.18497	INC	4.6793	V1	29.391		
RP	107.75	LAP	3.26	LOP	182.90	VP	37.790	GAP	5.45	AZP	86.64	TAL	172.21	TAP	36.32	RCA	104.49	APO	151.91	V2	35.169		
RC	114.599	GL	-36.42	GP	34.49	ZAL	72.31	ZAP	132.74	ETS	36.12	ZAE	125.58	ETE	153.31	ZAC	131.18	ETC	252.74	CLP	-145.43		

PLANETOCENTRIC CONIC

C3	13.503	VHL	3.675	DLA	-57.94	RAL	240.54	RAD	6567.5	VEL	11.614	PTH	2.04	VHP	5.011	DPA	20.13	RAP	228.60	ECC	1.2222		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.08	7 21 50	1624.85	41.33	39.52	117.10	135.01	7 48 55	1024.8	46.71	31.68
142.92	16 42 39	5268.51	41.34	243.72	117.11	135.00	18 10 27	4668.5	46.72	235.89
37.08	7 21 50	1624.85	41.33	39.52	117.10	135.01	7 48 55	1024.8	46.71	31.68
142.92	16 42 39	5268.51	41.34	243.72	117.11	135.00	18 10 27	4668.5	46.72	235.89
37.08	7 21 50	1624.85	41.33	39.52	117.10	135.01	7 48 55	1024.8	46.71	31.68
142.92	16 42 39	5268.51	41.34	243.72	117.11	135.00	18 10 27	4668.5	46.72	235.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0874	TRA	.7607	TC3	-3.9738	BAU	.7326	SGT	4910.7	SGR	1600.6	SG3	527.5	ST	3324.3	SR	1201.6	SS	1631.7
RDE	.7504	RRA	-.3095	RC3	.8234	FAU	.06746	RRT	-.9678	RRF	-.9784	RTF	.9811	CRT	-.9996	CRS	.9970	CST	-.9948
FDE	-2.3045	FRA	1.2858	FC3	-4.3253	BSP	16271	SGB	5165.0	R23	.0914	R13	-.9836	LSA	3890.3	MSA	149.9	SSA	12.6
BDE	2.2182	BRA	.8213	BC3	4.0582	FSP	-1735	SG1	5150.7	SG2	384.0	THA	162.39	EL1	3534.6	EL2	31.9	ALF	160.13

LAUNCH DATE AUG 12 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 494.337

RL	151.59	LAL	.00	LOL	318.88	VL	26.728	GAL	1.99	AZL	94.35	HCA	227.34	SMA	128.03	ECC	.18716	INC	4.3480	V1	29.391		
RP	107.79	LAP	3.20	LOP	186.14	VP	37.762	GAP	5.82	AZP	87.05	TAL	171.28	TAP	38.61	RCA	104.07	APO	152.00	V2	35.158		
RC	116.871	GL	-33.89	GP	31.91	ZAL	70.27	ZAP	135.73	ETS	36.45	ZAE	125.77	ETE	155.89	ZAC	128.90	ETC	253.47	CLP	-147.50		

PLANETOCENTRIC CONIC

C3	13.190	VHL	3.632	DLA	-55.81	RAL	244.22	RAD	6567.5	VEL	11.601	PTH	2.03	VHP	5.075	DPA	17.37	RAP	228.52	ECC	1.2171		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.66	7 43 30	1605.73	40.37	36.00	118.93	132.48	8 10 16	1005.7	45.48	28.00
140.34	16 50 22	5277.46	40.38	243.58	118.95	132.47	18 18 19	4677.5	45.49	235.58
39.66	7 43 30	1605.73	40.37	36.00	118.93	132.48	8 10 16	1005.7	45.48	28.00
140.34	16 50 22	5277.46	40.38	243.58	118.95	132.47	18 18 19	4677.5	45.49	235.58
39.66	7 43 30	1605.73	40.37	36.00	118.93	132.48	8 10 16	1005.7	45.48	28.00
140.34	16 50 22	5277.46	40.38	243.58	118.95	132.47	18 18 19	4677.5	45.49	235.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9730	TRA	.9102	TC3	-4.2492	BAU	.7609	SGT	5073.9	SGR	1450.6	SG3	514.1	ST	3207.0	SR	1054.2	SS	1485.4
RDE	.6471	RRA	-.3117	RC3	.7494	FAU	.06608	RRT	-.9638	RRF	-.9721	RTF	.9815	CRT	-.9999	CRS	.9946	CST	-.9936
FDE	-2.0126	FRA	1.3980	FC3	-4.3374	BSP	16867	SGB	5277.2	R23	.0784	R13	-.9833	LSA	3684.9	MSA	153.2	SSA	13.4
BDE	2.0764	BRA	.9621	BC3	4.3147	FSP	-1739	SG1	5264.0	SG2	372.8	THA	164.51	EL1	3375.7	EL2	16.9	ALF	161.81

LAUNCH DATE AUG 12 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 500.373

RL	151.59	LAL	.00	LOL	318.88	VL	26.702	GAL	2.25	AZL	94.05	HCA	230.56	SMA	127.87	ECC	.18952	INC	4.0497	V1	29.391		
RP	107.82	LAP	3.13	LOP	189.37	VP	37.784	GAP	6.19	AZP	87.42	TAL	170.31	TAP	40.87	RCA	103.63	APO	152.10	V2	35.147		
RC	119.138	GL	-31.45	GP	29.60	ZAL	68.18	ZAP	138.50	ETS	36.75	ZAE	125.80	ETE	158.16	ZAC	126.90	ETC	254.08	CLP	-149.47		

PLANETOCENTRIC CONIC

C3	13.046	VHL	3.612	DLA	-53.71	RAL	247.65	RAD	6567.5	VEL	11.595	PTH	2.03	VHP	5.163	DPA	14.83	RAP	228.69	ECC	1.2147		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.25	8 4 31	1587.78	39.24	32.66	120.79	130.16	8 30 59	987.8	44.10	24.56
137.75	16 56 42	5290.67	39.25	243.79	120.80	130.15	18 24 53	4690.7	44.11	235.69
42.25	8 4 31	1587.78	39.24	32.66	120.79	130.16	8 30 59	987.8	44.10	24.56
137.75	16 56 42	5290.67	39.25	243.79	120.80	130.15	18 24 53	4690.7	44.11	235.69
42.25	8 4 31	1587.78	39.24	32.66	120.79	130.16	8 30 59	987.8	44.10	24.56
137.75	16 56 42	5290.67	39.25	243.79	120.80	130.15	18 24 53	4690.7	44.11	235.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8404	TRA	1.0831	TC3	-4.4165	BAU	.7787	SGT	5208.4	SGR	1318.4	SG3	496.4	ST	3047.9	SR	924.4	SS	1327.9
RDE	.5599	RRA	-.3181	RC3	.6531	FAU	.06275	RRT	-.9572	RRF	-.9640	RTF	.9806	CRT	-.9998	CRS	.9897	CST	-.9911
FDE	-1.7101	FRA	1.5202	FC3	-4.1637	BSP	17016	SGB	5372.7	R23	.0712	R13	-.9820	LSA	3446.8	MSA	164.4	SSA	14.2
BDE	1.9237	BRA	1.1289	BC3	4.4645	FSP	-1667	SG1	5359.8	SG2	370.9	THA	166.31	EL1	3185.0	EL2	16.6	ALF	163.13

LAUNCH DATE AUG 12 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 506.384

RL	151.59	LAL	.00	LOL	318.88	VL	26.676	GAL	2.51	AZL	93.78	HCA	233.78	SMA	127.69	ECC	.19206	INC	3.7779	V1	29.391		
RP	107.86	LAP	3.05	LOP	192.60	VP	37.705	GAP	6.56	AZP	87.77	TAL	169.32	TAP	43.10	RCA	103.17	APO	152.22	V2	35.136		
RC	121.402	GL	-29.08	GP	27.54	ZAL	66.07	ZAP	141.08	ETS	37.03	ZAE	125.73	ETE	160.16	ZAC	125.14	ETC	254.62	CLP	-151.33		

PLANETOCENTRIC CONIC

C3	13.051	VHL	3.613	DLA	-51.63	RAL	250.86	RAD	6567.5	VEL	11.595	PTH	2.03	VHP	5.273	DPA	12.48	RAP	229.09	ECC	1.2148		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.83	8 25 2	1570.58	37.97	29.49	122.68	128.06	8 51 13	970.6	42.60	21.34
135.17	17 1 45	5308.02	37.98	244.35	122.69	128.05	18 30 13	4708.0	42.61	236.20
44.83	8 25 2	1570.58	37.97	29.49	122.68	128.06	8 51 13	970.6	42.60	21.34
135.17	17 1 45	5308.02	37.98	244.35	122.69	128.05	18 30 13	4708.0	42.61	236.20
44.83	8 25 2	1570.58	37.97	29.49	122.68	128.06	8 51 13	970.6	42.60	21.34
135.17	17 1 45	5308.02	37.98	244.35	122.69	128.05	18 30 13	4708.0	42.61	236.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7126	TRA	1.2580	TC3	-4.5399	BAU	.7983	SGT	5335.8	SGR	1206.8	SG3	476.8	ST	2884.0	SR	822.4	SS	1186.8
RDE	.4947	RRA	-.3209	RC3	.5678	FAU	.05946	RRT	-.9493	RRF	-.9543	RTF	.9800	CRT	-.9991	CRS	.9813	CST	-.9880
FDE	-1.4435	FRA	1.6180	FC3	-3.9441	BSP	17288	SGB	5470.5	R23	.0620	R13	-.9810	LSA	3220.4	MSA	176.5	SSA	14.8
BDE	1.7827	BRA	1.2983	BC3	4.5753	FSP	-1605	SG1	5458.0	SG2	370.8	THA	167.83	EL1	2998.8	EL2	33.2	ALF	164.10

LAUNCH DATE AUG 12 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 512.370

RL 151.59 LAL .00 LOL 318.88 VL 26.649 GAL 2.79 AZL 93.53 HCA 236.99 SMA 127.52 ECC .19479 INC 3.5277 V1 29.391
RP 107.89 LAP 2.96 LOP 195.83 VP 37.674 GAP 6.94 AZP 88.08 TAL 168.30 TAP 45.29 RCA 102.68 APO 152.35 V2 35.124
RC 123.660 GL -26.80 GP 25.70 ZAL 63.95 ZAP 143.47 ETS 37.33 ZAE 125.58 ETE 161.90 ZAC 123.61 ETC 255.10 CLP-153.09

PLANETOCENTRIC CONIC

C3 13.192 VHL 3.632 DLA -49.60 RAL 253.87 RAD 6567.5 VEL 11.601 PTH 2.03 VHP 5.400 DPA 10.30 RAP 229.69 ECC 1.2171

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.41	8 45 12	1553.82	36.60	26.45	124.64	126.16	9 11 6	953.8	41.02	18.31
132.59	17 5 35	5329.42	36.62	245.25	124.65	126.15	18 34 24	4729.4	41.04	237.10
47.41	8 45 12	1553.82	36.60	26.45	124.64	126.16	9 11 6	953.8	41.02	18.31
132.59	17 5 35	5329.42	36.62	245.25	124.65	126.15	18 34 24	4729.4	41.04	237.10
47.41	8 45 12	1553.82	36.60	26.45	124.64	126.16	9 11 6	953.8	41.02	18.31
132.59	17 5 35	5329.42	36.62	245.25	124.65	126.15	18 34 24	4729.4	41.04	237.10

DIFFERENTIAL CORRECTIONS
TDE-1.5872 TRA 1.4378 TC3-4.6128 BAU .8181
RDE .4455 RRA -.3223 RC3 .4914 FAU .05613
FDE-1.2065 FRA 1.6984 FC3-3.6836 BSP 17608
BDE 1.6486 BRA 1.4735 BC3 4.6389 FSP -1545

MID-COURSE EXECUTION ACCURACY
SGT 5453.7 SGR 1112.1 SG3 456.1
RRT -.9400 RRF -.9429 RTF .9794
SGB 5566.0 R23 .0527 R13 -.9801
SG1 5553.5 SG2 372.7 THA 169.10

ORBIT DETERMINATION ACCURACY
ST 2716.9 SR 741.2 SS 1060.4
CRT -.9970 CRS .9676 CST -.9838
LSA 3003.2 MSA 190.8 SSA 15.3
EL1 2815.7 EL2 55.2 ALF 164.78

LAUNCH DATE AUG 12 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 518.328

RL 151.59 LAL .00 LOL 318.88 VL 26.621 GAL 3.09 AZL 93.30 HCA 240.21 SMA 127.34 ECC .19773 INC 3.2954 V1 29.391
RP 107.93 LAP 2.86 LOP 199.05 VP 37.644 GAP 7.32 AZP 88.36 TAL 167.26 TAP 47.47 RCA 102.16 APO 152.51 V2 35.112
RC 125.912 GL -24.61 GP 24.05 ZAL 61.82 ZAP 145.70 ETS 37.67 ZAE 125.37 ETE 163.43 ZAC 122.28 ETC 255.54 CLP-154.77

PLANETOCENTRIC CONIC

C3 13.461 VHL 3.669 DLA -47.60 RAL 256.69 RAD 6567.5 VEL 11.612 PTH 2.03 VHP 5.542 DPA 8.27 RAP 230.46 ECC 1.2215

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.99	9 5 9	1537.11	35.16	23.54	126.66	124.44	9 30 46	937.1	39.39	15.42
130.01	17 8 12	5354.91	35.17	246.51	126.67	124.43	18 37 27	4754.9	39.40	238.38
49.99	9 5 9	1537.11	35.16	23.54	126.66	124.44	9 30 46	937.1	39.39	15.42
130.01	17 8 12	5354.91	35.17	246.51	126.67	124.43	18 37 27	4754.9	39.40	238.38
49.99	9 5 9	1537.11	35.16	23.54	126.66	124.44	9 30 46	937.1	39.39	15.42
130.01	17 8 12	5354.91	35.17	246.51	126.67	124.43	18 37 27	4754.9	39.40	238.38

DIFFERENTIAL CORRECTIONS
TDE-1.4620 TRA 1.6259 TC3-4.6292 BAU .8365
RDE .4083 RRA -.3238 RC3 .4221 FAU .05267
FDE -.9951 FRA 1.7674 FC3-3.3872 BSP 17907
BDE 1.5179 BRA 1.6578 BC3 4.6484 FSP -1481

MID-COURSE EXECUTION ACCURACY
SGT 5561.6 SGR 1031.9 SG3 435.0
RRT -.9290 RRF -.9297 RTF .9787
SGB 5656.5 R23 .0441 R13 -.9793
SG1 5644.0 SG2 376.3 THA 170.18

ORBIT DETERMINATION ACCURACY
ST 2549.3 SR 676.2 SS 949.1
CRT -.9924 CRS .9459 CST -.9782
LSA 2795.3 MSA 208.2 SSA 15.7
EL1 2636.3 EL2 80.3 ALF 165.24

LAUNCH DATE AUG 12 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 524.259

RL 151.59 LAL .00 LOL 318.88 VL 26.593 GAL 3.41 AZL 93.08 HCA 243.42 SMA 127.15 ECC .20088 INC 3.0777 V1 29.391
RP 107.97 LAP 2.75 LOP 202.27 VP 37.612 GAP 7.71 AZP 88.62 TAL 166.19 TAP 49.61 RCA 101.61 APO 152.69 V2 35.099
RC 128.158 GL -22.51 GP 22.57 ZAL 59.71 ZAP 147.77 ETS 38.06 ZAE 125.13 ETE 164.75 ZAC 121.12 ETC 255.97 CLP-156.37

PLANETOCENTRIC CONIC

C3 13.857 VHL 3.723 DLA -45.66 RAL 259.36 RAD 6567.5 VEL 11.629 PTH 2.04 VHP 5.699 DPA 6.39 RAP 231.38 ECC 1.2281

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.56	9 24 59	1520.19	33.66	20.73	128.74	122.89	9 50 19	920.2	37.72	12.65
127.44	17 9 38	5384.50	33.67	248.11	128.75	122.88	18 39 23	4784.5	37.73	240.03
52.56	9 24 59	1520.19	33.66	20.73	128.74	122.89	9 50 19	920.2	37.72	12.65
127.44	17 9 38	5384.50	33.67	248.11	128.75	122.88	18 39 23	4784.5	37.73	240.03
52.56	9 24 59	1520.19	33.66	20.73	128.74	122.89	9 50 19	920.2	37.72	12.65
127.44	17 9 38	5384.50	33.67	248.11	128.75	122.88	18 39 23	4784.5	37.73	240.03

DIFFERENTIAL CORRECTIONS
TDE-1.3380 TRA 1.8215 TC3-4.5964 BAU .8542
RDE .3809 RRA -.3255 RC3 .3610 FAU .04922
FDE -.8091 FRA 1.8254 FC3-3.0748 BSP 18211
BDE 1.3911 BRA 1.8503 BC3 4.6105 FSP -1418

MID-COURSE EXECUTION ACCURACY
SGT 5660.4 SGR 964.2 SG3 413.9
RRT -.9165 RRF -.9150 RTF .9781
SGB 5742.0 R23 .0363 R13 -.9785
SG1 5729.3 SG2 381.1 THA 171.09

ORBIT DETERMINATION ACCURACY
ST 2387.3 SR 624.5 SS 854.3
CRT -.9839 CRS .9137 CST -.9713
LSA 2601.4 MSA 228.1 SSA 15.9
EL1 2465.3 EL2 108.1 ALF 165.54

LAUNCH DATE AUG 12 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 530.160

RL 151.59 LAL .00 LOL 318.88 VL 26.564 GAL 3.74 AZL 92.87 HCA 246.63 SMA 126.97 ECC .20426 INC 2.8720 V1 29.391
RP 108.01 LAP 2.64 LOP 205.49 VP 37.580 GAP 8.10 AZP 88.86 TAL 165.10 TAP 51.74 RCA 101.03 APO 152.90 V2 35.086
RC 130.397 GL -20.50 GP 21.25 ZAL 57.63 ZAP 149.71 ETS 38.53 ZAE 124.87 ETE 165.91 ZAC 120.11 ETC 256.37 CLP-157.90

PLANETOCENTRIC CONIC

C3 14.381 VHL 3.792 DLA -43.77 RAL 261.88 RAD 6567.6 VEL 11.652 PTH 2.05 VHP 5.869 DPA 4.64 RAP 232.45 ECC 1.2367

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.11	9 44 48	1502.76	32.13	17.98	130.89	121.49	10 9 51	902.8	36.03	9.96
124.89	17 9 53	5418.28	32.14	250.06	130.90	121.48	18 40 11	4818.3	36.04	242.03
55.11	9 44 48	1502.76	32.13	17.98	130.89	121.49	10 9 51	902.8	36.03	9.96
124.89	17 9 53	5418.28	32.14	250.06	130.90	121.48	18 40 11	4818.3	36.04	242.03
55.11	9 44 48	1502.76	32.13	17.98	130.89	121.49	10 9 51	902.8	36.03	9.96
124.89	17 9 53	5418.28	32.14	250.06	130.90	121.48	18 40 11	4818.3	36.04	242.03

DIFFERENTIAL CORRECTIONS
TDE-1.2138 TRA 2.0260 TC3-4.5165 BAU .8704
RDE .3609 RRA -.3279 RC3 .3078 FAU .04581
FDE -.6445 FRA 1.8753 FC3-2.7574 BSP 18490
BDE 1.2663 BRA 2.0523 BC3 4.5270 FSP -1353

MID-COURSE EXECUTION ACCURACY
SGT 5750.2 SGR 906.9 SG3 393.3
RRT -.9027 RRF -.8990 RTF .9774
SGB 5821.3 R23 .0294 R13 -.9777
SG1 5808.4 SG2 386.3 THA 171.86

ORBIT DETERMINATION ACCURACY
ST 2234.0 SR 582.9 SS 775.3
CRT -.9695 CRS .8681 CST -.9629
LSA 2422.5 MSA 250.8 SSA 15.9
EL1 2304.6 EL2 138.5 ALF 165.75

LAUNCH DATE AUG 12 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 536.028

RL	151.59	LAL	.00	LOL	318.88	VL	26.535	GAL	4.10	AZL	92.68	HCA	249.84	SMA	126.78	ECC	.20789	INC	2.6762	V1	29.391
RP	108.05	LAP	2.51	LOP	208.71	VP	37.547	GAP	8.50	AZP	89.08	TAL	164.00	TAP	53.84	RCA	100.42	APO	153.14	V2	35.074
RC	132.627	GL	-18.58	GP	20.07	ZAL	55.58	ZAP	151.52	ETS	39.09	ZAE	124.60	ETE	166.92	ZAC	119.23	ETC	256.77	CLP	-159.36

PLANETOCENTRIC CONIC

C3	15.036	VHL	3.878	DLA	-41.94	RAL	264.25	RAD	6567.6	VEL	11.680	PTH	2.05	VHP	6.052	DPA	3.00	RAP	233.64	ECC	1.2475		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.67	10 4 44	1484.44	30.58	15.28	133.10	120.23	10 29 28	884.4	34.34	7.32
122.33	17 8 54	5456.43	30.59	252.36	133.11	120.21	18 39 50	4856.4	34.35	244.40
57.67	10 4 44	1484.44	30.58	15.28	133.10	120.23	10 29 28	884.4	34.34	7.32
122.33	17 8 54	5456.43	30.59	252.36	133.11	120.21	18 39 50	4856.4	34.35	244.40
57.67	10 4 44	1484.44	30.58	15.28	133.10	120.23	10 29 28	884.4	34.34	7.32
122.33	17 8 54	5456.43	30.59	252.36	133.11	120.21	18 39 50	4856.4	34.35	244.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1014	TRA	2.2288	TC3	-4.4263	BAU	.8914	SGT	5833.7	SGR	858.6	SG3	372.9	ST	2103.2	SR	552.3	SS	715.0
RDE	.3494	RRA	-.3292	RC3	.2678	FAU	.04304	RRT	-.8880	RRF	-.8819	RTF	.9773	CRT	-.9482	CRS	.8137	CST	-.9558
FDE	-.5126	FRA	1.9077	FC3	-2.4779	BSP	19033	SGB	5896.5	R23	.0220	R13	-.9775	LSA	2272.7	MSA	272.3	SSA	15.9
BDE	1.1555	BRA	2.2530	BC3	4.4344	FSP	-1316	SG1	5883.5	SG2	391.5	THA	172.52	EL1	2167.8	EL2	170.3	ALF	165.93

LAUNCH DATE AUG 12 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 541.865

RL	151.59	LAL	.00	LOL	318.88	VL	26.506	GAL	4.47	AZL	92.49	HCA	253.05	SMA	126.59	ECC	.21178	INC	2.4885	V1	29.391		
RP	108.09	LAP	2.38	LOP	211.92	VP	37.514	GAP	8.91	AZP	89.27	TAL	162.87	TAP	55.92	RCA	99.78	APO	153.40	V2	35.061		
RC	134.850	GL	-16.76	GP	19.00	ZAL	53.58	ZAP	153.22	ETS	39.75	ZAE	124.33	ETE	167.80	ZAC	118.47	ETC	257.16	CLP	-160.77		

PLANETOCENTRIC CONIC

C3	15.830	VHL	3.979	DLA	-40.17	RAL	266.50	RAD	6567.6	VEL	11.714	PTH	2.06	VHP	6.247	DPA	1.46	RAP	234.94	ECC	1.2605		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.23	10 24 55	1464.86	29.03	12.57	135.38	119.08	10 49 20	864.9	32.66	4.68
119.77	17 6 38	5499.18	29.04	255.02	135.39	119.07	18 38 17	4899.2	32.67	247.13
60.23	10 24 55	1464.86	29.03	12.57	135.38	119.08	10 49 20	864.9	32.66	4.68
119.77	17 6 38	5499.18	29.04	255.02	135.39	119.07	18 38 17	4899.2	32.67	247.13
60.23	10 24 55	1464.86	29.03	12.57	135.38	119.08	10 49 20	864.9	32.66	4.68
119.77	17 6 38	5499.18	29.04	255.02	135.39	119.07	18 38 17	4899.2	32.67	247.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9693	TRA	2.4615	TC3	-4.2484	BAU	.9003	SGT	5907.3	SGR	817.5	SG3	354.0	ST	1973.7	SR	523.3	SS	665.0
RDE	.3387	RRA	-.3351	RC3	.2237	FAU	.03934	RRT	-.8721	RRF	-.8642	RTF	.9762	CRT	-.9150	CRS	.7355	CST	-.9459
FDE	-.3766	FRA	1.9543	FC3	-2.1516	BSP	19070	SGB	5963.6	R23	.0183	R13	-.9764	LSA	2126.2	MSA	300.9	SSA	15.8
BDE	1.0268	BRA	2.4842	BC3	4.2542	FSP	-1234	SG1	5950.3	SG2	397.1	THA	173.09	EL1	2031.6	EL2	205.1	ALF	166.22

LAUNCH DATE AUG 12 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 547.665

RL	151.59	LAL	.00	LOL	318.88	VL	26.476	GAL	4.87	AZL	92.31	HCA	256.26	SMA	126.40	ECC	.21596	INC	2.3071	V1	29.391		
RP	108.13	LAP	2.24	LOP	215.13	VP	37.481	GAP	9.33	AZP	89.45	TAL	161.73	TAP	57.99	RCA	99.10	APO	153.70	V2	35.047		
RC	137.063	GL	-15.03	GP	18.04	ZAL	51.63	ZAP	154.81	ETS	40.53	ZAE	124.06	ETE	168.58	ZAC	117.80	ETC	257.56	CLP	-162.12		

PLANETOCENTRIC CONIC

C3	16.771	VHL	4.095	DLA	-38.47	RAL	268.62	RAD	6567.7	VEL	11.754	PTH	2.07	VHP	6.455	DPA	.03	RAP	236.34	ECC	1.2760		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.80	10 45 31	1443.49	27.48	9.83	137.71	118.05	11 9 34	843.5	31.00	2.00
117.20	17 2 59	5546.91	27.49	258.06	137.71	118.04	18 35 26	4946.9	31.01	250.24
62.80	10 45 31	1443.49	27.48	9.83	137.71	118.05	11 9 34	843.5	31.00	2.00
117.20	17 2 59	5546.91	27.49	258.06	137.71	118.04	18 35 26	4946.9	31.01	250.24
62.80	10 45 31	1443.49	27.48	9.83	137.71	118.05	11 9 34	843.5	31.00	2.00
117.20	17 2 59	5546.91	27.49	258.06	137.71	118.04	18 35 26	4946.9	31.01	250.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8434	TRA	2.6986	TC3	-4.0592	BAU	.9111	SGT	5975.0	SGR	782.6	SG3	335.9	ST	1869.5	SR	500.8	SS	630.1
RDE	.3332	RRA	-.3409	RC3	.1892	FAU	.03610	RRT	-.8560	RRF	-.8463	RTF	.9755	CRT	-.8705	CRS	.6489	CST	-.9389
FDE	-.2636	FRA	1.9905	FC3	-1.8635	BSP	19244	SGB	6026.0	R23	.0144	R13	-.9756	LSA	2008.8	MSA	327.7	SSA	15.7
BDE	.9068	BRA	2.7201	BC3	4.0636	FSP	-1170	SG1	6012.6	SG2	402.0	THA	173.57	EL1	1920.5	EL2	240.0	ALF	166.66

LAUNCH DATE AUG 12 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 553.426

RL	151.59	LAL	.00	LOL	318.88	VL	26.446	GAL	5.29	AZL	92.13	HCA	259.46	SMA	126.21	ECC	.22045	INC	2.1309	V1	29.391		
RP	108.17	LAP	2.09	LOP	218.34	VP	37.447	GAP	9.76	AZP	89.61	TAL	160.58	TAP	60.04	RCA	98.39	APO	154.03	V2	35.034		
RC	139.266	GL	-13.39	GP	17.17	ZAL	49.74	ZAP	156.31	ETS	41.45	ZAE	123.79	ETE	169.25	ZAC	117.23	ETC	257.96	CLP	-163.43		

PLANETOCENTRIC CONIC

C3	17.872	VHL	4.228	DLA	-36.83	RAL	270.63	RAD	6567.7	VEL	11.801	PTH	2.09	VHP	6.675	DPA	-1.32	RAP	237.83	ECC	1.2941		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.39	11 6 40	1419.87	25.95	7.00	140.08	117.11	11 30 20	819.9	29.37	359.24
114.61	16 57 51	5599.94	25.97	261.51	140.09	117.10	18 31 11	4999.9	29.38	253.75
65.39	11 6 40	1419.87	25.95	7.00	140.08	117.11	11 30 20	819.9	29.37	359.24
114.61	16 57 51	5599.94	25.97	261.51	140.09	117.10	18 31 11	4999.9	29.38	253.75
65.39	11 6 40	1419.87	25.95	7.00	140.08	117.11	11 30 20	819.9	29.37	359.24
114.61	16 57 51	5599.94	25.97	261.51	140.09	117.10	18 31 11	4999.9	29.38	253.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7193	TRA	2.9444	TC3	-3.8542	BAU	.9217	SGT	6035.5	SGR	752.4	SG3	318.6	ST	1788.1	SR	482.5	SS	606.6
RDE	.3313	RRA	-.3474	RC3	.1609	FAU	.03309	RRT	-.8398	RRF	-.8284	RTF	.9749	CRT	-.8138	CRS	.5569	CST	-.9355
FDE	-.1665	FRA	2.0208	FC3	-1.6029	BSP	19462	SGB	6082.2	R23	.0110	R13	-.9750	LSA	1916.6	MSA	352.5	SSA	15.5
BDE	.7919	BRA	2.9648	BC3	3.8575	FSP	-1113	SG1	6068.7	SG2	406.3	THA	174.00	EL1	1831.7	EL2	273.7	ALF	167.33

LAUNCH DATE AUG 12 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 559.145
RL 151.59 LAL .00 LOL 318.88 VL 26.416 GAL 5.73 AZL 91.96 HCA 262.66 SMA 126.02 ECC .22527 INC 1.9583 V1 29.391
RP 108.21 LAP 1.94 LOP 221.54 VP 37.414 GAP 10.21 AZP 89.75 TAL 159.42 TAP 62.08 RCA 97.63 APO 154.41 V2 35.021
RC 141.459 GL -11.84 GP 16.39 ZAL 47.91 ZAP 157.72 ETS 42.52 ZAE 123.53 ETE 169.84 ZAC 116.73 ETC 258.37 CLP-164.69
PLANETOCENTRIC CONIC
C3 19.149 VHL 4.376 DLA -35.27 RAL 272.53 RAD 6567.8 VEL 11.855 PTH 2.10 VHP 6.909 DPA -2.59 RAP 239.40 ECC 1.3151

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.04	11 28 43	1392.98	24.44	4.01	142.51	116.25	11 51 56	793.0	27.76	356.32
111.96	16 50 57	5659.19	24.46	265.41	142.52	116.24	18 25 16	5059.2	27.78	257.72
68.04	11 28 43	1392.98	24.44	4.01	142.51	116.25	11 51 56	793.0	27.76	356.32
111.96	16 50 57	5659.19	24.46	265.41	142.52	116.24	18 25 16	5059.2	27.78	257.72
68.04	11 28 43	1392.98	24.44	4.01	142.51	116.25	11 51 56	793.0	27.76	356.32
111.96	16 50 57	5659.19	24.46	265.41	142.52	116.24	18 25 16	5059.2	27.78	257.72

DIFFERENTIAL CORRECTIONS
TDE -.5941 TRA 3.2025 TC3-3.6317 BAU .9304
RDE .3319 RRA -.3550 RC3 .1369 FAU .03021
FDE -.0809 FRA 2.0489 FC3-1.3657 BSP 19655
BDE .6805 BRA 3.2222 BC3 3.6343 FSP -1058

MID-COURSE EXECUTION ACCURACY
SGT 6089.8 SGR 726.1 SG3 302.2
RRT -.8238 RRF -.8109 RTF .9744
SGB 6132.9 R23 .0081 R13 -.9745
SG1 6119.2 SG2 409.7 THA 174.36

ORBIT DETERMINATION ACCURACY
ST 1728.7 SR 466.9 SS 592.2
CRT -.7453 CRS .4631 CST -.9357
LSA 1848.4 MSA 374.6 SSA 15.3
EL1 1764.4 EL2 305.0 ALF 168.26

LAUNCH DATE AUG 12 1970 FLIGHT TIME 200.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 564.817
RL 151.59 LAL .00 LOL 318.88 VL 26.385 GAL 6.20 AZL 91.79 HCA 265.86 SMA 125.82 ECC .23047 INC 1.7884 V1 29.391
RP 108.25 LAP 1.78 LOP 224.74 VP 37.380 GAP 10.67 AZP 89.87 TAL 158.26 TAP 64.12 RCA 96.83 APO 154.82 V2 35.008
RC 143.643 GL -10.39 GP 15.68 ZAL 46.15 ZAP -159.05 ETS 43.76 ZAE 123.28 ETE 170.37 ZAC 116.29 ETC 258.79 CLP-165.92
PLANETOCENTRIC CONIC
C3 20.619 VHL 4.541 DLA -33.77 RAL 274.32 RAD 6567.8 VEL 11.916 PTH 2.12 VHP 7.156 DPA -3.77 RAP 241.04 ECC 1.3393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.77	11 52 2	1361.54	22.97	.76	144.98	115.47	12 14 44	761.5	26.20	353.13
109.23	16 41 58	5725.81	22.98	269.86	144.98	115.46	18 17 24	5125.8	26.21	262.22
70.77	11 52 2	1361.54	22.97	.76	144.98	115.47	12 14 44	761.5	26.20	353.13
109.23	16 41 58	5725.81	22.98	269.86	144.98	115.46	18 17 24	5125.8	26.21	262.22
110.00	16 6 35	5833.93	19.42	276.32	143.03	118.70	17 43 49	5233.9	23.09	269.11
110.00	17 26 35	5589.46	26.63	261.02	146.76	112.27	18 59 44	4989.5	29.41	252.93

DIFFERENTIAL CORRECTIONS
TDE -.4686 TRA 3.4728 TC3-3.3992 BAU .9376
RDE .3345 RRA -.3636 RC3 .1168 FAU .02747
FDE -.0061 FRA 2.0748 FC3-1.1534 BSP 19841
BDE .5758 BRA 3.4917 BC3 3.4012 FSP -1006

MID-COURSE EXECUTION ACCURACY
SGT 6137.5 SGR 702.9 SG3 286.8
RRT -.8082 RRF -.7941 RTF .9740
SGB 6177.6 R23 .0058 R13 -.9740
SG1 6163.8 SG2 412.2 THA 174.69

ORBIT DETERMINATION ACCURACY
ST 1690.9 SR 453.4 SS 584.6
CRT -.6674 CRS .3727 CST -.9394
LSA 1803.4 MSA 392.3 SSA 15.0
EL1 1718.9 EL2 332.2 ALF 169.45

LAUNCH DATE AUG 12 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 570.437
RL 151.59 LAL .00 LOL 318.88 VL 26.355 GAL 6.70 AZL 91.62 HCA 269.06 SMA 125.63 ECC .23606 INC 1.6200 V1 29.391
RP 108.29 LAP 1.62 LOP 227.94 VP 37.346 GAP 11.15 AZP 89.97 TAL 157.08 TAP 66.14 RCA 95.98 APO 155.29 V2 34.995
RC 145.816 GL -9.01 GP 15.03 ZAL 44.47 ZAP 160.31 ETS 45.21 ZAE 123.03 ETE 170.83 ZAC 115.90 ETC 259.21 CLP-167.12
PLANETOCENTRIC CONIC
C3 22.306 VHL 4.723 DLA -32.35 RAL 276.02 RAD 6567.9 VEL 11.987 PTH 2.14 VHP 7.419 DPA -4.88 RAP 242.75 ECC 1.3671

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.67	12 17 13	1323.67	21.53	357.12	147.49	114.75	12 39 16	723.7	24.68	349.54
106.33	16 30 20	5801.58	21.54	274.96	147.49	114.74	18 7 1	5201.6	24.69	267.38
73.67	12 17 13	1323.67	21.53	357.12	147.49	114.75	12 39 16	723.7	24.68	349.54
106.33	16 30 20	5801.58	21.54	274.96	147.49	114.74	18 7 1	5201.6	24.69	267.38
110.00	15 28 57	703.40	14.03	307.44	143.28	121.50	15 40 40	103.4	18.09	300.68
110.00	18 17 46	5469.85	29.45	252.86	150.94	108.19	19 48 56	4869.8	31.65	244.34

DIFFERENTIAL CORRECTIONS
TDE -.3419 TRA 3.7565 TC3-3.1603 BAU .9429
RDE .3389 RRA -.3731 RC3 .0997 FAU .02487
FDE .0596 FRA 2.0995 FC3 -.9651 BSP 20015
BDE .4814 BRA 3.7750 BC3 3.1619 FSP -956

MID-COURSE EXECUTION ACCURACY
SGT 6179.2 SGR 681.9 SG3 272.2
RRT -.7932 RRF -.7781 RTF .9737
SGB 6216.7 R23 .0038 R13 -.9737
SG1 6202.9 SG2 413.7 THA 174.98

ORBIT DETERMINATION ACCURACY
ST 1673.0 SR 441.4 SS 581.9
CRT -.5835 CRS .2888 CST -.9456
LSA 1779.9 MSA 405.0 SSA 14.7
EL1 1693.6 EL2 354.1 ALF 170.84

LAUNCH DATE AUG 12 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 576.001
RL 151.59 LAL .00 LOL 318.88 VL 26.324 GAL 7.23 AZL 91.45 HCA 272.25 SMA 125.44 ECC .24210 INC 1.4519 V1 29.391
RP 108.33 LAP 1.45 LOP 231.13 VP 37.312 GAP 11.65 AZP 90.06 TAL 155.91 TAP 68.16 RCA 95.07 APO 155.81 V2 34.982
RC 147.979 GL -7.72 GP 14.44 ZAL 42.86 ZAP 161.49 ETS 46.87 ZAE 122.79 ETE 171.24 ZAC 115.57 ETC 259.65 CLP-168.30
PLANETOCENTRIC CONIC
C3 24.237 VHL 4.923 DLA -30.99 RAL 277.63 RAD 6568.0 VEL 12.067 PTH 2.16 VHP 7.698 DPA -5.93 RAP 244.52 ECC 1.3989

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.84	12 45 27	1275.49	20.12	352.78	150.03	114.08	13 6 42	675.5	23.20	345.25
103.16	16 14 54	602.22	20.13	303.09	150.03	114.07	16 24 56	2.2	23.21	295.57
76.84	12 45 27	1275.49	20.12	352.78	150.03	114.08	13 6 42	675.5	23.20	345.25
103.16	16 14 54	602.22	20.13	303.09	150.03	114.07	16 24 56	2.2	23.21	295.57
110.00	15 8 48	809.18	10.19	313.23	144.46	122.81	15 22 17	209.2	14.44	306.71
110.00	18 50 43	5404.56	30.75	248.22	154.28	105.72	20 20 47	4804.6	32.60	239.49

DIFFERENTIAL CORRECTIONS
TDE -.2144 TRA 4.0537 TC3-2.9201 BAU .9466
RDE .3447 RRA -.3834 RC3 .0853 FAU .02241
FDE .1170 FRA 2.1230 FC3 -.8006 BSP 20202
BDE .4059 BRA 4.0718 BC3 2.9214 FSP -911

MID-COURSE EXECUTION ACCURACY
SGT 6214.3 SGR 662.5 SG3 258.4
RRT -.7788 RRF -.7630 RTF .9735
SGB 6249.5 R23 .0023 R13 -.9735
SG1 6235.7 SG2 414.1 THA 175.23

ORBIT DETERMINATION ACCURACY
ST 1672.0 SR 430.5 SS 582.4
CRT -.4977 CRS .2135 CST -.9533
LSA 1774.8 MSA 412.3 SSA 14.5
EL1 1686.4 EL2 370.2 ALF 172.33

LAUNCH DATE AUG 12 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 581.501

RL	151.59	LAL	.00	LOL	318.88	VL	26.293	GAL	7.79	AZL	91.28	HCA	275.44	SMA	125.25	ECC	.24862	INC	1.2833
RP	108.37	LAP	1.28	LOP	234.33	VP	37.278	GAP	12.17	AZP	90.12	TAL	154.74	TAP	70.18	RCA	94.11	APO	156.39
RC	150.132	GL	-6.51	GP	13.91	ZAL	41.33	ZAP	162.60	ETS	48.78	ZAE	122.55	ETE	171.60	ZAC	115.27	ETC	260.10

V1 29.391 V2 34.969 CLP-169.45

PLANETOCENTRIC CONIC

C3	26.444	VHL	5.142	DLA	-29.70	RAL	279.14	RAD	6568.1	VEL	12.158	PTH	2.18	VHP	7.995	DPA	-6.90	RAP	246.34

ECC 1.4352

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.63	13 19 37	1207.57	18.75	347.07	152.60	113.47	13 39 44	607.6	21.77	339.59
99.37	15 52 49	713.12	18.77	310.74	152.61	113.46	16 4 42	113.1	21.78	303.25
100.00	15 29 26	787.86	16.33	315.13	151.44	115.39	15 42 34	187.9	19.62	307.88
100.00	16 25 41	608.06	21.23	304.02	153.69	111.56	16 35 49	8.1	23.97	296.30
110.00	14 54 43	897.36	6.90	317.94	146.01	123.56	15 9 41	297.4	11.27	311.57
110.00	19 16 53	5359.36	31.54	244.93	157.37	103.93	20 46 12	4759.4	33.13	236.07

DIFFERENTIAL CORRECTIONS

TDE	-.0859	TRA	4.3657	TC3	-2.6819	BAU	.9485
RDE	.3516	RRA	-.3945	RC3	.0730	FAU	.02010
FDE	.1674	FRA	2.1461	FC3	-.6581	BSP	20397
BDE	.3619	BRA	4.3835	BC3	2.6829	FSP	-869

MID-COURSE EXECUTION ACCURACY

SGT	6243.4	SGR	644.4	SG3	245.5		
RRT	-.7653	RRF	-.7489	RTF	.9734		
SGB	6276.5	R23	.0011	R13	-.9734		
SG1	6262.9	SG2	413.5	THA	175.46		

ORBIT DETERMINATION ACCURACY

ST	1684.8	SR	420.1	SS	585.0
CRT	-.4135	CRS	.1472	CST	-.9611
LSA	1784.7	MSA	414.8	SSA	14.2
EL1	1694.2	EL2	380.4	ALF	173.80

LAUNCH DATE AUG 12 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 586.929

RL	151.59	LAL	.00	LOL	318.88	VL	26.263	GAL	8.40	AZL	91.11	HCA	278.63	SMA	125.06	ECC	.25568	INC	1.1130
RP	108.41	LAP	1.10	LOP	237.51	VP	37.245	GAP	12.72	AZP	90.17	TAL	153.57	TAP	72.20	RCA	93.08	APO	157.04
RC	152.275	GL	-5.38	GP	13.42	ZAL	39.87	ZAP	163.65	ETS	50.99	ZAE	122.31	ETE	171.92	ZAC	115.00	ETC	260.56

V1 29.391 V2 34.956 CLP-170.58

PLANETOCENTRIC CONIC

C3	28.964	VHL	5.382	DLA	-28.48	RAL	280.57	RAD	6568.2	VEL	12.261	PTH	2.21	VHP	8.311	DPA	-7.81	RAP	248.20

ECC 1.4767

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.80	14 14 59	1070.25	17.43	336.36	155.20	112.89	14 32 50	470.2	20.38	328.92
93.20	15 8 50	895.78	17.44	323.60	155.20	112.88	15 23 46	295.8	20.39	316.15
100.00	14 46 18	968.63	10.78	325.68	151.93	118.05	15 2 26	368.6	14.45	318.81
100.00	17 20 13	5760.68	24.35	273.08	157.95	107.90	18 56 14	5160.7	26.56	264.98
110.00	14 44 0	975.86	3.93	322.07	147.79	123.98	15 0 15	375.9	8.37	315.79
110.00	19 39 1	5326.21	32.05	242.48	160.33	102.56	21 7 47	4726.2	33.45	233.53

DIFFERENTIAL CORRECTIONS

TDE	.0443	TRA	4.6937	TC3	-2.4476	BAU	.9481
RDE	.3595	RRA	-.4062	RC3	.0623	FAU	.01790
FDE	.2118	FRA	2.1693	FC3	-.5351	BSP	20599
BDE	.3622	BRA	4.7113	BC3	2.4484	FSP	-830

MID-COURSE EXECUTION ACCURACY

SGT	6266.1	SGR	626.9	SG3	233.2		
RRT	-.7524	RRF	-.7357	RTF	.9735		
SGB	6297.4	R23	.0001	R13	-.9735		
SG1	6283.9	SG2	411.8	THA	175.68		

ORBIT DETERMINATION ACCURACY

ST	1708.0	SR	410.2	SS	588.9
CRT	-.3338	CRS	.0894	CST	-.9684
LSA	1806.0	MSA	413.0	SSA	13.8
EL1	1713.8	EL2	385.4	ALF	175.17

LAUNCH DATE AUG 12 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 592.276

RL	151.59	LAL	.00	LOL	318.88	VL	26.232	GAL	9.04	AZL	90.94	HCA	281.82	SMA	124.87	ECC	.26334	INC	.9399
RP	108.45	LAP	.92	LOP	240.70	VP	37.211	GAP	13.31	AZP	90.19	TAL	152.41	TAP	74.23	RCA	91.99	APO	157.75
RC	154.408	GL	-4.32	GP	12.98	ZAL	38.49	ZAP	164.63	ETS	53.51	ZAE	122.07	ETE	172.21	ZAC	114.76	ETC	261.02

V1 29.391 V2 34.943 CLP-171.69

PLANETOCENTRIC CONIC

C3	31.844	VHL	5.643	DLA	-27.32	RAL	281.92	RAD	6568.3	VEL	12.378	PTH	2.23	VHP	8.650	DPA	-8.66	RAP	250.11

ECC 1.5241

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 41 32	1221.25	10.55	344.13	155.21	116.43	14 1 54	621.2	14.02	337.17
90.00	15 53 2	792.36	21.92	317.83	160.08	108.39	16 6 14	192.4	24.23	309.92
100.00	14 24 56	1081.06	7.11	332.01	153.38	119.11	14 42 57	481.1	10.94	325.31
100.00	17 52 20	5695.82	25.63	268.69	161.34	105.93	19 27 16	5095.8	27.57	260.43
110.00	14 35 26	1048.04	1.18	325.85	149.72	124.17	14 52 55	448.0	5.65	319.62
110.00	19 58 18	5301.60	32.40	240.65	163.23	101.53	21 26 40	4701.6	33.65	231.64

DIFFERENTIAL CORRECTIONS

TDE	.1762	TRA	5.0390	TC3	-2.2199	BAU	.9454
RDE	.3682	RRA	-.4183	RC3	.0531	FAU	.01583
FDE	.2509	FRA	2.1929	FC3	-.4305	BSP	20816
BDE	.4082	BRA	5.0563	BC3	2.2206	FSP	-794

MID-COURSE EXECUTION ACCURACY

SGT	6282.7	SGR	609.8	SG3	221.7		
RRT	-.7403	RRF	-.7236	RTF	.9737		
SGB	6312.3	R23	-.0006	R13	-.9738		
SG1	6299.0	SG2	408.9	THA	175.87		

ORBIT DETERMINATION ACCURACY

ST	1738.5	SR	400.4	SS	593.4
CRT	-.2601	CRS	.0397	CST	-.9748
LSA	1835.3	MSA	407.9	SSA	13.5
EL1	1741.8	EL2	385.9	ALF	176.40

LAUNCH DATE AUG 12 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 597.531

RL	151.59	LAL	.00	LOL	318.88	VL	26.202	GAL	9.73	AZL	90.76	HCA	285.00	SMA	124.68	ECC	.27165	INC	.7630
RP	108.49	LAP	.74	LOP	243.89	VP	37.178	GAP	13.92	AZP	90.20	TAL	151.27	TAP	76.27	RCA	90.81	APO	158.55
RC	156.530	GL	-3.33	GP	12.57	ZAL	37.19	ZAP	165.54	ETS	56.41	ZAE	121.83	ETE	172.47	ZAC	114.54	ETC	261.50

V1 29.391 V2 34.931 CLP-172.80

PLANETOCENTRIC CONIC

C3	35.140	VHL	5.928	DLA	-26.23	RAL	283.18	RAD	6568.4	VEL	12.510	PTH	2.27	VHP	9.012	DPA	-9.45	RAP	252.05

ECC 1.5783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 17 4	1344.43	6.74	351.17	156.64	117.57	13 39 29	744.4	10.38	344.39
90.00	16 27 36	718.84	23.42	312.96	163.57	106.39	16 39 35	118.8	25.44	304.88
100.00	14 9 59	1173.56	4.02	337.14	155.15	119.65	14 29 32	573.6	7.94	330.54
100.00	18 17 23	5652.98	26.40	265.74	164.48	104.56	19 51 36	5053.0	28.14	257.37
110.00	14 28 25	1115.69	-1.41	329.38	151.77	124.16	14 47 1	515.7	3.08	323.17
110.00	20 15 26	5283.61	32.64	239.30	166.10	100.77	21 43 29	4683.6	33.78	230.25

DIFFERENTIAL CORRECTIONS

TDE	.3115	TRA	5.4040	TC3	-1.9987	BAU	.9392
RDE	.3774	RRA	-.4308	RC3	.0448	FAU	.01384
FDE	.2863	FRA	2.2182	FC3	-.3410	BSP	21019
BDE	.4894	BRA	5.4212	BC3	1.9992	FSP	-760

MID-COURSE EXECUTION ACCURACY

SGT	6293.7	SGR	592.7	SG3	210.8		
RRT	-.7289	RRF	-.7122	RTF	.9742		
SGB	6321.5	R23	-.0011	R13	-.9742		
SG1	6308.6	SG2	404.9	THA	176.06		

ORBIT DETERMINATION ACCURACY

ST	1774.0	SR	390.4	SS	598.5
CRT	-.1928	CRS	-.0036	CST	-.9803
LSA	1870.2	MSA	400.1	SSA	13.2
EL1	1775.7	EL2	382.8	ALF	177.45

LAUNCH DATE AUG 12 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 602.679

RL	151.59	LAL	.00	LOL	318.88	VL	26.171	GAL	10.46	AZL	90.58	HCA	288.18	SMA	124.50	ECC	.28070	INC	.5806	V1	29.391
RP	108.53	LAP	.55	LOP	247.07	VP	37.146	GAP	14.58	AZP	90.18	TAL	150.14	TAP	78.33	RCA	89.55	APO	159.44	V2	34.919
RC	158.641	GL	-2.40	GP	12.20	ZAL	35.96	ZAP	166.38	ETS	59.71	ZAE	121.58	ETE	172.71	ZAC	114.34	ETC	261.99	CLP	-173.90

PLANETOCENTRIC CONIC

C3	38.918	VHL	6.238	DLA	-25.19	RAL	284.37	RAD	6568.5	VEL	12.660	PTH	2.30	VHP	9.402	DPA	-10.18	RAP	254.01	ECC	1.6405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 0 40	1442.02	3.63	356.67	158.42	118.10	13 24 42	842.0	7.36	349.97
90.00	16 53 29	672.85	24.27	309.86	166.77	105.06	17 4 42	72.9	26.10	301.67
100.00	13 58 29	1255.34	1.26	341.63	157.10	119.87	14 19 24	655.3	5.22	335.09
100.00	18 38 21	5622.81	26.90	263.64	167.51	103.56	20 12 4	5022.8	28.50	255.20
110.00	14 22 32	1179.90	-3.86	332.73	153.91	123.99	14 42 12	579.9	.63	326.52
110.00	20 30 48	5271.02	32.80	238.35	168.94	100.22	21 58 39	4671.0	33.86	229.27

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4510	TRA	5.7915	TC3	-1.7852	BAU	.9291	SGT	6299.7	SGR	575.5	SG3	200.6	ST	1812.7	SR	380.3	SS	604.3
RDE	.3870	RRA	-.4436	RC3	.0374	FAU	.01192	RRT	-.7180	RRF	-.7017	RTF	.9747	CRT	-.1321	CRS	-.0411	CST	-.9847
FDE	.3186	FRA	2.2458	FC3	-.2651	BSP	21207	SG8	6326.0	R23	-.0014	R13	-.9747	LSA	1908.7	MSA	390.4	SSA	12.8
BDE	.5943	BRA	5.8084	BC3	1.7856	FSP	-727	SG1	6313.3	SG2	399.7	THA	176.23	EL1	1813.4	EL2	376.8	ALF	178.34

LAUNCH DATE AUG 12 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 607.703

RL	151.59	LAL	.00	LOL	318.88	VL	26.141	GAL	11.26	AZL	90.39	HCA	291.36	SMA	124.31	ECC	.29057	INC	.3917	V1	29.391
RP	108.56	LAP	.37	LOP	250.25	VP	37.113	GAP	15.28	AZP	90.14	TAL	149.04	TAP	80.41	RCA	88.19	APO	160.44	V2	34.907
RC	160.740	GL	-1.53	GP	11.86	ZAL	34.82	ZAP	167.14	ETS	63.49	ZAE	121.32	ETE	172.92	ZAC	114.15	ETC	262.48	CLP	-175.00

PLANETOCENTRIC CONIC

C3	43.260	VHL	6.577	DLA	-24.22	RAL	285.48	RAD	6568.6	VEL	12.831	PTH	2.34	VHP	9.822	DPA	-10.85	RAP	256.00	ECC	1.7119

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 48 12	1526.98	.90	1.41	160.40	118.30	13 13 39	927.0	4.67	354.77
90.00	17 14 48	641.28	24.81	307.71	169.82	104.11	17 25 29	41.3	26.51	299.45
100.00	13 49 11	1330.12	-1.28	345.74	159.19	119.87	14 11 21	730.1	2.70	339.21
100.00	18 56 30	5601.41	27.23	262.13	170.47	102.83	20 29 52	5001.4	28.72	253.65
110.00	14 17 30	1241.33	-6.19	335.96	156.14	123.69	14 38 11	641.3	-1.72	329.73
110.00	20 44 41	5262.96	32.89	237.74	171.78	99.87	22 12 24	4663.0	33.91	228.65

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5962	TRA	6.2042	TC3	-1.5796	BAU	.9137	SGT	6301.2	SGR	557.9	SG3	191.1	ST	1853.2	SR	369.7	SS	610.7
RDE	.3970	RRA	-.4564	RC3	.0305	FAU	.01003	RRT	-.7075	RRF	-.6918	RTF	.9754	CRT	-.0773	CRS	-.0742	CST	-.9883
FDE	.3488	FRA	2.2765	FC3	-.2006	BSP	21351	SG8	6325.9	R23	-.0015	R13	-.9754	LSA	1949.3	MSA	379.3	SSA	12.5
BDE	.7163	BRA	6.2209	BC3	1.5799	FSP	-695	SG1	6313.6	SG2	393.5	THA	176.40	EL1	1853.4	EL2	368.6	ALF	179.08

LAUNCH DATE AUG 12 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 612.584

RL	151.59	LAL	.00	LOL	318.88	VL	26.112	GAL	12.12	AZL	90.19	HCA	294.54	SMA	124.13	ECC	.30137	INC	.1945	V1	29.391
RP	108.60	LAP	.18	LOP	253.42	VP	37.082	GAP	16.04	AZP	90.08	TAL	147.98	TAP	82.52	RCA	86.72	APO	161.54	V2	34.896
RC	162.826	GL	-.72	GP	11.55	ZAL	33.75	ZAP	167.82	ETS	67.77	ZAE	121.05	ETE	173.12	ZAC	113.98	ETC	262.98	CLP	-176.11

PLANETOCENTRIC CONIC

C3	48.264	VHL	6.947	DLA	-23.29	RAL	286.51	RAD	6568.8	VEL	13.024	PTH	2.38	VHP	10.277	DPA	-11.47	RAP	258.00	ECC	1.7943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 38 12	1603.97	-1.59	5.70	162.50	118.28	13 4 56	1004.0	2.20	359.08
90.00	17 33 3	619.24	25.16	306.19	172.79	103.43	17 43 23	19.2	26.77	297.89
100.00	13 41 26	1399.85	-3.64	349.57	161.37	119.69	14 4 46	799.8	.34	343.04
100.00	19 12 30	5586.64	27.45	261.09	173.38	102.33	20 45 37	4986.6	28.87	252.58
110.00	14 13 8	1300.45	-8.41	339.10	158.43	123.25	14 34 49	700.5	-3.98	332.82
110.00	20 57 17	5258.80	32.94	237.43	174.61	99.69	22 24 56	4658.8	33.93	228.33

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7483	TRA	6.6455	TC3	-1.3823	BAU	.8921	SGT	6298.9	SGR	539.7	SG3	182.2	ST	1894.4	SR	358.8	SS	618.1
RDE	.4071	RRA	-.4691	RC3	.0242	FAU	.00815	RRT	-.6974	RRF	-.6823	RTF	.9763	CRT	-.0280	CRS	-.1036	CST	-.9911
FDE	.3776	FRA	2.3113	FC3	-.1461	BSP	21443	SG8	6322.0	R23	-.0015	R13	-.9763	LSA	1991.2	MSA	367.0	SSA	12.2
BDE	.8519	BRA	6.6620	BC3	1.3825	FSP	-662	SG1	6310.2	SG2	386.1	THA	176.57	EL1	1894.5	EL2	358.6	ALF	179.68

LAUNCH DATE AUG 12 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 617.296

RL	151.59	LAL	.00	LOL	318.88	VL	26.082	GAL	13.04	AZL	89.99	HCA	297.71	SMA	123.96	ECC	.31321	INC	.0000	V1	29.391
RP	108.63	LAP	-.01	LOP	256.60	VP	37.051	GAP	16.86	AZP	89.99	TAL	146.95	TAP	84.66	RCA	85.13	APO	162.78	V2	34.885
RC	164.900	GL	.04	GP	11.26	ZAL	32.77	ZAP	168.41	ETS	72.59	ZAE	120.76	ETE	173.31	ZAC	113.81	ETC	263.49	CLP	-177.22

PLANETOCENTRIC CONIC

C3	54.052	VHL	7.352	DLA	-22.43	RAL	287.47	RAD	6569.0	VEL	13.244	PTH	2.42	VHP	10.771	DPA	-12.03	RAP	260.01	ECC	1.8896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 29 51	1675.31	-3.88	9.69	164.70	118.07	12 57 47	1075.3	-.10	3.06
90.00	17 49 1	604.25	25.40	305.15	175.70	102.96	17 59 6	4.2	26.93	296.82
100.00	13 34 49	1465.63	-5.85	353.20	163.62	119.37	13 59 15	865.6	-1.89	346.65
100.00	19 26 45	5577.19	27.58	260.42	176.24	102.00	20 59 42	4977.2	28.96	251.89
110.00	14 9 18	1357.55	-10.53	342.17	160.77	122.71	14 31 55	757.5	-6.14	335.82
110.00	21 8 46	5258.04	32.95	237.37	177.43	99.66	22 36 24	4658.0	33.93	228.27

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9094	TRA	7.1196	TC3	-1.1936	BAU	.8626	SGT	6293.8	SGR	520.9	SG3	173.9	ST	1935.9	SR	347.3	SS	626.8
RDE	.4174	RRA	-.4815	RC3	.0183	FAU	.00625	RRT	-.6873	RRF	-.6732	RTF	.9774	CRT	.0166	CRS	-.1302	CST	-.9933
FDE	.4058	FRA	2.3509	FC3	-.1001	BSP	21444	SG8	6315.3	R23	-.0014	R13	-.9774	LSA	2033.7	MSA	353.8	SSA	11.8
BDE	1.0006	BRA	7.1359	BC3	1.1937	FSP	-629	SG1	6304.0	SG2	377.7	THA	176.73	EL1	1935.9	EL2	347.3	ALF	.18

LAUNCH DATE AUG 13 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 22 1970

HELIOCENTRIC CONIC DISTANCE 150.220

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RL  151.57 LAL    .00 LOL 319.84 VL  20.642 GAL   6.24 AZL  93.51 HCA  56.79 SMA 100.15 ECC .52180 INC 3.5091 V1  29.396
RP  108.51 LAP  -2.94 LOP  16.58 VP  33.480 GAP -31.12 AZP  91.92 TAL 174.21 TAP 231.00 RCA  47.89 APO 152.41 V2  34.923
RC  48.266 GL   -7.72 GP   -5.69 ZAL  74.20 ZAP  21.04 ETS 162.38 ZAE 161.27 ETE 169.75 ZAC  91.72 ETC 256.83 CLP  20.29
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PLANETOCENTRIC CONIC

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C3  87.510 VHL  9.355 DLA -28.87 RAL 242.36 RAD 6569.7 VEL 14.452 PTH   2.62 VHP 18.310 DPA -17.05 RAP 213.08 ECC 2.4402
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.15	11 16 53	1411.23	9.72	357.63	134.23	117.31	11 40 25	811.2	13.31	350.75
95.85	12 54 12	1096.31	9.74	334.56	134.24	117.31	13 12 29	496.3	13.32	327.68
100.00	12 21 9	1202.67	3.04	338.74	130.58	119.75	12 41 12	602.7	6.98	332.17
100.00	14 32 38	780.10	16.56	314.66	137.69	115.25	14 45 38	180.1	19.82	307.39
110.00	12 12 33	1229.74	-5.75	335.35	125.14	123.75	12 33 3	629.7	-1.28	329.12
110.00	16 57 43	5613.83	25.99	262.62	142.22	113.03	18 31 17	5013.8	28.88	254.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2185 TRA-1.1122 TC3 -.0880 BAU  .1045   SGT  806.3 SGR  446.8 SG3   40.4      ST   269.0 SR   444.9 SS   227.5
RDE -.7262 RRA -.0450 RC3  .0149 FAU .01557   RRT -.1101 RRF  .1130 RTF -.6412      CRT -.4788 CRS -.6532 CST  .9741
FDE -.1571 FRA  .5076 FC3 -.1540 BSP  2056    SGB  921.8 R23 -.0120 R13  .6425      LSA  505.0 MSA  258.5 SSA   14.0
BDE  .7584 BRA 1.1132 BC3  .0893 FSP   -85    SG1  808.4 SG2  442.9 THA 175.01      EL1  469.2 EL2  224.0 ALF 111.20
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 156.567

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RL  151.57 LAL    .00 LOL 319.84 VL  21.165 GAL   5.96 AZL  93.28 HCA  59.97 SMA 101.83 ECC .49676 INC 3.2763 V1  29.396
RP  108.47 LAP  -2.84 LOP  19.77 VP  33.818 GAP -29.57 AZP  91.64 TAL 173.90 TAP 233.87 RCA  51.25 APO 152.41 V2  34.935
RC  46.842 GL   -7.83 GP   -5.91 ZAL  73.55 ZAP  19.59 ETS 160.42 ZAE 163.06 ETE 169.90 ZAC  91.79 ETC 256.98 CLP  18.71
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PLANETOCENTRIC CONIC

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C3  77.889 VHL  8.825 DLA -29.10 RAL 243.07 RAD 6569.5 VEL 14.115 PTH   2.57 VHP 17.480 DPA -17.85 RAP 214.55 ECC 2.2819
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.99	11 10 19	1415.12	10.62	358.39	133.36	117.25	11 33 54	815.1	14.19	351.48
97.01	13 6 27	1039.57	10.64	330.85	133.36	117.25	13 23 46	439.6	14.21	323.94
100.00	12 32 3	1150.04	4.81	335.84	130.19	119.54	12 51 13	550.0	8.71	329.22
100.00	14 27 24	779.88	16.56	314.65	136.37	115.24	14 40 24	179.9	19.83	307.38
110.00	12 18 32	1192.60	-4.34	333.40	124.53	123.94	12 38 24	592.6	.14	327.18
110.00	16 57 24	5598.12	26.41	261.59	141.04	112.54	18 30 43	4998.1	29.22	253.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2149 TRA-1.1004 TC3 -.0865 BAU  .0913   SGT  843.3 SGR  451.5 SG3   44.2      ST   282.2 SR   450.1 SS   236.4
RDE -.6933 RRA -.0328 RC3  .0143 FAU .01603   RRT -.1226 RRF  .1262 RTF -.6613      CRT -.4801 CRS -.6493 CST  .9757
FDE -.1595 FRA  .5248 FC3 -.1781 BSP  2196    SGB  956.6 R23 -.0136 R13  .6627      LSA  515.9 MSA  268.0 SSA   14.2
BDE  .7258 BRA 1.1009 BC3  .0876 FSP   -94    SG1  845.9 SG2  446.7 THA 174.79      EL1  477.2 EL2  233.5 ALF 112.38
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 162.974

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RL  151.57 LAL    .00 LOL 319.84 VL  21.650 GAL   5.66 AZL  93.06 HCA  63.16 SMA 103.48 ECC .47282 INC 3.0577 V1  29.396
RP  108.44 LAP  -2.73 LOP  22.97 VP  34.136 GAP -28.09 AZP  91.38 TAL 173.62 TAP 236.78 RCA  54.55 APO 152.41 V2  34.948
RC  45.530 GL   -7.93 GP   -6.15 ZAL  72.99 ZAP  18.17 ETS 158.10 ZAE 165.04 ETE 170.22 ZAC  91.84 ETC 257.14 CLP  17.13
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PLANETOCENTRIC CONIC

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C3  69.357 VHL  8.328 DLA -29.30 RAL 243.69 RAD 6569.3 VEL 13.810 PTH   2.52 VHP 16.682 DPA -18.67 RAP 216.02 ECC 2.1414
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.14	11 6 3	1409.63	11.54	358.46	132.34	117.12	11 29 33	809.6	15.08	351.51
97.86	13 15 39	990.81	11.55	327.73	132.35	117.11	13 32 10	390.8	15.10	320.78
100.00	12 42 14	1097.94	6.55	332.95	129.64	119.23	13 0 32	497.9	10.40	326.28
100.00	14 22 9	777.74	16.63	314.52	134.91	115.21	14 35 7	177.7	19.88	307.24
110.00	12 23 41	1156.38	-2.97	331.50	123.78	124.07	12 42 57	556.4	1.53	325.30
110.00	16 57 12	5580.10	26.87	260.39	139.72	111.97	18 30 12	4980.1	29.61	252.28

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2119 TRA-1.0885 TC3 -.0830 BAU  .0779   SGT  881.9 SGR  455.6 SG3   48.4      ST   296.0 SR   454.7 SS   245.4
RDE -.6609 RRA -.0214 RC3  .0131 FAU .01653   RRT -.1364 RRF  .1409 RTF -.6807      CRT -.4827 CRS -.6458 CST  .9773
FDE -.1619 FRA  .5423 FC3 -.2063 BSP  2332    SGB  992.6 R23 -.0155 R13  .6822      LSA  526.9 MSA  277.1 SSA   14.5
BDE  .6941 BRA 1.0887 BC3  .0840 FSP   -105   SG1  884.9 SG2  449.8 THA 174.56      EL1  485.1 EL2  243.0 ALF 113.74
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 169.436

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RL  151.57 LAL    .00 LOL 319.84 VL  22.101 GAL   5.35 AZL  92.85 HCA  66.34 SMA 105.10 ECC .45001 INC 2.8510 V1  29.396
RP  108.40 LAP  -2.61 LOP  26.16 VP  34.437 GAP -26.69 AZP  91.14 TAL 173.40 TAP 239.74 RCA  57.80 APO 152.39 V2  34.961
RC  44.337 GL   -8.00 GP   -6.42 ZAL  72.51 ZAP  16.80 ETS 155.34 ZAE 167.18 ETE 170.82 ZAC  91.86 ETC 257.31 CLP  15.56
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PLANETOCENTRIC CONIC

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C3  61.788 VHL  7.861 DLA -29.46 RAL 244.21 RAD 6569.2 VEL 13.533 PTH   2.47 VHP 15.917 DPA -19.51 RAP 217.51 ECC 2.0169
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.53	11 3 21	1397.34	12.45	358.03	131.18	116.91	11 26 38	797.3	15.96	351.03
98.47	13 22 33	947.71	12.47	325.02	131.19	116.90	13 38 21	347.7	15.98	318.02
100.00	12 51 22	1047.57	8.22	330.14	128.90	118.84	13 8 50	447.6	12.00	323.40
100.00	14 17 13	772.71	16.77	314.22	133.35	115.11	14 30 6	172.7	20.02	306.93
110.00	12 27 56	1121.43	-1.63	329.67	122.87	124.15	12 46 37	521.4	2.86	323.47
110.00	16 57 9	5559.65	27.38	259.03	138.26	111.31	18 29 49	4959.7	30.03	250.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2105 TRA-1.0754 TC3 -.0766 BAU  .0639   SGT  921.1 SGR  459.2 SG3   53.0      ST   310.6 SR   458.7 SS   254.8
RDE -.6293 RRA -.0106 RC3  .0111 FAU .01709   RRT -.1525 RRF  .1575 RTF -.6997      CRT -.4889 CRS -.6435 CST  .9794
FDE -.1647 FRA  .5600 FC3 -.2394 BSP  2496    SGB 1029.2 R23 -.0171 R13  .7014      LSA  538.7 MSA  285.4 SSA   14.7
BDE  .6636 BRA 1.0754 BC3  .0774 FSP   -118   SG1  924.6 SG2  452.1 THA 174.28      EL1  493.4 EL2  251.9 ALF 115.36
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 175.948

RL	151.57	LAL	.00	LOL	319.84	VL	22.519	GAL	5.03	AZL	92.65	HCA	69.53	SMA	106.67	ECC	.42831	INC	2.6539	VI	29.396
RP	108.36	LAP	-2.49	LOP	29.35	VP	34.720	GAP	-25.35	AZP	90.93	TAL	173.21	TAP	242.75	RCA	60.98	APO	152.36	V2	34.974
RC	43.276	GL	-8.05	GP	-6.71	ZAL	72.12	ZAP	15.49	ETS	152.03	ZAE	169.48	ETE	171.92	ZAC	91.84	ETC	257.50	CLP	13.99

PLANETOCENTRIC CONIC

C3	55.070	VHL	7.421	DLA	-29.56	RAL	244.64	RAD	6569.0	VEL	13.283	PTH	2.43	VHP	15.181	DPA	-20.36	RAP	218.99	ECC	1.9063

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.13	11 1 55	1379.31	13.36	357.16	129.88	116.62	11 24 54	779.3	16.83	350.11
98.87	13 27 26	909.46	13.38	322.66	129.88	116.61	13 42 35	309.5	16.84	315.61
100.00	12 58 49	1001.00	9.74	327.52	127.95	118.40	13 15 30	401.0	13.46	320.70
100.00	14 13 13	762.99	17.05	313.63	131.72	114.93	14 25 56	163.0	20.27	306.32
110.00	12 31 11	1088.13	-.36	327.94	121.81	124.18	12 49 19	488.1	4.13	321.73
110.00	16 57 20	5536.67	27.94	257.47	136.65	110.54	18 29 37	4936.7	30.48	249.19

DIFFERENTIAL CORRECTIONS

TDE	.2079	TRA	-1.0636	TC3	-.0686	BAU	.0509				
RDE	-.5985	RRA	-.0004	RC3	.0081	FAU	.01770				
FDE	-.1673	FRA	.5786	FC3	-.2782	BSP	2616				
BDE	.6336	BRA	1.0636	BC3	.0691	FSP	-131				

MID-COURSE EXECUTION ACCURACY

SGT	963.1	SGR	462.2	SG3	58.0		
RRT	-.1686	RRF	.1757	RTF	-.7168		
SGB	1068.3	R23	-.0206	R13	.7186		
SG1	967.1	SG2	453.7	THA	174.06		

ORBIT DETERMINATION ACCURACY

ST	325.6	SR	462.1	SS	264.2
CRT	-.4929	CRS	-.6409	CST	.9810
LSA	550.4	MSA	293.6	SSA	15.0
EL1	501.4	EL2	261.1	ALF	117.03

LAUNCH DATE AUG 13 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 182.505

RL	151.57	LAL	.00	LOL	319.84	VL	22.907	GAL	4.71	AZL	92.46	HCA	72.72	SMA	108.21	ECC	.40773	INC	2.4648	VI	29.396
RP	108.32	LAP	-2.35	LOP	32.55	VP	34.986	GAP	-24.06	AZP	90.73	TAL	173.09	TAP	245.81	RCA	64.09	APO	152.33	V2	34.987
RC	42.355	GL	-8.05	GP	-7.03	ZAL	71.83	ZAP	14.24	ETS	148.03	ZAE	171.93	ETE	174.06	ZAC	91.79	ETC	257.69	CLP	12.42

PLANETOCENTRIC CONIC

C3	49.107	VHL	7.008	DLA	-29.62	RAL	244.98	RAD	6568.8	VEL	13.056	PTH	2.38	VHP	14.475	DPA	-21.23	RAP	220.48	ECC	1.8082

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.92	11 1 38	1356.04	14.25	355.89	128.44	116.25	11 24 14	756.0	17.66	348.79
99.08	13 30 22	875.84	14.26	320.62	128.44	116.24	13 44 58	275.8	17.67	313.51
100.00	13 3 37	961.42	11.01	325.27	126.74	117.97	13 19 38	361.4	14.67	318.38
100.00	14 11 4	745.68	17.54	312.58	130.07	114.60	14 23 30	145.7	20.72	305.23
110.00	12 33 20	1056.90	.84	326.31	120.59	124.17	12 50 57	456.9	5.31	320.09
110.00	16 57 50	5511.01	28.54	255.72	134.92	109.66	18 29 41	4911.0	30.95	247.34

DIFFERENTIAL CORRECTIONS

TDE	.2085	TRA	-1.0488	TC3	-.0551	BAU	.0363				
RDE	-.5685	RRA	.0092	RC3	.0038	FAU	.01839				
FDE	-.1703	FRA	.5972	FC3	-.3243	BSP	2805				
BDE	.6056	BRA	1.0488	BC3	.0553	FSP	-146				

MID-COURSE EXECUTION ACCURACY

SGT	1004.0	SGR	464.9	SG3	63.6		
RRT	-.1890	RRF	.1964	RTF	-.7345		
SGB	1106.4	R23	-.0222	R13	.7365		
SG1	1008.8	SG2	454.4	THA	173.72		

ORBIT DETERMINATION ACCURACY

ST	341.5	SR	464.8	SS	273.9
CRT	-.5041	CRS	-.6400	CST	.9836
LSA	563.5	MSA	299.9	SSA	15.2
EL1	510.5	EL2	268.6	ALF	119.07

LAUNCH DATE AUG 13 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 189.102

RL	151.57	LAL	.00	LOL	319.84	VL	23.268	GAL	4.40	AZL	92.28	HCA	75.92	SMA	109.69	ECC	.38825	INC	2.2819	VI	29.396
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.236	GAP	-22.83	AZP	90.56	TAL	173.01	TAP	248.93	RCA	67.11	APO	152.28	V2	35.000
RC	41.583	GL	-8.02	GP	-7.38	ZAL	71.63	ZAP	13.09	ETS	143.17	ZAE	174.49	ETE	178.81	ZAC	91.70	ETC	257.89	CLP	10.84

PLANETOCENTRIC CONIC

C3	43.815	VHL	6.619	DLA	-29.63	RAL	245.21	RAD	6568.7	VEL	12.852	PTH	2.34	VHP	13.796	DPA	-22.12	RAP	221.97	ECC	1.7211

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.91	11 2 29	1327.69	15.10	354.22	126.86	115.79	11 24 37	727.7	18.45	347.05
99.09	13 31 23	846.98	15.12	318.91	126.87	115.78	13 45 30	247.0	18.46	311.74
100.00	13 4 42	932.34	11.93	323.60	125.22	117.61	13 20 14	332.3	15.54	316.66
100.00	14 11 51	717.56	18.33	310.87	128.43	114.03	14 23 49	117.6	21.42	303.44
110.00	12 34 18	1028.19	1.93	324.81	119.22	124.14	12 51 26	428.2	6.40	318.57
110.00	16 58 45	5482.52	29.18	253.74	133.05	108.65	18 30 7	4882.5	31.44	245.27

DIFFERENTIAL CORRECTIONS

TDE	.2089	TRA	-1.0346	TC3	-.0381	BAU	.0224				
RDE	-.5395	RRA	.0184	RC3	-.0021	FAU	.01916				
FDE	-.1734	FRA	.6168	FC3	-.3786	BSP	2973				
BDE	.5785	BRA	1.0348	BC3	.0382	FSP	-163				

MID-COURSE EXECUTION ACCURACY

SGT	1047.2	SGR	467.3	SG3	69.7		
RRT	-.2108	RRF	.2195	RTF	-.7511		
SGB	1146.7	R23	-.0250	R13	.7533		
SG1	1052.9	SG2	454.4	THA	173.39		

ORBIT DETERMINATION ACCURACY

ST	358.1	SR	467.0	SS	283.8
CRT	-.5150	CRS	-.6394	CST	.9859
LSA	577.3	MSA	305.6	SSA	15.4
EL1	519.9	EL2	275.7	ALF	121.22

LAUNCH DATE AUG 13 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 195.735

RL	151.57	LAL	.00	LOL	319.84	VL	23.601	GAL	4.08	AZL	92.10	HCA	79.11	SMA	111.13	ECC	.36985	INC	2.1040	VI	29.396
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.471	GAP	-21.66	AZP	90.40	TAL	172.98	TAP	252.10	RCA	70.03	APO	152.23	V2	35.013
RC	40.971	GL	-7.94	GP	-7.77	ZAL	71.52	ZAP	12.06	ETS	137.29	ZAE	177.03	ETE	193.28	ZAC	91.57	ETC	258.10	CLP	9.25

PLANETOCENTRIC CONIC

C3	39.119	VHL	6.255	DLA	-29.57	RAL	245.35	RAD	6568.5	VEL	12.668	PTH	2.30	VHP	13.143	DPA	-23.04	RAP	223.46	ECC	1.6438

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.12	11 4 41	1293.75	15.91	352.11	125.16	115.25	11 26 15	693.8	19.18	344.87
98.88	13 30 16	823.72	15.93	317.59	125.17	115.24	13 43 59	223.7	19.20	310.35
100.00	13 1 41	915.18	12.47	322.61	123.41	117.39	13 16 56	315.2	16.04	315.64
100.00	14 15 57	677.53	19.42	308.40	126.82	113.18	14 27 15	77.5	22.40	300.86
110.00	12 34 0	1002.44	2.92	323.47	117.69	124.07	12 50 42	402.4	7.37	317.21
110.00	17 0 8	5451.07	29.84	251.54	131.06	107.50	18 30 59	4851.1	31.94	242.96

DIFFERENTIAL CORRECTIONS

TDE	.2093	TRA	-1.0199	TC3	-.0163	BAU	.0100				
RDE	-.5114	RRA	.0272	RC3	-.0101	FAU	.02001				
FDE	-.1765	FRA	.6371	FC3	-.4429	BSP	3141				
BDE	.5525	BRA	1.0203	BC3	.0192	FSP	-182				

MID-COURSE EXECUTION ACCURACY

SGT	1091.3	SGR	469.5	SG3	76.5		
RRT	-.2349	RRF	.2454	RTF	-.7666		
SGB	1188.0	R23	-.0285	R13	.7690		
SG1	1098.1	SG2	453.6	THA	173.04		

ORBIT DETERMINATION ACCURACY

ST	375.0	SR	468.5	SS	293.8
CRT	-.5270	CRS	-.6392	CST	.9881
LSA	591.6	MSA	310.2	SSA	15.7
EL1	529.8	EL2	281.8	ALF	123.46

LAUNCH DATE AUG 13 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 202.398

RL	151.57	LAL	.00	LOL	319.84	VL	23.911	GAL	3.77	AZL	91.93	HCA	82.31	SMA	112.52	ECC	.35252	INC	1.9298	VI	29.396
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.690	GAP	-20.53	AZP	90.26	TAL	173.02	TAP	255.33	RCA	72.85	APO	152.18	V2	35.027
RC	40.525	GL	-7.81	GP	-8.20	ZAL	71.50	ZAP	11.20	ETS	130.23	ZAE	178.43	ETE	262.70	ZAC	91.38	ETC	258.32	CLP	7.65

PLANETOCENTRIC CONIC

C3	34.955	VHL	5.912	DLA	-29.44	RAL	245.38	RAD	6568.4	VEL	12.503	PTH	2.26	VHP	12.517	DPA	-23.98	RAP	224.93	ECC	1.5753

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.61	11 8 37	1253.22	16.66	349.47	123.34	114.62	11 29 30	653.2	19.84	342.16
98.39	13 26 38	807.37	16.68	316.74	123.34	114.61	13 40 5	207.4	19.86	309.43
100.00	12 55 6	908.36	12.69	322.22	121.34	117.30	13 10 14	308.4	16.24	315.23
100.00	14 22 49	627.46	20.74	305.25	125.19	112.03	14 33 17	27.5	23.54	297.58
110.00	12 32 20	980.11	3.77	322.30	116.01	124.00	12 48 40	380.1	8.21	316.02
110.00	17 2 5	5416.52	30.53	249.08	128.95	106.19	18 32 22	4816.5	32.44	240.38

DIFFERENTIAL CORRECTIONS

TDE	.2103	TRA	-1.0049	TC3	.0111	BAU	.0109
RDE	-.4843	RRA	.0358	RC3	-.0205	FAU	.02095
FDE	-.1796	FRA	.6585	FC3	-.5189	BSP	3316
BDE	.5280	BRA	1.0055	BC3	.0233	FSP	-203

MID-COURSE EXECUTION ACCURACY

SGT	1136.7	SGR	471.6	SG3	83.9		
RRT	-.2621	RRF	.2744	RTF	-.7814		
SGB	1230.6	R23	-.0323	R13	.7841		
SG1	1144.6	SG2	452.0	THA	172.64		

ORBIT DETERMINATION ACCURACY

ST	392.5	SR	469.5	SS	303.9		
CRT	-.5408	CRS	-.6393	CST	.9903		
LSA	606.8	MSA	313.6	SSA	15.9		
EL1	540.6	EL2	286.7	ALF	125.80		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 209.088

RL	151.57	LAL	.00	LOL	319.84	VL	24.197	GAL	3.47	AZL	91.76	HCA	85.52	SMA	113.84	ECC	.33623	INC	1.7579	VI	29.396
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.896	GAP	-19.45	AZP	90.14	TAL	173.10	TAP	258.62	RCA	75.57	APO	152.12	V2	35.040
RC	40.252	GL	-7.61	GP	-8.68	ZAL	71.58	ZAP	10.56	ETS	121.92	ZAE	176.43	ETE	315.34	ZAC	91.15	ETC	258.54	CLP	6.04

PLANETOCENTRIC CONIC

C3	31.264	VHL	5.591	DLA	-29.23	RAL	245.32	RAD	6568.2	VEL	12.355	PTH	2.23	VHP	11.915	DPA	-24.95	RAP	226.39	ECC	1.5145

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.44	11 14 54	1204.11	17.33	346.16	121.39	113.91	11 34 58	604.1	20.42	338.78
97.56	13 19 51	800.24	17.35	316.53	121.40	113.90	13 33 11	200.2	20.43	309.15
100.00	12 45 51	909.33	12.66	322.27	119.07	117.31	13 1 0	309.3	16.22	315.29
100.00	14 31 35	5858.30	22.15	279.50	123.49	110.60	16 9 14	5258.3	24.75	271.67
110.00	12 29 14	961.64	4.47	321.33	114.18	123.92	12 45 15	361.6	8.90	315.03
110.00	17 4 42	5378.75	31.21	246.35	126.71	104.71	18 34 20	4778.7	32.91	237.54

DIFFERENTIAL CORRECTIONS

TDE	.2113	TRA	-.9891	TC3	.0452	BAU	.0236
RDE	-.4582	RRA	.0441	RC3	-.0340	FAU	.02200
FDE	-.1826	FRA	.6809	FC3	-.6093	BSP	3488
BDE	.5046	BRA	.9901	BC3	.0565	FSP	-226

MID-COURSE EXECUTION ACCURACY

SGT	1182.5	SGR	473.9	SG3	92.2		
RRT	-.2922	RRF	.3069	RTF	-.7953		
SGB	1274.0	R23	-.0368	R13	.7983		
SG1	1192.0	SG2	449.7	THA	172.20		

ORBIT DETERMINATION ACCURACY

ST	410.2	SR	469.8	SS	313.8		
CRT	-.5556	CRS	-.6395	CST	.9923		
LSA	622.5	MSA	315.8	SSA	16.2		
EL1	552.0	EL2	290.3	ALF	128.12		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 215.799

RL	151.57	LAL	.00	LOL	319.84	VL	24.462	GAL	3.17	AZL	91.59	HCA	88.72	SMA	115.12	ECC	.32095	INC	1.5875	VI	29.396
RP	108.11	LAP	-1.59	LOP	48.56	VP	36.088	GAP	-18.40	AZP	90.04	TAL	173.24	TAP	261.96	RCA	78.17	APO	152.06	V2	35.053
RC	40.156	GL	-7.35	GP	-9.21	ZAL	71.75	ZAP	10.20	ETS	112.54	ZAE	173.64	ETE	326.24	ZAC	90.85	ETC	258.77	CLP	4.40

PLANETOCENTRIC CONIC

C3	27.996	VHL	5.291	DLA	-28.93	RAL	245.16	RAD	6568.1	VEL	12.222	PTH	2.20	VHP	11.337	DPA	-25.95	RAP	227.82	ECC	1.4607

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.79	11 25 10	1141.41	17.92	341.80	119.35	113.11	11 44 11	541.4	20.89	334.35
96.21	13 8 20	807.64	17.93	317.34	119.36	113.09	13 21 47	207.6	20.90	309.89
100.00	12 34 35	916.17	12.44	322.67	116.67	117.40	12 49 51	316.2	16.01	315.70
100.00	14 41 36	5796.15	23.58	275.44	121.68	108.92	16 18 12	5196.2	25.95	267.44
110.00	12 24 39	947.42	5.01	320.58	112.23	123.86	12 40 26	347.4	9.42	314.27
110.00	17 8 1	5337.67	31.88	243.33	124.36	103.04	18 36 58	4737.7	33.35	234.41

DIFFERENTIAL CORRECTIONS

TDE	.2119	TRA	-.9730	TC3	.0866	BAU	.0377
RDE	-.4332	RRA	.0524	RC3	-.0513	FAU	.02317
FDE	-.1850	FRA	.7048	FC3	-.7165	BSP	3669
BDE	.4823	BRA	.9744	BC3	.1007	FSP	-253

MID-COURSE EXECUTION ACCURACY

SGT	1229.0	SGR	476.7	SG3	101.3		
RRT	-.3256	RRF	.3430	RTF	-.8085		
SGB	1318.2	R23	-.0419	R13	.8118		
SG1	1240.2	SG2	446.6	THA	171.72		

ORBIT DETERMINATION ACCURACY

ST	427.9	SR	469.5	SS	323.5		
CRT	-.5708	CRS	-.6390	CST	.9942		
LSA	638.3	MSA	317.0	SSA	16.5		
EL1	563.9	EL2	292.5	ALF	130.38		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 222.527

RL	151.57	LAL	.00	LOL	319.84	VL	24.706	GAL	2.89	AZL	91.42	HCA	91.93	SMA	116.33	ECC	.30666	INC	1.4174	VI	29.396
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.267	GAP	-17.40	AZP	89.95	TAL	173.44	TAP	265.36	RCA	80.66	APO	152.01	V2	35.066
RC	40.238	GL	-7.00	GP	-9.79	ZAL	72.02	ZAP	10.16	ETS	102.52	ZAE	170.75	ETE	329.95	ZAC	90.48	ETC	259.01	CLP	2.74

PLANETOCENTRIC CONIC

C3	25.105	VHL	5.010	DLA	-28.54	RAL	244.91	RAD	6568.0	VEL	12.103	PTH	2.17	VHP	10.782	DPA	-26.99	RAP	229.23	ECC	1.4132

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.28	11 44 29	1048.79	18.39	335.21	117.21	112.22	12 1 58	448.8	21.24	327.68
93.72	12 47 1	846.22	18.41	320.39	117.22	112.21	13 1 7	246.2	21.26	312.86
100.00	12 21 43	927.88	12.07	323.34	114.18	117.55	12 37 11	327.9	15.67	316.40
100.00	14 52 28	5730.40	24.96	271.04	119.73	107.00	16 27 58	5130.4	27.05	262.87
110.00	12 18 34	937.82	5.37	320.08	110.16	123.81	12 34 12	337.8	9.78	313.76
110.00	17 12 6	5293.23	32.52	240.02	121.89	101.18	18 40 20	4693.2	33.71	230.99

DIFFERENTIAL CORRECTIONS

TDE	.2126	TRA	-.9562	TC3	.1365	BAU	.0520
RDE	-.4092	RRA	.0608	RC3	-.0734	FAU	.02447
FDE	-.1868	FRA	.7301	FC3	-.8439	BSP	3849
BDE	.4612	BRA	.9581	BC3	.1550	FSP	-282

MID-COURSE EXECUTION ACCURACY

SGT	1275.5	SGR	480.3	SG3	111.5		
RRT	-.3629	RRF	.3831	RTF	-.8207		
SGB	1362.9	R23	-.0476	R13	.8245		
SG1	1289.0	SG2	442.8	THA	171.17		

ORBIT DETERMINATION ACCURACY

ST	445.6	SR	468.6	SS	332.7		
CRT	-.5874	CRS	-.6381	CST	.9959		
LSA	654.3	MSA	316.9	SSA	16.8		
EL1	576.3	EL2	293.2	ALF	132.55		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 229.269

RL	151.57	LAL	.00	LOL	319.84	VL	24.932	GAL	2.61	AZL	91.25	HCA	95.14	SMA	117.49	ECC	.29333	INC	1.2465	V1	29.396
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.433	GAP	-16.44	AZP	89.89	TAL	173.68	TAP	268.82	RCA	83.02	APO	151.95	V2	35.079
RC	40.497	GL	-6.55	GP	-10.44	ZAL	72.38	ZAP	10.49	ETS	92.52	ZAE	167.86	ETE	331.44	ZAC	90.03	ETC	259.24	CLP	1.05

PLANETOCENTRIC CONIC

C3	22.551	VHL	4.749	DLA	-28.04	RAL	244.58	RAD	6567.9	VEL	11.997	PTH	2.14	VHP	10.251	DPA	-28.08	RAP	230.61	ECC	1.3711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 39 28	1034.72	15.95	333.10	113.78	113.71	11 56 43	434.7	19.02	325.77
90.00	12 49 21	807.79	21.58	318.84	116.09	108.79	13 2 49	207.8	23.95	310.97
100.00	12 7 31	944.00	11.56	324.27	111.61	117.76	12 23 15	344.0	15.19	317.36
100.00	15 3 59	5661.78	26.25	266.35	117.64	104.85	16 38 21	5061.8	28.03	258.00
110.00	12 10 58	933.16	5.55	319.83	107.99	123.78	12 26 31	333.2	9.95	313.51
110.00	17 17 1	5245.40	33.09	236.41	119.31	99.11	18 44 27	4645.4	33.99	227.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2125	TRA	-.9395	TC3	.1942	BAU	.0660	SGT	1322.5	SGR	485.2	SG3	122.7	ST	462.8	SR	466.9	SS	341.3
RDE	-.3863	RRA	.0694	RC3	-.1010	FAU	.02591	RRT	-.4037	RRF	.4273	RTF	-.8320	CRT	-.6037	CRS	-.6357	CST	.9972
FDE	-.1876	FRA	.7575	FC3	-.9945	BSP	4023	SGB	1408.7	R23	-.0546	R13	.8362	LSA	669.8	MSA	316.0	SSA	17.1
BDE	.4409	BRA	.9421	BC3	.2189	FSP	-314	SG1	1338.7	SG2	438.5	THA	170.55	EL1	588.7	EL2	292.6	ALF	134.58

LAUNCH DATE AUG 13 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 236.021

RL	151.57	LAL	.00	LOL	319.84	VL	25.141	GAL	2.34	AZL	91.07	HCA	98.35	SMA	118.58	ECC	.28093	INC	1.0737	V1	29.396
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.588	GAP	-15.51	AZP	89.84	TAL	173.98	TAP	272.33	RCA	85.27	APO	151.89	V2	35.092
RC	40.930	GL	-6.00	GP	-11.17	ZAL	72.83	ZAP	11.19	ETS	83.21	ZAE	165.03	ETE	331.94	ZAC	89.50	ETC	259.47	CLP	-.68

PLANETOCENTRIC CONIC

C3	20.299	VHL	4.505	DLA	-27.41	RAL	244.16	RAD	6567.8	VEL	11.903	PTH	2.11	VHP	9.743	DPA	-29.22	RAP	231.94	ECC	1.3341

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 9 52	1100.89	14.10	337.07	110.62	114.81	11 28 13	500.9	17.33	329.89
90.00	13 15 37	690.96	23.94	311.09	114.44	105.59	13 27 8	91.0	25.85	302.94
100.00	11 52 6	964.42	10.91	325.44	109.00	118.00	12 8 11	364.4	14.58	318.56
100.00	15 16 4	5590.70	27.39	261.38	115.40	102.47	16 49 15	4990.7	28.83	252.87
110.00	12 1 53	933.73	5.53	319.86	105.74	123.79	12 17 26	333.7	9.93	313.54
110.00	17 22 47	5194.16	33.57	232.49	116.62	96.84	18 49 21	4594.2	34.16	223.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2117	TRA	-.9224	TC3	.2643	BAU	.0806	SGT	1369.3	SGR	492.0	SG3	135.1	ST	479.2	SR	464.4	SS	349.0
RDE	-.3642	RRA	.0784	RC3	-.1356	FAU	.02749	RRT	-.4487	RRF	.4755	RTF	-.8434	CRT	-.6205	CRS	-.6309	CST	.9980
FDE	-.1867	FRA	.7874	FC3	-1.1726	BSP	4211	SGB	1455.1	R23	-.0614	R13	.8482	LSA	684.2	MSA	314.2	SSA	17.5
BDE	.4213	BRA	.9257	BC3	.2971	FSP	-350	SG1	1389.0	SG2	433.5	THA	169.84	EL1	600.8	EL2	290.5	ALF	136.45

LAUNCH DATE AUG 13 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 242.779

RL	151.57	LAL	.00	LOL	319.84	VL	25.332	GAL	2.09	AZL	90.90	HCA	101.56	SMA	119.61	ECC	.26941	INC	.8980	V1	29.396
RP	107.95	LAP	-.88	LOP	61.41	VP	36.733	GAP	-14.62	AZP	89.82	TAL	174.32	TAP	275.88	RCA	87.39	APO	151.84	V2	35.105
RC	41.530	GL	-5.32	GP	-11.98	ZAL	73.37	ZAP	12.22	ETS	75.03	ZAE	162.28	ETE	331.87	ZAC	88.87	ETC	259.71	CLP	-2.45

PLANETOCENTRIC CONIC

C3	18.318	VHL	4.280	DLA	-26.64	RAL	243.68	RAD	6567.7	VEL	11.819	PTH	2.09	VHP	9.257	DPA	-30.42	RAP	233.22	ECC	1.3015

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 45 29	1151.07	12.65	340.04	107.68	115.55	11 4 40	551.1	15.98	332.95
90.00	13 36 8	5880.24	25.58	282.22	112.40	102.58	15 14 8	5280.2	27.06	273.87
100.00	11 35 36	989.21	10.12	326.85	106.37	118.28	11 52 5	389.2	13.82	320.01
100.00	15 28 42	5517.34	28.36	256.14	113.02	99.87	17 0 39	4917.3	29.43	247.50
110.00	11 51 21	939.78	5.30	320.18	103.45	123.82	12 7 1	339.8	9.71	313.86
110.00	17 29 26	5139.53	33.94	228.26	113.83	94.36	18 55 6	4539.5	34.17	219.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2068	TRA	-.9070	TC3	.3387	BAU	.0938	SGT	1416.4	SGR	501.4	SG3	148.8	ST	492.8	SR	460.7	SS	354.8
RDE	-.3428	RRA	.0882	RC3	-.1784	FAU	.02923	RRT	-.4939	RRF	.5267	RTF	-.8524	CRT	-.6311	CRS	-.6209	CST	.9980
FDE	-.1825	FRA	.8204	FC3	-1.3813	BSP	4332	SGB	1502.5	R23	-.0727	R13	.8579	LSA	694.6	MSA	313.3	SSA	17.9
BDE	.4004	BRA	.9113	BC3	.3828	FSP	-389	SG1	1440.0	SG2	428.8	THA	169.10	EL1	609.6	EL2	288.9	ALF	138.05

LAUNCH DATE AUG 13 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 249.539

RL	151.57	LAL	.00	LOL	319.84	VL	25.509	GAL	1.84	AZL	90.72	HCA	104.78	SMA	120.59	ECC	.25875	INC	.7180	V1	29.396
RP	107.91	LAP	-.69	LOP	64.62	VP	36.866	GAP	-13.75	AZP	89.82	TAL	174.71	TAP	279.49	RCA	89.39	APO	151.79	V2	35.117
RC	42.291	GL	-4.50	GP	-12.89	ZAL	74.00	ZAP	13.57	ETS	68.14	ZAE	159.64	ETE	331.41	ZAC	88.13	ETC	259.93	CLP	-4.27

PLANETOCENTRIC CONIC

C3	16.577	VHL	4.072	DLA	-25.72	RAL	243.13	RAD	6567.7	VEL	11.746	PTH	2.07	VHP	8.793	DPA	-31.69	RAP	234.43	ECC	1.2728

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 29	1198.06	11.25	342.79	104.86	116.16	10 42 28	598.1	14.68	335.79
90.00	13 54 46	5787.01	26.80	275.67	110.13	99.51	15 31 13	5187.0	27.84	267.16
100.00	11 18 5	1018.56	9.17	328.51	103.76	118.58	11 35 3	418.6	12.91	321.72
100.00	15 41 52	5441.74	29.12	250.65	110.51	97.08	17 12 34	4841.7	29.79	241.91
110.00	11 39 26	951.57	4.85	320.80	101.13	123.88	11 55 18	351.6	9.27	314.49
110.00	17 37 0	5081.50	34.15	223.75	110.97	91.70	19 1 42	4481.5	34.00	214.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2061	TRA	-.8871	TC3	.4346	BAU	.1092	SGT	1459.3	SGR	515.2	SG3	164.1	ST	507.0	SR	456.4	SS	360.2
RDE	-.3226	RRA	.0985	RC3	-.2319	FAU	.03123	RRT	-.5475	RRF	.5823	RTF	-.8632	CRT	-.6522	CRS	-.6120	CST	.9967
FDE	-.1780	FRA	.8549	FC3	-1.6308	BSP	4589	SGB	1547.6	R23	-.0792	R13	.8694	LSA	706.5	MSA	309.1	SSA	18.3
BDE	.3828	BRA	.8926	BC3	.4926	FSP	-437	SG1	1488.8	SG2	422.6	THA	168.09	EL1	620.9	EL2	282.5	ALF	139.59

LAUNCH DATE AUG 13 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 256.299

RL 151.57 LAL .00 LOL 319.84 VL 25.670 GAL 1.61 AZL 90.53 HCA 108.00 SMA 121.50 ECC .24892 INC .5323 V1 29.396
RP 107.88 LAP -.51 LOP 67.84 VP 36.990 GAP -12.92 AZP 89.84 TAL 175.13 TAP 283.13 RCA 91.26 APO 151.75 V2 35.129
RC 43.202 GL -3.52 GP -13.91 ZAL 74.71 ZAP 15.18 ETS 62.49 ZAE -157.14 ETE 330.65 ZAC 87.27 ETC 260.15 CLP -6.15

PLANETOCENTRIC CONIC

C3 15.055 VHL 3.880 DLA -24.63 RAL 242.54 RAD 6567.6 VEL 11.681 PTH 2.05 VHP 8.351 DPA -33.05 RAP 235.56 ECC 1.2478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 51	1245.68	9.81	345.54	102.14	116.70	10 20 37	645.7	13.31	338.62
90.00	14 12 41	5695.73	27.65	269.13	107.70	96.34	15 47 37	5095.7	28.25	260.51
100.00	10 59 37	1052.75	8.05	330.43	101.20	118.89	11 17 10	452.8	11.84	323.69
100.00	15 55 37	5363.90	29.63	244.92	107.91	94.11	17 25 1	4763.9	29.89	236.13
110.00	11 26 13	969.32	4.18	321.73	98.82	123.96	11 42 22	369.3	8.61	315.45
110.00	17 45 30	5020.09	34.17	218.95	108.05	88.86	19 9 10	4420.1	33.63	209.75

DIFFERENTIAL CORRECTIONS
TDE .1995 TRA -.8706 TC3 .5335 BAU .1229
RDE -.3025 RRA .1102 RC3 -.2971 FAU .03337
FDE -.1672 FRA .8944 FC3-1.9191 BSP 4755
BDE .3623 BRA .8775 BC3 .6107 FSP -487

MID-COURSE EXECUTION ACCURACY
SGT 1502.7 SGR 533.6 SG3 181.0
RRT -.5988 RRF .6384 RTF -.8716
SGB 1594.7 R23 -.0908 R13 .8789
SG1 1539.1 SG2 417.2 THA 167.03

ORBIT DETERMINATION ACCURACY
ST 516.6 SR 449.9 SS 362.9
CRT -.6643 CRS -.5921 CST .9937
LSA 711.6 MSA 307.0 SSA 18.7
EL1 626.4 EL2 277.4 ALF 140.90

LAUNCH DATE AUG 13 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 263.056

RL 151.57 LAL .00 LOL 319.84 VL 25.819 GAL 1.39 AZL 90.34 HCA 111.22 SMA 122.36 ECC .23987 INC .3398 V1 29.396
RP 107.84 LAP -.32 LOP 71.06 VP 37.104 GAP -12.12 AZP 89.88 TAL 175.59 TAP 286.80 RCA 93.01 APO 151.71 V2 35.141
RC 44.254 GL -2.37 GP -15.06 ZAL 75.48 ZAP 17.05 ETS 57.91 ZAE 154.76 ETE 329.61 ZAC 86.27 ETC 260.36 CLP -8.09

PLANETOCENTRIC CONIC

C3 13.728 VHL 3.705 DLA -23.35 RAL 241.92 RAD 6567.5 VEL 11.624 PTH 2.04 VHP 7.933 DPA -34.51 RAP 236.60 ECC 1.2259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 37 9	1295.87	8.26	348.42	99.53	117.18	9 58 45	695.9	11.84	341.57
90.00	14 30 27	5604.71	28.16	262.52	105.16	93.07	16 3 51	5004.7	28.29	253.86
100.00	10 40 17	1092.12	6.75	332.63	98.71	119.19	10 58 29	492.1	10.59	325.94
100.00	16 10 0	5283.69	29.88	238.97	105.23	90.99	17 38 4	4683.7	29.69	230.17
110.00	11 11 48	993.30	3.27	322.99	96.56	124.05	11 28 21	393.3	7.71	316.72
110.00	17 54 59	4955.28	33.96	213.90	105.10	85.88	19 17 34	4355.3	33.02	204.79

DIFFERENTIAL CORRECTIONS
TDE .1912 TRA -.8530 TC3 .6441 BAU .1370
RDE -.2826 RRA .1232 RC3 -.3769 FAU .03575
FDE -.1513 FRA .9373 FC3-2.2547 BSP 4925
BDE .3412 BRA .8618 BC3 .7463 FSP -542

MID-COURSE EXECUTION ACCURACY
SGT 1542.5 SGR 558.6 SG3 199.6
RRT -.6507 RRF .6946 RTF -.8796
SGB 1640.6 R23 -.1029 R13 .8882
SG1 1588.0 SG2 412.0 THA 165.76

ORBIT DETERMINATION ACCURACY
ST 522.9 SR 441.5 SS 363.7
CRT -.6765 CRS -.5642 CST .9877
LSA 712.3 MSA 304.8 SSA 19.2
EL1 628.7 EL2 270.4 ALF 142.05

LAUNCH DATE AUG 13 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 269.808

RL 151.57 LAL .00 LOL 319.84 VL 25.954 GAL 1.18 AZL 90.14 HCA 114.44 SMA 123.15 ECC .23157 INC .1385 V1 29.396
RP 107.81 LAP -.13 LOP 74.28 VP 37.209 GAP -11.34 AZP 89.94 TAL 176.07 TAP 290.51 RCA 94.64 APO 151.67 V2 35.152
RC 45.436 GL -1.02 GP -16.35 ZAL 76.33 ZAP 19.15 ETS 54.23 ZAE 152.52 ETE 328.32 ZAC 85.10 ETC 260.55 CLP -10.10

PLANETOCENTRIC CONIC

C3 12.579 VHL 3.547 DLA -21.86 RAL 241.29 RAD 6567.5 VEL 11.574 PTH 2.02 VHP 7.537 DPA -36.08 RAP 237.53 ECC 1.2070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 11	1349.87	6.57	351.48	97.06	117.61	9 36 41	749.9	10.21	344.70
90.00	14 48 23	5512.92	28.32	255.81	102.57	89.71	16 20 16	4912.9	27.98	247.16
100.00	10 20 7	1137.05	5.25	335.12	96.34	119.47	10 39 4	537.0	9.14	328.49
100.00	16 25 7	5200.97	29.82	232.83	102.53	87.75	17 51 48	4601.0	29.19	224.08
110.00	10 56 15	1023.78	2.10	324.58	94.39	124.13	11 13 19	423.8	6.57	318.34
110.00	18 5 29	4887.00	33.50	208.62	102.17	82.78	19 26 56	4287.0	32.14	199.65

DIFFERENTIAL CORRECTIONS
TDE .1810 TRA -.8357 TC3 .7626 BAU .1509
RDE -.2625 RRA .1382 RC3 -.4734 FAU .03833
FDE -.1288 FRA .9851 FC3-2.6383 BSP 5098
BDE .3189 BRA .8471 BC3 .8975 FSP -603

MID-COURSE EXECUTION ACCURACY
SGT 1579.3 SGR 592.0 SG3 220.0
RRT -.7012 RRF .7489 RTF -.8870
SGB 1686.6 R23 -.1156 R13 .8973
SG1 1636.7 SG2 407.3 THA 164.27

ORBIT DETERMINATION ACCURACY
ST 525.6 SR 430.3 SS 363.2
CRT -.6884 CRS -.5247 CST .9765
LSA 707.8 MSA 303.3 SSA 19.8
EL1 626.8 EL2 261.7 ALF 143.15

LAUNCH DATE AUG 13 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 276.551

RL 151.57 LAL .00 LOL 319.84 VL 26.078 GAL .99 AZL 89.93 HCA 117.66 SMA 123.89 ECC .22398 INC .0710 V1 29.396
RP 107.77 LAP .06 LOP 77.50 VP 37.306 GAP -10.59 AZP 90.03 TAL 176.57 TAP 294.23 RCA 96.14 APO 151.64 V2 35.163
RC 46.738 GL .56 GP -17.82 ZAL 77.23 ZAP 21.48 ETS 51.27 ZAE 150.40 ETE 326.76 ZAC 83.76 ETC 260.73 CLP -12.20

PLANETOCENTRIC CONIC

C3 11.591 VHL 3.405 DLA -20.14 RAL 240.66 RAD 6567.4 VEL 11.532 PTH 2.01 VHP 7.166 DPA -37.79 RAP 238.32 ECC 1.1908

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 50	1408.65	4.70	354.79	94.77	117.96	9 14 19	808.6	8.41	348.07
90.00	15 6 45	5419.63	28.09	249.00	99.97	86.30	16 37 5	4819.6	27.29	240.43
100.00	9 59 12	1187.99	3.54	337.93	94.12	119.70	10 19 0	588.0	7.46	331.35
100.00	16 41 4	5115.52	29.42	226.51	99.85	84.45	18 6 19	4515.5	28.34	217.87
110.00	10 39 42	1061.08	.68	326.53	92.34	124.18	10 57 23	461.1	5.16	320.31
110.00	18 17 3	4815.19	32.76	203.15	99.30	79.63	19 37 18	4215.2	30.98	194.38

DIFFERENTIAL CORRECTIONS
TDE .1681 TRA -.8191 TC3 .8849 BAU .1647
RDE -.2418 RRA .1557 RC3 -.5891 FAU .04112
FDE -.0977 FRA 1.0384 FC3-3.0709 BSP 5285
BDE .2945 BRA .8337 BC3 1.0630 FSP -672

MID-COURSE EXECUTION ACCURACY
SGT 1612.0 SGR 635.9 SG3 242.3
RRT -.7478 RRF .7992 RTF -.8935
SGB 1732.9 R23 -.1296 R13 .9058
SG1 1685.2 SG2 403.9 THA 162.53

ORBIT DETERMINATION ACCURACY
ST 523.7 SR 415.6 SS 362.5
CRT -.6992 CRS -.4702 CST .9574
LSA 697.2 MSA 303.1 SSA 20.3
EL1 619.6 EL2 251.2 ALF 144.23

LAUNCH DATE AUG 13 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 283.284

RL	151.57	LAL	.00	LOL	319.84	VL	26.190	GAL	.81	AZL	89.70	HCA	120.89	SMA	124.58	ECC	.21707	INC	.2978	V1	29.396
RP	107.74	LAP	.26	LOP	80.73	VP	37.394	GAP	-9.87	AZP	90.15	TAL	177.09	TAP	297.97	RCA	97.54	APO	151.62	V2	35.174
RC	48.150	GL	2.38	GP	-19.48	ZAL	78.18	ZAP	24.05	ETS	48.89	ZAE	148.38	ETE	324.93	ZAC	82.21	ETC	260.87	CLP	-14.39

PLANETOCENTRIC CONIC

C3	10.753	VHL	3.279	DLA	-18.17	RAL	240.07	RAD	6567.4	VEL	11.495	PTH	2.00	VHP	6.819	DPA	-39.66	RAP	238.95	ECC	1.1770

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 27 3	1473.08	2.64	358.40	92.68	118.20	8 51 36	873.1	6.39	351.73
90.00	15 25 48	5324.24	27.48	242.09	97.43	82.89	16 54 32	4724.2	26.21	233.65
100.00	9 37 35	1245.46	1.59	341.09	92.10	119.85	9 58 20	645.5	5.55	334.54
100.00	16 57 56	5027.09	28.66	220.04	97.24	81.13	18 21 43	4427.1	27.14	211.57
110.00	10 22 14	1105.58	-1.02	328.85	90.47	124.17	10 40 39	505.6	3.47	322.64
110.00	18 29 47	4739.74	31.69	197.53	96.55	76.46	19 48 47	4139.7	29.50	189.00

DIFFERENTIAL CORRECTIONS

TDE	.1510	TRA	-.8031	TC3	1.0088	BAU	.1788
RDE	-.2193	RRA	.1764	RC3	-.7271	FAU	.04411
FDE	-.0541	FRA	1.0981	FC3	-3.5509	BSP	5463
BDE	.2662	BRA	.8222	BC3	1.2435	FSP	-747

MID-COURSE EXECUTION ACCURACY

SGT	1639.6	SGR	692.4	SG3	266.4		
RRT	-.7889	RRF	.8438	RTF	-.8995		
SGB	1779.8	R23	-.1439	R13	.9144		
SG1	1733.7	SG2	402.4	THA	160.48		

ORBIT DETERMINATION ACCURACY

ST	516.0	SR	395.5	SS	363.6
CRT	-.7078	CRS	-.3940	CST	.9255
LSA	679.0	MSA	305.6	SSA	20.8
EL1	604.9	EL2	238.4	ALF	145.40

LAUNCH DATE AUG 13 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 290.004

RL	151.57	LAL	.00	LOL	319.84	VL	26.292	GAL	.64	AZL	89.46	HCA	124.11	SMA	125.21	ECC	.21080	INC	.5388	V1	29.396
RP	107.71	LAP	.45	LOP	83.96	VP	37.475	GAP	-9.17	AZP	90.30	TAL	177.60	TAP	301.72	RCA	98.81	APO	151.60	V2	35.184
RC	49.661	GL	4.47	GP	-21.36	ZAL	79.16	ZAP	26.86	ETS	46.97	ZAE	146.43	ETE	322.82	ZAC	80.42	ETC	260.99	CLP	-16.68

PLANETOCENTRIC CONIC

C3	10.055	VHL	3.171	DLA	-15.92	RAL	239.53	RAD	6567.4	VEL	11.465	PTH	1.99	VHP	6.499	DPA	-41.70	RAP	239.38	ECC	1.1655

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 2 46	1544.02	.35	2.36	90.85	118.32	8 28 30	944.0	4.13	355.72
90.00	15 45 44	5226.19	26.46	235.10	95.03	79.53	17 12 50	4626.2	24.75	226.85
100.00	9 15 17	1310.07	-.60	344.64	90.33	119.89	9 37 7	710.1	3.38	338.11
100.00	17 15 55	4935.38	27.52	213.47	94.79	77.85	18 38 10	4335.4	25.57	205.21
110.00	10 3 55	1157.73	-3.02	331.57	88.82	124.07	10 23 12	557.7	1.47	325.37
110.00	18 43 46	4660.49	30.28	191.78	93.98	73.33	20 1 27	4060.5	27.70	183.54

DIFFERENTIAL CORRECTIONS

TDE	.1307	TRA	-.7876	TC3	1.1268	BAU	.1929
RDE	-.1941	RRA	.2011	RC3	-.8890	FAU	.04723
FDE	.0039	FRA	1.1643	FC3	-4.0669	BSP	5632
BDE	.2340	BRA	.8128	BC3	1.4353	FSP	-826

MID-COURSE EXECUTION ACCURACY

SGT	1660.3	SGR	764.0	SG3	292.2		
RRT	-.8238	RRF	.8817	RTF	-.9045		
SGB	1827.6	R23	-.1578	R13	.9227		
SG1	1782.5	SG2	403.4	THA	158.06		

ORBIT DETERMINATION ACCURACY

ST	503.3	SR	369.0	SS	371.1
CRT	-.7189	CRS	-.3001	CST	.8759
LSA	655.7	MSA	311.1	SSA	21.2
EL1	583.6	EL2	221.2	ALF	146.84

LAUNCH DATE AUG 13 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 296.711

RL	151.57	LAL	.00	LOL	319.84	VL	26.385	GAL	.49	AZL	89.20	HCA	127.34	SMA	125.79	ECC	.20513	INC	.7990	V1	29.396
RP	107.68	LAP	.64	LOP	87.19	VP	37.549	GAP	-8.49	AZP	90.48	TAL	178.12	TAP	305.46	RCA	99.98	APO	151.59	V2	35.193
RC	51.263	GL	6.86	GP	-23.49	ZAL	80.17	ZAP	29.92	ETS	45.38	ZAE	144.50	ETE	320.40	ZAC	78.37	ETC	261.06	CLP	-19.09

PLANETOCENTRIC CONIC

C3	9.490	VHL	3.081	DLA	-13.39	RAL	239.06	RAD	6567.3	VEL	11.440	PTH	1.98	VHP	6.208	DPA	-43.96	RAP	239.57	ECC	1.1562

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 37 58	1622.38	-2.18	6.73	89.33	118.24	8 5 0	1022.4	1.61	.10
90.00	16 6 48	5124.96	25.01	228.04	92.83	76.28	17 32 13	4525.0	22.88	220.02
100.00	8 52 18	1382.53	-3.05	348.61	88.85	119.75	9 15 21	782.5	.93	342.09
100.00	17 35 9	4840.05	25.98	206.80	92.55	74.67	18 55 49	4240.0	23.62	198.80
110.00	9 44 49	1218.08	-5.31	334.74	87.44	123.82	10 5 7	618.1	-.83	328.51
110.00	18 59 8	4577.26	28.51	185.95	91.65	70.29	20 15 25	3977.3	25.56	178.02

DIFFERENTIAL CORRECTIONS

TDE	.1072	TRA	-.7727	TC3	1.2352	BAU	.2079
RDE	-.1651	RRA	.2306	RC3	-1.0769	FAU	.05048
FDE	.0787	FRA	1.2362	FC3	-4.6053	BSP	5810
BDE	.1968	BRA	.8064	BC3	1.6387	FSP	-912

MID-COURSE EXECUTION ACCURACY

SGT	1673.8	SGR	853.8	SG3	319.3		
RRT	-.8520	RRF	.9127	RTF	-.9088		
SGB	1878.9	R23	-.1699	R13	.9311		
SG1	1834.1	SG2	407.9	THA	155.20		

ORBIT DETERMINATION ACCURACY

ST	486.5	SR	335.0	SS	391.0
CRT	-.7381	CRS	-.2069	CST	.8093
LSA	631.8	MSA	319.5	SSA	21.3
EL1	556.7	EL2	197.5	ALF	148.68

LAUNCH DATE AUG 13 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 303.401

RL	151.57	LAL	.00	LOL	319.84	VL	26.468	GAL	.34	AZL	88.92	HCA	130.57	SMA	126.31	ECC	.20002	INC	1.0828	V1	29.396
RP	107.65	LAP	.82	LOP	90.42	VP	37.616	GAP	-7.84	AZP	90.70	TAL	178.62	TAP	309.19	RCA	101.05	APO	151.58	V2	35.202
RC	52.948	GL	9.57	GP	-25.90	ZAL	81.18	ZAP	33.26	ETS	44.04	ZAE	142.56	ETE	317.67	ZAC	76.02	ETC	261.08	CLP	-21.63

PLANETOCENTRIC CONIC

C3	9.056	VHL	3.009	DLA	-10.55	RAL	238.69	RAD	6567.3	VEL	11.421	PTH	1.98	VHP	5.948	DPA	-46.46	RAP	239.46	ECC	1.1490

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 12 32	1709.16	-4.96	11.59	88.18	117.91	7 41 1	1109.2	-1.19	4.94
90.00	16 29 17	5019.99	23.13	220.93	90.92	73.19	17 52 57	4420.0	20.61	213.16
100.00	8 28 37	1463.68	-5.78	353.09	87.73	119.38	8 53 1	863.7	-1.82	346.54
100.00	17 55 53	4740.71	24.02	200.08	90.61	71.65	19 14 54	4140.7	21.29	192.34
110.00	9 24 57	1287.29	-7.92	338.40	86.42	123.36	9 46 24	687.3	-3.48	332.13
110.00	19 16 3	4489.87	26.36	180.06	89.64	67.41	20 30 53	3889.9	23.07	172.45

DIFFERENTIAL CORRECTIONS

TDE	.0809	TRA	-.7568	TC3	1.3217	BAU	.2235
RDE	-.1304	RRA	.2662	RC3	-1.2885	FAU	.05365
FDE	.1732	FRA	1.3130	FC3	-5.1286	BSP	5987
BDE	.1535	BRA	.8022	BC3	1.8458	FSP	-998

MID-COURSE EXECUTION ACCURACY

SGT	1674.7	SGR	963.8	SG3	346.7		
RRT	-.8740	RRF	.9368	RTF	-.9124		
SGB	1932.2	R23	-.1778	R13	.9397		
SG1	1887.0	SG2	415.6	THA	151.81		

ORBIT DETERMINATION ACCURACY

ST	466.5	SR	293.4	SS	429.7
CRT	-.7802	CRS	-.1560	CST	.7353
LSA	616.2	MSA	328.9	SSA	21.0
EL1	526.6	EL2	162.6	ALF	150.81

LAUNCH DATE AUG 13 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 310.074

RL	151.57	LAL	.00	LOL	319.84	VL	26.543	GAL	.22	AZL	88.60	HCA	133.80	SMA	126.79	ECC	.19544	INC	1.3955	V1	29.396
RP	107.63	LAP	1.01	LOP	93.65	VP	37.676	GAP	-7.20	AZP	90.97	TAL	179.11	TAP	312.91	RCA	102.01	APO	151.57	V2	35.210
RC	54.707	GL	12.62	GP	-28.64	ZAL	82.17	ZAP	36.88	ETS	42.87	ZAE	140.52	ETE	314.63	ZAC	73.34	ETC	261.03	CLP	-24.31

PLANETOCENTRIC CONIC

C3	8.757	VHL	2.959	DLA	-7.37	RAL	238.44	RAD	6567.3	VEL	11.408	PTH	1.97	VHP	5.724	DPA	-49.22	RAP	238.97	ECC	1.1441

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 46 20	1805.56	-8.00	17.04	87.46	117.25	7 16 26	1205.6	-4.29	10.33
90.00	16 53 30	4910.71	20.80	213.76	89.37	70.34	18 15 21	4310.7	17.93	206.26
100.00	8 4 8	1554.55	-8.79	358.17	87.04	118.69	8 30 3	954.6	-4.89	351.55
100.00	18 18 23	4636.95	21.63	193.30	89.04	68.85	19 35 40	4036.9	18.56	185.85
110.00	9 4 18	1366.17	-10.84	342.63	85.81	122.62	9 27 4	766.2	-6.47	336.28
110.00	19 34 43	4398.09	23.83	174.14	88.01	64.73	20 48 1	3798.1	20.22	166.85

DIFFERENTIAL CORRECTIONS

TDE	.0509	TRA	-.7430	TC3	1.3615	BAU	.2385
RDE	-.0869	RRA	.3100	RC3	-1.5157	FAU	.05639
FDE	.2923	FRA	1.3965	FC3	-5.5753	BSP	6153
BDE	.1008	BRA	.8051	BC3	2.0374	FSP	-1079

MID-COURSE EXECUTION ACCURACY

SGT	1662.3	SGR	1095.2	SG3	373.0		
RRT	-.8885	RRF	.9548	RTF	-.9137		
SGB	1990.7	R23	-.1831	R13	.9479		
SG1	1943.7	SG2	429.8	THA	147.90		

ORBIT DETERMINATION ACCURACY

ST	446.9	SR	249.1	SS	494.3
CRT	-.8650	CRS	-.2245	CST	.6772
LSA	628.5	MSA	332.7	SSA	20.0
EL1	499.2	EL2	111.9	ALF	152.78

LAUNCH DATE AUG 13 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 316.729

RL	151.57	LAL	.00	LOL	319.84	VL	26.610	GAL	.10	AZL	88.26	HCA	137.03	SMA	127.22	ECC	.19137	INC	1.7441	V1	29.396
RP	107.60	LAP	1.19	LOP	96.89	VP	37.731	GAP	-6.59	AZP	91.28	TAL	179.57	TAP	316.60	RCA	102.88	APO	151.57	V2	35.218
RC	56.533	GL	16.03	GP	-31.72	ZAL	83.14	ZAP	40.81	ETS	41.77	ZAE	138.32	ETE	311.28	ZAC	70.31	ETC	260.91	CLP	-27.15

PLANETOCENTRIC CONIC

C3	8.602	VHL	2.933	DLA	-3.86	RAL	238.34	RAD	6567.3	VEL	11.401	PTH	1.97	VHP	5.540	DPA	-52.26	RAP	238.01	ECC	1.1416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 19 9	1913.00	-11.29	23.22	87.28	116.14	6 51 2	1313.0	-7.69	16.40
90.00	17 19 51	4796.48	18.01	206.54	88.27	67.78	18 39 48	4196.5	14.84	199.30
100.00	7 38 42	1656.43	-12.06	3.96	86.88	117.56	8 6 18	1056.4	-8.27	357.22
100.00	18 43 0	4528.29	18.80	186.46	87.92	66.32	19 58 28	3928.3	15.44	179.28
110.00	8 42 48	1455.74	-14.08	347.55	85.71	121.47	9 7 4	855.7	-9.82	341.05
110.00	19 55 23	4301.74	20.90	168.19	86.85	62.31	21 7 5	3701.7	17.03	161.21

DIFFERENTIAL CORRECTIONS

TDE	.0166	TRA	-.7267	TC3	1.3864	BAU	.2581
RDE	-.0305	RRA	.3627	RC3	-1.7645	FAU	.05910
FDE	.4409	FRA	1.4781	FC3	-5.9479	BSP	6438
BDE	.0347	BRA	.8122	BC3	2.2440	FSP	-1171

MID-COURSE EXECUTION ACCURACY

SGT	1639.1	SGR	1256.7	SG3	398.7		
RRT	-.9001	RRF	.9684	RTF	-.9159		
SGB	2065.4	R23	-.1776	R13	.9574		
SG1	2017.0	SG2	444.9	THA	143.31		

ORBIT DETERMINATION ACCURACY

ST	428.8	SR	223.4	SS	587.5
CRT	-.9775	CRS	-.4992	CST	.6560
LSA	689.0	MSA	322.3	SSA	18.3
EL1	481.7	EL2	42.0	ALF	152.78

LAUNCH DATE AUG 13 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 323.346

RL	151.57	LAL	.00	LOL	319.84	VL	26.669	GAL	.00	AZL	87.86	HCA	140.26	SMA	127.61	ECC	.18775	INC	2.1378	V1	29.396
RP	107.58	LAP	1.37	LOP	100.12	VP	37.779	GAP	-5.99	AZP	91.64	TAL	179.99	TAP	320.25	RCA	103.65	APO	151.57	V2	35.225
RC	58.419	GL	19.82	GP	-35.18	ZAL	84.07	ZAP	45.03	ETS	40.65	ZAE	135.88	ETE	307.66	ZAC	66.88	ETC	260.68	CLP	-30.16

PLANETOCENTRIC CONIC

C3	8.611	VHL	2.934	DLA	.01	RAL	238.40	RAD	6567.3	VEL	11.402	PTH	1.97	VHP	5.404	DPA	-55.60	RAP	236.42	ECC	1.1417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 50 39	2033.30	-14.80	30.32	87.73	114.42	6 24 32	1433.3	-11.38	23.31
90.00	17 48 52	4676.57	14.78	199.23	87.73	65.57	19 6 48	4076.6	11.36	192.22
100.00	7 12 0	1770.90	-15.56	10.65	87.36	115.85	7 41 31	1170.9	-11.96	3.71
100.00	19 10 12	4414.20	15.54	179.56	87.36	64.14	20 23 46	3814.2	11.94	172.62
110.00	8 20 15	1557.24	-17.61	353.31	86.24	119.78	8 46 13	957.2	-13.51	346.59
110.00	20 18 26	4200.63	17.58	162.22	86.23	60.20	21 28 26	3600.6	13.49	155.51

DIFFERENTIAL CORRECTIONS

TDE	.0791	TRA	-.7098	TC3	1.1636	BAU	.2570
RDE	-.0136	RRA	.4274	RC3	-1.9056	FAU	.05743
FDE	.4238	FRA	1.5570	FC3	-5.7743	BSP	3597
BDE	.0803	BRA	.8285	BC3	2.2328	FSP	-802

MID-COURSE EXECUTION ACCURACY

SGT	1552.7	SGR	1395.6	SG3	399.8		
RRT	-.8880	RRF	.9763	RTF	-.8907		
SGB	2087.7	R23	-.2071	R13	.9555		
SG1	2029.2	SG2	491.0	THA	138.43		

ORBIT DETERMINATION ACCURACY

ST	444.0	SR	254.0	SS	576.9
CRT	-.9655	CRS	-.6683	CST	.4619
LSA	672.5	MSA	376.8	SSA	16.1
EL1	508.2	EL2	57.8	ALF	150.67

LAUNCH DATE AUG 13 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 329.978

RL	151.57	LAL	.00	LOL	319.84	VL	26.721	GAL	-.09	AZL	87.41	HCA	143.49	SMA	127.95	ECC	.18456	INC	2.5891	V1	29.396
RP	107.56	LAP	1.54	LOP	103.36	VP	37.822	GAP	-5.41	AZP	92.08	TAL	180.38	TAP	323.87	RCA	104.34	APO	151.57	V2	35.232
RC	60.358	GL	23.99	GP	-39.03	ZAL	84.93	ZAP	49.53	ETS	39.43	ZAE	133.12	ETE	303.82	ZAC	63.05	ETC	260.32	CLP	-33.33

PLANETOCENTRIC CONIC

C3	8.817	VHL	2.969	DLA	4.23	RAL	238.65	RAD	6567.3	VEL	11.411	PTH	1.98	VHP	5.324	DPA	-59.22	RAP	233.99	ECC	1.1451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 20 16	2168.86	-18.43	38.61	88.97	111.88	5 56 25	1568.9	-15.30	31.33
90.00	18 21 15	4550.04	11.08	191.77	87.86	63.78	19 37 5	3950.0	7.47	184.95
100.00	6 43 35	1900.10	-19.23	18.49	88.62	113.34	7 15 16	1300.1	-15.91	11.27
100.00	19 40 37	4294.04	11.86	172.54	87.46	62.36	20 52 11	3694.0	8.06	165.81
110.00	7 56 23	1672.27	-21.36	.12	87.55	117.35	8 24 15	1072.3	-17.52	353.09
110.00	20 44 18	4094.63	13.90	156.22	86.27	58.45	21 52 33	3494.6	9.63	149.73

DIFFERENTIAL CORRECTIONS

TDE	-.0304	TRA	-.6962	TC3	1.3161	BAU	.3087
RDE	.1222	RRA	.5101	RC3	-2.2640	FAU	.06285
FDE	.7618	FRA	1.6372	FC3	-6.1704	BSP	7402
BDE	.1259	BRA	.8631	BC3	2.6188	FSP	-1345

MID-COURSE EXECUTION ACCURACY

SGT	1558.5	SGR	1684.5	SG3	437.4		
RRT	-.9120	RRF	.9851	RTF	-.9149		
SGB	2294.9	R23	-.1506	R13	.9744		
SG1	2244.2	SG2	479.9	THA	132.56		

ORBIT DETERMINATION ACCURACY

ST	409.0	SR	380.7	SS	806.7
CRT	-.8633	CRS	-.9473	CST	.6590
LSA	935.1	MSA	297.3	SSA	13.6
EL1	539.4	EL2	145.7	ALF	137.38

LAUNCH DATE AUG 13 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 336.570

RL	151.57	LAL	.00	LOL	319.84	VL	26.767	GAL	-.16	AZL	86.88	HCA	146.72	SMA	128.26	ECC	.18177	INC	3.1150	V1	29.396
RP	107.54	LAP	1.71	LOP	106.60	VP	37.860	GAP	-4.85	AZP	92.61	TAL	180.72	TAP	327.44	RCA	104.94	APO	151.57	V2	35.238
RC	62.346	GL	28.52	GP	-43.27	ZAL	85.71	ZAP	54.28	ETS	38.01	ZAE	129.97	ETE	299.82	ZAC	58.81	ETC	259.78	CLP	-36.69

PLANETOCENTRIC CONIC

C3	9.279	VHL	3.046	DLA	8.78	RAL	239.11	RAD	6567.3	VEL	11.431	PTH	1.98	VHP	5.312	DPA	-63.09	RAP	230.35	ECC	1.1527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 47 6	2323.15	-22.05	48.48	91.17	108.23	5 25 49	1723.1	-19.35	40.84
90.00	18 58 5	4415.44	6.94	184.06	88.82	62.48	20 11 41	3815.4	3.20	177.37
100.00	6 12 43	2047.01	-22.91	27.85	90.85	109.74	6 46 50	1447.0	-20.01	20.25
100.00	20 15 9	4166.81	7.74	165.34	88.39	61.04	21 24 36	3566.8	3.82	158.75
110.00	7 30 42	1802.95	-25.21	8.31	89.84	113.89	8 0 45	1203.0	-21.77	.85
110.00	21 13 40	3983.63	9.87	150.15	87.10	57.10	22 20 3	3383.6	5.46	143.83

DIFFERENTIAL CORRECTIONS

TDE	-.0571	TRA	-.6685	TC3	1.0983	BAU	.3248	SGT	1441.5	SGR	1903.8	SG3	434.7	ST	397.0	SR	573.2	SS	940.7
RDE	.2424	RRA	.6035	RC3	-2.3771	FAU	.06054	RRT	-.9034	RRF	.9894	RTF	-.9045	CRT	-.7969	CRS	-.9869	CST	.6906
FDE	.9617	FRA	1.6780	FC3	-5.6486	BSP	7540	SGB	2388.0	R23	-.1306	R13	.9810	LSA	1137.6	MSA	276.9	SSA	11.1
BDE	.2490	BRA	.9006	BC3	2.6186	FSP	-1328	SG1	2334.1	SG2	504.1	THA	126.34	EL1	666.0	EL2	206.4	ALF	122.38

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 343.138

RL	151.57	LAL	.00	LOL	319.84	VL	26.807	GAL	-.22	AZL	86.26	HCA	149.95	SMA	128.52	ECC	.17935	INC	3.7401	V1	29.396
RP	107.53	LAP	1.87	LOP	109.85	VP	37.893	GAP	-4.30	AZP	93.24	TAL	181.01	TAP	330.96	RCA	105.47	APO	151.57	V2	35.243
RC	64.375	GL	33.40	GP	-47.90	ZAL	66.40	ZAP	59.20	ETS	36.29	ZAE	126.37	ETE	295.73	ZAC	54.19	ETC	259.02	CLP	-40.21

PLANETOCENTRIC CONIC

C3	10.091	VHL	3.177	DLA	13.64	RAL	239.80	RAD	6567.4	VEL	11.466	PTH	1.99	VHP	5.387	DPA	-67.11	RAP	224.91	ECC	1.1661

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 9 34	2501.67	-25.34	60.51	94.54	103.08	4 51 15	1901.7	-23.29	52.45
90.00	19 41 7	4269.99	2.30	175.89	90.83	61.77	20 52 17	3670.0	-1.50	169.26
100.00	5 38 4	2216.22	-26.34	39.25	94.27	104.68	6 15 1	1616.2	-24.06	31.19
100.00	20 55 18	4030.67	3.19	157.79	90.33	60.26	22 2 28	3430.7	-.79	151.27
110.00	7 2 25	1952.32	-28.94	18.31	93.38	109.04	7 34 57	1352.3	-26.07	10.31
110.00	21 47 27	3867.34	5.51	143.96	88.89	56.21	22 51 54	3267.3	1.03	137.74

DIFFERENTIAL CORRECTIONS

TDE	-.0710	TRA	-.6482	TC3	.9013	BAU	.3518	SGT	1338.5	SGR	2181.4	SG3	427.1	ST	383.4	SR	822.8	SS	1064.4
RDE	.3959	RRA	.7291	RC3	-2.4472	FAU	.05789	RRT	-.8938	RRF	.9926	RTF	-.8932	CRT	-.7571	CRS	-.9963	CST	.6990
FDE	1.1505	FRA	1.7186	FC3	-4.9667	BSP	7983	SGB	2559.3	R23	-.1064	R13	.9870	LSA	1373.4	MSA	265.7	SSA	8.9
BDE	.4022	BRA	.9756	BC3	2.6079	FSP	-1304	SG1	2505.4	SG2	522.6	THA	120.19	EL1	876.7	EL2	235.0	ALF	111.01

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 349.682

RL	151.57	LAL	.00	LOL	319.84	VL	26.841	GAL	-.27	AZL	85.50	HCA	153.18	SMA	128.75	ECC	.17728	INC	4.5004	V1	29.396
RP	107.51	LAP	2.03	LOP	113.09	VP	37.921	GAP	-3.78	AZP	94.02	TAL	181.24	TAP	334.42	RCA	105.93	APO	151.57	V2	35.247
RC	66.441	GL	38.56	GP	-52.87	ZAL	86.99	ZAP	64.20	ETS	34.15	ZAE	122.31	ETE	291.61	ZAC	49.22	ETC	257.94	CLP	-43.87

PLANETOCENTRIC CONIC

C3	11.416	VHL	3.379	DLA	18.73	RAL	240.73	RAD	6567.4	VEL	11.524	PTH	2.01	VHP	5.570	DPA	-71.13	RAP	216.63	ECC	1.1879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 24 26	2714.98	-27.75	75.64	99.25	95.88	4 9 41	2115.0	-26.65	67.15
90.00	20 33 41	4106.95	-2.96	166.79	94.23	61.83	21 42 8	3507.0	-6.71	160.11
100.00	4 57 9	2415.98	-28.99	53.48	99.09	97.65	5 37 25	1816.0	-27.62	44.94
100.00	21 43 39	3881.18	-1.87	149.59	93.63	60.16	22 48 20	3281.2	-5.83	143.04
110.00	6 30 7	2125.11	-32.14	30.75	98.44	102.33	7 5 33	1525.1	-30.11	22.12
110.00	22 27 10	3744.82	.84	137.55	91.93	55.83	23 29 35	3144.8	-3.65	131.34

DIFFERENTIAL CORRECTIONS

TDE	-.0692	TRA	-.6170	TC3	.6582	BAU	.3773	SGT	1196.7	SGR	2470.3	SG3	403.5	ST	351.9	SR	1117.8	SS	1165.5
RDE	.5966	RRA	.8806	RC3	-2.3828	FAU	.05291	RRT	-.8717	RRF	.9948	RTF	-.8705	CRT	-.7022	CRS	-.9989	CST	.6683
FDE	1.3195	FRA	1.7170	FC3	-4.0126	BSP	8573	SGB	2744.9	R23	-.0811	R13	.9916	LSA	1632.7	MSA	256.3	SSA	7.1
BDE	.6006	BRA	1.0752	BC3	2.4721	FSP	-1247	SG1	2691.6	SG2	538.2	THA	113.91	EL1	1146.1	EL2	244.3	ALF	103.07

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 356.198

RL	151.57	LAL	.00	LOL	319.84	VL	26.870	GAL	-.30	AZL	84.55	HCA	156.40	SMA	128.94	ECC	.17552	INC	5.4514	V1	29.396
RP	107.50	LAP	2.18	LOP	116.33	VP	37.945	GAP	-3.26	AZP	95.00	TAL	181.41	TAP	337.81	RCA	106.31	APO	151.58	V2	35.251
RC	68.539	GL	43.92	GP	-58.14	ZAL	87.48	ZAP	69.15	ETS	31.52	ZAE	117.79	ETE	287.49	ZAC	43.96	ETC	256.44	CLP	-47.60

PLANETOCENTRIC CONIC

C3	13.543	VHL	3.680	DLA	23.98	RAL	241.92	RAD	6567.5	VEL	11.616	PTH	2.04	VHP	5.900	DPA	-74.82	RAP	203.65	ECC	1.2229

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 22 46	2991.59	-28.03	95.82	105.12	85.81	3 12 37	2391.6	-28.32	87.17
90.00	21 44 50	3903.08	-9.40	155.26	99.69	63.16	22 49 53	3303.1	-12.92	148.36
100.00	4 3 51	2665.68	-29.83	71.95	105.23	88.00	4 48 16	2065.7	-29.79	63.15
100.00	22 46 26	3704.22	-7.80	139.80	98.84	61.05	23 48 11	3104.2	-11.61	133.07
110.00	5 51 7	2330.06	-34.05	46.41	105.18	93.26	6 29 57	1730.1	-33.22	37.27
110.00	23 15 39	3612.61	-4.21	130.65	96.63	56.05	24 15 52	3012.6	-8.64	124.36

DIFFERENTIAL CORRECTIONS

TDE	-.0388	TRA	-.5754	TC3	.4177	BAU	.4020	SGT	1029.3	SGR	2773.3	SG3	366.2	ST	300.4	SR	1442.6	SS	1229.1
RDE	.8566	RRA	1.0720	RC3	-2.1806	FAU	.04610	RRT	-.8285	RRF	.9963	RTF	-.8272	CRT	-.5590	CRS	-.9997	CST	.5375
FDE	1.4465	FRA	1.6797	FC3	-2.9468	BSP	9165	SGB	2958.2	R23	-.0571	R13	.9947	LSA	1902.3	MSA	251.1	SSA	5.6
BDE	.8575	BRA	1.2166	BC3	2.2202	FSP	-1136	SG1	2906.6	SG2	549.9	THA	107.75	EL1	1452.6	EL2	247.4	ALF	96.84

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 362.686

RL	151.57	LAL	.00	LOL	319.84	VL	26.894	GAL	-.32	AZL	83.32	HCA	159.61	SMA	129.11	ECC	.17405	INC	6.6833	V1	29.396		
RP	107.49	LAP	2.32	LOP	119.58	VP	37.965	GAP	-2.77	AZP	96.27	TAL	181.51	TAP	341.12	RCA	106.63	APO	151.58	V2	35.254		
RC	70.666	GL	49.35	GP	-63.66	ZAL	87.87	ZAP	73.88	ETS	28.30	ZAE	112.82	ETE	283.38	ZAC	38.46	ETC	254.31	CLP	-51.26		

PLANETOCENTRIC CONIC

C3	17.020	VHL	4.126	DLA	29.26	RAL	243.37	RAD	6567.7	VEL	11.764	PTH	2.08	VHP	6.432	DPA	-77.56	RAP	183.34	ECC	1.2801		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.30	23 4 14	3703.39	-21.19	146.11	109.61	69.34	24 5 58	3103.4	-23.81	138.34
97.70	1 14 54	3293.79	-21.18	116.04	109.60	69.32	2 9 48	2693.8	-23.80	108.28
100.00	2 24 27	3070.90	-25.27	101.04	111.10	73.47	3 15 37	2470.9	-27.29	92.82
100.00	0 41 19	3401.51	-17.21	122.25	107.84	65.17	1 38 0	2801.5	-20.41	114.93
110.00	4 58 25	2588.63	-33.22	66.48	113.12	81.45	5 41 33	1988.6	-34.05	57.34
110.00	0 23 50	3456.55	-10.07	122.36	103.80	57.16	1 21 27	2856.5	-14.32	115.85

DIFFERENTIAL CORRECTIONS

TDE	.0308	TRA	-.5204	TC3	.1812	BAU	.4143
RDE	1.2043	RRA	1.3234	RC3	-1.8118	FAU	.03699
FDE	1.5274	FRA	1.6118	FC3	-1.8815	BSP	9427
BDE	1.2046	BRA	1.4220	BC3	1.8209	FSP	-952

MID-COURSE EXECUTION ACCURACY

SGT	843.0	SGR	3077.4	SG3	317.4		
RRT	-.7314	RRF	.9973	RTF	-.7322		
SGB	3190.7	R23	-.0331	R13	.9968		
SG1	3140.6	SG2	563.3	THA	101.71		

ORBIT DETERMINATION ACCURACY

ST	252.2	SR	1788.5	SS	1254.4		
CRT	-.1902	CRS	-.9999	CST	.1771		
LSA	2185.0	MSA	248.2	SSA	4.4		
EL1	1789.1	EL2	247.5	ALF	91.57		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 369.137

RL	151.57	LAL	.00	LOL	319.84	VL	26.914	GAL	-.32	AZL	81.65	HCA	162.81	SMA	129.24	ECC	.17286	INC	8.3532	V1	29.396		
RP	107.48	LAP	2.46	LOP	122.83	VP	37.981	GAP	-2.29	AZP	97.99	TAL	181.55	TAP	344.36	RCA	106.90	APO	151.58	V2	35.256		
RC	72.818	GL	54.68	GP	-69.42	ZAL	88.19	ZAP	78.23	ETS	24.42	ZAE	107.42	ETE	279.23	ZAC	32.77	ETC	251.19	CLP	-54.53		

PLANETOCENTRIC CONIC

C3	22.963	VHL	4.792	DLA	34.40	RAL	245.04	RAD	6567.9	VEL	12.014	PTH	2.14	VHP	7.266	DPA	-78.39	RAP	155.71	ECC	1.3779		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.60	21 42 23	4052.69	-22.59	173.19	117.63	63.34	22 49 55	3452.7	-25.98	165.66
110.40	2 50 6	3086.66	-22.58	101.07	117.62	63.33	3 41 33	2486.7	-25.97	93.53
69.60	21 42 23	4052.69	-22.59	173.19	117.63	63.34	22 49 55	3452.7	-25.98	165.66
110.40	2 50 6	3086.66	-22.58	101.07	117.62	63.33	3 41 33	2486.7	-25.97	93.53
69.60	21 42 23	4052.69	-22.59	173.19	117.63	63.34	22 49 55	3452.7	-25.98	165.66
110.40	2 50 6	3086.66	-22.58	101.07	117.62	63.33	3 41 33	2486.7	-25.97	93.53

DIFFERENTIAL CORRECTIONS

TDE	.1904	TRA	-.4204	TC3	.0321	BAU	.4240
RDE	1.6404	RRA	1.6295	RC3	-1.3808	FAU	.02794
FDE	1.5228	FRA	1.4868	FC3	-1.0534	BSP	10269
BDE	1.6514	BRA	1.6829	BC3	1.3812	FSP	-799

MID-COURSE EXECUTION ACCURACY

SGT	651.1	SGR	3342.8	SG3	258.9		
RRT	-.4745	RRF	.9980	RTF	-.4763		
SGB	3405.6	R23	-.0130	R13	.9979		
SG1	3357.4	SG2	570.6	THA	95.44		

ORBIT DETERMINATION ACCURACY

ST	291.9	SR	2085.8	SS	1213.1		
CRT	.5206	CRS	-1.0000	CST	-.5253		
LSA	2417.7	MSA	248.6	SSA	3.5		
EL1	2091.4	EL2	248.6	ALF	85.77		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 375.544

RL	151.57	LAL	.00	LOL	319.84	VL	26.929	GAL	-.31	AZL	79.24	HCA	166.00	SMA	129.34	ECC	.17191	INC	10.7581	V1	29.396		
RP	107.48	LAP	2.59	LOP	126.08	VP	37.993	GAP	-1.83	AZP	100.45	TAL	181.49	TAP	347.49	RCA	107.11	APO	151.58	V2	35.258		
RC	74.992	GL	59.65	GP	-75.47	ZAL	88.46	ZAP	82.03	ETS	19.80	ZAE	101.53	ETE	274.91	ZAC	26.88	ETC	246.30	CLP	-56.47		

PLANETOCENTRIC CONIC

C3	33.929	VHL	5.825	DLA	39.15	RAL	246.85	RAD	6568.3	VEL	12.462	PTH	2.25	VHP	8.586	DPA	-76.70	RAP	128.40	ECC	1.5584		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.75	21 7 50	4273.29	-21.91	190.57	127.26	56.70	22 19 4	3673.3	-26.13	183.54
118.25	3 39 8	3060.30	-21.90	98.52	127.26	56.70	4 30 8	2460.3	-26.12	91.50
61.75	21 7 50	4273.29	-21.91	190.57	127.26	56.70	22 19 4	3673.3	-26.13	183.54
118.25	3 39 8	3060.30	-21.90	98.52	127.26	56.70	4 30 8	2460.3	-26.12	91.50
61.75	21 7 50	4273.29	-21.91	190.57	127.26	56.70	22 19 4	3673.3	-26.13	183.54
118.25	3 39 8	3060.30	-21.90	98.52	127.26	56.70	4 30 8	2460.3	-26.12	91.50

DIFFERENTIAL CORRECTIONS

TDE	.4997	TRA	-.2568	TC3	-.0527	BAU	.4069
RDE	2.2223	RRA	2.0589	RC3	-.8955	FAU	.01844
FDE	1.4636	FRA	1.3520	FC3	-.4706	BSP	10968
BDE	2.2778	BRA	2.0749	BC3	.8970	FSP	-625

MID-COURSE EXECUTION ACCURACY

SGT	592.8	SGR	3562.0	SG3	199.2		
RRT	.1363	RRF	.9984	RTF	.1337		
SGB	3611.0	R23	.0062	R13	.9984		
SG1	3562.9	SG2	587.2	THA	88.66		

ORBIT DETERMINATION ACCURACY

ST	501.2	SR	2322.3	SS	1134.2		
CRT	.8575	CRS	-1.0000	CST	-.8580		
LSA	2620.3	MSA	254.3	SSA	2.8		
EL1	2362.2	EL2	253.5	ALF	79.39		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 140.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 381.888

RL	151.57	LAL	.00	LOL	319.84	VL	26.940	GAL	-.28	AZL	75.47	HCA	169.14	SMA	129.42	ECC	.17120	INC	14.5325	V1	29.396		
RP	107.48	LAP	2.71	LOP	129.32	VP	38.002	GAP	-1.39	AZP	104.28	TAL	181.34	TAP	350.49	RCA	107.26	APO	151.57	V2	35.259		
RC	77.186	GL	63.84	GP	-81.97	ZAL	88.69	ZAP	85.15	ETS	13.94	ZAE	94.93	ETE	269.85	ZAC	20.73	ETC	237.33	CLP	-52.75		

PLANETOCENTRIC CONIC

C3	56.725	VHL	7.532	DLA	43.14	RAL	248.58	RAD	6569.0	VEL	13.345	PTH	2.44	VHP	10.788	DPA	-72.84	RAP	107.62	ECC	1.9336		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.99	20 49 29	4472.27	-18.37	204.90	137.83	50.26	22 4 2	3872.3	-23.37	198.63
124.01	4 11 16	3119.10	-18.36	100.78	137.82	50.25	5 3 15	2519.1	-23.35	94.51
55.99	20 49 29	4472.27	-18.37	204.90	137.83	50.26	22 4 2	3872.3	-23.37	198.63
124.01	4 11 16	3119.10	-18.36	100.78	137.82	50.25	5 3 15	2519.1	-23.35	94.51
55.99	20 49 29	4472.27	-18.37	204.90	137.83	50.26	22 4 2	3872.3	-23.37	198.63
124.01	4 11 16	3119.10	-18.36	100.78	137.82	50.25	5 3 15	2519.1	-23.35	94.51

DIFFERENTIAL CORRECTIONS

TDE	1.2012	TRA	.1087	TC3	-.0676	BAU	.3327
RDE	2.9968	RRA	2.6950	RC3	-.4335	FAU	.00922
FDE	1.3847	FRA	1.2311	FC3	-.1408	BSP	11645
BDE	3.2286	BRA	2.6971	BC3	.4387	FSP	-464

MID-COURSE EXECUTION ACCURACY

SGT	926.4	SGR	3676.5	SG3	144.6		
RRT	.7247	RRF	.9987	RTF	.7285		
SGB	3791.5	R23	.0246	R13	.9984		
SG1	3739.1	SG2	627.7	THA	79.35		

ORBIT DETERMINATION ACCURACY

ST	914.5	SR	2430.7	SS	1045.4		
CRT	.9502	CRS	-1.0000	CST	-.9513		
LSA	2786.5	MSA	270.2	SSA	2.3		
EL1	2583.1	EL2	268.2	ALF	70.11		

LAUNCH DATE AUG 13 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 388.119

RL	151.57	LAL	.00	LOL	319.84	VL	26.948	GAL	-.22	AZL	68.72	HCA	172.21	SMA	129.47	ECC	.17070	INC	21.2790	V1	29.396		
RP	107.48	LAP	2.82	LOP	132.57	VP	38.008	GAP	-.98	AZP	111.10	TAL	181.05	TAP	353.25	RCA	107.37	APO	151.57	V2	35.259		
RC	79.396	GL	66.32	GP	-87.25	ZAL	88.92	ZAP	87.46	ETS	341.07	ZAE	86.92	ETE	238.09	ZAC	14.33	ETC	191.94	CLP	22.70		

PLANETOCENTRIC CONIC

C3	114.031	VHL	10.679	DLA	45.51	RAL	249.60	RAD	6570.2	VEL	15.342	PTH	2.75	VHP	14.860	DPA	-66.90	RAP	92.04	ECC	2.8767		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.75	20 40 59	4664.02	-11.80	216.18	147.78	45.71	21 58 43	4064.0	-17.31	210.60
127.25	4 27 52	3244.67	-11.78	106.03	147.76	45.71	5 21 57	2644.7	-17.30	100.46
52.75	20 40 59	4664.02	-11.80	216.18	147.78	45.71	21 58 43	4064.0	-17.31	210.60
127.25	4 27 52	3244.67	-11.78	106.03	147.76	45.71	5 21 57	2644.7	-17.30	100.46
52.75	20 40 59	4664.02	-11.80	216.18	147.78	45.71	21 58 43	4064.0	-17.31	210.60
127.25	4 27 52	3244.67	-11.78	106.03	147.76	45.71	5 21 57	2644.7	-17.30	100.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.7484	TRA	3.5964	TC3	-.0418	BAU	.0918	SGT	3752.6	SGR	1154.9	SG3	100.9	ST	2678.3	SR	648.1	SS	1003.4
RDE	-1.0715	RRA	1.3025	RC3	-.0433	FAU	-.00044	RRT	.2976	RRF	.3597	RTF	.9972	CRT	-.7014	CRS	.6702	CST	-.9991
FDE	1.3650	FRA	1.1874	FC3	.0033	BSP	12117	SGB	3926.3	R23	.0368	R13	.9987	LSA	2896.3	MSA	460.3	SSA	1.5
BDE	4.8678	BRA	3.8250	BC3	.0602	FSP	-327	SG1	3769.8	SG2	1097.5	THA	5.72	EL1	2717.8	EL2	455.2	ALF	170.09

LAUNCH DATE AUG 13 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 394.063

RL	151.57	LAL	.00	LOL	319.84	VL	26.952	GAL	-.09	AZL	53.91	HCA	175.03	SMA	129.50	ECC	.17041	INC	36.0861	V1	29.396		
RP	107.48	LAP	2.92	LOP	135.83	VP	38.010	GAP	-.66	AZP	125.98	TAL	180.45	TAP	355.48	RCA	107.43	APO	151.57	V2	35.258		
RC	81.621	GL	64.37	GP	-77.37	ZAL	89.16	ZAP	88.90	ETS	189.72	ZAE	75.15	ETE	87.77	ZAC	10.95	ETC	350.76	CLP	84.98		

PLANETOCENTRIC CONIC

C3	310.042	VHL	17.608	DLA	43.78	RAL	248.25	RAD	6571.8	VEL	20.769	PTH	3.18	VHP	23.825	DPA	-56.96	RAP	78.47	ECC	6.1025		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.10	20 44 36	4800.69	-3.97	221.03	154.11	46.36	22 4 37	4200.7	-9.46	215.59
124.90	4 13 29	3428.54	-3.95	115.21	154.09	46.36	5 10 38	2828.5	-9.44	109.77
55.10	20 44 36	4800.69	-3.97	221.03	154.11	46.36	22 4 37	4200.7	-9.46	215.59
124.90	4 13 29	3428.54	-3.95	115.21	154.09	46.36	5 10 38	2828.5	-9.44	109.77
55.10	20 44 36	4800.69	-3.97	221.03	154.11	46.36	22 4 37	4200.7	-9.46	215.59
124.90	4 13 29	3428.54	-3.95	115.21	154.09	46.36	5 10 38	2828.5	-9.44	109.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8183	TRA	.3386	TC3	-.0382	BAU	.7734	SGT	625.7	SGR	3883.0	SG3	71.8	ST	593.4	SR	2734.5	SS	1145.2
RDE	-7.9940	RRA	-6.2356	RC3	-.1826	FAU	-.01606	RRT	.4926	RRF	-.9985	RTF	-.4527	CRT	.9247	CRS	.9995	CST	.9124
FDE	1.6093	FRA	1.3894	FC3	.0448	BSP	12384	SGB	3933.1	R23	-.0562	R13	-.9979	LSA	3014.9	MSA	227.1	SSA	1.6
BDE	8.1981	BRA	6.2448	BC3	.1866	FSP	-238	SG1	3895.5	SG2	542.7	THA	85.37	EL1	2789.4	EL2	221.5	ALF	78.58

LAUNCH DATE AUG 13 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 398.902

RL	151.57	LAL	.00	LOL	319.84	VL	26.953	GAL	.25	AZL	14.25	HCA	176.89	SMA	129.51	ECC	.17039	INC	75.7499	V1	29.396		
RP	107.48	LAP	-3.02	LOP	139.08	VP	38.009	GAP	-.63	AZP	165.73	TAL	178.80	TAP	355.69	RCA	107.44	APO	151.57	V2	35.256		
RC	83.861	GL	48.93	GP	-54.04	ZAL	89.31	ZAP	89.44	ETS	184.51	ZAE	51.94	ETE	81.65	ZAC	27.94	ETC	294.54	CLP	89.04		

PLANETOCENTRIC CONIC

C3	1200.620	VHL	34.650	DLA	29.27	RAL	241.64	RAD	6573.1	VEL	36.358	PTH	3.53	VHP	45.804	DPA	-35.30	RAP	65.02	ECC	20.7592		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.28	22 57 9	4418.06	.45	187.76	152.46	60.74	24 10 47	3818.1	-3.45	181.19
97.72	1 8 14	4007.14	.47	157.59	152.46	60.74	2 15 1	3407.1	-3.44	151.02
100.00	2 17 19	3785.69	-5.09	144.33	155.59	60.51	3 20 25	3185.7	-8.98	137.70
100.00	0 34 41	4114.74	6.02	162.44	149.34	60.66	1 43 15	3514.7	2.06	155.88
110.00	4 51 27	3302.91	-15.59	113.89	161.77	59.19	5 46 30	2702.9	-19.56	107.02
110.00	0 17 2	4170.28	16.55	160.48	143.19	59.65	1 26 32	3570.3	12.40	153.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-5.3948	TRA	-.7756	TC3	-.0915	BAU	4.1307	SGT	1104.4	SGR	3272.4	SG3	60.3	ST	893.4	SR	1981.4	SS	1616.8
RD	-11.3579	RR	-11.0702	RC3	-.2405	FAU	-.07202	RRT	.8415	RRF	-.9996	RTF	-.8288	CRT	.9627	CRS	.9998	CST	.9573
FDE	2.3262	FRA	2.4140	FC3	.0519	BSP	10199	SGB	3453.7	R23	-.0720	R13	-.9973	LSA	2698.6	MSA	236.6	SSA	1.3
BDE	12.5740	BRA	11.0974	BC3	.2573	FSP	-186	SG1	3405.8	SG2	573.3	THA	73.67	EL1	2162.2	EL2	221.5	ALF	66.27

LAUNCH DATE AUG 13 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 409.535

RL	151.57	LAL	.00	LOL	319.84	VL	26.951	GAL	-.49	AZL	141.33	HCA	183.97	SMA	129.49	ECC	.17066	INC	51.3269	V1	29.396		
RP	107.49	LAP	3.10	LOP	142.33	VP	38.006	GAP	.92	AZP	38.74	TAL	182.38	TAP	6.35	RCA	107.40	APO	151.59	V2	35.254		
RC	86.111	GL	-59.18	GP	69.65	ZAL	89.83	ZAP	91.05	ETS	185.73	ZAE	72.69	ETE	284.09	ZAC	148.40	ETC	293.28	CLP	93.02		

PLANETOCENTRIC CONIC

C3	600.317	VHL	24.501	DLA	-70.81	RAL	183.38	RAD	6572.5	VEL	26.863	PTH	3.39	VHP	30.992	DPA	73.86	RAP	334.72	ECC	10.8797		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.93	2 54 19	2410.87	1.48	78.06	92.85	160.80	3 34 30	1810.9	9.03	75.82
158.07	13 26 13	652.47	1.49	287.02	92.87	160.80	13 37 5	52.5	9.04	284.78
21.93	2 54 19	2410.87	1.48	78.06	92.85	160.80	3 34 30	1810.9	9.03	75.82
158.07	13 26 13	652.47	1.49	287.02	92.87	160.80	13 37 5	52.5	9.04	284.78
21.93	2 54 19	2410.87	1.48	78.06	92.85	160.80	3 34 30	1810.9	9.03	75.82
158.07	13 26 13	652.47	1.49	287.02	92.87	160.80	13 37 5	52.5	9.04	284.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	5.5926	TRA	1.5963	TC3	-.1155	BAU	2.1391	SGT	1822.1	SGR	3562.1	SG3	69.4	ST	1351.6	SR	3124.9	SS	1904.4
RD	-13.2577	RRA	-1.8279	RC3	.2402	FAU	-.03413	RRT	-.9548	RRF	.9995	RTF	-.9559	CRT	-.9916	CRS	-1.0000	CST	.9918
FDE	-3.0167	FRA	-.4217	FC3	.0492	BSP	12424	SGB	4001.0	R23	-.0554	R13	.9980	LSA	3897.7	MSA	163.5	SSA	1.9
BDE	14.3890	BRA	2.4268	BC3	.2665	FSP	-218	SG1	3971.5	SG2	485.6	THA	116.46	EL1	3400.9	EL2	160.6	ALF	113.27

LAUNCH DATE AUG 13 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 415.145

RL	151.57	LAL	.00	LOL	319.84	VL	26.947	GAL	-.28	AZL	119.02	HCA	186.55	SMA	129.46	ECC	.17079	INC	29.0207	V1	29.396		
RP	107.50	LAP	3.17	LOP	145.58	VP	38.000	GAP	1.15	AZP	61.14	TAL	181.35	TAP	7.90	RCA	107.35	APO	151.58	V2	35.251		
RC	88.372	GL	-65.95	GP	84.34	ZAL	89.31	ZAP	92.28	ETS	188.14	ZAE	87.63	ETE	284.93	ZAC	161.56	ETC	310.68	CLP	113.76		

PLANETOCENTRIC CONIC

C3	204.919	VHL	14.315	DLA	-74.74	RAL	164.44	RAD	6571.1	VEL	18.062	PTH	3.01	VHP	17.720	DPA	70.86	RAP	283.31	ECC	4.3725		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.39	1 29 22	2304.39	9.18	78.85	71.90	164.54	2 7 47	1704.4	16.88	77.05
162.61	12 20 5	5813.52	9.19	261.09	-71.93	164.54	13 56 59	5213.5	16.89	259.29
17.39	1 29 22	2304.39	9.18	78.85	71.90	164.54	2 7 47	1704.4	16.88	77.05
162.61	12 20 5	5813.52	9.19	261.09	71.93	164.54	13 56 59	5213.5	16.89	259.29
17.39	1 29 22	2304.39	9.18	78.85	71.90	164.54	2 7 47	1704.4	16.88	77.05
162.61	12 20 5	5813.52	9.19	261.09	71.93	164.54	13 56 59	5213.5	16.89	259.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.6127	TRA	1.1863	TC3	-.0558	BAU	.3674	SGT	2317.7	SGR	3656.6	SG3	95.0	ST	1544.0	SR	2744.2	SS	1282.8				
RDE	-6.5938	RRA	-1.6481	RC3	.1220	FAU	-.00525	RRT	-.9905	RRF	.9992	RTF	-.9886	CRT	-.9968	CRS	-1.0000	CST	.9961				
FDE	-2.0179	FRA	-.4886	FC3	.0222	BSP	13561	SGB	4329.2	R23	-.0476	R13	.9981	LSA	3398.1	MSA	113.3	SSA	1.9				
BDE	7.5186	BRA	2.0306	BC3	.1341	FSP	-301	SG1	4320.8	SG2	269.2	THA	122.26	EL1	3146.9	EL2	108.4	ALF	119.32				

LAUNCH DATE AUG 13 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 421.191

RL	151.57	LAL	.00	LOL	319.84	VL	26.940	GAL	-.14	AZL	109.90	HCA	189.55	SMA	129.42	ECC	.17118	INC	19.9018	V1	29.396		
RP	107.51	LAP	3.24	LOP	148.83	VP	37.991	GAP	1.49	AZP	70.35	TAL	180.68	TAP	10.23	RCA	107.26	APO	151.57	V2	35.247		
RC	90.641	GL	-66.07	GP	84.45	ZAL	88.65	ZAP	94.31	ETS	23.39	ZAE	96.19	ETE	119.41	ZAC	166.52	ETC	170.47	CLP	-140.95		

PLANETOCENTRIC CONIC

C3	100.667	VHL	10.033	DLA	-75.41	RAL	164.88	RAD	6569.9	VEL	14.900	PTH	2.69	VHP	12.185	DPA	64.91	RAP	264.80	ECC	2.6567		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.63	1 29 34	2175.27	17.79	77.51	70.07	164.66	2 5 49	1575.3	25.49	75.59
163.37	12 23 22	5681.46	17.80	258.99	70.09	164.66	13 58 4	5081.5	25.50	257.07
16.63	1 29 34	2175.27	17.79	77.51	70.07	164.66	2 5 49	1575.3	25.49	75.59
163.37	12 23 22	5681.46	17.80	258.99	70.09	164.66	13 58 4	5081.5	25.50	257.07
16.63	1 29 34	2175.27	17.79	77.51	70.07	164.66	2 5 49	1575.3	25.49	75.59
163.37	12 23 22	5681.46	17.80	258.99	70.09	164.66	13 58 4	5081.5	25.50	257.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0502	TRA	-.8650	TC3	-.0839	BAU	.1542	SGT	1968.3	SGR	3999.4	SG3	136.9	ST	589.0	SR	3191.1	SS	1281.1				
RDE	5.4288	RRA	1.1124	RC3	.0780	FAU	.00817	RRT	-.6202	RRF	-.9976	RTF	.6594	CRT	-.1895	CRS	.9997	CST	-.2126				
FDE	-2.0578	FRA	-.4650	FC3	-.0703	BSP	14101	SGB	4457.5	R23	.0703	R13	-.9965	LSA	3440.5	MSA	578.3	SSA	2.2				
BDE	5.4290	BRA	1.4091	BC3	.1145	FSP	-440	SG1	4209.2	SG2	1467.0	THA	109.43	EL1	3193.1	EL2	577.9	ALF	92.07				

LAUNCH DATE AUG 13 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 427.354

RL	151.57	LAL	.00	LOL	319.84	VL	26.930	GAL	-.02	AZL	105.17	HCA	192.66	SMA	129.35	ECC	.17174	INC	15.1717	V1	29.396		
RP	107.53	LAP	3.29	LOP	152.08	VP	37.981	GAP	1.86	AZP	75.18	TAL	180.08	TAP	12.75	RCA	107.14	APO	151.57	V2	35.243		
RC	92.917	GL	-64.15	GP	77.91	ZAL	87.85	ZAP	97.03	ETS	22.15	ZAE	102.43	ETE	118.01	ZAC	166.52	ETC	196.38	CLP	-125.75		

PLANETOCENTRIC CONIC

C3	61.338	VHL	7.832	DLA	-75.32	RAL	172.93	RAD	6569.1	VEL	13.516	PTH	2.47	VHP	9.378	DPA	59.53	RAP	255.02	ECC	2.0095		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.73	2 1 55	2061.49	25.23	75.64	75.83	163.74	2 36 16	1461.5	32.88	73.40
163.27	12 55 19	5568.06	25.23	257.22	75.86	163.73	14 28 7	4968.1	32.89	254.97
16.73	2 1 55	2061.49	25.23	75.64	75.83	163.74	2 36 16	1461.5	32.88	73.40
163.27	12 55 19	5568.06	25.23	257.22	75.86	163.73	14 28 7	4968.1	32.89	254.97
16.73	2 1 55	2061.49	25.23	75.64	75.83	163.74	2 36 16	1461.5	32.88	73.40
163.27	12 55 19	5568.06	25.23	257.22	75.86	163.73	14 28 7	4968.1	32.89	254.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8274	TRA	-.7212	TC3	-.3090	BAU	.3759	SGT	2521.5	SGR	3987.6	SG3	201.2	ST	1475.7	SR	3313.7	SS	1521.4				
RDE	4.4339	RRA	.7819	RC3	.3387	FAU	.02006	RRT	-.9244	RRF	-.9978	RTF	.9386	CRT	-.9734	CRS	.9999	CST	-.9766				
FDE	-2.5046	FRA	-.4737	FC3	-.2832	BSP	14223	SGB	4717.9	R23	.0652	R13	-.9966	LSA	3921.2	MSA	311.9	SSA	2.8				
BDE	4.7957	BRA	1.0637	BC3	.4584	FSP	-612	SG1	4645.2	SG2	825.5	THA	121.41	EL1	3614.2	EL2	310.2	ALF	113.62				

LAUNCH DATE AUG 13 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 433.550

RL	151.57	LAL	.00	LOL	319.84	VL	26.919	GAL	.11	AZL	102.30	HCA	195.83	SMA	129.27	ECC	.17246	INC	12.2989	V1	29.396		
RP	107.54	LAP	3.33	LOP	155.33	VP	37.968	GAP	2.24	AZP	78.15	TAL	179.48	TAP	15.31	RCA	106.98	APO	151.57	V2	35.238		
RC	95.197	GL	-61.50	GP	71.84	ZAL	86.90	ZAP	100.29	ETS	24.97	ZAE	107.47	ETE	121.31	ZAC	163.59	ETC	217.37	CLP	-124.97		

PLANETOCENTRIC CONIC

C3	42.572	VHL	6.525	DLA	-74.65	RAL	183.21	RAD	6568.6	VEL	12.804	PTH	2.33	VHP	7.750	DPA	54.53	RAP	248.38	ECC	1.7006		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.50	2 44 27	1969.33	31.03	73.22	83.69	162.00	3 17 17	1369.3	38.60	70.48
162.50	13 34 44	5478.89	31.04	255.56	83.71	162.00	15 6 2	4878.9	38.61	252.83
17.50	2 44 27	1969.33	31.03	73.22	83.69	162.00	3 17 17	1369.3	38.60	70.48
162.50	13 34 44	5478.89	31.04	255.56	83.71	162.00	15 6 2	4878.9	38.61	252.83
17.50	2 44 27	1969.33	31.03	73.22	83.69	162.00	3 17 17	1369.3	38.60	70.48
162.50	13 34 44	5478.89	31.04	255.56	83.71	162.00	15 6 2	4878.9	38.61	252.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2924	TRA	-.5251	TC3	-.5930	BAU	.4567	SGT	2772.1	SGR	3599.7	SG3	253.5	ST	2079.9	SR	3329.5	SS	1773.7				
RDE	3.7682	RRA	.3707	RC3	.5405	FAU	.02940	RRT	-.9368	RRF	-.9972	RTF	.9479	CRT	-.9898	CRS	1.0000	CST	-.9908				
FDE	-2.9952	FRA	-.3136	FC3	-.5979	BSP	14228	SGB	4543.4	R23	.0914	R13	-.9938	LSA	4300.1	MSA	257.5	SSA	3.6				
BDE	4.4107	BRA	.6428	BC3	.8024	FSP	-801	SG1	4476.0	SG2	780.0	THA	127.12	EL1	3917.7	EL2	251.9	ALF	121.88				

LAUNCH DATE AUG 13 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 439.753

RL	151.57	LAL	.00	LOL	319.84	VL	26.905	GAL	.24	AZL	100.37	HCA	199.02	SMA	129.18	ECC	.17332	INC	10.3679	V1	29.396		
RP	107.56	LAP	3.36	LOP	158.58	VP	37.953	GAP	2.62	AZP	80.19	TAL	178.86	TAP	17.88	RCA	106.79	APO	151.57	V2	35.232		
RC	97.481	GL	-58.58	GP	66.21	ZAL	85.80	ZAP	103.95	ETS	27.68	ZAE	111.69	ETE	125.14	ZAC	159.52	ETC	229.86	CLP	-126.68		

PLANETOCENTRIC CONIC

C3	32.193	VHL	5.674	DLA	-73.47	RAL	193.34	RAD	6568.3	VEL	12.392	PTH	2.24	VHP	6.731	DPA	49.77	RAP	243.39	ECC	1.5298		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.86	3 27 41	1895.97	35.34	70.18	91.18	159.58	3 59 17	1296.0	42.78	66.80
161.14	14 12 23	5411.16	35.35	253.90	91.20	159.58	15 42 34	4811.2	42.79	250.52
18.86	3 27 41	1895.97	35.34	70.18	91.18	159.58	3 59 17	1296.0	42.78	66.80
161.14	14 12 23	5411.16	35.35	253.90	91.20	159.58	15 42 34	4811.2	42.79	250.52
18.86	3 27 41	1895.97	35.34	70.18	91.18	159.58	3 59 17	1296.0	42.78	66.80
161.14	14 12 23	5411.16	35.35	253.90	91.20	159.58	15 42 34	4811.2	42.79	250.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5392	TRA	-.3779	TC3	-.9493	BAU	.5185	SGT	3087.6	SGR	3396.6	SG3	319.9	ST	2595.7	SR	3241.0	SS	2003.7
RDE	3.2045	RRA	.1684	RC3	.7416	FAU	.03945	RRT	-.9540	RRF	-.9967	RTF	.9617	CRT	-.9950	CRS	1.0000	CST	-.9951
FDE	-3.4060	FRA	-.1846	FC3	-1.0608	BSP	14445	SGB	4590.2	R23	.1006	R13	-.9923	LSA	4605.5	MSA	214.1	SSA	4.5
BDE	4.0886	BRA	.4137	BC3	1.2046	FSP	-1012	SG1	4537.7	SG2	692.5	THA	132.14	EL1	4147.3	EL2	203.2	ALF	128.66

LAUNCH DATE AUG 13 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 445.951

RL	151.57	LAL	.00	LOL	319.84	VL	26.890	GAL	.38	AZL	98.98	HCA	202.23	SMA	129.08	ECC	.17434	INC	8.9759	V1	29.396		
RP	107.58	LAP	3.38	LOP	161.83	VP	37.936	GAP	2.99	AZP	81.68	TAL	178.19	TAP	20.42	RCA	106.58	APO	151.58	V2	35.226		
RC	99.767	GL	-55.58	GP	60.94	ZAL	84.57	ZAP	107.85	ETS	29.98	ZAE	115.22	ETE	129.14	ZAC	155.14	ETC	237.42	CLP	-129.13		

PLANETOCENTRIC CONIC

C3	25.864	VHL	5.086	DLA	-71.91	RAL	202.45	RAD	6568.0	VEL	12.134	PTH	2.17	VHP	6.067	DPA	45.19	RAP	239.48	ECC	1.4257		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.65	4 7 45	1837.20	38.43	66.62	97.42	156.65	4 38 22	1237.2	45.70	62.51
159.35	14 44 59	5360.55	38.44	252.17	97.44	156.64	16 14 19	4760.6	45.70	248.06
20.65	4 7 45	1837.20	38.43	66.62	97.42	156.65	4 38 22	1237.2	45.70	62.51
159.35	14 44 59	5360.55	38.44	252.17	97.44	156.64	16 14 19	4760.6	45.70	248.06
20.65	4 7 45	1837.20	38.43	66.62	97.42	156.65	4 38 22	1237.2	45.70	62.51
159.35	14 44 59	5360.55	38.44	252.17	97.44	156.64	16 14 19	4760.6	45.70	248.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6450	TRA	-.2363	TC3	-1.3499	BAU	.5599	SGT	3391.2	SGR	3147.9	SG3	381.7	ST	2991.3	SR	3012.9	SS	2148.5
RDE	2.6741	RRA	.0213	RC3	.8942	FAU	.04840	RRT	-.9641	RRF	-.9960	RTF	.9699	CRT	-.9969	CRS	1.0000	CST	-.9967
FDE	-3.6381	FRA	-.0176	FC3	-1.6202	BSP	14596	SGB	4627.1	R23	.1076	R13	-.9908	LSA	4754.7	MSA	185.0	SSA	5.5
BDE	3.7612	BRA	.2373	BC3	1.6192	FSP	-1208	SG1	4585.6	SG2	617.8	THA	137.21	EL1	4242.3	EL2	166.7	ALF	134.79

LAUNCH DATE AUG 13 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 452.136

RL	151.57	LAL	.00	LOL	319.84	VL	26.873	GAL	.53	AZL	97.92	HCA	205.44	SMA	128.96	ECC	.17550	INC	7.9202	V1	29.396		
RP	107.60	LAP	3.39	LOP	165.07	VP	37.917	GAP	3.37	AZP	82.84	TAL	177.49	TAP	22.93	RCA	106.33	APO	151.60	V2	35.218		
RC	102.053	GL	-52.58	GP	56.02	ZAL	83.19	ZAP	111.87	ETS	31.83	ZAE	118.12	ETE	133.18	ZAC	150.81	ETC	242.29	CLP	-131.79		

PLANETOCENTRIC CONIC

C3	21.737	VHL	4.662	DLA	-70.10	RAL	210.37	RAD	6567.9	VEL	11.963	PTH	2.13	VHP	5.627	DPA	40.81	RAP	236.40	ECC	1.3577		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.75	4 43 45	1789.40	40.54	62.69	102.32	153.39	5 13 34	1189.4	47.58	57.81
157.25	15 12 8	5323.34	40.55	250.42	102.34	153.39	16 40 52	4723.3	47.59	245.54
22.75	4 43 45	1789.40	40.54	62.69	102.32	153.39	5 13 34	1189.4	47.58	57.81
157.25	15 12 8	5323.34	40.55	250.42	102.34	153.39	16 40 52	4723.3	47.59	245.54
22.75	4 43 45	1789.40	40.54	62.69	102.32	153.39	5 13 34	1189.4	47.58	57.81
157.25	15 12 8	5323.34	40.55	250.42	102.34	153.39	16 40 52	4723.3	47.59	245.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6568	TRA	-.0986	TC3	-1.7834	BAU	.5943	SGT	3681.4	SGR	2880.6	SG3	434.8	ST	3267.1	SR	2710.2	SS	2207.8
RDE	2.2040	RRA	-.0838	RC3	1.0007	FAU	.05615	RRT	-.9701	RRF	-.9950	RTF	.9749	CRT	-.9978	CRS	1.0000	CST	-.9973
FDE	-3.6920	FRA	.1727	FC3	-2.2365	BSP	14790	SGB	4674.5	R23	.1120	R13	-.9895	LSA	4781.8	MSA	166.0	SSA	6.6
BDE	3.4520	BRA	.1294	BC3	2.0450	FSP	-1383	SG1	4641.4	SG2	554.9	THA	142.16	EL1	4242.6	EL2	138.4	ALF	140.33

LAUNCH DATE AUG 13 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 458.307

RL	151.57	LAL	.00	LOL	319.84	VL	26.855	GAL	.70	AZL	97.09	HCA	208.66	SMA	128.84	ECC	.17680	INC	7.0879	V1	29.396		
RP	107.63	LAP	3.39	LOP	168.32	VP	37.897	GAP	3.74	AZP	83.77	TAL	176.75	TAP	25.41	RCA	106.06	APO	151.62	V2	35.211		
RC	104.339	GL	-49.62	GP	51.45	ZAL	81.68	ZAP	115.88	ETS	33.29	ZAE	120.44	ETE	137.18	ZAC	146.68	ETC	245.60	CLP	-134.46		

PLANETOCENTRIC CONIC

C3	18.920	VHL	4.350	DLA	-68.13	RAL	217.22	RAD	6567.8	VEL	11.845	PTH	2.10	VHP	5.339	DPA	36.63	RAP	233.99	ECC	1.3114		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.04	5 16 3	1749.77	41.87	58.57	106.13	149.98	5 45 13	1149.8	48.65	52.94
154.96	15 34 31	5296.73	41.87	248.73	106.14	149.98	17 2 48	4696.7	48.65	243.09
25.04	5 16 3	1749.77	41.87	58.57	106.13	149.98	5 45 13	1149.8	48.65	52.94
154.96	15 34 31	5296.73	41.87	248.73	106.14	149.98	17 2 48	4696.7	48.65	243.09
25.04	5 16 3	1749.77	41.87	58.57	106.13	149.98	5 45 13	1149.8	48.65	52.94
154.96	15 34 31	5296.73	41.87	248.73	106.14	149.98	17 2 48	4696.7	48.65	243.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6102	TRA	.0392	TC3	-2.2247	BAU	.6223	SGT	3948.0	SGR	2612.2	SG3	476.0	ST	3439.0	SR	2387.9	SS	2196.5
RDE	1.8082	RRA	-.1590	RC3	1.0504	FAU	.06191	RRT	-.9731	RRF	-.9936	RTF	.9778	CRT	-.9983	CRS	.9999	CST	-.9974
FDE	-3.6020	FRA	.3755	FC3	-2.8329	BSP	14993	SGB	4733.9	R23	.1138	R13	-.9882	LSA	4725.4	MSA	154.0	SSA	7.6
BDE	3.1753	BRA	.1637	BC3	2.4602	FSP	-1523	SG1	4706.9	SG2	504.8	THA	146.79	EL1	4185.1	EL2	115.4	ALF	145.24

LAUNCH DATE AUG 13 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 464.460

RL	151.57	LAL	.00	LOL	319.84	VL	26.835	GAL	.87	AZL	96.41	HCA	211.88	SMA	128.71	ECC	.17825	INC	6.4112
RP	107.65	LAP	3.38	LOP	171.56	VP	37.875	GAP	4.11	AZP	84.55	TAL	175.97	TAP	27.85	RCA	105.76	APO	151.65
RC	106.624	GL	-46.72	GP	47.25	ZAL	80.05	ZAP	119.80	ETS	34.40	ZAE	122.24	ETE	141.03	ZAC	142.85	ETC	247.97

V1	29.396	V2	35.202	CLP	-137.07														

PLANETOCENTRIC CONIC

C3	16.938	VHL	4.116	DLA	-66.06	RAL	223.21	RAD	6567.7	VEL	11.761	PTH	2.08	VHP	5.158	DPA	32.69	RAP	232.14
ECC	1.2788																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.45	5 45 20	1716.29	42.57	54.38	109.14	146.57	6 13 56	1116.3	49.06	48.08
152.55	15 53 2	5278.67	42.57	247.17	109.15	146.56	17 21 1	4678.7	49.07	240.87
27.45	5 45 20	1716.29	42.57	54.38	109.14	146.57	6 13 56	1116.3	49.06	48.08
152.55	15 53 2	5278.67	42.57	247.17	109.15	146.56	17 21 1	4678.7	49.07	240.87
27.45	5 45 20	1716.29	42.57	54.38	109.14	146.57	6 13 56	1116.3	49.06	48.08
152.55	15 53 2	5278.67	42.57	247.17	109.15	146.56	17 21 1	4678.7	49.07	240.87

DIFFERENTIAL CORRECTIONS

TDE	-2.5273	TRA	.1786	TC3	-2.6641	BAU	.6492
RDE	1.4819	RRA	-.2125	RC3	1.0586	FAU	.06598
FDE	-3.4016	FRA	.5804	FC3	-3.3723	BSP	15231
BDE	2.9298	BRA	.2776	BC3	2.8667	FSP	-1625

MID-COURSE EXECUTION ACCURACY

SGT	4190.9	SGR	2355.3	SG3	504.5		
RRT	-.9742	RRF	-.9918	RTF	.9795		
SGB	4807.4	R23	.1138	R13	-.9870		
SG1	4784.9	SG2	465.2	THA	151.00		

ORBIT DETERMINATION ACCURACY

ST	3523.9	SR	2074.8	SS	2127.5
CRT	-.9986	CRS	.9998	CST	-.9973
LSA	4607.3	MSA	147.6	SSA	8.7
EL1	4088.2	EL2	96.1	ALF	149.53

LAUNCH DATE AUG 13 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 470.594

RL	151.57	LAL	.00	LOL	319.84	VL	26.813	GAL	1.06	AZL	95.85	HCA	215.10	SMA	128.56	ECC	.17984	INC	5.8470
RP	107.68	LAP	3.36	LOP	174.80	VP	37.852	GAP	4.48	AZP	85.21	TAL	175.15	TAP	30.25	RCA	105.44	APO	151.69
RC	108.906	GL	-43.88	GP	43.41	ZAL	78.30	ZAP	123.57	ETS	35.23	ZAE	123.57	ETE	144.68	ZAC	139.34	ETC	249.71

V1	29.396	V2	35.193	CLP	-139.56														

PLANETOCENTRIC CONIC

C3	15.522	VHL	3.940	DLA	-63.94	RAL	228.52	RAD	6567.6	VEL	11.701	PTH	2.06	VHP	5.056	DPA	29.00	RAP	230.78
ECC	1.2555																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.94	6 12 14	1687.46	42.76	50.24	111.62	143.24	6 40 21	1087.5	48.95	43.37
150.06	16 8 28	5267.70	42.77	245.83	111.63	143.24	17 36 15	4667.7	48.96	238.96
29.94	6 12 14	1687.46	42.76	50.24	111.62	143.24	6 40 21	1087.5	48.95	43.37
150.06	16 8 28	5267.70	42.77	245.83	111.63	143.24	17 36 15	4667.7	48.96	238.96
29.94	6 12 14	1687.46	42.76	50.24	111.62	143.24	6 40 21	1087.5	48.95	43.37
150.06	16 8 28	5267.70	42.77	245.83	111.63	143.24	17 36 15	4667.7	48.96	238.96

DIFFERENTIAL CORRECTIONS

TDE	-2.4241	TRA	.3202	TC3	-3.0833	BAU	.6745
RDE	1.2197	RRA	-.2492	RC3	1.0289	FAU	.06822
FDE	-3.1327	FRA	.7756	FC3	-3.8047	BSP	15508
BDE	2.7137	BRA	.4057	BC3	3.2504	FSP	-1690

MID-COURSE EXECUTION ACCURACY

SGT	4410.7	SGR	2117.4	SG3	520.8		
RRT	-.9740	RRF	-.9894	RTF	.9804		
SGB	4892.6	R23	.1110	R13	-.9859		
SG1	4873.3	SG2	433.9	THA	154.72		

ORBIT DETERMINATION ACCURACY

ST	3540.4	SR	1791.1	SS	2018.9
CRT	-.9988	CRS	.9996	CST	-.9970
LSA	4449.4	MSA	144.4	SSA	9.8
EL1	3966.9	EL2	78.5	ALF	153.18

LAUNCH DATE AUG 13 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 476.708

RL	151.57	LAL	.00	LOL	319.84	VL	26.791	GAL	1.26	AZL	95.37	HCA	218.32	SMA	128.41	ECC	.18159	INC	5.3668
RP	107.71	LAP	3.32	LOP	178.04	VP	37.827	GAP	4.85	AZP	85.78	TAL	174.30	TAP	32.62	RCA	105.10	APO	151.73
RC	111.186	GL	-41.12	GP	39.93	ZAL	76.45	ZAP	127.14	ETS	35.86	ZAE	124.51	ETE	148.06	ZAC	136.18	ETC	251.04

V1	29.396	V2	35.184	CLP	-141.94														

PLANETOCENTRIC CONIC

C3	14.510	VHL	3.809	DLA	-61.79	RAL	233.29	RAD	6567.6	VEL	11.657	PTH	2.05	VHP	5.014	DPA	25.57	RAP	229.83
ECC	1.2388																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.48	6 37 20	1662.16	42.55	46.21	113.77	140.08	7 5 2	1062.2	48.44	38.89
147.52	16 21 23	5262.83	42.56	244.76	113.78	140.07	17 49 6	4662.8	48.45	237.44
32.48	6 37 20	1662.16	42.55	46.21	113.77	140.08	7 5 2	1062.2	48.44	38.89
147.52	16 21 23	5262.83	42.56	244.76	113.78	140.07	17 49 6	4662.8	48.45	237.44
32.48	6 37 20	1662.16	42.55	46.21	113.77	140.08	7 5 2	1062.2	48.44	38.89
147.52	16 21 23	5262.83	42.56	244.76	113.78	140.07	17 49 6	4662.8	48.45	237.44

DIFFERENTIAL CORRECTIONS

TDE	-2.3079	TRA	.4671	TC3	-3.4670	BAU	.6984
RDE	1.0102	RRA	-.2749	RC3	.9708	FAU	.06882
FDE	-2.8239	FRA	.9590	FC3	-4.1060	BSP	15760
BDE	2.5193	BRA	.5420	BC3	3.6004	FSP	-1716

MID-COURSE EXECUTION ACCURACY

SGT	4608.3	SGR	1902.8	SG3	526.5		
RRT	-.9726	RRF	-.9862	RTF	.9808		
SGB	4985.7	R23	.1064	R13	-.9849		
SG1	4968.7	SG2	410.6	THA	157.96		

ORBIT DETERMINATION ACCURACY

ST	3500.8	SR	1542.2	SS	1882.7
CRT	-.9990	CRS	.9991	CST	-.9964
LSA	4261.2	MSA	144.4	SSA	10.8
EL1	3825.0	EL2	62.1	ALF	156.24

LAUNCH DATE AUG 13 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 482.802

RL	151.57	LAL	.00	LOL	319.84	VL	26.768	GAL	1.48	AZL	94.95	HCA	221.55	SMA	128.26	ECC	.18348	INC	4.9507
RP	107.74	LAP	3.28	LOP	181.28	VP	37.801	GAP	5.22	AZP	86.29	TAL	173.41	TAP	34.95	RCA	104.72	APO	151.79
RC	113.462	GL	-38.44	GP	36.80	ZAL	74.51	ZAP	130.49	ETS	36.33	ZAE	125.14	ETE	151.15	ZAC	133.35	ETC	252.09

V1	29.396	V2	35.174	CLP	-144.19		

PLANETOCENTRIC CONIC

C3	13.799	VHL	3.715	DLA	-59.63	RAL	237.62	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	5.017	DPA	22.38	RAP	229.25
ECC	1.2271																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.06	7 1 0	1639.57	42.01	42.33	115.74	137.12	7 28 20	1039.6	47.61	34.68
144.94	16 32 17	5263.26	42.02	244.00	115.75	137.11	18 0 0	4663.3	47.62	236.34
35.06	7 1 0	1639.57	42.01	42.33	115.74	137.12	7 28 20	1039.6	47.61	34.68
144.94	16 32 17	5263.26	42.02	244.00	115.75	137.11	18 0 0	4663.3	47.62	236.34
35.06	7 1 0	1639.57	42.01	42.33	115.74	137.12	7 28 20	1039.6	47.61	34.68
144.94	16 32 17	5263.26	42.02	244.00	115.75	137.11	18 0 0	4663.3	47.62	236.34

DIFFERENTIAL CORRECTIONS

TDE	-2.1830	TRA	.6196	TC3	-3.8031	BAU	.7206
RDE	.8437	RRA	-.2925	RC3	.8921	FAU	.06797
FDE	-2.4979	FRA	1.1264	FC3	-4.2642	BSP	16016
BDE	2.3404	BRA	.6851	BC3	3.9063	FSP	-1712

MID-COURSE EXECUTION ACCURACY

SGT	4784.7	SGR	1711.4	SG3	523.3		
RRT	-.9698	RRF	-.9820	RTF	.9806		
SGB	5081.5	R23	.1005	R13	-.9837		
SG1	5066.2	SG2	394.5	THA	160.75		

ORBIT DETERMINATION ACCURACY

ST	3415.6	SR	1328.7	SS	1729.3
CRT	-.9993	CRS	.9982	CST	-.9955
LSA	4049.8	MSA	147.3	SSA	11.8
EL1	3664.7	EL2	46.2	ALF	158.75

LAUNCH DATE AUG 13 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 488.874

RL	151.57	LAL	.00	LOL	319.84	VL	26.743	GAL	1.70	AZL	94.58	HCA	224.77	SMA	128.10	ECC	.18554	INC	4.5845
RP	107.77	LAP	3.23	LOP	184.52	VP	37.774	GAP	5.59	AZP	86.74	TAL	172.48	TAP	37.25	RCA	104.33	APO	151.86
RC	115.736	GL	-35.83	GP	33.99	ZAL	72.50	ZAP	133.63	ETS	36.69	ZAE	125.50	ETE	153.92	ZAC	130.84	ETC	252.94

PLANETOCENTRIC CONIC

C3	13.324	VHL	3.650	DLA	-57.47	RAL	241.60	RAD	6567.5	VEL	11.606	PTH	2.03	VHP	5.056	DPA	19.44	RAP	228.99

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.65	7 23 37	1618.99	41.21	38.64	117.63	134.37	7 50 36	1019.0	46.52	30.74
142.35	16 41 25	5268.58	41.22	243.57	117.64	134.36	18 9 14	4668.6	46.53	235.67
37.65	7 23 37	1618.99	41.21	38.64	117.63	134.37	7 50 36	1019.0	46.52	30.74
142.35	16 41 25	5268.58	41.22	243.57	117.64	134.36	18 9 14	4668.6	46.53	235.67
37.65	7 23 37	1618.99	41.21	38.64	117.63	134.37	7 50 36	1019.0	46.52	30.74
142.35	16 41 25	5268.58	41.22	243.57	117.64	134.36	18 9 14	4668.6	46.53	235.67

DIFFERENTIAL CORRECTIONS

TDE	-2.0570	TRA	.7743	TC3	-4.0973	BAU	.7440	SGT	4947.9	SGR	1545.0	SG3	513.9	ST	3300.5	SR	1152.6	SS	1573.3
RDE	.7145	RRA	-.3026	RC3	.8094	FAU	.06644	RRT	-.9661	RRF	-.9766	RTF	.9805	CRT	-.9996	CRS	.9966	CST	-.9943
FDE	-2.1816	FRA	1.2691	FC3	-4.3166	BSP	16330	SGB	5183.5	R23	.0916	R13	-.9828	LSA	3830.6	MSA	151.6	SSA	12.8
BDE	2.1776	BRA	.8313	BC3	4.1765	FSP	-1693	SG1	5169.4	SG2	382.0	THA	163.12	EL1	3495.8	EL2	30.1	ALF	160.76

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 494.921

RL	151.57	LAL	.00	LOL	319.84	VL	26.718	GAL	1.95	AZL	94.26	HCA	227.99	SMA	127.93	ECC	.18776	INC	4.2578
RP	107.80	LAP	3.16	LOP	187.75	VP	37.746	GAP	5.96	AZP	87.15	TAL	171.53	TAP	39.52	RCA	103.91	APO	151.95
RC	118.005	GL	-33.30	GP	31.47	ZAL	70.43	ZAP	136.54	ETS	37.00	ZAE	125.68	ETE	156.40	ZAC	128.63	ETC	253.64

PLANETOCENTRIC CONIC

C3	13.042	VHL	3.611	DLA	-55.33	RAL	245.28	RAD	6567.5	VEL	11.594	PTH	2.03	VHP	5.124	DPA	16.72	RAP	229.00

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.26	7 45 25	1599.88	40.20	35.12	119.49	131.86	8 12 4	999.9	45.24	27.07
139.74	16 49 0	5278.43	40.21	243.50	119.50	131.85	18 16 58	4678.4	45.26	235.44
40.26	7 45 25	1599.88	40.20	35.12	119.49	131.86	8 12 4	999.9	45.24	27.07
139.74	16 49 0	5278.43	40.21	243.50	119.50	131.85	18 16 58	4678.4	45.26	235.44
40.26	7 45 25	1599.88	40.20	35.12	119.49	131.86	8 12 4	999.9	45.24	27.07
139.74	16 49 0	5278.43	40.21	243.50	119.50	131.85	18 16 58	4678.4	45.26	235.44

DIFFERENTIAL CORRECTIONS

TDE	-1.9381	TRA	.9256	TC3	-4.3626	BAU	.7714	SGT	5103.7	SGR	1402.5	SG3	500.2	ST	3172.3	SR	1012.7	SS	1427.1
RDE	.6176	RRA	-.3055	RC3	.7343	FAU	.06486	RRT	-.9616	RRF	-.9697	RTF	.9808	CRT	-.9999	CRS	.9938	CST	-.9929
FDE	-1.8962	FRA	1.3790	FC3	-4.3052	BSP	16898	SGB	5292.9	R23	.0786	R13	-.9824	LSA	3619.6	MSA	155.7	SSA	13.6
BDE	2.0341	BRA	.9747	BC3	4.4240	FSP	-1691	SG1	5279.8	SG2	372.1	THA	165.12	EL1	3330.0	EL2	15.8	ALF	162.30

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 500.947

RL	151.57	LAL	.00	LOL	319.84	VL	26.691	GAL	2.20	AZL	93.96	HCA	231.21	SMA	127.76	ECC	.19016	INC	3.9628
RP	107.84	LAP	3.09	LOP	190.98	VP	37.717	GAP	6.33	AZP	87.51	TAL	170.55	TAP	41.75	RCA	103.46	APO	152.05
RC	120.271	GL	-30.85	GP	29.22	ZAL	68.32	ZAP	139.26	ETS	37.27	ZAE	125.71	ETE	158.58	ZAC	126.69	ETC	254.24

PLANETOCENTRIC CONIC

C3	12.925	VHL	3.595	DLA	-53.21	RAL	248.71	RAD	6567.5	VEL	11.589	PTH	2.03	VHP	5.216	DPA	14.22	RAP	229.26

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.87	8 6 37	1581.77	39.03	31.77	121.38	129.56	8 32 59	981.8	43.82	23.64
137.13	16 55 10	5292.65	39.04	243.78	121.39	129.55	18 23 22	4692.6	43.83	235.64
42.87	8 6 37	1581.77	39.03	31.77	121.38	129.56	8 32 59	981.8	43.82	23.64
137.13	16 55 10	5292.65	39.04	243.78	121.39	129.55	18 23 22	4692.6	43.83	235.64
42.87	8 6 37	1581.77	39.03	31.77	121.38	129.56	8 32 59	981.8	43.82	23.64
137.13	16 55 10	5292.65	39.04	243.78	121.39	129.55	18 23 22	4692.6	43.83	235.64

DIFFERENTIAL CORRECTIONS

TDE	-1.8036	TRA	1.0995	TC3	-4.5214	BAU	.7890	SGT	5233.8	SGR	1278.1	SG3	482.7	ST	3007.1	SR	891.3	SS	1274.3
RDE	.5369	RRA	-.3121	RC3	.6399	FAU	.06152	RRT	-.9545	RRF	-.9612	RTF	.9798	CRT	-.9998	CRS	.9881	CST	-.9902
FDE	-1.6068	FRA	1.4976	FC3	-4.1207	BSP	17042	SGB	5387.6	R23	.0710	R13	-.9811	LSA	3381.3	MSA	167.0	SSA	14.4
BDE	1.8818	BRA	1.1430	BC3	4.5665	FSP	-1620	SG1	5374.8	SG2	371.0	THA	166.81	EL1	3136.4	EL2	18.2	ALF	163.49

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 506.949

RL	151.57	LAL	.00	LOL	319.84	VL	26.665	GAL	2.47	AZL	93.69	HCA	234.43	SMA	127.58	ECC	.19273	INC	3.6935
RP	107.87	LAP	3.00	LOP	194.21	VP	37.687	GAP	6.70	AZP	87.85	TAL	169.53	TAP	43.96	RCA	102.99	APO	152.17
RC	122.531	GL	-28.48	GP	27.21	ZAL	66.18	ZAP	141.77	ETS	37.55	ZAE	125.64	ETE	160.49	ZAC	124.99	ETC	254.78

PLANETOCENTRIC CONIC

C3	12.953	VHL	3.599	DLA	-51.12	RAL	251.92	RAD	6567.5	VEL	11.591	PTH	2.03	VHP	5.328	DPA	11.90	RAP	229.74

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.48	8 27 21	1564.34	37.72	28.58	123.32	127.48	8 53 25	964.3	42.29	20.42
134.52	17 0 2	5311.03	37.73	244.42	123.33	127.47	18 28 33	4711.0	42.30	236.25
45.48	8 27 21	1564.34	37.72	28.58	123.32	127.48	8 53 25	964.3	42.29	20.42
134.52	17 0 2	5311.03	37.73	244.42	123.33	127.47	18 28 33	4711.0	42.30	236.25
45.48	8 27 21	1564.34	37.72	28.58	123.32	127.48	8 53 25	964.3	42.29	20.42
134.52	17 0 2	5311.03	37.73	244.42	123.33	127.47	18 28 33	4711.0	42.30	236.25

DIFFERENTIAL CORRECTIONS

TDE	-1.6739	TRA	1.2751	TC3	-4.6370	BAU	.8088	SGT	5357.3	SGR	1172.7	SG3	463.7	ST	2837.7	SR	795.3	SS	1136.8
RDE	.4762	RRA	-.3153	RC3	.5572	FAU	.05830	RRT	-.9463	RRF	-.9510	RTF	.9792	CRT	-.9989	CRS	.9786	CST	-.9866
FDE	-1.3506	FRA	1.5923	FC3	-3.8966	BSP	17326	SGB	5484.2	R23	.0614	R13	-.9802	LSA	3153.5	MSA	179.6	SSA	15.0
BDE	1.7403	BRA	1.3135	BC3	4.6704	FSP	-1561	SG1	5471.6	SG2	371.1	THA	168.24	EL1	2946.8	EL2	36.1	ALF	164.36

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 13 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 512.924

RL	151.57	LAL	.00	LOL	319.84	VL	26.637	GAL	2.76	AZL	93.45	HCA	237.64	SMA	127.40	ECC	.19550	INC	3.4452	V1	29.396
RP	107.91	LAP	2.91	LOP	197.44	VP	37.656	GAP	7.08	AZP	88.15	TAL	168.49	TAP	46.14	RCA	102.49	APO	152.31	V2	35.118
RC	124.786	GL	-26.20	GP	25.42	ZAL	64.03	ZAP	144.11	ETS	37.85	ZAE	125.49	ETE	162.17	ZAC	123.51	ETC	255.26	CLP	-153.77

PLANETOCENTRIC CONIC

C3	13.116	VHL	3.622	DLA	-49.07	RAL	254.93	RAD	6567.5	VEL	11.598	PTH	2.03	VHP	5.458	DPA	9.75	RAP	230.40	ECC	1.2159

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.09	8 47 44	1547.23	36.32	25.54	125.32	125.60	9 13 32	947.2	40.68	17.38
131.91	17 3 39	5333.54	36.33	245.41	125.32	125.59	18 32 33	4733.5	40.69	237.24
48.09	8 47 44	1547.23	36.32	25.54	125.32	125.60	9 13 32	947.2	40.68	17.38
131.91	17 3 39	5333.54	36.33	245.41	125.32	125.59	18 32 33	4733.5	40.69	237.24
48.09	8 47 44	1547.23	36.32	25.54	125.32	125.60	9 13 32	947.2	40.68	17.38
131.91	17 3 39	5333.54	36.33	245.41	125.32	125.59	18 32 33	4733.5	40.69	237.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.5463	TRA	1.4563	TC3	-4.6978	BAU	.8281	SGT 5470.9 SGR 1083.3 SG3 443.5	ST	2666.0 SR	719.0 SS 1014.6
RDE	.4306	RRA	-.3174	RC3	.4821	FAU	.05497	RRT -.9365 RRF -.9390 RTF .9786	CRT	-.9964 CRS	.9629 CST -.9819
FDE	-1.1233	FRA	1.6712	FC3	-3.6283	BSP	17637	SGB 5577.1 R23 .0521 R13 -.9793	LSA	2935.3 MSA	194.6 SSA 15.5
BDE	1.6051	BRA	1.4905	BC3	4.7225	FSP	-1502	SG1 5564.6 SG2 373.4 THA 169.45	EL1	2760.6 EL2	58.9 ALF 164.95

LAUNCH DATE AUG 13 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 518.872

RL	151.57	LAL	.00	LOL	319.84	VL	26.609	GAL	3.07	AZL	93.21	HCA	240.86	SMA	127.22	ECC	.19848	INC	3.2142	V1	29.396
RP	107.95	LAP	2.81	LOP	200.66	VP	37.625	GAP	7.46	AZP	88.43	TAL	167.43	TAP	48.29	RCA	101.97	APO	152.47	V2	35.105
RC	127.036	GL	-24.01	GP	23.81	ZAL	61.88	ZAP	146.29	ETS	38.19	ZAE	125.30	ETE	163.64	ZAC	122.22	ETC	255.70	CLP	-155.40

PLANETOCENTRIC CONIC

C3	13.408	VHL	3.662	DLA	-47.06	RAL	257.76	RAD	6567.5	VEL	11.610	PTH	2.03	VHP	5.602	DPA	7.75	RAP	231.23	ECC	1.2207

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.69	9 7 57	1530.06	34.85	22.60	127.38	123.90	9 33 27	930.1	39.01	14.47
129.31	17 6 2	5360.25	34.85	246.76	127.38	123.89	18 35 22	4760.2	39.02	238.63
50.69	9 7 57	1530.06	34.85	22.60	127.38	123.90	9 33 27	930.1	39.01	14.47
129.31	17 6 2	5360.25	34.85	246.76	127.38	123.89	18 35 22	4760.2	39.02	238.63
50.69	9 7 57	1530.06	34.85	22.60	127.38	123.90	9 33 27	930.1	39.01	14.47
129.31	17 6 2	5360.25	34.85	246.76	127.38	123.89	18 35 22	4760.2	39.02	238.63

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.4195	TRA	1.6449	TC3	-4.7047	BAU	.8466	SGT 5575.1 SGR 1007.5 SG3 423.0	ST	2495.8 SR	658.0 SS 907.9
RDE	.3963	RRA	-.3193	RC3	.4151	FAU	.05160	RRT -.9251 RRF -.9253 RTF .9780	CRT	-.9911 CRS	.9384 CST -.9757
FDE	-.9214	FRA	1.7379	FC3	-3.3319	BSP	17948	SGB 5665.4 R23 .0432 R13 -.9785	LSA	2727.8 MSA	212.4 SSA 15.8
BDE	1.4738	BRA	1.6756	BC3	4.7230	FSP	-1442	SG1 5652.8 SG2 377.2 THA 170.47	EL1	2579.7 EL2	84.9 ALF 165.34

LAUNCH DATE AUG 13 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 524.793

RL	151.57	LAL	.00	LOL	319.84	VL	26.580	GAL	3.39	AZL	93.00	HCA	244.07	SMA	127.03	ECC	.20167	INC	2.9973	V1	29.396
RP	107.99	LAP	2.70	LOP	203.88	VP	37.593	GAP	7.84	AZP	88.69	TAL	166.35	TAP	50.42	RCA	101.41	APO	152.65	V2	35.093
RC	129.278	GL	-21.91	GP	22.37	ZAL	59.75	ZAP	148.32	ETS	38.60	ZAE	125.07	ETE	164.92	ZAC	121.09	ETC	256.13	CLP	-156.96

PLANETOCENTRIC CONIC

C3	13.827	VHL	3.718	DLA	-45.11	RAL	260.43	RAD	6567.5	VEL	11.628	PTH	2.04	VHP	5.761	DPA	5.89	RAP	232.21	ECC	1.2276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.29	9 28 3	1512.62	33.32	19.76	129.50	122.37	9 53 16	912.6	37.32	11.68
126.71	17 7 13	5391.11	33.33	248.46	129.51	122.36	18 37 4	4791.1	37.33	240.38
53.29	9 28 3	1512.62	33.32	19.76	129.50	122.37	9 53 16	912.6	37.32	11.68
126.71	17 7 13	5391.11	33.33	248.46	129.51	122.36	18 37 4	4791.1	37.33	240.38
53.29	9 28 3	1512.62	33.32	19.76	129.50	122.37	9 53 16	912.6	37.32	11.68
126.71	17 7 13	5391.11	33.33	248.46	129.51	122.36	18 37 4	4791.1	37.33	240.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.2933	TRA	1.8424	TC3	-4.6592	BAU	.8638	SGT 5670.8 SGR 943.6 SG3 402.7	ST	2332.0 SR	609.3 SS 817.7
RDE	.3710	RRA	-.3218	RC3	.3555	FAU	.04820	RRT -.9123 RRF -.9102 RTF .9773	CRT	-.9813 CRS	.9020 CST -.9679
FDE	-.7430	FRA	1.7960	FC3	-3.0181	BSP	18233	SGB 5748.8 R23 .0354 R13 -.9777	LSA	2534.5 MSA	233.3 SSA 16.0
BDE	1.3455	BRA	1.8703	BC3	4.6728	FSP	-1379	SG1 5736.1 SG2 382.1 THA 171.33	EL1	2407.6 EL2	113.6 ALF 165.59

LAUNCH DATE AUG 13 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 530.683

RL	151.57	LAL	.00	LOL	319.84	VL	26.551	GAL	3.73	AZL	92.79	HCA	247.28	SMA	126.84	ECC	.20509	INC	2.7920	V1	29.396
RP	108.03	LAP	2.58	LOP	207.10	VP	37.560	GAP	8.23	AZP	88.92	TAL	165.24	TAP	52.52	RCA	100.83	APO	152.86	V2	35.080
RC	131.513	GL	-19.90	GP	21.08	ZAL	57.64	ZAP	150.21	ETS	39.09	ZAE	124.82	ETE	166.04	ZAC	120.11	ETC	256.54	CLP	-158.46

PLANETOCENTRIC CONIC

C3	14.374	VHL	3.791	DLA	-43.21	RAL	262.95	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	5.932	DPA	4.16	RAP	233.32	ECC	1.2366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.88	9 48 12	1494.44	31.77	16.98	131.69	120.99	10 13 7	894.4	35.61	8.96
124.12	17 7 9	5426.36	31.78	250.52	131.70	120.98	18 37 35	4826.4	35.62	242.50
55.88	9 48 12	1494.44	31.77	16.98	131.69	120.99	10 13 7	894.4	35.61	8.96
124.12	17 7 9	5426.36	31.78	250.52	131.70	120.98	18 37 35	4826.4	35.62	242.50
55.88	9 48 12	1494.44	31.77	16.98	131.69	120.99	10 13 7	894.4	35.61	8.96
124.12	17 7 9	5426.36	31.78	250.52	131.70	120.98	18 37 35	4826.4	35.62	242.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.1674	TRA	2.0490	TC3	-4.5679	BAU	.8797	SGT 5758.5 SGR 889.7 SG3 382.9	ST	2178.9 SR	570.3 SS 744.0
RDE	.3529	RRA	-.3250	RC3	.3036	FAU	.04485	RRT -.8982 RRF -.8938 RTF .9767	CRT	-.9650 CRS	.8513 CST -.9587
FDE	-.5858	FRA	1.8464	FC3	-2.7016	BSP	18512	SGB 5826.8 R23 .0287 R13 -.9770	LSA	2358.0 MSA	256.8 SSA 16.1
BDE	1.2195	BRA	2.0746	BC3	4.5780	FSP	-1318	SG1 5813.9 SG2 387.5 THA 172.06	EL1	2247.7 EL2	145.1 ALF 165.76

LAUNCH DATE AUG 13 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 536.541

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RL  151.57 LAL    .00 LOL 319.84 VL  26.521 GAL   4.09 AZL  92.60 HCA 250.49 SMA 126.65 ECC .20876 INC 2.5964 V1  29.396
RP  108.07 LAP   2.45 LOP 210.31 VP  37.527 GAP   8.63 AZP  89.13 TAL 164.12 TAP  54.61 RCA 100.21 APO 153.09 V2  35.067
RC 133.740 GL  -17.99 GP   19.92 ZAL  55.58 ZAP 151.99 ETS  39.67 ZAE 124.57 ETE 167.01 ZAC 119.26 ETC 256.95 CLP-159.89
PLANETOCENTRIC CONIC
C3  15.053 VHL  3.880 DLA -41.37 RAL 265.32 RAD 6567.6 VEL 11.681 PTH   2.05 VHP  6.117 DPA   2.55 RAP 234.56 ECC 1.2477
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.47	10 8 32	1475.18	30.20	14.22	133.95	119.74	10 33 7	875.2	33.91	6.26
121.53	17 5 47	5466.19	30.21	252.95	133.95	119.73	18 36 53	4866.2	33.91	244.99
58.47	10 8 32	1475.18	30.20	14.22	133.95	119.74	10 33 7	875.2	33.91	6.26
121.53	17 5 47	5466.19	30.21	252.95	133.95	119.73	18 36 53	4866.2	33.91	244.99
58.47	10 8 32	1475.18	30.20	14.22	133.95	119.74	10 33 7	875.2	33.91	6.26
121.53	17 5 47	5466.19	30.21	252.95	133.95	119.73	18 36 53	4866.2	33.91	244.99

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.0511 TRA 2.2548 TC3-4.4620 BAU  .8995   SGT 5838.4 SGR  843.9 SG3  363.2     ST  2047.6 SR   541.0 SS   687.5
RDE  .3422 RRA -.3273 RC3  .2639 FAU .04205   RRT -.8832 RRF -.8764 RTF  .9765     CRT -.9408 CRS  .7904 CST -.9508
FDE -.4575 FRA 1.8804 FC3-2.4187 BSP  19001   SGB 5899.1 R23  .0215 R13 -.9767     LSA 2208.9 MSA  279.7 SSA   16.0
BDE 1.1054 BRA 2.2784 BC3 4.4698 FSP  -1278   SG1 5886.0 SG2  392.6 THA 172.69     EL1 2110.3 EL2  177.9 ALF 165.94
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 542.367

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RL  151.57 LAL    .00 LOL 319.84 VL  26.491 GAL   4.47 AZL  92.41 HCA 253.70 SMA 126.46 ECC .21270 INC 2.4085 V1  29.396
RP  108.11 LAP   2.31 LOP 213.53 VP  37.494 GAP   9.04 AZP  89.32 TAL 162.98 TAP  56.68 RCA  99.56 APO 153.36 V2  35.054
RC 135.957 GL  -16.18 GP   18.88 ZAL  53.56 ZAP 153.65 ETS  40.36 ZAE 124.31 ETE 167.86 ZAC 118.52 ETC 257.35 CLP-161.27
PLANETOCENTRIC CONIC
C3  15.873 VHL  3.984 DLA -39.60 RAL 267.57 RAD 6567.6 VEL 11.716 PTH   2.06 VHP  6.313 DPA   1.04 RAP 235.90 ECC 1.2612
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.07	10 29 9	1454.48	28.63	11.45	136.26	118.62	10 53 24	854.5	32.21	3.56
118.93	17 3 5	5510.80	28.65	255.75	136.27	118.60	18 34 56	4910.8	32.22	247.87
61.07	10 29 9	1454.48	28.63	11.45	136.26	118.62	10 53 24	854.5	32.21	3.56
118.93	17 3 5	5510.80	28.65	255.75	136.27	118.60	18 34 56	4910.8	32.22	247.87
61.07	10 29 9	1454.48	28.63	11.45	136.26	118.62	10 53 24	854.5	32.21	3.56
118.93	17 3 5	5510.80	28.65	255.75	136.27	118.60	18 34 56	4910.8	32.22	247.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.9181 TRA 2.4885 TC3-4.2760 BAU  .9086   SGT 5909.9 SGR  805.0 SG3  345.1     ST  1922.4 SR   513.8 SS   642.9
RDE  .3328 RRA -.3336 RC3  .2214 FAU .03848   RRT -.8672 RRF -.8586 RTF  .9755     CRT -.9039 CRS  .7063 CST -.9408
FDE -.3283 FRA 1.9266 FC3-2.0990 BSP  19057   SGB 5964.5 R23  .0177 R13 -.9756     LSA 2068.2 MSA  308.7 SSA   15.9
BDE  .9766 BRA 2.5108 BC3 4.2817 FSP  -1201   SG1 5951.2 SG2  398.1 THA 173.23     EL1 1978.4 EL2  213.6 ALF 166.25
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 548.155

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RL  151.57 LAL    .00 LOL 319.84 VL  26.461 GAL   4.87 AZL  92.23 HCA 256.90 SMA 126.27 ECC .21693 INC 2.2268 V1  29.396
RP  108.15 LAP   2.17 LOP 216.73 VP  37.460 GAP   9.46 AZP  89.49 TAL 161.83 TAP  58.73 RCA  98.88 APO 153.66 V2  35.041
RC 138.166 GL  -14.46 GP   17.94 ZAL  51.59 ZAP 155.21 ETS  41.17 ZAE 124.05 ETE 168.61 ZAC 117.87 ETC 257.75 CLP-162.60
PLANETOCENTRIC CONIC
C3  16.842 VHL  4.104 DLA -37.90 RAL 269.69 RAD 6567.7 VEL 11.757 PTH   2.08 VHP  6.522 DPA   -.38 RAP 237.34 ECC 1.2772
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.68	10 50 15	1431.78	27.08	8.62	138.62	117.60	11 14 6	831.8	30.54	.80
116.32	16 58 56	5560.58	27.09	258.95	138.63	117.58	18 31 37	4960.6	30.55	251.13
63.68	10 50 15	1431.78	27.08	8.62	138.62	117.60	11 14 6	831.8	30.54	.80
116.32	16 58 56	5560.58	27.09	258.95	138.63	117.58	18 31 37	4960.6	30.55	251.13
63.68	10 50 15	1431.78	27.08	8.62	138.62	117.60	11 14 6	831.8	30.54	.80
116.32	16 58 56	5560.58	27.09	258.95	138.63	117.58	18 31 37	4960.6	30.55	251.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.7910 TRA 2.7269 TC3-4.0791 BAU  .9195   SGT 5975.4 SGR  771.8 SG3  327.6     ST  1823.3 SR   492.7 SS   612.7
RDE  .3284 RRA -.3399 RC3  .1880 FAU .03534   RRT -.8509 RRF -.8405 RTF  .9748     CRT -.8548 CRS  .6150 CST -.9345
FDE -.2207 FRA 1.9627 FC3-1.8167 BSP  19245   SGB 6025.1 R23  .0138 R13 -.9749     LSA 1957.0 MSA  335.6 SSA   15.8
BDE  .8564 BRA 2.7480 BC3 4.0835 FSP  -1141   SG1 6011.6 SG2  402.9 THA 173.70     EL1 1872.2 EL2  249.0 ALF 166.76
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 553.904

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RL  151.57 LAL    .00 LOL 319.84 VL  26.431 GAL   5.30 AZL  92.05 HCA 260.10 SMA 126.08 ECC .22148 INC 2.0499 V1  29.396
RP  108.19 LAP   2.02 LOP 219.94 VP  37.426 GAP   9.89 AZP  89.65 TAL 160.66 TAP  60.77 RCA  98.15 APO 154.00 V2  35.028
RC 140.364 GL  -12.83 GP   17.09 ZAL  49.69 ZAP 156.67 ETS  42.13 ZAE 123.80 ETE 169.27 ZAC 117.31 ETC 258.17 CLP-163.88
PLANETOCENTRIC CONIC
C3  17.975 VHL  4.240 DLA -36.26 RAL 271.70 RAD 6567.7 VEL 11.805 PTH   2.09 VHP  6.744 DPA  -1.70 RAP 238.86 ECC 1.2958
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.33	11 12 3	1406.30	25.54	5.67	141.04	116.67	11 35 29	806.3	28.90	357.92
113.67	16 53 8	5616.20	25.55	262.58	141.04	116.66	18 26 45	5016.2	28.91	254.83
66.33	11 12 3	1406.30	25.54	5.67	141.04	116.67	11 35 29	806.3	28.90	357.92
113.67	16 53 8	5616.20	25.55	262.58	141.04	116.66	18 26 45	5016.2	28.91	254.83
66.33	11 12 3	1406.30	25.54	5.67	141.04	116.67	11 35 29	806.3	28.90	357.92
113.67	16 53 8	5616.20	25.55	262.58	141.04	116.66	18 26 45	5016.2	28.91	254.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.6645 TRA 2.9752 TC3-3.8641 BAU  .9294   SGT 6034.0 SGR  743.0 SG3  310.9     ST  1747.6 SR   475.2 SS   593.3
RDE  .3270 RRA -.3470 RC3  .1601 FAU .03237   RRT -.8347 RRF -.8226 RTF  .9742     CRT -.7928 CRS  .5190 CST -.9320
FDE -.1272 FRA 1.9943 FC3-1.5591 BSP  19442   SGB 6079.5 R23  .0105 R13 -.9743     LSA 1871.3 MSA  360.3 SSA   15.5
BDE  .7406 BRA 2.9954 BC3 3.8674 FSP  -1084   SG1 6065.9 SG2  407.1 THA 174.11     EL1 1788.8 EL2  283.0 ALF 167.52
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LAUNCH DATE AUG 13 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 559.610

RL	151.57	LAL	.00	LOL	319.84	VL	26.400	GAL	5.75	AZL	91.88	HCA	263.30	SMA	125.88	ECC	.22637	INC	1.8765	V1	29.396		
RP	108.23	LAP	1.86	LOP	223.14	VP	37.392	GAP	10.34	AZP	89.78	TAL	159.49	TAP	62.79	RCA	97.39	APO	154.38	V2	35.014		
RC	142.552	GL	-11.30	GP	16.32	ZAL	47.86	ZAP	158.06	ETS	43.24	ZAE	123.55	ETE	169.84	ZAC	116.82	ETC	258.58	CLP	-165.13		

PLANETOCENTRIC CONIC

C3	19.287	VHL	4.392	DLA	-34.70	RAL	273.60	RAD	6567.8	VEL	11.860	PTH	2.10	VHP	6.979	DPA	-2.95	RAP	240.46	ECC	1.3174		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.05	11 34 53	1377.06	24.03	2.53	143.50	115.82	11 57 50	777.1	27.30	354.84
110.95	16 45 27	5678.51	24.04	266.71	143.50	115.81	18 20 5	5078.5	27.31	259.02
69.05	11 34 53	1377.06	24.03	2.53	143.50	115.82	11 57 50	777.1	27.30	354.84
110.95	16 45 27	5678.51	24.04	266.71	143.50	115.81	18 20 5	5078.5	27.31	259.02
69.05	11 34 53	1377.06	24.03	2.53	143.50	115.82	11 57 50	777.1	27.30	354.84
110.95	16 45 27	5678.51	24.04	266.71	143.50	115.81	18 20 5	5078.5	27.31	259.02

DIFFERENTIAL CORRECTIONS

TDE	-.5378	TRA	3.2352	TC3	-3.6349	BAU	.9379
RDE	.3282	RRA	-.3551	RC3	.1367	FAU	.02956
FDE	-.0456	FRA	2.0230	FC3	-1.3270	BSP	19638
BDE	.6300	BRA	3.2546	BC3	3.6375	FSP	-1032

MID-COURSE EXECUTION ACCURACY

SGT	6086.2	SGR	717.8	SG3	295.1		
RRT	-.8187	RRF	-.8052	RTF	.9738		
SGB	6128.4	R23	.0076	R13	-.9738		
SG1	6114.7	SG2	410.3	THA	174.46		

ORBIT DETERMINATION ACCURACY

ST	1695.2	SR	460.4	SS	582.2
CRT	-.7190	CRS	.4238	CST	-.9338
LSA	1810.7	MSA	381.4	SSA	15.3
EL1	1728.3	EL2	313.8	ALF	168.57

LAUNCH DATE AUG 13 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 565.268

RL	151.57	LAL	.00	LOL	319.84	VL	26.369	GAL	6.23	AZL	91.71	HCA	266.50	SMA	125.69	ECC	.23163	INC	1.7056	V1	29.396		
RP	108.27	LAP	1.70	LOP	226.34	VP	37.358	GAP	10.80	AZP	89.90	TAL	158.31	TAP	64.81	RCA	96.58	APO	154.80	V2	35.001		
RC	144.730	GL	-9.85	GP	15.62	ZAL	46.10	ZAP	159.36	ETS	44.54	ZAE	123.30	ETE	170.35	ZAC	116.39	ETC	259.01	CLP	-166.34		

PLANETOCENTRIC CONIC

C3	20.797	VHL	4.560	DLA	-33.21	RAL	275.39	RAD	6567.8	VEL	11.924	PTH	2.12	VHP	7.229	DPA	-4.11	RAP	242.14	ECC	1.3423		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.88	11 59 14	1342.46	22.55	359.07	146.00	115.05	12 21 37	742.5	25.73	351.44
108.12	16 35 24	5749.00	22.56	271.44	146.00	115.04	18 11 13	5149.0	25.74	263.81
71.88	11 59 14	1342.46	22.55	359.07	146.00	115.05	12 21 37	742.5	25.73	351.44
108.12	16 35 24	5749.00	22.56	271.44	146.00	115.04	18 11 13	5149.0	25.74	263.81
110.00	15 45 14	614.99	17.11	302.44	142.98	120.05	15 55 29	15.0	20.97	295.44
110.00	17 48 34	5524.46	28.23	256.64	148.61	110.13	19 20 39	4924.5	30.71	248.32

DIFFERENTIAL CORRECTIONS

TDE	-.4102	TRA	3.5077	TC3	-3.3961	BAU	.9448
RDE	.3313	RRA	-.3642	RC3	.1169	FAU	.02688
FDE	.0262	FRA	2.0501	FC3	-1.1190	BSP	19828
BDE	.5273	BRA	3.5265	BC3	3.3981	FSP	-982

MID-COURSE EXECUTION ACCURACY

SGT	6132.2	SGR	695.4	SG3	280.2		
RRT	-.8031	RRF	-.7885	RTF	.9734		
SGB	6171.5	R23	.0054	R13	-.9734		
SG1	6157.7	SG2	412.6	THA	174.77		

ORBIT DETERMINATION ACCURACY

ST	1664.7	SR	447.4	SS	577.5
CRT	-.6365	CRS	.3334	CST	-.9390
LSA	1773.8	MSA	397.8	SSA	15.0
EL1	1689.9	EL2	339.9	ALF	169.88

LAUNCH DATE AUG 13 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 570.875

RL	151.57	LAL	.00	LOL	319.84	VL	26.339	GAL	6.73	AZL	91.54	HCA	269.69	SMA	125.50	ECC	.23730	INC	1.5359	V1	29.396		
RP	108.31	LAP	1.54	LOP	229.54	VP	37.324	GAP	11.28	AZP	89.99	TAL	157.13	TAP	66.82	RCA	95.72	APO	155.27	V2	34.988		
RC	146.899	GL	-8.49	GP	14.99	ZAL	44.41	ZAP	160.59	ETS	46.03	ZAE	123.07	ETE	170.80	ZAC	116.01	ETC	259.45	CLP	-167.52		

PLANETOCENTRIC CONIC

C3	22.528	VHL	4.746	DLA	-31.79	RAL	277.08	RAD	6567.9	VEL	11.996	PTH	2.14	VHP	7.493	DPA	-5.21	RAP	243.87	ECC	1.3708		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.92	12 25 54	1299.92	21.11	355.10	148.54	114.34	12 47 34	699.9	24.21	347.53
105.08	16 22 15	5830.13	21.12	276.93	148.54	114.32	17 59 25	5230.1	24.23	269.36
74.92	12 25 54	1299.92	21.11	355.10	148.54	114.34	12 47 34	699.9	24.21	347.53
105.08	16 22 15	5830.13	21.12	276.93	148.54	114.32	17 59 25	5230.1	24.23	269.36
110.00	15 17 20	743.91	12.57	309.68	143.76	122.05	15 29 44	143.9	16.72	303.02
110.00	18 29 59	5434.14	30.18	250.34	152.31	106.86	20 0 34	4834.1	32.19	241.70

DIFFERENTIAL CORRECTIONS

TDE	-.2815	TRA	3.7936	TC3	-3.1519	BAU	.9498
RDE	.3360	RRA	-.3741	RC3	.1000	FAU	.02433
FDE	.0893	FRA	2.0758	FC3	-.9351	BSP	20001
BDE	.4383	BRA	3.8120	BC3	3.1535	FSP	-935

MID-COURSE EXECUTION ACCURACY

SGT	6172.0	SGR	675.1	SG3	266.2		
RRT	-.7882	RRF	-.7726	RTF	.9731		
SGB	6208.8	R23	.0035	R13	-.9731		
SG1	6195.0	SG2	413.9	THA	175.05		

ORBIT DETERMINATION ACCURACY

ST	1654.0	SR	435.8	SS	577.1
CRT	-.5489	CRS	.2505	CST	-.9463
LSA	1758.2	MSA	408.8	SSA	14.7
EL1	1672.1	EL2	360.3	ALF	171.37

LAUNCH DATE AUG 13 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 576.423

RL	151.57	LAL	.00	LOL	319.84	VL	26.308	GAL	7.27	AZL	91.37	HCA	272.89	SMA	125.30	ECC	.24342	INC	1.3664	V1	29.396		
RP	108.35	LAP	1.36	LOP	232.73	VP	37.290	GAP	11.79	AZP	90.07	TAL	155.94	TAP	68.83	RCA	94.80	APO	155.80	V2	34.975		
RC	149.057	GL	-7.22	GP	14.41	ZAL	42.80	ZAP	161.74	ETS	47.75	ZAE	122.83	ETE	171.20	ZAC	115.68	ETC	259.89	CLP	-168.68		

PLANETOCENTRIC CONIC

C3	24.509	VHL	4.951	DLA	-30.44	RAL	278.68	RAD	6568.0	VEL	12.078	PTH	2.16	VHP	7.775	DPA	-6.23	RAP	245.66	ECC	1.4034		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.34	12 56 38	1243.70	19.71	350.20	151.11	113.68	13 17 22	643.7	22.74	342.68
101.66	16 4 17	639.48	19.72	305.69	151.11	113.67	16 14 56	39.5	22.75	298.17
78.34	12 56 38	1243.70	19.71	350.20	151.11	113.68	13 17 22	643.7	22.74	342.68
101.66	16 4 17	639.48	19.72	305.69	151.11	113.67	16 14 56	39.5	22.75	298.17
110.00	14 59 58	841.94	8.98	314.99	145.13	123.12	15 14 0	241.9	13.28	308.53
110.00	19 0 7	5377.28	31.24	246.24	155.54	104.65	20 29 45	4777.3	32.93	237.43

DIFFERENTIAL CORRECTIONS

TDE	-.1517	TRA	4.0934	TC3	-2.9076	BAU	.9531
RDE	.3420	RRA	-.3848	RC3	.0857	FAU	.02193
FDE	.1447	FRA	2.1004	FC3	-.7746	BSP	20182
BDE	.3742	BRA	4.1115	BC3	2.9089	FSP	-891

MID-COURSE EXECUTION ACCURACY

SGT	6205.8	SGR	656.2	SG3	252.9		
RRT	-.7739	RRF	-.7576	RTF	.9729		
SGB	6240.4	R23	.0020	R13	-.9730		
SG1	6226.6	SG2	414.2	THA	175.30		

ORBIT DETERMINATION ACCURACY

ST	1660.0	SR	425.1	SS	579.4
CRT	-.4608	CRS	.1768	CST	-.9546
LSA	1760.7	MSA	414.4	SSA	14.4
EL1	1672.1	EL2	374.5	ALF	172.91

LAUNCH DATE AUG 13 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 581.907

RL 151.57 LAL .00 LOL 319.84 VL 26.277 GAL 7.85 AZL 91.20 HCA 276.08 SMA 125.11 ECC .25003 INC 1.1961 V1 29.396
RP 108.39 LAP 1.19 LOP 235.92 VP 37.256 GAP 12.31 AZP 90.13 TAL 154.76 TAP 70.83 RCA 93.83 APO 156.39 V2 34.962
RC 151.205 GL -6.03 GP 13.89 ZAL 41.27 ZAP 162.83 ETS 49.74 ZAE 122.60 ETE 171.55 ZAC 115.38 ETC 260.35 CLP-169.81

PLANETOCENTRIC CONIC

C3 26.773 VHL 5.174 DLA -29.16 RAL 280.19 RAD 6568.1 VEL 12.172 PTH 2.18 VHP 8.074 DPA -7.18 RAP 247.51 ECC 1.4406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.75	13 36 31	1157.32	18.34	343.17	153.71	113.07	13 55 48	557.3	21.31	335.69
97.25	15 36 28	769.51	18.36	314.73	153.71	113.05	15 49 17	169.5	21.32	307.24
100.00	15 2 8	879.71	13.57	320.55	151.40	116.89	15 16 47	279.7	17.07	313.51
100.00	16 53 32	5810.39	23.26	276.38	155.75	109.32	18 30 22	5210.4	25.69	268.42
110.00	14 47 21	926.24	5.81	319.47	146.80	123.74	15 2 47	326.2	10.21	313.13
110.00	19 24 48	5336.63	31.90	243.26	158.57	103.00	20 53 44	4736.6	33.36	234.33

DIFFERENTIAL CORRECTIONS
TDE -.0207 TRA 4.4084 TC3-2.6655 BAU .9544
RDE .3492 RRA -.3961 RC3 .0734 FAU .01965
FDE .1932 FRA 2.1248 FC3 -.6353 BSP 20373
BDE .3498 BRA 4.4261 BC3 2.6666 FSP -851

MID-COURSE EXECUTION ACCURACY
SGT 6233.3 SGR 638.4 SG3 240.3
RRT -.7604 RRF -.7436 RTF .9729
SGB 6265.9 R23 .0008 R13 -.9729
SG1 6252.3 SG2 413.3 THA 175.53

ORBIT DETERMINATION ACCURACY
ST 1679.1 SR 415.0 SS 583.4
CRT -.3756 CRS .1127 CST -.9628
LSA 1777.5 MSA 415.0 SSA 14.1
EL1 1686.7 EL2 382.9 ALF 174.41

LAUNCH DATE AUG 13 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 587.318

RL 151.57 LAL .00 LOL 319.84 VL 26.246 GAL 8.46 AZL 91.02 HCA 279.26 SMA 124.92 ECC .25719 INC 1.0239 V1 29.396
RP 108.43 LAP 1.01 LOP 239.11 VP 37.223 GAP 12.87 AZP 90.16 TAL 153.58 TAP 72.85 RCA 92.79 APO 157.05 V2 34.949
RC 153.343 GL -4.91 GP 13.41 ZAL 39.81 ZAP 163.86 ETS 52.01 ZAE 122.37 ETE 171.87 ZAC 115.11 ETC 260.82 CLP-170.93

PLANETOCENTRIC CONIC

C3 29.359 VHL 5.418 DLA -27.94 RAL 281.62 RAD 6568.2 VEL 12.277 PTH 2.21 VHP 8.394 DPA -8.07 RAP 249.39 ECC 1.4832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 1 40	1118.01	13.61	338.09	154.77	115.07	14 20 18	518.0	16.88	330.94
90.00	15 22 40	854.80	20.52	321.88	157.77	109.95	15 36 55	254.8	23.06	314.12
100.00	14 33 2	1016.60	9.23	328.40	152.51	118.56	14 49 58	416.6	12.97	321.61
100.00	17 33 59	5719.49	25.18	270.30	159.44	106.67	19 9 19	5119.5	27.22	262.10
110.00	14 37 34	1002.35	2.92	323.46	148.66	124.07	14 54 16	402.3	7.37	317.20
110.00	19 45 57	5306.50	32.34	241.02	161.50	101.74	21 14 23	4706.5	33.62	232.02

DIFFERENTIAL CORRECTIONS
TDE .1115 TRA 4.7390 TC3-2.4290 BAU .9537
RDE .3573 RRA -.4079 RC3 .0628 FAU .01750
FDE .2358 FRA 2.1490 FC3 -.5162 BSP 20581
BDE .3743 BRA 4.7565 BC3 2.4298 FSP -813

MID-COURSE EXECUTION ACCURACY
SGT 6254.5 SGR 621.1 SG3 228.5
RRT -.7476 RRF -.7306 RTF .9731
SGB 6285.2 R23 -.0001 R13 -.9731
SG1 6271.8 SG2 411.4 THA 175.74

ORBIT DETERMINATION ACCURACY
ST 1707.6 SR 405.2 SS 588.3
CRT -.2961 CRS .0574 CST -.9702
LSA 1804.6 MSA 411.7 SSA 13.8
EL1 1712.0 EL2 386.0 ALF 175.77

LAUNCH DATE AUG 13 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 592.645

RL 151.57 LAL .00 LOL 319.84 VL 26.215 GAL 9.11 AZL 90.85 HCA 282.45 SMA 124.73 ECC .26496 INC .8487 V1 29.396
RP 108.47 LAP .83 LOP 242.29 VP 37.189 GAP 13.45 AZP 90.18 TAL 152.41 TAP 74.86 RCA 91.68 APO 157.78 V2 34.937
RC 155.470 GL -3.87 GP 12.97 ZAL 38.43 ZAP 164.81 ETS 54.61 ZAE 122.14 ETE 172.16 ZAC 114.87 ETC 261.30 CLP-172.04

PLANETOCENTRIC CONIC

C3 32.316 VHL 5.685 DLA -26.79 RAL 282.96 RAD 6568.3 VEL 12.397 PTH 2.24 VHP 8.736 DPA -8.90 RAP 251.32 ECC 1.5318

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 26 2	1277.13	8.84	347.35	155.76	117.01	13 47 19	677.1	12.39	340.47
90.00	16 9 0	743.87	22.93	314.63	161.67	107.09	16 21 24	143.9	25.05	306.61
100.00	14 14 58	1119.07	5.85	334.12	154.14	119.37	14 33 37	519.1	9.72	327.47
100.00	18 2 45	5665.21	26.19	266.59	162.70	104.96	19 37 10	5065.2	27.98	258.25
110.00	14 29 41	1072.90	.22	327.14	150.66	124.18	14 47 33	472.9	4.71	320.93
110.00	20 4 32	5284.14	32.63	239.34	164.39	100.79	21 32 36	4684.1	33.78	230.29

DIFFERENTIAL CORRECTIONS
TDE .2464 TRA 5.0874 TC3-2.1989 BAU .9503
RDE .3661 RRA -.4202 RC3 .0534 FAU .01546
FDE .2739 FRA 2.1739 FC3 -.4142 BSP 20787
BDE .4413 BRA 5.1047 BC3 2.1995 FSP -778

MID-COURSE EXECUTION ACCURACY
SGT 6269.5 SGR 604.1 SG3 217.3
RRT -.7354 RRF -.7184 RTF .9734
SGB 6298.6 R23 -.0007 R13 -.9734
SG1 6285.3 SG2 408.3 THA 175.93

ORBIT DETERMINATION ACCURACY
ST 1742.7 SR 395.5 SS 593.6
CRT -.2231 CRS .0096 CST -.9766
LSA 1838.8 MSA 405.3 SSA 13.5
EL1 1745.0 EL2 385.0 ALF 176.95

LAUNCH DATE AUG 13 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 597.877

RL 151.57 LAL .00 LOL 319.84 VL 26.184 GAL 9.81 AZL 90.67 HCA 285.63 SMA 124.54 ECC .27339 INC .6693 V1 29.396
RP 108.51 LAP .64 LOP 245.48 VP 37.156 GAP 14.08 AZP 90.18 TAL 151.26 TAP 76.90 RCA 90.49 APO 158.59 V2 34.925
RC 157.587 GL -2.89 GP 12.58 ZAL 37.13 ZAP 165.70 ETS 57.59 ZAE 121.90 ETE 172.41 ZAC 114.65 ETC 261.78 CLP-173.14

PLANETOCENTRIC CONIC

C3 35.701 VHL 5.975 DLA -25.70 RAL 284.22 RAD 6568.4 VEL 12.533 PTH 2.27 VHP 9.102 DPA -9.67 RAP 253.27 ECC 1.5875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 6 2	1386.44	5.41	353.55	157.40	117.84	13 29 8	786.4	9.09	346.80
90.00	16 39 3	684.82	24.05	310.67	165.00	105.41	16 50 28	84.8	25.94	302.51
100.00	14 1 42	1206.67	2.90	338.96	156.02	119.76	14 21 49	606.7	6.85	332.39
100.00	18 26 4	5627.86	26.82	263.99	165.79	103.73	19 59 52	5027.9	28.44	255.56
110.00	14 23 9	1139.36	-2.32	330.61	152.77	124.11	14 42 9	539.4	2.18	324.41
110.00	20 21 6	5267.93	32.83	238.12	167.26	100.09	21 48 54	4667.9	33.88	229.04

DIFFERENTIAL CORRECTIONS
TDE .3843 TRA 5.4561 TC3-1.9763 BAU .9435
RDE .3755 RRA -.4328 RC3 .0451 FAU .01350
FDE .3081 FRA 2.2005 FC3 -.3274 BSP 20992
BDE .5373 BRA 5.4732 BC3 1.9769 FSP -746

MID-COURSE EXECUTION ACCURACY
SGT 6279.4 SGR 587.1 SG3 206.7
RRT -.7239 RRF -.7071 RTF .9738
SGB 6306.7 R23 -.0012 R13 -.9738
SG1 6293.8 SG2 404.1 THA 176.11

ORBIT DETERMINATION ACCURACY
ST 1782.0 SR 385.7 SS 599.5
CRT -.1573 CRS -.0316 CST -.9818
LSA 1877.8 MSA 396.6 SSA 13.1
EL1 1783.0 EL2 380.6 ALF 177.96

LAUNCH DATE AUG 13 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 603.001

RL	151.57	LAL	.00	LOL	319.84	VL	26.154	GAL	10.56	AZL	90.48	HCA	288.81	SMA	124.36	ECC	.28258	INC	.4842
RP	108.54	LAP	.46	LOP	248.66	VP	37.123	GAP	14.74	AZP	90.16	TAL	150.13	TAP	78.95	RCA	89.21	APO	159.50
RC	159.692	GL	-1.98	GP	12.21	ZAL	35.92	ZAP	166.51	ETS	60.99	ZAE	121.66	ETE	172.65	ZAC	114.45	ETC	262.28

V1	29.396	V2	34.913	CLP	-174.23														

PLANETOCENTRIC CONIC

C3	39.582	VHL	6.291	DLA	-24.68	RAL	285.40	RAD	6568.5	VEL	12.687	PTH	2.30	VHP	9.496	DPA	-10.38	RAP	255.25
ECC	1.6514																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 51 40	1477.87	2.48	358.67	159.30	118.22	13 16 18	877.9	6.24	352.00
90.00	17 2 51	645.55	24.74	308.00	168.13	104.24	17 13 37	45.6	26.45	299.75
100.00	13 51 16	1285.43	.24	343.28	158.06	119.89	14 12 42	685.4	4.21	336.75
100.00	18 45 56	5601.27	27.23	262.12	168.79	102.83	20 19 17	5001.3	28.73	253.64
110.00	14 17 40	1202.64	-4.73	333.92	154.97	123.89	14 37 43	602.6	-.24	327.71
110.00	20 36 1	5256.82	32.96	237.28	170.11	99.61	22 3 38	4656.8	33.94	228.17

DIFFERENTIAL CORRECTIONS

TDE	.5271	TRA	5.8473	TC3	-1.7618	BAU	.9325												
RDE	.3852	RRA	-.4455	RC3	.0375	FAU	.01159												
FDE	.3397	FRA	2.2296	FC3	-.2536	BSP	21171												
BDE	.6529	BRA	5.8643	BC3	1.7622	FSP	-714												

MID-COURSE EXECUTION ACCURACY

SGT	6284.1	SGR	569.8	SG3	196.8														
RRT	-.7129	RRF	-.6965	RTF	.9744														
SGB	6309.9	R23	-.0014	R13	-.9744														
SG1	6297.2	SG2	398.7	THA	176.29														

ORBIT DETERMINATION ACCURACY

ST	1823.7	SR	375.5	SS	605.8														
CRT	-.0981	CRS	-.0676	CST	-.9860														
LSA	1919.5	MSA	386.1	SSA	12.8														
EL1	1824.1	EL2	373.6	ALF	178.79														

LAUNCH DATE AUG 13 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 607.997

RL	151.57	LAL	.00	LOL	319.84	VL	26.124	GAL	11.37	AZL	90.29	HCA	291.99	SMA	124.17	ECC	.29262	INC	.2921
RP	108.58	LAP	.27	LOP	251.83	VP	37.091	GAP	15.45	AZP	90.11	TAL	149.03	TAP	81.02	RCA	87.84	APO	160.51
RC	161.784	GL	-1.13	GP	11.88	ZAL	34.78	ZAP	167.25	ETS	64.85	ZAE	121.41	ETE	172.86	ZAC	114.26	ETC	262.78

V1	29.396	V2	34.901	CLP	-175.32														

PLANETOCENTRIC CONIC

C3	44.045	VHL	6.637	DLA	-23.71	RAL	286.51	RAD	6568.7	VEL	12.861	PTH	2.34	VHP	9.922	DPA	-11.03	RAP	257.25
ECC	1.7249																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 40 27	1559.17	-.14	3.21	161.37	118.32	13 6 26	959.2	3.64	356.57
90.00	17 22 53	618.13	25.18	306.11	171.15	103.40	17 33 11	18.1	26.78	297.81
100.00	13 42 44	1358.12	-2.23	347.27	160.21	119.82	14 5 22	758.1	1.76	340.75
100.00	19 3 17	5582.46	27.51	260.79	171.74	102.18	20 36 19	4982.5	28.91	252.27
110.00	14 12 57	1263.32	-7.02	337.12	157.24	123.54	14 34 1	663.3	-2.56	330.87
110.00	20 49 32	5250.02	33.04	236.76	172.95	99.31	22 17 2	4650.0	33.97	227.65

DIFFERENTIAL CORRECTIONS

TDE	.6757	TRA	6.2643	TC3	-1.5555	BAU	.9161												
RDE	.3953	RRA	-.4582	RC3	.0305	FAU	.00972												
FDE	.3694	FRA	2.2619	FC3	-.1910	BSP	21313												
BDE	.7828	BRA	6.2811	BC3	1.5558	FSP	-682												

MID-COURSE EXECUTION ACCURACY

SGT	6284.4	SGR	552.1	SG3	187.6														
RRT	-.7023	RRF	-.6865	RTF	.9752														
SGB	6308.6	R23	-.0015	R13	-.9752														
SG1	6296.4	SG2	392.2	THA	176.46														

ORBIT DETERMINATION ACCURACY

ST	1866.6	SR	365.0	SS	612.9														
CRT	-.0450	CRS	-.0992	CST	-.9894														
LSA	1962.9	MSA	374.4	SSA	12.5														
EL1	1866.7	EL2	364.7	ALF	179.48														

LAUNCH DATE AUG 13 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 612.846

RL	151.57	LAL	.00	LOL	319.84	VL	26.094	GAL	12.24	AZL	90.09	HCA	295.17	SMA	123.99	ECC	.30360	INC	.0904
RP	108.61	LAP	.08	LOP	255.01	VP	37.060	GAP	16.22	AZP	90.04	TAL	147.96	TAP	83.12	RCA	86.35	APO	161.63
RC	163.865	GL	-.33	GP	11.57	ZAL	33.72	ZAP	167.90	ETS	69.23	ZAE	121.14	ETE	173.06	ZAC	114.07	ETC	263.28

V1	29.396	V2	34.890	CLP	-176.42														

PLANETOCENTRIC CONIC

C3	49.192	VHL	7.014	DLA	-22.80	RAL	287.53	RAD	6568.8	VEL	13.060	PTH	2.38	VHP	10.383	DPA	-11.62	RAP	259.27
ECC	1.8096																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 31 17	1633.70	-2.55	7.36	163.54	118.21	12 58 30	1033.7	1.25	.74
90.00	17 40 14	5887.08	25.48	282.70	174.10	102.80	19 18 21	5287.1	26.99	274.36
100.00	13 35 32	1426.28	-4.53	351.02	162.44	119.58	13 59 19	826.3	-.56	344.49
100.00	19 18 39	5569.73	27.69	259.89	174.63	101.74	20 51 29	4969.7	29.03	251.34
110.00	14 8 52	1321.80	-9.21	340.24	159.58	123.07	14 30 54	721.8	-4.79	333.94
110.00	21 1 49	5246.98	33.07	236.53	175.79	99.18	22 29 16	4647.0	33.99	227.41

DIFFERENTIAL CORRECTIONS

TDE	.8321	TRA	6.7112	TC3	-1.3577	BAU	.8930												
RDE	.4055	RRA	-.4707	RC3	.0241	FAU	.00785												
FDE	.3980	FRA	2.2984	FC3	-.1381	BSP	21384												
BDE	.9257	BRA	6.7277	BC3	1.3579	FSP	-650												

MID-COURSE EXECUTION ACCURACY

SGT	6281.6	SGR	533.7	SG3	179.0														
RRT	-.6919	RRF	-.6769	RTF	.9762														
SGB	6304.2	R23	-.0015	R13	-.9762														
SG1	6292.5	SG2	384.7	THA	176.62														

ORBIT DETERMINATION ACCURACY

ST	1910.1	SR	354.1	SS	621.0														
CRT	.0027	CRS	-.1275	CST	-.9920														
LSA	2007.1	MSA	361.7	SSA	12.1														
EL1	1910.1	EL2	354.1	ALF	.03														

LAUNCH DATE AUG 13 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 617.520

RL	151.57	LAL	.00	LOL	319.84	VL	26.064	GAL	13.18	AZL	89.88	HCA	298.34	SMA	123.81	ECC	.31565	INC	.1189
RP	108.65	LAP	-.11	LOP	258.18	VP	37.029	GAP	17.04	AZP	89.94	TAL	146.93	TAP	85.27	RCA	84.73	APO	162.89
RC	165.932	GL	.41	GP	11.29	ZAL	32.75	ZAP	168.45	ETS	74.14	ZAE	120.85	ETE	173.24	ZAC	113.90	ETC	263.79

V1	29.396	V2	34.880	CLP	-177.53														

PLANETOCENTRIC CONIC

C3	55.151	VHL	7.426	DLA	-21.94	RAL	288.48	RAD	6569.0	VEL	13.286	PTH	2.43	VHP	10.885	DPA	-12.17	RAP	261.28
ECC	1.9076																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 23 34	1703.19	-4.77	11.26	165.79	117.94	12 51 57	1103.2	-1.00	4.61
90.00	17 55 31	5874.34	25.67	281.81	176.99	102.39	19 33 25	5274.3	27.12	273.45
100.00	13 29 22	1490.82	-6.69	354.60	164.74	119.20	13 54 13	890.8	-2.74	348.03
100.00	19 32 24	5561.93	27.80	259.34	177.49	101.47	21 5 6	4961.9	29.09	250.77
110.00	14 5 15	1378.32	-11.29	343.29	161.96	122.48	14 28 13	778.3	-6.93	336.92
110.00	21 13 0	5247.20	33.07	236.55	178.61	99.19	22 40 27	4647.2	33.99	227.43

DIFFERENTIAL CORRECTIONS

TDE	.9973	TRA	7.1905	TC3	-1.1692	BAU	.8622												
RDE	.4159	RRA	-.4827	RC3	.0181	FAU	.00597												
FDE	.4260	FRA	2.3396	FC3	-.0936	BSP	21382												
BDE	1.0805	BRA	7.2067	BC3	1.1693	FSP	-618												

MID-COURSE EXECUTION ACCURACY

SGT	6275.3	SGR	514.7	SG3	170.9														
RRT	-.6816	RRF	-.6674	RTF	.9773														
SGB	6296.4	R23	-.0014	R13	-.9773														
SG1	6285.2	SG2	376.0	THA	176.79														

ORBIT DETERMINATION ACCURACY

ST	1953.0	SR	342.8	SS	630.1														
CRT	.0459	CRS	-.1530	CST	-.9940														
LSA	2051.2	MSA	348.2	SSA	11.7														
EL1	1953.1	EL2	342.4	ALF	.48														

LAUNCH DATE AUG 14 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 23 1970

HELIOCENTRIC CONIC DISTANCE 150.976

RL	151.54	LAL	.00	LOL	320.80	VL	20.802	GAL	5.79	AZL	93.43	HCA	57.42	SMA	100.63	ECC	.51333	INC	3.4265	V1	29.401
RP	108.49	LAP	-2.89	LOP	18.18	VP	33.581	GAP	-30.59	AZP	91.85	TAL	174.46	TAP	231.88	RCA	48.97	APO	152.29	V2	34.929
RC	47.541	GL	-7.77	GP	-5.83	ZAL	74.75	ZAP	20.62	ETS	161.59	ZAE	162.46	ETE	169.82	ZAC	91.78	ETC	256.93	CLP	19.82

PLANETOCENTRIC CONIC

C3	83.722	VHL	9.150	DLA	-28.99	RAL	242.80	RAD	6569.6	VEL	14.320	PTH	2.60	VHP	18.026	DPA	-17.60	RAP	214.10	ECC	2.3779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.50	11 9 28	1418.25	10.07	358.33	134.08	117.33	11 33 6	818.3	13.66	351.44
96.50	12 57 18	1069.41	10.09	332.76	134.09	117.33	13 15 7	469.4	13.67	325.87
100.00	12 23 11	1179.08	3.84	337.44	130.67	119.67	12 42 50	579.1	7.76	330.85
100.00	14 26 16	783.82	16.45	314.89	137.32	115.32	14 39 19	183.8	19.72	307.62
110.00	12 12 4	1214.08	-5.16	334.53	125.12	123.84	12 32 18	614.1	-.68	328.30
110.00	16 53 52	5609.62	26.10	262.35	141.95	112.90	18 27 22	5009.6	28.97	254.34

DIFFERENTIAL CORRECTIONS

TDE	.2126	TRA	-1.0889	TC3	-.0843	BAU	.0957
RDE	-.7102	RRA	-.0400	RC3	.0142	FAU	.01574
FDE	-.1538	FRA	.5008	FC3	-.1628	BSP	2057
BDE	.7413	BRA	1.0897	BC3	.0855	FSP	-86

MID-COURSE EXECUTION ACCURACY

SGT	805.8	SGR	446.4	SG3	41.1		
RRT	-.1137	RRF	.1169	RTF	-.6424		
SGB	921.1	R23	-.0124	R13	.6438		
SG1	808.0	SG2	442.2	THA	174.85		

ORBIT DETERMINATION ACCURACY

ST	269.1	SR	444.8	SS	225.3
CRT	-.4778	CRS	-.6512	CST	.9744
LSA	504.0	MSA	258.4	SSA	14.0
EL1	469.0	EL2	224.2	ALF	111.19

LAUNCH DATE AUG 14 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 157.343

RL	151.54	LAL	.00	LOL	320.80	VL	21.316	GAL	5.52	AZL	93.19	HCA	60.61	SMA	102.31	ECC	.48851	INC	3.1947	V1	29.401
RP	108.45	LAP	-2.78	LOP	21.37	VP	33.914	GAP	-29.06	AZP	91.57	TAL	174.17	TAP	234.77	RCA	52.33	APO	152.29	V2	34.942
RC	46.171	GL	-7.88	GP	-6.06	ZAL	74.14	ZAP	19.18	ETS	159.50	ZAE	164.34	ETE	170.04	ZAC	91.84	ETC	257.09	CLP	18.23

PLANETOCENTRIC CONIC

C3	74.449	VHL	8.628	DLA	-29.21	RAL	243.47	RAD	6569.4	VEL	13.993	PTH	2.55	VHP	17.203	DPA	-18.40	RAP	215.57	ECC	2.2252

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.52	11 4 14	1416.68	10.99	358.69	133.13	117.24	11 27 50	816.7	14.55	351.77
97.48	13 7 51	1017.06	11.00	329.38	133.14	117.23	13 24 48	417.1	14.57	322.46
100.00	12 33 44	1126.53	5.60	334.54	130.20	119.41	12 52 31	526.5	9.48	327.89
100.00	14 21 2	782.45	16.49	314.80	135.92	115.29	14 34 4	182.4	19.76	307.54
110.00	12 17 38	1177.24	-3.76	332.59	124.42	124.00	12 37 15	577.2	.73	326.38
110.00	16 53 37	5592.54	26.55	261.22	140.69	112.37	18 26 50	4992.5	29.34	253.15

DIFFERENTIAL CORRECTIONS

TDE	.2091	TRA	-1.0768	TC3	-.0818	BAU	.0825
RDE	-.6775	RRA	-.0283	RC3	.0133	FAU	.01622
FDE	-.1561	FRA	.5177	FC3	-.1886	BSP	2193
BDE	.7091	BRA	1.0771	BC3	.0829	FSP	-96

MID-COURSE EXECUTION ACCURACY

SGT	842.8	SGR	451.0	SG3	45.0		
RRT	-.1265	RRF	.1305	RTF	-.6625		
SGB	955.9	R23	-.0142	R13	.6640		
SG1	845.5	SG2	446.0	THA	174.63		

ORBIT DETERMINATION ACCURACY

ST	282.3	SR	450.0	SS	234.1
CRT	-.4794	CRS	-.6473	CST	.9760
LSA	514.8	MSA	267.8	SSA	14.3
EL1	477.0	EL2	233.7	ALF	112.39

LAUNCH DATE AUG 14 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 163.769

RL	151.54	LAL	.00	LOL	320.80	VL	21.793	GAL	5.23	AZL	92.98	HCA	63.79	SMA	103.96	ECC	.46482	INC	2.9769	V1	29.401
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.229	GAP	-27.60	AZP	91.32	TAL	173.92	TAP	237.71	RCA	55.64	APO	152.28	V2	34.954
RC	44.918	GL	-7.96	GP	-6.31	ZAL	73.62	ZAP	17.77	ETS	157.02	ZAE	166.39	ETE	170.49	ZAC	91.87	ETC	257.26	CLP	16.64

PLANETOCENTRIC CONIC

C3	66.237	VHL	8.139	DLA	-29.38	RAL	244.04	RAD	6569.3	VEL	13.696	PTH	2.50	VHP	16.413	DPA	-19.23	RAP	217.04	ECC	2.0901

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.81	11 0 53	1407.17	11.91	358.47	132.03	117.06	11 24 20	807.2	15.44	351.50
98.19	13 15 47	971.36	11.92	326.49	132.04	117.06	13 31 58	371.4	15.46	319.52
100.00	12 43 24	1075.09	7.31	331.68	129.54	119.07	13 1 19	475.1	11.13	324.97
100.00	14 15 57	778.67	16.60	314.58	134.40	115.22	14 28 55	178.7	19.86	307.30
110.00	12 22 19	1141.50	-2.40	330.72	123.58	124.11	12 41 21	541.5	2.09	324.52
110.00	16 53 31	5573.07	27.05	259.93	139.28	111.74	18 26 24	4973.1	29.75	251.78

DIFFERENTIAL CORRECTIONS

TDE	.1981	TRA	-1.0729	TC3	-.0824	BAU	.0737
RDE	-.6455	RRA	-.0172	RC3	.0118	FAU	.01669
FDE	-.1573	FRA	.5360	FC3	-.2181	BSP	2129
BDE	.6752	BRA	1.0730	BC3	.0832	FSP	-105

MID-COURSE EXECUTION ACCURACY

SGT	888.2	SGR	455.0	SG3	49.3		
RRT	-.1334	RRF	.1443	RTF	-.6771		
SGB	997.9	R23	-.0231	R13	.6789		
SG1	890.9	SG2	449.5	THA	174.75		

ORBIT DETERMINATION ACCURACY

ST	295.1	SR	454.4	SS	242.6
CRT	-.4644	CRS	-.6405	CST	.9744
LSA	523.3	MSA	279.9	SSA	14.6
EL1	482.8	EL2	246.0	ALF	113.10

LAUNCH DATE AUG 14 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 170.247

RL	151.54	LAL	.00	LOL	320.80	VL	22.236	GAL	4.93	AZL	92.77	HCA	66.98	SMA	105.57	ECC	.44226	INC	2.7705	V1	29.401
RP	108.38	LAP	-2.55	LOP	27.76	VP	34.526	GAP	-26.21	AZP	91.08	TAL	173.72	TAP	240.70	RCA	58.88	APO	152.26	V2	34.967
RC	43.790	GL	-8.02	GP	-6.59	ZAL	73.19	ZAP	16.41	ETS	154.07	ZAE	168.60	ETE	171.32	ZAC	91.87	ETC	257.44	CLP	15.06

PLANETOCENTRIC CONIC

C3	58.955	VHL	7.678	DLA	-29.51	RAL	244.52	RAD	6569.1	VEL	13.428	PTH	2.45	VHP	15.654	DPA	-20.06	RAP	218.52	ECC	1.9703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.31	10 58 54	1391.44	12.83	357.79	130.78	116.81	11 22 6	791.4	16.32	350.77
98.69	13 21 33	930.78	12.84	323.96	130.79	116.80	13 37 4	330.8	16.34	316.94
100.00	12 51 41	1026.39	8.91	328.95	128.69	118.65	13 8 47	426.4	12.67	322.17
100.00	14 11 27	771.06	16.82	314.12	132.79	115.08	14 24 19	171.1	20.06	306.83
110.00	12 26 2	1107.20	-1.09	328.93	122.58	124.17	12 44 29	507.2	3.40	322.73
110.00	16 53 35	5551.06	27.60	258.45	137.73	111.02	18 26 6	4951.1	30.20	250.22

DIFFERENTIAL CORRECTIONS

TDE	.2056	TRA	-1.0509	TC3	-.0694	BAU	.0552
RDE	-.6144	RRA	-.0070	RC3	.0093	FAU	.01733
FDE	-.1612	FRA	.5522	FC3	-.2544	BSP	2493
BDE	.6479	BRA	1.0509	BC3	.0700	FSP	-120

MID-COURSE EXECUTION ACCURACY

SGT	920.3	SGR	458.7	SG3	54.1		
RRT	-.1573	RRF	.1629	RTF	-.7009		
SGB	1028.3	R23	-.0179	R13	.7027		
SG1	924.0	SG2	451.2	THA	174.11		

ORBIT DETERMINATION ACCURACY

ST	310.8	SR	458.5	SS	252.3
CRT	-.4901	CRS	-.6419	CST	.9800
LSA	537.7	MSA	284.9	SSA	14.7
EL1	493.4	EL2	251.8	ALF	115.45

LAUNCH DATE AUG 14 1970 FLIGHT TIME 78.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 176.775

RL	151.54	LAL	.00	LOL	320.80	VL	22.647	GAL	4.63	AZL	92.57	HCA	70.17	SMA	107.14	ECC	.42083	INC	2.5735	V1	29.401
RP	108.34	LAP	-2.42	LOP	30.95	VP	34.805	GAP	-24.88	AZP	90.87	TAL	173.58	TAP	243.74	RCA	62.05	APO	152.23	V2	34.980
RC	42.797	GL	-8.04	GP	-6.90	ZAL	72.85	ZAP	15.12	ETS	150.52	ZAE	170.97	ETE	172.89	ZAC	91.84	ETC	257.62	CLP	13.49

PLANETOCENTRIC CONIC

C3 52.503 VHL 7.246 DLA -29.60 RAL 244.89 RAD 6568.9 VEL 13.186 PTH 2.41 VHP 14.926 DPA -20.92 RAP 220.01 ECC 1.8641

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.01	10 58 4	1370.44	13.73	356.70	129.39	116.48	11 20 54	770.4	17.18	349.62
98.99	13 25 24	894.71	13.75	321.76	129.40	116.47	13 40 19	294.7	17.19	314.68
100.00	12 57 47	983.10	10.32	326.50	127.59	118.21	13 14 10	383.1	14.01	319.66
100.00	14 8 22	757.29	17.21	313.29	131.13	114.82	14 21 0	157.3	20.42	305.96
110.00	12 28 42	1074.77	.15	327.24	121.42	124.18	12 46 37	474.8	4.64	321.03
110.00	16 53 56	5526.42	28.19	256.77	136.04	110.19	18 26 3	4926.4	30.67	248.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2049	TRA	-1.0372	TC3	-.0585	BAU	.0413	SGT	960.8	SGR	461.8	SG3	59.2	ST	326.1	SR	461.8	SS	261.7
RDE	-.5840	RRA	.0027	RC3	.0057	FAU	.01798	RRT	-.1753	RRF	.1820	RTF	-.7189	CRT	-.4982	CRS	-.6402	CST	.9822
FDE	-.1640	FRA	.5701	FC3	-.2964	BSP	2651	SGB	1066.0	R23	-.0203	R13	.7208	LSA	549.9	MSA	292.3	SSA	15.0
BDE	.6189	BRA	1.0372	BC3	.0588	FSP	-134	SG1	965.1	SG2	452.6	THA	173.82	EL1	501.9	EL2	260.1	ALF	117.26

LAUNCH DATE AUG 14 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 183.346

RL	151.54	LAL	.00	LOL	320.80	VL	23.028	GAL	4.32	AZL	92.38	HCA	73.36	SMA	108.67	ECC	.40053	INC	2.3842	V1	29.401
RP	108.29	LAP	-2.28	LOP	34.15	VP	35.067	GAP	-23.61	AZP	90.68	TAL	173.48	TAP	246.84	RCA	65.14	APO	152.19	V2	34.993
RC	41.950	GL	-8.03	GP	-7.23	ZAL	72.61	ZAP	13.90	ETS	146.22	ZAE	173.47	ETE	176.14	ZAC	91.77	ETC	257.82	CLP	11.90

PLANETOCENTRIC CONIC

C3 46.782 VHL 6.840 DLA -29.63 RAL 245.17 RAD 6568.7 VEL 12.967 PTH 2.36 VHP 14.226 DPA -21.80 RAP 221.49 ECC 1.7699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.91	10 58 23	1344.15	14.61	355.20	127.86	116.06	11 20 48	744.1	18.00	348.06
99.09	13 27 17	863.46	14.63	319.89	127.87	116.05	13 41 41	263.5	18.01	312.75
100.00	13 0 38	948.73	11.41	324.54	126.20	117.82	13 16 26	348.7	15.05	317.64
100.00	14 7 44	734.11	17.87	311.88	129.46	114.37	14 19 58	134.1	21.01	304.49
110.00	12 30 13	1044.63	1.31	325.67	120.10	124.16	12 47 37	444.6	5.78	319.44
110.00	16 54 38	5499.01	28.82	254.89	134.22	109.24	18 26 18	4899.0	31.16	246.47

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2048	TRA	-1.0230	TC3	-.0439	BAU	.0275	SGT	1002.5	SGR	464.6	SG3	64.9	ST	341.9	SR	464.5	SS	271.2
RDE	-.5545	RRA	.0119	RC3	.0006	FAU	.01870	RRT	-.1955	RRF	.2034	RTF	-.7360	CRT	-.5082	CRS	-.6393	CST	.9845
FDE	-.1669	FRA	.5885	FC3	-.3460	BSP	2816	SGB	1104.9	R23	-.0229	R13	.7381	LSA	562.8	MSA	298.7	SSA	15.2
BDE	.5911	BRA	1.0231	BC3	.0439	FSP	-150	SG1	1007.6	SG2	453.3	THA	173.50	EL1	510.8	EL2	267.8	ALF	119.26

LAUNCH DATE AUG 14 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 189.956

RL	151.54	LAL	.00	LOL	320.80	VL	23.381	GAL	4.01	AZL	92.20	HCA	76.56	SMA	110.15	ECC	.38134	INC	2.2009	V1	29.401
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.313	GAP	-22.40	AZP	90.51	TAL	173.44	TAP	249.99	RCA	68.14	APO	152.15	V2	35.007
RC	41.257	GL	-7.97	GP	-7.60	ZAL	72.46	ZAP	12.79	ETS	141.01	ZAE	176.04	ETE	184.56	ZAC	91.66	ETC	258.03	CLP	10.31

PLANETOCENTRIC CONIC

C3 41.712 VHL 6.459 DLA -29.59 RAL 245.35 RAD 6568.6 VEL 12.770 PTH 2.32 VHP 13.554 DPA -22.69 RAP 222.98 ECC 1.6865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.02	10 59 56	1312.60	15.45	353.28	126.20	115.56	11 21 49	712.6	18.77	346.08
98.98	13 27 9	837.29	15.47	318.37	126.21	115.55	13 41 6	237.3	18.78	311.17
100.00	12 59 27	925.92	12.14	323.23	124.50	117.53	13 14 53	325.9	15.73	316.28
100.00	14 10 19	699.20	18.84	309.74	127.82	113.65	14 21 59	99.2	21.88	302.26
110.00	12 30 29	1017.25	2.35	324.24	118.63	124.11	12 47 26	417.2	6.81	317.99
110.00	16 55 47	5468.68	29.48	252.78	132.27	108.15	18 26 56	4868.7	31.67	244.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2051	TRA	-1.0088	TC3	-.0247	BAU	.0142	SGT	1045.6	SGR	467.1	SG3	71.3	ST	358.4	SR	466.6	SS	280.9
RDE	-.5259	RRA	.0207	RC3	-.0062	FAU	.01949	RRT	-.2178	RRF	.2273	RTF	-.7524	CRT	-.5194	CRS	-.6386	CST	.9867
FDE	-.1698	FRA	.6076	FC3	-.4046	BSP	2971	SGB	1145.2	R23	-.0261	R13	.7547	LSA	576.4	MSA	304.3	SSA	15.5
BDE	.5644	BRA	1.0090	BC3	.0254	FSP	-167	SG1	1051.7	SG2	453.2	THA	173.17	EL1	520.3	EL2	274.6	ALF	121.40

LAUNCH DATE AUG 14 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 196.599

RL	151.54	LAL	.00	LOL	320.80	VL	23.709	GAL	3.71	AZL	92.02	HCA	79.75	SMA	111.58	ECC	.36324	INC	2.0223	V1	29.401
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.544	GAP	-21.23	AZP	90.36	TAL	173.45	TAP	253.20	RCA	71.05	APO	152.10	V2	35.020
RC	40.727	GL	-7.87	GP	-8.01	ZAL	72.41	ZAP	11.81	ETS	134.71	ZAE	178.27	ETE	221.46	ZAC	91.50	ETC	258.24	CLP	8.71

PLANETOCENTRIC CONIC

C3 37.220 VHL 6.101 DLA -29.50 RAL 245.42 RAD 6568.5 VEL 12.593 PTH 2.28 VHP 12.908 DPA -23.61 RAP 224.45 ECC 1.6126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.37	11 3 1	1274.89	16.24	350.87	124.41	114.97	11 24 16	674.9	19.47	343.60
98.63	13 24 39	817.44	16.25	317.28	124.42	114.96	13 38 17	217.4	19.48	310.01
100.00	12 54 23	914.35	12.50	322.56	122.51	117.38	13 9 38	314.4	16.07	315.59
100.00	14 15 58	653.21	20.07	306.88	126.19	112.63	14 26 52	53.2	22.96	299.28
110.00	12 29 24	993.07	3.27	322.98	116.99	124.04	12 45 58	393.1	7.72	316.71
110.00	16 57 27	5435.29	30.16	250.42	130.19	106.91	18 28 2	4835.3	32.18	241.78

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2058	TRA	-.9939	TC3	-.0003	BAU	.0076	SGT	1089.7	SGR	469.4	SG3	78.2	ST	375.3	SR	468.0	SS	290.6
RDE	-.4983	RRA	.0291	RC3	-.0152	FAU	.02038	RRT	-.2427	RRF	.2541	RTF	-.7678	CRT	-.5322	CRS	-.6383	CST	.9890
FDE	-.1728	FRA	.6276	FC3	-.4740	BSP	3140	SGB	1186.5	R23	-.0298	R13	.7704	LSA	590.6	MSA	308.6	SSA	15.7
BDE	.5391	BRA	.9943	BC3	.0152	FSP	-187	SG1	1096.8	SG2	452.3	THA	172.80	EL1	530.4	EL2	280.4	ALF	123.65

LAUNCH DATE AUG 14 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 203.272

RL	151.54	LAL	.00	LOL	320.80	VL	24.012	GAL	3.41	AZL	91.85	HCA	82.96	SMA	112.95	ECC	.34621	INC	1.8471	V1	29.401
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.760	GAP	-20.12	AZP	90.23	TAL	173.51	TAP	256.47	RCA	73.84	APO	152.05	V2	35.033
RC	40.367	GL	-7.70	GP	-8.45	ZAL	72.46	ZAP	11.02	ETS	127.19	ZAE	177.50	ETE	304.58	ZAC	91.29	ETC	258.47	CLP	7.10

PLANETOCENTRIC CONIC

C3 33.242 VHL 5.766 DLA -29.33 RAL 245.39 RAD 6568.3 VEL 12.434 PTH 2.25 VHP 12.288 DPA -24.56 RAP 225.92 ECC 1.5471

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.03	11 8 5	1229.76	16.96	347.88	122.50	114.29	11 28 35	629.8	20.10	340.53
97.97	13 19 23	805.48	16.97	316.74	122.50	114.28	13 32 48	205.5	20.11	309.40
100.00	12 46 15	911.67	12.58	322.41	120.31	117.34	13 1 27	311.7	16.15	315.43
100.00	14 23 53	5886.85	21.46	281.34	124.50	111.33	16 2 0	5286.8	24.16	273.59
110.00	12 26 56	972.54	4.06	321.90	115.21	123.97	12 43 8	372.5	8.49	315.62
110.00	16 59 42	5398.74	30.86	247.80	127.98	105.50	18 29 41	4798.7	32.67	239.05

DIFFERENTIAL CORRECTIONS

TDE	.2068	TRA	-.9782	TC3	.0306	BAU	.0182	SGT	1134.3	SGR	471.7	SG3	85.9	ST	392.6	SR	468.9	SS	300.2
RDE	-.4717	RRA	.0373	RC3	-.0271	FAU	.02137	RRT	-.2706	RRF	.2841	RTF	-.7825	CRT	-.5464	CRS	-.6382	CST	.9912
FDE	-.1755	FRA	.6484	FC3	-.5566	BSP	3312	SGB	1228.5	R23	-.0338	R13	.7853	LSA	605.5	MSA	311.8	SSA	16.0
BDE	.5150	BRA	.9789	BC3	.0408	FSP	-208	SG1	1142.8	SG2	450.7	THA	172.39	EL1	541.1	EL2	284.9	ALF	125.95

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 14 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 209.969

RL	151.54	LAL	.00	LOL	320.80	VL	24.292	GAL	3.12	AZL	91.67	HCA	86.16	SMA	114.27	ECC	.33023	INC	1.6742	V1	29.401
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.962	GAP	-19.04	AZP	90.11	TAL	173.64	TAP	259.80	RCA	76.53	APO	152.00	V2	35.046
RC	40.182	GL	-7.47	GP	-8.95	ZAL	72.60	ZAP	10.48	ETS	118.48	ZAE	174.85	ETE	323.86	ZAC	91.03	ETC	258.69	CLP	5.47

PLANETOCENTRIC CONIC

C3 29.722 VHL 5.452 DLA -29.07 RAL 245.27 RAD 6568.2 VEL 12.292 PTH 2.21 VHP 11.693 DPA -25.54 RAP 227.36 ECC 1.4892

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.12	11 16 14	1173.80	17.59	344.04	120.47	113.52	11 35 48	573.8	20.63	336.63
96.88	13 10 13	805.17	17.61	317.02	120.48	113.51	13 23 38	205.2	20.64	309.60
100.00	12 35 50	915.62	12.46	322.64	117.94	117.39	12 51 6	315.6	16.03	315.67
100.00	14 33 18	5826.62	22.90	277.44	122.71	109.76	16 10 25	5226.6	25.38	269.53
110.00	12 22 59	956.08	4.68	321.04	113.29	123.90	12 38 55	356.1	9.10	314.74
110.00	17 2 39	5358.92	31.54	244.90	125.65	103.91	18 31 58	4758.9	33.13	236.03

DIFFERENTIAL CORRECTIONS

TDE	.2080	TRA	-.9622	TC3	.0683	BAU	.0319	SGT	1179.8	SGR	474.3	SG3	94.4	ST	410.2	SR	469.1	SS	309.8
RDE	-.4461	RRA	.0453	RC3	-.0423	FAU	.02247	RRT	-.3020	RRF	.3177	RTF	-.7965	CRT	-.5621	CRS	-.6380	CST	.9933
FDE	-.1782	FRA	.6705	FC3	-.6545	BSP	3484	SGB	1271.5	R23	-.0383	R13	.7997	LSA	621.0	MSA	313.7	SSA	16.3
BDE	.4922	BRA	.9632	BC3	.0804	FSP	-232	SG1	1189.9	SG2	448.3	THA	171.92	EL1	552.6	EL2	288.0	ALF	128.26

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 14 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 216.686

RL	151.54	LAL	.00	LOL	320.80	VL	24.551	GAL	2.83	AZL	91.50	HCA	89.36	SMA	115.52	ECC	.31526	INC	1.5026	V1	29.401
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.150	GAP	-18.01	AZP	90.02	TAL	173.82	TAP	263.18	RCA	79.10	APO	151.95	V2	35.060
RC	40.174	GL	-7.16	GP	-9.50	ZAL	72.84	ZAP	10.23	ETS	108.83	ZAE	171.98	ETE	329.30	ZAC	90.70	ETC	258.93	CLP	3.81

PLANETOCENTRIC CONIC

C3 26.610 VHL 5.159 DLA -28.73 RAL 245.04 RAD 6568.1 VEL 12.165 PTH 2.18 VHP 11.122 DPA -26.55 RAP 228.78 ECC 1.4379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.96	11 30 13	1098.25	18.13	338.73	118.34	112.67	11 48 31	498.2	21.05	331.23
95.04	12 54 27	825.56	18.14	318.75	118.35	112.66	13 8 12	225.6	21.06	311.26
100.00	12 23 39	924.82	12.17	323.17	115.45	117.51	12 39 3	324.8	15.76	316.22
100.00	14 43 42	5762.26	24.31	273.19	120.80	107.95	16 19 45	5162.3	26.54	265.09
110.00	12 17 31	944.07	5.14	320.41	111.24	123.84	12 33 15	344.1	9.55	314.09
110.00	17 6 19	5315.78	32.21	241.71	123.20	102.13	18 34 55	4715.8	33.54	232.73

DIFFERENTIAL CORRECTIONS

TDE	.2088	TRA	-.9459	TC3	.1141	BAU	.0462	SGT	1225.9	SGR	477.4	SG3	103.9	ST	427.8	SR	468.7	SS	319.0
RDE	-.4216	RRA	.0533	RC3	-.0618	FAU	.02369	RRT	-.3367	RRF	.3551	RTF	-.8096	CRT	-.5781	CRS	-.6372	CST	.9951
FDE	-.1802	FRA	.6939	FC3	-.7708	BSP	3664	SGB	1315.6	R23	-.0437	R13	.8131	LSA	636.6	MSA	314.5	SSA	16.6
BDE	.4705	BRA	.9474	BC3	.1297	FSP	-259	SG1	1238.0	SG2	445.2	THA	171.41	EL1	564.6	EL2	289.8	ALF	130.50

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 14 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 223.420

RL	151.54	LAL	.00	LOL	320.80	VL	24.791	GAL	2.55	AZL	91.33	HCA	92.57	SMA	116.72	ECC	.30128	INC	1.3310	V1	29.401
RP	108.05	LAP	-1.33	LOP	53.38	VP	36.326	GAP	-17.02	AZP	89.94	TAL	174.05	TAP	266.62	RCA	81.56	APO	151.89	V2	35.073
RC	40.345	GL	-6.76	GP	-10.11	ZAL	73.17	ZAP	10.33	ETS	98.77	ZAE	169.09	ETE	331.42	ZAC	90.29	ETC	259.16	CLP	2.13

PLANETOCENTRIC CONIC

C3 23.863 VHL 4.885 DLA -28.27 RAL 244.73 RAD 6568.0 VEL 12.052 PTH 2.15 VHP 10.575 DPA -27.61 RAP 230.18 ECC 1.3927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 57 29	979.09	17.44	329.70	115.65	112.67	12 13 48	379.1	20.37	322.24
90.00	12 24 39	890.99	19.67	324.19	116.59	110.79	12 39 30	291.0	22.32	316.52
100.00	12 10 0	938.59	11.74	323.96	112.88	117.69	12 25 38	338.6	15.35	317.04
100.00	14 54 50	5694.76	25.65	268.62	118.74	105.90	16 29 45	5094.8	27.58	260.35
110.00	12 10 33	936.85	5.41	320.03	109.08	123.80	12 26 10	336.9	9.82	313.70
110.00	17 10 46	5269.26	32.82	238.22	120.63	100.15	18 38 36	4669.3	33.87	229.14

DIFFERENTIAL CORRECTIONS

TDE	.2092	TRA	-.9289	TC3	.1685	BAU	.0604	SGT	1271.9	SGR	481.6	SG3	114.3	ST	444.9	SR	467.6	SS	327.4
RDE	-.3981	RRA	.0614	RC3	-.0864	FAU	.02505	RRT	-.3749	RRF	.3965	RTF	-.8218	CRT	-.5945	CRS	-.6352	CST	.9966
FDE	-.1814	FRA	.7188	FC3	-.9087	BSP	3846	SGB	1360.0	R23	-.0498	R13	.8258	LSA	651.7	MSA	314.4	SSA	16.9
BDE	.4497	BRA	.9310	BC3	.1894	FSP	-290	SG1	1286.4	SG2	441.4	THA	170.83	EL1	576.6	EL2	290.2	ALF	132.61

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 14 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 230.165

RL	151.54	LAL	.00	LOL	320.80	VL	25.011	GAL	2.29	AZL	91.16	HCA	95.78	SMA	117.86	ECC	.28826	INC	1.1583	V1	29.401
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.489	GAP	-16.07	AZP	89.88	TAL	174.33	TAP	270.11	RCA	83.89	APO	151.84	V2	35.086
RC	40.692	GL	-6.26	GP	-10.79	ZAL	73.60	ZAP	10.80	ETS	88.99	ZAE	166.23	ETE	332.23	ZAC	89.81	ETC	259.40	CLP	.42

PLANETOCENTRIC CONIC

C3	21.440	VHL	4.630	DLA	-27.71	RAL	244.33	RAD	6567.9	VEL	11.951	PTH	2.13	VHP	10.050	DPA	-28.71	RAP	231.53	ECC	1.3529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 17 52	1076.96	14.78	335.64	112.08	114.43	11 35 49	477.0	17.95	328.41
90.00	13 1 4	741.10	22.98	314.45	115.35	107.02	13 13 26	141.1	25.09	306.42
100.00	11 55 4	956.69	11.16	325.00	110.25	117.91	12 11 1	356.7	14.81	318.11
100.00	15 6 33	5624.65	26.87	263.77	116.53	103.62	16 40 18	5024.7	28.47	255.33
110.00	12 2 4	934.73	5.49	319.91	106.83	123.79	12 17 38	334.7	9.89	313.59
110.00	17 16 3	5219.38	33.35	234.42	117.95	97.96	18 43 2	4619.4	34.09	225.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2111	TRA	-.9210	TC3	.2392	BAU	.0764	SGT	1332.1	SGR	487.2	SG3	125.9	ST	466.3	SR	465.8	SS	335.2
RDE	-.3757	RRA	.0698	RC3	-.1173	FAU	.02656	RRT	-.4176	RRF	.4421	RTF	-.8348	CRT	-.6112	CRS	-.6316	CST	.9976
FDE	-.1813	FRA	.7457	FC3	-1.0725	BSP	3988	SGB	1418.4	R23	-.0565	R13	.8392	LSA	669.2	MSA	314.0	SSA	17.3
BDE	.4309	BRA	.9237	BC3	.2664	FSP	-323	SG1	1349.4	SG2	437.0	THA	170.29	EL1	591.6	EL2	290.6	ALF	135.05

LAUNCH DATE AUG 14 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 236.919

RL	151.54	LAL	.00	LOL	320.80	VL	25.215	GAL	2.03	AZL	90.98	HCA	98.99	SMA	118.94	ECC	.27615	INC	.9835	V1	29.401
RP	107.97	LAP	-.97	LOP	59.80	VP	36.641	GAP	-15.15	AZP	89.85	TAL	174.66	TAP	273.66	RCA	86.10	APO	151.79	V2	35.098
RC	41.209	GL	-5.65	GP	-11.55	ZAL	74.13	ZAP	11.63	ETS	80.08	ZAE	163.44	ETE	332.36	ZAC	89.24	ETC	259.63	CLP	-1.33

PLANETOCENTRIC CONIC

C3	19.308	VHL	4.394	DLA	-27.01	RAL	243.85	RAD	6567.8	VEL	11.861	PTH	2.10	VHP	9.549	DPA	-29.87	RAP	232.84	ECC	1.3178

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 52 1	1130.87	13.24	338.85	109.03	115.26	11 10 52	530.9	16.53	331.72
90.00	13 23 5	637.19	24.87	307.43	113.41	103.99	13 33 42	37.2	26.55	299.16
100.00	11 39 0	979.10	10.44	326.27	107.60	118.17	11 55 19	379.1	14.13	319.42
100.00	15 18 48	5552.23	27.92	258.64	114.17	101.12	16 51 20	4952.2	29.18	250.06
110.00	11 52 6	937.96	5.37	320.08	104.52	123.81	12 7 44	338.0	9.77	313.76
110.00	17 22 11	5166.13	33.78	230.33	115.17	95.57	18 48 17	4566.1	34.18	221.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2075	TRA	-.8941	TC3	.3085	BAU	.0892	SGT	1363.4	SGR	495.1	SG3	138.7	ST	476.9	SR	462.9	SS	341.6
RDE	-.3540	RRA	.0786	RC3	-.1559	FAU	.02823	RRT	-.4630	RRF	.4915	RTF	-.8445	CRT	-.6274	CRS	-.6247	CST	.9980
FDE	-.1792	FRA	.7749	FC3	-1.2659	BSP	4213	SGB	1450.5	R23	-.0640	R13	.8496	LSA	679.0	MSA	311.5	SSA	17.7
BDE	.4104	BRA	.8975	BC3	.3457	FSP	-361	SG1	1384.7	SG2	432.1	THA	169.41	EL1	599.6	EL2	286.7	ALF	136.35

LAUNCH DATE AUG 14 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 243.678

RL	151.54	LAL	.00	LOL	320.80	VL	25.402	GAL	1.78	AZL	90.81	HCA	102.21	SMA	119.96	ECC	.26494	INC	.8056	V1	29.401
RP	107.93	LAP	-.79	LOP	63.01	VP	36.782	GAP	-14.27	AZP	89.83	TAL	175.04	TAP	277.25	RCA	88.18	APO	151.74	V2	35.111
RC	41.891	GL	-4.90	GP	-12.40	ZAL	74.74	ZAP	12.78	ETS	72.39	ZAE	160.75	ETE	332.06	ZAC	88.57	ETC	259.86	CLP	-3.13

PLANETOCENTRIC CONIC

C3	17.436	VHL	4.176	DLA	-26.16	RAL	243.30	RAD	6567.7	VEL	11.782	PTH	2.08	VHP	9.070	DPA	-31.09	RAP	234.09	ECC	1.2870

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 28 34	1178.13	11.85	341.63	106.12	115.91	10 48 12	578.1	15.24	334.59
90.00	13 42 11	5830.22	26.27	278.73	111.20	100.96	15 19 21	5230.2	27.52	270.28
100.00	11 21 53	1005.97	9.58	327.80	104.94	118.45	11 38 39	406.0	13.30	320.99
100.00	15 31 33	5477.61	28.79	253.27	111.68	98.42	17 2 51	4877.6	29.65	244.57
110.00	11 40 44	946.80	5.03	320.55	102.17	123.86	11 56 31	346.8	9.45	314.24
110.00	17 29 11	5109.55	34.07	225.93	112.30	92.99	18 54 21	4509.5	34.11	216.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2044	TRA	-.8770	TC3	.3930	BAU	.1032	SGT	1408.4	SGR	506.0	SG3	153.0	ST	490.4	SR	459.0	SS	346.6
RDE	-.3332	RRA	.0881	RC3	-.2035	FAU	.03007	RRT	-.5115	RRF	.5442	RTF	-.8543	CRT	-.6420	CRS	-.6137	CST	.9973
FDE	-.1745	FRA	.8069	FC3	-1.4933	BSP	4381	SGB	1496.6	R23	-.0733	R13	.8603	LSA	689.3	MSA	309.5	SSA	18.1
BDE	.3909	BRA	.8814	BC3	.4426	FSP	-403	SG1	1434.4	SG2	426.9	THA	168.56	EL1	609.0	EL2	283.4	ALF	137.95

LAUNCH DATE AUG 14 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 250.439

RL	151.54	LAL	.00	LOL	320.80	VL	25.574	GAL	1.55	AZL	90.62	HCA	105.43	SMA	120.92	ECC	.25458	INC	.6229	V1	29.401
RP	107.89	LAP	-.60	LOP	66.23	VP	36.913	GAP	-13.42	AZP	89.83	TAL	175.46	TAP	280.89	RCA	90.14	APO	151.70	V2	35.123
RC	42.728	GL	-4.01	GP	-13.35	ZAL	75.43	ZAP	14.23	ETS	65.96	ZAE	158.19	ETE	331.43	ZAC	87.78	ETC	260.09	CLP	-4.98

PLANETOCENTRIC CONIC

C3	15.798	VHL	3.975	DLA	-25.15	RAL	242.70	RAD	6567.6	VEL	11.712	PTH	2.06	VHP	8.614	DPA	-32.39	RAP	235.27	ECC	1.2600

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 5 49	1224.70	10.45	344.33	103.32	116.47	10 26 14	624.7	13.92	337.38
90.00	14 0 9	5738.42	27.30	272.20	108.79	97.84	15 35 47	5138.4	28.10	263.63
100.00	11 3 47	1037.52	8.55	329.57	102.31	118.75	11 21 5	437.5	12.32	322.82
100.00	15 44 51	5400.83	29.42	247.65	109.08	95.53	17 14 52	4800.8	29.88	238.87
110.00	11 28 2	961.47	4.48	321.32	99.82	123.92	11 44 3	361.5	8.90	315.03
110.00	17 37 6	5049.64	34.18	221.26	109.36	90.22	19 1 16	4449.6	33.84	212.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1968	TRA	-.8625	TC3	.4816	BAU	.1158	SGT	1453.9	SGR	520.7	SG3	168.7	ST	500.4	SR	453.2	SS	349.6
RDE	-.3127	RRA	.0987	RC3	-.2616	FAU	.03206	RRT	-.5594	RRF	.5989	RTF	-.8622	CRT	-.6498	CRS	-.5939	CST	.9954
FDE	-.1650	FRA	.8435	FC3	-1.7568	BSP	4494	SGB	1544.4	R23	-.0869	R13	.8693	LSA	694.4	MSA	309.1	SSA	18.6
BDE	.3694	BRA	.8682	BC3	.5481	FSP	-447	SG1	1485.5	SG2	422.5	THA	167.66	EL1	614.0	EL2	280.8	ALF	139.34

LAUNCH DATE AUG 14 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 257.198

RL 151.54 LAL .00 LOL 320.80 VL 25.731 GAL 1.32 AZL 90.43 HCA 108.65 SMA 121.82 ECC .24503 INC .4347 V1 29.401
RP 107.86 LAP -.41 LOP 69.45 VP 37.033 GAP -12.59 AZP 89.86 TAL 175.91 TAP 284.56 RCA 91.97 APO 151.66 V2 35.135
RC 43.711 GL -2.95 GP -14.42 ZAL 76.21 ZAP 15.95 ETS 60.72 ZAE 155.76 ETE 330.52 ZAC 86.86 ETC 260.30 CLP -6.89

PLANETOCENTRIC CONIC

C3 14.368 VHL 3.790 DLA -23.97 RAL 242.06 RAD 6567.6 VEL 11.651 PTH 2.05 VHP 8.180 DPA -33.78 RAP 236.36 ECC 1.2365

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 43 8	1273.05	8.97	347.11	100.62	116.97	10 4 21	673.1	12.51	340.23
90.00	14 17 43	5647.57	27.97	265.64	106.25	94.62	15 51 50	5047.6	28.32	256.99
100.00	10 44 47	1074.04	7.35	331.62	99.75	119.06	11 2 41	474.0	11.17	324.91
100.00	15 58 45	5321.81	29.80	241.80	106.38	92.48	17 27 27	4721.8	29.82	233.00
110.00	11 14 4	982.21	3.69	322.41	97.49	124.01	11 30 26	382.2	8.13	316.13
110.00	17 45 57	4986.41	34.09	216.32	106.37	87.30	19 9 3	4386.4	33.34	207.16

DIFFERENTIAL CORRECTIONS
TDE .1924 TRA -.8427 TC3 .5937 BAU .1308
RDE -.2929 RRA .1101 RC3 -.3340 FAU .03436
FDE -.1531 FRA .8810 FC3-2.0704 BSP 4734
BDE .3504 BRA .8499 BC3 .6812 FSP -501

MID-COURSE EXECUTION ACCURACY
SGT 1493.4 SGR 541.6 SG3 186.1
RRT -.6140 RRF .6559 RTF -.8719
SGB 1588.6 R23 -.0953 R13 .8801
SG1 1533.0 SG2 416.4 THA 166.43

ORBIT DETERMINATION ACCURACY
ST 509.5 SR 446.2 SS 351.2
CRT -.6673 CRS -.5716 CST .9904
LSA 698.8 MSA 305.6 SSA 19.1
EL1 619.7 EL2 273.2 ALF 140.64

LAUNCH DATE AUG 14 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 263.953

RL 151.54 LAL .00 LOL 320.80 VL 25.875 GAL 1.11 AZL 90.24 HCA 111.87 SMA 122.65 ECC .23626 INC .2384 V1 29.401
RP 107.82 LAP -.22 LOP 72.67 VP 37.144 GAP -11.80 AZP 89.91 TAL 176.40 TAP 288.27 RCA 93.67 APO 151.63 V2 35.146
RC 44.829 GL -1.71 GP -15.62 ZAL 77.06 ZAP 17.91 ETS 56.48 ZAE 153.47 ETE 329.37 ZAC 85.79 ETC 260.50 CLP -8.87

PLANETOCENTRIC CONIC

C3 13.127 VHL 3.623 DLA -22.58 RAL 241.40 RAD 6567.5 VEL 11.598 PTH 2.03 VHP 7.769 DPA -35.27 RAP 237.35 ECC 1.2160

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 16	1324.64	7.36	350.05	98.04	117.42	9 42 21	724.6	10.98	343.24
90.00	14 35 17	5556.46	28.29	259.00	103.64	91.31	16 7 54	4956.5	28.17	250.33
100.00	10 24 57	1115.88	5.96	333.95	97.28	119.35	10 43 33	515.9	9.82	327.29
100.00	16 13 17	5240.45	29.88	235.76	103.65	89.30	17 40 38	4640.5	29.47	226.98
110.00	10 58 58	1009.25	2.66	323.82	95.23	124.09	11 15 47	409.2	7.11	317.57
110.00	17 55 46	4919.85	33.76	211.15	103.39	84.26	19 17 46	4319.8	32.59	202.11

DIFFERENTIAL CORRECTIONS
TDE .1833 TRA -.8258 TC3 .7089 BAU .1447
RDE -.2730 RRA .1234 RC3 -.4213 FAU .03683
FDE -.1340 FRA .9241 FC3-2.4292 BSP 4908
BDE .3288 BRA .8349 BC3 .8247 FSP -559

MID-COURSE EXECUTION ACCURACY
SGT 1532.4 SGR 569.4 SG3 205.3
RRT -.6657 RRF .7118 RTF -.8798
SGB 1634.8 R23 -.1078 R13 .8894
SG1 1582.1 SG2 411.6 THA 165.07

ORBIT DETERMINATION ACCURACY
ST 514.1 SR 436.4 SS 350.8
CRT -.6783 CRS -.5351 CST .9814
LSA 696.4 MSA 304.2 SSA 19.6
EL1 619.7 EL2 266.1 ALF 141.82

LAUNCH DATE AUG 14 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 270.702

RL 151.54 LAL .00 LOL 320.80 VL 26.007 GAL .91 AZL 90.03 HCA 115.09 SMA 123.43 ECC .22824 INC .0305 V1 29.401
RP 107.79 LAP -.03 LOP 75.89 VP 37.247 GAP -11.03 AZP 89.99 TAL 176.91 TAP 292.00 RCA 95.26 APO 151.60 V2 35.158
RC 46.073 GL -.25 GP -16.98 ZAL 77.97 ZAP 20.10 ETS 53.07 ZAE 151.30 ETE 327.96 ZAC 84.56 ETC 260.69 CLP -10.92

PLANETOCENTRIC CONIC

C3 12.057 VHL 3.472 DLA -20.98 RAL 240.73 RAD 6567.5 VEL 11.552 PTH 2.02 VHP 7.382 DPA -36.89 RAP 238.22 ECC 1.1984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 57 6	1380.51	5.60	353.21	95.62	117.80	9 20 6	780.5	9.28	346.46
90.00	14 53 10	5464.28	28.25	252.26	100.99	87.93	16 24 14	4864.3	27.66	243.64
100.00	10 4 21	1163.43	4.36	336.58	94.94	119.60	10 23 45	563.4	8.27	329.97
100.00	16 28 35	5156.59	29.65	229.54	100.91	86.03	17 54 31	4556.6	28.79	220.84
110.00	10 42 49	1042.88	1.37	325.58	93.08	124.16	11 0 12	442.9	5.85	319.35
110.00	18 6 36	4849.91	33.15	205.78	100.44	81.14	19 27 26	4249.9	31.57	196.91

DIFFERENTIAL CORRECTIONS
TDE .1713 TRA -.8087 TC3 .8305 BAU .1585
RDE -.2525 RRA .1386 RC3 -.5263 FAU .03950
FDE -.1069 FRA .9718 FC3-2.8362 BSP 5081
BDE .3052 BRA .8205 BC3 .9832 FSP -622

MID-COURSE EXECUTION ACCURACY
SGT 1566.8 SGR 606.0 SG3 226.3
RRT -.7147 RRF .7648 RTF -.8870
SGB 1679.9 R23 -.1210 R13 .8984
SG1 1629.8 SG2 407.5 THA 163.49

ORBIT DETERMINATION ACCURACY
ST 513.8 SR 423.3 SS 349.3
CRT -.6873 CRS -.4829 CST .9656
LSA 687.3 MSA 304.1 SSA 20.2
EL1 614.0 EL2 257.3 ALF 142.92

LAUNCH DATE AUG 14 1970 FLIGHT TIME 108.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 277.441

RL 151.54 LAL .00 LOL 320.80 VL 26.127 GAL .73 AZL 89.82 HCA 118.31 SMA 124.15 ECC .22092 INC .1817 V1 29.401
RP 107.76 LAP .16 LOP 79.12 VP 37.341 GAP -10.29 AZP 90.09 TAL 177.43 TAP 295.74 RCA 96.73 APO 151.58 V2 35.168
RC 47.431 GL 1.43 GP -18.51 ZAL 78.93 ZAP 22.52 ETS 50.33 ZAE 149.25 ETE 326.29 ZAC 83.14 ETC 260.85 CLP -13.06

PLANETOCENTRIC CONIC

C3 11.143 VHL 3.338 DLA -19.14 RAL 240.08 RAD 6567.4 VEL 11.512 PTH 2.01 VHP 7.019 DPA -38.65 RAP 238.95 ECC 1.1834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 33 31	1441.51	3.65	356.64	93.39	118.10	8 57 33	841.5	7.38	349.94
90.00	15 11 34	5370.41	27.83	245.42	98.38	84.53	16 41 4	4770.4	26.78	236.91
100.00	9 43 3	1217.13	2.55	339.54	92.78	119.79	10 3 20	617.1	6.50	332.97
100.00	16 44 43	5070.01	29.07	223.17	98.22	82.73	18 9 13	4470.0	27.76	214.61
110.00	10 25 44	1083.40	-.18	327.69	91.08	124.18	10 43 47	483.4	4.31	321.48
110.00	18 18 32	4776.51	32.24	200.25	97.59	77.98	19 38 8	4176.5	30.25	191.60

DIFFERENTIAL CORRECTIONS
TDE .1565 TRA -.7921 TC3 .9577 BAU .1726
RDE -.2310 RRA .1564 RC3 -.6526 FAU .04243
FDE -.0698 FRA 1.0250 FC3-3.2969 BSP 5261
BDE .2790 BRA .8074 BC3 1.1589 FSP -694

MID-COURSE EXECUTION ACCURACY
SGT 1597.6 SGR 654.1 SG3 249.3
RRT -.7599 RRF .8136 RTF -.8936
SGB 1726.3 R23 -.1349 R13 .9073
SG1 1678.1 SG2 404.8 THA 161.61

ORBIT DETERMINATION ACCURACY
ST 508.8 SR 405.8 SS 348.8
CRT -.6952 CRS -.4113 CST .9385
LSA 671.8 MSA 305.8 SSA 20.7
EL1 602.4 EL2 246.4 ALF 144.09

LAUNCH DATE AUG 14 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 284.169

RL	151.54	LAL	.00	LOL	320.80	VL	26.236	GAL	.56	AZL	89.59	HCA	121.54	SMA	124.82	ECC	.21426	INC	.4119	V1	29.401
RP	107.72	LAP	.35	LOP	82.34	VP	37.427	GAP	-9.57	AZP	90.22	TAL	177.96	TAP	299.50	RCA	98.08	APO	151.57	V2	35.179
RC	48.893	GL	3.36	GP	-20.25	ZAL	79.93	ZAP	25.18	ETS	48.11	ZAE	147.30	ETE	324.34	ZAC	81.50	ETC	260.98	CLP	-15.30

PLANETOCENTRIC CONIC

C3	10.374	VHL	3.221	DLA	-17.05	RAL	239.48	RAD	6567.4	VEL	11.479	PTH	2.00	VHP	6.682	DPA	-40.58	RAP	239.50	ECC	1.1707		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 9 31	1508.45	1.50	.38	91.40	118.28	8 34 40	908.4	5.27	353.72
90.00	15 30 43	5274.31	27.01	238.51	95.87	81.16	16 58 37	4674.3	25.51	230.16
100.00	9 21 5	1277.52	.50	342.85	90.85	119.89	9 42 23	677.5	4.48	336.32
100.00	17 1 50	4980.47	28.13	216.68	95.65	79.44	18 24 51	4380.5	26.38	208.31
110.00	10 7 48	1131.20	-2.00	330.18	89.28	124.13	10 26 39	531.2	2.49	323.98
110.00	18 31 37	4699.55	31.01	194.59	94.89	74.84	19 49 57	4099.6	28.62	186.21

DIFFERENTIAL CORRECTIONS

TDE	.1392	TRA	-.7751	TC3	1.0777	BAU	.1862																
RDE	-.2077	RRA	.1772	RC3	-.8004	FAU	.04546																
FDE	-.0212	FRA	1.0828	FC3	-3.7936	BSP	5439																
BDE	.2501	BRA	.7951	BC3	1.3424	FSP	-770																

MID-COURSE EXECUTION ACCURACY

SGT	1619.6	SGR	714.9	SG3	273.7						
RRT	-.7989	RRF	.8559	RTF	-.8989						
SGB	1770.4	R23	-.1493	R13	.9156						
SG1	1723.6	SG2	404.1	THA	159.39						

ORBIT DETERMINATION ACCURACY

ST	498.9	SR	382.9	SS	352.2						
CRT	-.7048	CRS	-.3204	CST	.8948						
LSA	650.5	MSA	309.7	SSA	21.2						
EL1	584.6	EL2	231.8	ALF	145.41						

LAUNCH DATE AUG 14 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 290.884

RL	151.54	LAL	.00	LOL	320.80	VL	26.335	GAL	.40	AZL	89.34	HCA	124.77	SMA	125.43	ECC	.20824	INC	.6584	V1	29.401		
RP	107.69	LAP	.54	LOP	85.57	VP	37.505	GAP	-8.88	AZP	90.38	TAL	178.50	TAP	303.26	RCA	99.31	APO	151.55	V2	35.188		
RC	50.451	GL	5.57	GP	-22.21	ZAL	80.95	ZAP	28.09	ETS	46.29	ZAE	145.40	ETE	322.11	ZAC	79.62	ETC	261.08	CLP	-17.65		

PLANETOCENTRIC CONIC

C3	9.741	VHL	3.121	DLA	-14.69	RAL	238.93	RAD	6567.4	VEL	11.451	PTH	1.99	VHP	6.372	DPA	-42.69	RAP	239.83	ECC	1.1603		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 45 3	1582.14	-.88	4.49	89.68	118.30	8 11 26	982.1	2.91	357.86
90.00	15 50 50	5175.49	25.78	231.54	93.52	77.87	17 17 6	4575.5	23.85	223.40
100.00	8 58 30	1345.18	-1.79	346.56	89.18	119.84	9 20 55	745.2	2.19	340.04
100.00	17 20 5	4887.68	26.79	210.11	93.27	76.23	18 41 33	4287.7	24.63	201.98
110.00	9 49 5	1186.72	-4.12	333.09	87.72	123.96	10 8 52	586.7	.37	326.88
110.00	18 45 59	4618.91	29.43	188.84	92.41	71.78	20 2 58	4018.9	26.66	180.75

DIFFERENTIAL CORRECTIONS

TDE	.1168	TRA	-.7611	TC3	1.1921	BAU	.2004																
RDE	-.1809	RRA	.2029	RC3	-.9730	FAU	.04864																
FDE	.0450	FRA	1.1503	FC3	-4.3227	BSP	5591																
BDE	.2153	BRA	.7877	BC3	1.5388	FSP	-849																

MID-COURSE EXECUTION ACCURACY

SGT	1638.9	SGR	792.1	SG3	300.0						
RRT	-.8314	RRF	.8916	RTF	-.9039						
SGB	1820.2	R23	-.1627	R13	.9242						
SG1	1774.3	SG2	406.6	THA	156.82						

ORBIT DETERMINATION ACCURACY

ST	483.9	SR	352.1	SS	366.1						
CRT	-.7139	CRS	-.2123	CST	.8324						
LSA	624.9	MSA	318.1	SSA	21.6						
EL1	559.1	EL2	213.4	ALF	147.19						

LAUNCH DATE AUG 14 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 297.584

RL	151.54	LAL	.00	LOL	320.80	VL	26.424	GAL	.25	AZL	89.07	HCA	128.00	SMA	125.99	ECC	.20280	INC	.9253	V1	29.401		
RP	107.67	LAP	.73	LOP	88.80	VP	37.576	GAP	-8.21	AZP	90.57	TAL	179.02	TAP	307.02	RCA	100.44	APO	151.54	V2	35.198		
RC	52.096	GL	8.07	GP	-24.44	ZAL	81.98	ZAP	31.26	ETS	44.78	ZAE	143.51	ETE	319.57	ZAC	77.47	ETC	261.13	CLP	-20.13		

PLANETOCENTRIC CONIC

C3	9.239	VHL	3.040	DLA	-12.03	RAL	238.47	RAD	6567.3	VEL	11.429	PTH	1.98	VHP	6.091	DPA	-45.03	RAP	239.91	ECC	1.1521		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 20 4	1663.47	-3.50	9.03	88.30	118.12	7 47 47	1063.5	.29	2.40
90.00	16 12 11	5073.44	24.14	224.52	91.43	74.72	17 36 44	4473.4	21.81	216.62
100.00	8 35 16	1420.83	-4.34	350.72	87.83	119.60	8 58 57	820.8	-.37	344.19
100.00	17 39 39	4791.32	25.06	203.48	91.14	73.15	18 59 31	4191.3	22.51	195.60
110.00	9 29 40	1250.50	-6.54	336.45	86.48	123.63	9 50 30	650.5	-2.07	330.20
110.00	19 1 46	4534.41	27.49	183.03	90.20	68.84	20 17 20	3934.4	24.37	175.26

DIFFERENTIAL CORRECTIONS

TDE	.0913	TRA	-.7443	TC3	1.2906	BAU	.2153																
RDE	-.1493	RRA	.2327	RC3	-1.1712	FAU	.05190																
FDE	.1296	FRA	1.2188	FC3	-4.8628	BSP	5776																
BDE	.1750	BRA	.7798	BC3	1.7428	FSP	-936																

MID-COURSE EXECUTION ACCURACY

SGT	1644.0	SGR	887.3	SG3	326.9						
RRT	-.8571	RRF	.9202	RTF	-.9078						
SGB	1868.2	R23	-.1734	R13	.9328						
SG1	1822.1	SG2	412.4	THA	153.73						

ORBIT DETERMINATION ACCURACY

ST	464.1	SR	312.7	SS	395.3						
CRT	-.7361	CRS	-.1189	CST	.7555						
LSA	600.9	MSA	328.4	SSA	21.6						
EL1	527.7	EL2	186.1	ALF	149.41						

LAUNCH DATE AUG 14 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 304.267

RL	151.54	LAL	.00	LOL	320.80	VL	26.504	GAL	.12	AZL	88.78	HCA	131.23	SMA	126.50	ECC	.19792	INC	1.2167	V1	29.401		
RP	107.64	LAP	.92	LOP	92.03	VP	37.641	GAP	-7.56	AZP	90.80	TAL	179.53	TAP	310.76	RCA	101.47	APO	151.54	V2	35.206		
RC	53.818	GL	10.90	GP	-26.96	ZAL	83.01	ZAP	34.71	ETS	43.48	ZAE	141.58	ETE	316.71	ZAC	75.01	ETC	261.12	CLP	-22.74		

PLANETOCENTRIC CONIC

C3	8.868	VHL	2.978	DLA	-9.07	RAL	238.13	RAD	6567.3	VEL	11.413	PTH	1.98	VHP	5.844	DPA	-47.60	RAP	239.66	ECC	1.1459		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 28	1753.45	-6.37	14.09	87.31	117.65	7 23 41	1153.4	-2.62	7.42
90.00	16 35 1	4967.63	22.06	217.46	89.65	71.78	17 57 49	4367.6	19.36	209.83
100.00	8 11 22	1505.32	-7.17	355.41	86.88	119.10	8 36 28	905.3	-3.23	348.83
100.00	18 0 47	4691.00	22.91	196.80	89.34	70.26	19 18 58	4091.0	20.01	189.20
110.00	9 9 32	1323.21	-9.26	340.32	85.61	123.05	9 31 35	723.2	-4.84	334.01
110.00	19 19 7	4445.88	25.18	177.19	88.34	66.08	20 33 13	3845.9	21.73	169.74

DIFFERENTIAL CORRECTIONS

TDE	.0635	TRA	-.7311	TC3	1.3588	BAU	.2304																
RDE	.1115	RRA	.2703	RC3	-1.3895	FAU	.05494																
FDE	.2337	FRA	1.2985	FC3	-5.3631	BSP	5939																
BDE	.1283	BRA	.7795	BC3	1.9435	FSP	-1020																

MID-COURSE EXECUTION ACCURACY

SGT	1642.9	SGR	1004.1	SG3	354.2						
RRT	-.8766	RRF	.9424	RTF	-.9108						
SGB	1925.4	R23	-.1803	R13	.9416						
SG1	1878.5	SG2	422.6	THA	150.16						

ORBIT DETERMINATION ACCURACY

ST	445.1	SR	267.5	SS	448.1						
CRT	-.7919	CRS	-.1089	CST	.6881						
LSA	597.9	MSA	335.4	SSA	21.0						
EL1	498.4	EL2	145.9	ALF	151.93						

LAUNCH DATE AUG 14 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 310.932

RL	151.54	LAL	.00	LOL	320.80	VL	26.576	GAL	-.00	AZL	88.46	HCA	134.46	SMA	126.96	ECC	.19356	INC	1.5388	V1	29.401
RP	107.61	LAP	1.10	LOP	95.27	VP	37.699	GAP	-6.93	AZP	91.08	TAL	180.02	TAP	314.48	RCA	102.39	APO	151.54	V2	35.214
RC	55.612	GL	14.06	GP	-29.80	ZAL	84.00	ZAP	38.44	ETS	42.31	ZAE	139.54	ETE	313.54	ZAC	72.22	ETC	261.05	CLP	-25.50

PLANETOCENTRIC CONIC

C3	8.632	VHL	2.938	DLA	-5.78	RAL	237.91	RAD	6567.3	VEL	11.403	PTH	1.97	VHP	5.633	DPA	-50.44	RAP	239.00	ECC	1.1421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 28 5	1853.27	-9.48	19.77	86.80	116.81	6 58 58	1253.3	-5.81	13.02
90.00	16 59 42	4857.52	19.54	210.37	88.29	69.09	18 20 39	4257.5	16.53	202.99
100.00	7 46 41	1599.69	-10.25	.72	86.39	118.23	8 13 21	999.7	-6.40	354.05
100.00	18 23 47	4586.33	20.35	190.08	87.94	67.62	19 40 13	3986.3	17.14	182.76
110.00	8 48 40	1405.66	-12.28	344.79	85.19	122.15	9 12 5	805.7	-7.95	338.37
110.00	19 38 17	4353.14	22.49	171.33	86.90	63.55	20 50 50	3753.1	18.76	164.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0575	TRA	-.7307	TC3	1.8262	BAU	.2972	SGT	1793.1	SGR	1249.5	SG3	413.2	ST	445.2	SR	239.5	SS	513.4
RDE	-.0726	RRA	.3240	RC3	-1.8154	FAU	.06526	RRT	-.9239	RRF	.9658	RTF	-.9355	CRT	-.9262	CRS	-.2832	CST	.6156
FDE	.3279	FRA	1.4130	FC3	-6.5449	BSP	7312	SGB	2185.6	R23	-.1464	R13	.9613	LSA	631.7	MSA	346.0	SSA	19.2
BDE	.0925	BRA	.7993	BC3	2.5750	FSP	-1270	SG1	2148.8	SG2	398.9	THA	145.89	EL1	499.1	EL2	80.5	ALF	152.75

LAUNCH DATE AUG 14 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 317.580

RL	151.54	LAL	.00	LOL	320.80	VL	26.640	GAL	-.11	AZL	88.10	HCA	137.69	SMA	127.38	ECC	.18968	INC	1.8988	V1	29.401
RP	107.59	LAP	1.28	LOP	98.51	VP	37.751	GAP	-6.33	AZP	91.40	TAL	180.48	TAP	318.16	RCA	103.22	APO	151.54	V2	35.222
RC	57.469	GL	17.58	GP	-33.00	ZAL	84.95	ZAP	42.47	ETS	41.18	ZAE	137.31	ETE	310.07	ZAC	69.06	ETC	260.89	CLP	-28.42

PLANETOCENTRIC CONIC

C3	8.543	VHL	2.923	DLA	-2.16	RAL	237.86	RAD	6567.3	VEL	11.399	PTH	1.97	VHP	5.465	DPA	-53.57	RAP	237.81	ECC	1.1406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 0 40	1964.41	-12.82	26.23	86.85	115.47	6 33 25	1364.4	-9.29	19.33
90.00	17 26 39	4742.48	16.59	203.21	87.41	66.72	18 45 41	4142.5	13.30	196.08
100.00	7 21 0	1705.26	-13.58	6.79	86.47	116.89	7 49 26	1105.3	-9.87	359.97
100.00	18 48 59	4476.86	17.37	183.32	87.05	65.28	20 3 36	3876.9	13.89	176.25
110.00	8 26 57	1498.86	-15.60	349.97	85.32	120.81	8 51 55	898.9	-11.40	343.38
110.00	19 59 33	4256.03	19.43	165.46	85.95	61.31	21 10 29	3656.0	15.45	158.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0104	TRA	-.6937	TC3	1.4127	BAU	.2692	SGT	1591.9	SGR	1316.3	SG3	404.3	ST	409.5	SR	218.6	SS	615.2
RDE	-.0073	RRA	.3663	RC3	-1.8864	FAU	.06063	RRT	-.9014	RRF	.9714	RTF	-.9133	CRT	-.9957	CRS	-.6070	CST	.6184
FDE	.5004	FRA	1.4452	FC3	-6.1440	BSP	6499	SGB	2065.6	R23	-.1742	R13	.9596	LSA	700.5	MSA	320.8	SSA	17.7
BDE	.0127	BRA	.7845	BC3	2.3568	FSP	-1200	SG1	2016.0	SG2	450.0	THA	140.99	EL1	463.8	EL2	17.9	ALF	151.96

LAUNCH DATE AUG 14 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 324.206

RL	151.54	LAL	.00	LOL	320.80	VL	26.696	GAL	-.21	AZL	87.69	HCA	140.92	SMA	127.75	ECC	.18625	INC	2.3064	V1	29.401
RP	107.57	LAP	1.45	LOP	101.74	VP	37.797	GAP	-5.74	AZP	91.79	TAL	180.90	TAP	321.81	RCA	103.96	APO	151.54	V2	35.229
RC	59.382	GL	21.46	GP	-36.57	ZAL	85.83	ZAP	46.79	ETS	40.00	ZAE	134.81	ETE	306.35	ZAC	65.51	ETC	260.61	CLP	-31.51

PLANETOCENTRIC CONIC

C3	8.625	VHL	2.937	DLA	1.79	RAL	237.98	RAD	6567.3	VEL	11.402	PTH	1.97	VHP	5.347	DPA	-56.98	RAP	235.93	ECC	1.1420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 31 51	2088.76	-16.33	33.67	87.59	113.46	6 6 39	1488.8	-13.02	26.56
90.00	17 56 26	4621.75	13.21	195.97	87.12	64.72	19 13 28	4021.7	9.69	189.05
100.00	6 54 1	1823.70	-17.11	13.81	87.22	114.89	7 24 25	1223.7	-13.61	6.77
100.00	19 16 57	4362.04	13.97	176.49	86.74	63.30	20 29 39	3762.0	10.28	169.64
110.00	8 4 11	1604.10	-19.17	356.04	86.12	118.86	8 30 55	1004.1	-15.17	349.21
110.00	20 23 16	4154.40	16.00	159.58	85.59	59.38	21 32 31	3554.4	11.82	152.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0209	TRA	-.6819	TC3	1.3384	BAU	.2886	SGT	1546.4	SGR	1512.4	SG3	423.0	ST	402.1	SR	292.4	SS	737.9
RDE	.0704	RRA	.4362	RC3	-2.1150	FAU	.06186	RRT	-.9046	RRF	.9801	RTF	-.9112	CRT	-.9228	CRS	-.8864	CST	.6451
FDE	.6753	FRA	1.5310	FC3	-6.2089	BSP	6781	SGB	2163.0	R23	-.1627	R13	.9682	LSA	837.4	MSA	300.3	SSA	15.3
BDE	.0734	BRA	.8095	BC3	2.5029	FSP	-1264	SG1	2110.8	SG2	472.2	THA	135.70	EL1	488.4	EL2	92.8	ALF	144.67

LAUNCH DATE AUG 14 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 330.811

RL	151.54	LAL	.00	LOL	320.80	VL	26.746	GAL	-.29	AZL	87.22	HCA	144.15	SMA	128.08	ECC	.18324	INC	2.7751	V1	29.401
RP	107.55	LAP	1.62	LOP	104.98	VP	37.838	GAP	-5.16	AZP	92.25	TAL	181.27	TAP	325.42	RCA	104.61	APO	151.55	V2	35.235
RC	61.346	GL	25.70	GP	-40.53	ZAL	86.62	ZAP	51.37	ETS	38.67	ZAE	131.97	ETE	302.42	ZAC	61.57	ETC	260.19	CLP	-34.79

PLANETOCENTRIC CONIC

C3	8.917	VHL	2.986	DLA	6.07	RAL	238.30	RAD	6567.3	VEL	11.415	PTH	1.98	VHP	5.288	DPA	-60.65	RAP	233.10	ECC	1.1468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 0 58	2228.94	-19.91	42.39	89.15	110.56	5 38 6	1628.9	-16.94	34.98
90.00	18 29 52	4494.27	9.39	188.55	87.56	63.16	19 44 46	3894.3	5.71	181.80
100.00	6 25 11	1957.28	-20.73	22.07	88.81	112.03	6 57 48	1357.3	-17.56	14.71
100.00	19 48 20	4241.16	10.17	169.53	87.14	61.74	20 59 1	3641.2	6.31	162.86
110.00	7 40 1	1723.06	-22.91	3.24	87.77	116.09	8 8 44	1123.1	-19.22	356.05
110.00	20 49 59	4048.15	12.23	153.65	85.92	57.83	21 57 27	3448.1	7.89	147.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0476	TRA	-.6654	TC3	1.2196	BAU	.3119	SGT	1478.9	SGR	1739.6	SG3	434.2	ST	396.5	SR	446.8	SS	869.6
RDE	.1706	RRA	.5204	RC3	-2.3146	FAU	.06208	RRT	-.9041	RRF	.9862	RTF	-.9069	CRT	-.8290	CRS	-.9722	CST	.6771
FDE	.8646	FRA	1.6012	FC3	-6.0274	BSP	7119	SGB	2283.3	R23	-.1441	R13	.9762	LSA	1016.4	MSA	282.2	SSA	12.8
BDE	.1771	BRA	.8447	BC3	2.6162	FSP	-1305	SG1	2229.4	SG2	493.2	THA	129.89	EL1	571.6	EL2	173.3	ALF	130.89

LAUNCH DATE AUG 14 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 337.393

RL	151.54	LAL	.00	LOL	320.80	VL	26.790	GAL	-.35	AZL	86.68	HCA	147.38	SMA	128.37	ECC	.18062	INC	3.3235	V1	29.401
RP	107.53	LAP	1.79	LOP	108.22	VP	37.874	GAP	-4.61	AZP	92.80	TAL	181.60	TAP	328.98	RCA	105.18	APO	151.55	V2	35.240
RC	63.355	GL	30.29	GP	-44.86	ZAL	87.31	ZAP	56.17	ETS	37.10	ZAE	128.73	ETE	298.35	ZAC	57.24	ETC	259.58	CLP	-38.25

PLANETOCENTRIC CONIC

C3	9.484	VHL	3.080	DLA	10.66	RAL	238.83	RAD	6567.3	VEL	11.440	PTH	1.98	VHP	5.301	DPA	-64.54	RAP	228.89	ECC	1.1561		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 26 57	2388.81	-23.38	52.83	91.73	106.45	5 6 46	1788.8	-20.90	45.03
90.00	19 8 10	4358.30	5.13	180.83	88.87	62.11	20 20 49	3758.3	1.36	174.18
100.00	5 53 37	2109.31	-24.29	31.97	91.43	107.99	6 28 46	1509.3	-21.60	24.20
100.00	20 24 12	4113.03	5.96	162.34	88.42	60.65	21 32 45	3513.0	2.00	155.79
110.00	7 13 56	1858.00	-26.68	11.91	90.46	112.21	7 44 54	1258.0	-23.43	4.26
110.00	21 20 22	3937.10	8.14	147.66	87.08	56.68	22 26 0	3337.1	3.70	141.38

DIFFERENTIAL CORRECTIONS

TDE	-.0674	TRA	-.6448	TC3	1.0454	BAU	.3373
RDE	.3004	RRA	.6236	RC3	-2.4467	FAU	.06068
FDE	1.0585	FRA	1.6522	FC3	-5.5390	BSP	7509
BDE	.3079	BRA	.8970	BC3	2.6606	FSP	-1310

MID-COURSE EXECUTION ACCURACY

SGT	1385.8	SGR	1994.3	SG3	434.6		
RRT	-.8979	RRF	.9904	RTF	-.8983		
SGB	2428.5	R23	-.1210	R13	.9832		
SG1	2373.8	SG2	512.4	THA	123.74		

ORBIT DETERMINATION ACCURACY

ST	387.6	SR	663.3	SS	1000.3		
CRT	-.7807	CRS	-.9926	CST	.7001		
LSA	1232.5	MSA	267.6	SSA	10.5		
EL1	736.6	EL2	218.1	ALF	117.09		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 343.952

RL	151.54	LAL	.00	LOL	320.80	VL	26.827	GAL	-.41	AZL	86.02	HCA	150.61	SMA	128.62	ECC	.17836	INC	3.9779	V1	29.401
RP	107.52	LAP	1.95	LOP	111.47	VP	37.905	GAP	-4.07	AZP	93.47	TAL	181.87	TAP	332.48	RCA	105.68	APO	151.56	V2	35.245
RC	65.403	GL	35.18	GP	-49.56	ZAL	87.89	ZAP	61.11	ETS	35.19	ZAE	125.04	ETE	294.20	ZAC	52.54	ETC	258.71	CLP	-41.87

PLANETOCENTRIC CONIC

C3	10.435	VHL	3.230	DLA	15.52	RAL	239.61	RAD	6567.4	VEL	11.481	PTH	2.00	VHP	5.405	DPA	-68.53	RAP	222.62	ECC	1.1717		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 47 54	2574.91	-26.37	65.63	95.52	100.71	4 30 49	1974.9	-24.62	57.40
90.00	19 53 25	4210.20	.37	172.55	91.31	61.69	21 3 35	3610.2	-3.42	165.92
100.00	5 17 46	2285.12	-27.43	44.07	95.28	102.36	5 55 51	1685.1	-25.45	35.83
100.00	21 6 14	3975.22	1.32	154.75	90.79	60.13	22 12 30	3375.2	-2.67	148.23
110.00	6 44 58	2012.28	-30.20	22.53	94.46	106.83	7 18 30	1412.3	-27.60	14.30
110.00	21 55 32	3820.83	3.74	141.52	89.27	56.00	22 59 13	3220.8	-.75	135.31

DIFFERENTIAL CORRECTIONS

TDE	-.0739	TRA	-.6166	TC3	.8220	BAU	.3634
RDE	.4684	RRA	.7488	RC3	-2.4721	FAU	.05721
FDE	1.2416	FRA	1.6721	FC3	-4.7467	BSP	8026
BDE	.4742	BRA	.9700	BC3	2.6052	FSP	-1282

MID-COURSE EXECUTION ACCURACY

SGT	1260.0	SGR	2267.4	SG3	420.9		
RRT	-.8827	RRF	.9932	RTF	-.8816		
SGB	2594.0	R23	-.0963	R13	.9886		
SG1	2539.6	SG2	528.7	THA	117.42		

ORBIT DETERMINATION ACCURACY

ST	365.2	SR	929.3	SS	1116.0		
CRT	-.7380	CRS	-.9978	CST	.6927		
LSA	1475.3	MSA	256.7	SSA	8.4		
EL1	970.2	EL2	236.1	ALF	107.23		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 350.484

RL	151.54	LAL	.00	LOL	320.80	VL	26.859	GAL	-.45	AZL	85.22	HCA	153.83	SMA	128.83	ECC	.17642	INC	4.7782	V1	29.401
RP	107.51	LAP	2.11	LOP	114.71	VP	37.932	GAP	-3.55	AZP	94.29	TAL	182.08	TAP	335.91	RCA	106.10	APO	151.56	V2	35.249
RC	67.486	GL	40.32	GP	-54.57	ZAL	88.34	ZAP	66.08	ETS	32.82	ZAE	120.89	ETE	290.02	ZAC	47.53	ETC	257.51	CLP	-45.63

PLANETOCENTRIC CONIC

C3	11.956	VHL	3.458	DLA	20.58	RAL	240.64	RAD	6567.5	VEL	11.547	PTH	2.02	VHP	5.626	DPA	-72.41	RAP	213.05	ECC	1.1968		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 59 34	2800.88	-28.19	81.89	100.61	92.78	3 46 15	2200.9	-27.51	73.29
90.00	20 49 57	4040.36	-5.09	163.06	95.28	62.11	21 57 17	3440.4	-8.79	156.32
100.00	4 34 27	2494.96	-29.56	59.28	100.51	94.65	5 16 2	1895.0	-28.60	50.61
100.00	21 57 45	3821.51	-3.89	146.31	94.62	60.34	23 1 27	3221.5	-7.81	139.71
110.00	6 11 28	2191.39	-32.99	35.73	100.01	99.49	6 48 0	1591.4	-31.33	26.90
110.00	22 37 13	3697.85	-.95	135.10	92.79	55.83	23 38 51	3097.8	-5.43	128.88

DIFFERENTIAL CORRECTIONS

TDE	-.0594	TRA	-.5824	TC3	.5734	BAU	.3889
RDE	.6846	RRA	.9072	RC3	-2.3645	FAU	.05164
FDE	1.3944	FRA	1.6643	FC3	-3.7393	BSP	8545
BDE	.6872	BRA	1.0780	BC3	2.4330	FSP	-1200

MID-COURSE EXECUTION ACCURACY

SGT	1108.9	SGR	2557.1	SG3	393.1		
RRT	-.8518	RRF	.9952	RTF	-.8501		
SGB	2787.2	R23	-.0717	R13	.9926		
SG1	2733.7	SG2	543.4	THA	111.15		

ORBIT DETERMINATION ACCURACY

ST	324.8	SR	1233.4	SS	1203.1		
CRT	-.6520	CRS	-.9993	CST	.6240		
LSA	1735.4	MSA	250.1	SSA	6.6		
EL1	1252.2	EL2	242.5	ALF	100.13		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 356.989

RL	151.54	LAL	.00	LOL	320.80	VL	26.886	GAL	-.47	AZL	84.21	HCA	157.05	SMA	129.01	ECC	.17480	INC	5.7857	V1	29.401
RP	107.50	LAP	2.25	LOP	117.96	VP	37.954	GAP	-3.04	AZP	95.33	TAL	182.23	TAP	339.28	RCA	106.46	APO	151.56	V2	35.253
RC	69.600	GL	45.62	GP	-59.85	ZAL	88.67	ZAP	70.94	ETS	29.92	ZAE	116.30	ETE	285.84	ZAC	42.25	ETC	255.83	CLP	-49.44

PLANETOCENTRIC CONIC

C3	14.382	VHL	3.792	DLA	25.74	RAL	241.93	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	6.003	DPA	-75.80	RAP	198.10	ECC	1.2367		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 47 37	3112.28	-27.12	104.53	106.52	81.54	2 39 30	2512.3	-28.01	95.98
90.00	22 12 11	3808.79	-12.24	149.80	101.67	64.27	23 15 39	3208.8	-15.61	142.74
100.00	3 34 49	2766.73	-29.36	79.42	106.84	84.09	4 20 55	2166.7	-29.86	70.66
100.00	23 7 41	3629.58	-10.24	135.59	100.63	61.76	24 8 10	3029.6	-13.93	128.75
110.00	5 30 3	2406.17	-34.18	52.35	107.14	89.75	6 10 9	1806.2	-33.84	43.12
110.00	23 28 56	3562.90	-6.09	128.03	98.12	56.30	24 28 19	2962.9	-10.48	121.69

DIFFERENTIAL CORRECTIONS

TDE	-.0124	TRA	-.5329	TC3	.3331	BAU	.4120
RDE	.9660	RRA	1.1032	RC3	-2.1166	FAU	.04425
FDE	1.5040	FRA	1.6152	FC3	-2.6633	BSP	9223
BDE	.9661	BRA	1.2252	BC3	2.1427	FSP	-1088

MID-COURSE EXECUTION ACCURACY

SGT	929.1	SGR	2851.5	SG3	351.8		
RRT	-.7878	RRF	.9966	RTF	-.7862		
SGB	2999.1	R23	-.0480	R13	.9954		
SG1	2947.5	SG2	553.7	THA	104.93		

ORBIT DETERMINATION ACCURACY

ST	268.9	SR	1562.2	SS	1251.9		
CRT	-.4204	CRS	-.9998	CST	.4021		
LSA	2004.9	MSA	245.3	SSA	5.2		
EL1	1566.3	EL2	243.4	ALF	94.24		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 363.465

RL	151.54	LAL	.00	LOL	320.80	VL	26.908	GAL	-.48	AZL	82.90	HCA	160.26	SMA	129.16	ECC	.17345	INC	7.1017	V1	29.401		
RP	107.49	LAP	2.39	LOP	121.20	VP	37.972	GAP	-2.55	AZP	96.69	TAL	182.30	TAP	342.57	RCA	106.76	APO	151.56	V2	35.255		
RC	71.740	GL	50.94	GP	-65.35	ZAL	88.90	ZAP	75.51	ETS	26.40	ZAE	111.29	ETE	281.64	ZAC	36.77	ETC	253.45	CLP	-53.15		

PLANETOCENTRIC CONIC

C3	18.356	VHL	4.284	DLA	30.89	RAL	243.48	RAD	6567.7	VEL	11.821	PTH	2.09	VHP	6.599	DPA	-77.98	RAP	175.57	ECC	1.3021		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.12	22 21 32	3846.00	-21.86	157.01	111.38	67.62	23 25 38	3246.0	-24.70	149.28
102.88	1 50 38	3186.29	-21.84	108.33	111.38	67.61	2 43 44	2586.3	-24.69	100.60
77.12	22 21 32	3846.00	-21.86	157.01	111.38	67.62	23 25 38	3246.0	-24.70	149.28
102.88	1 50 38	3186.29	-21.84	108.33	111.38	67.61	2 43 44	2586.3	-24.69	100.60
110.00	4 30 25	2687.85	-31.97	73.95	114.97	77.20	5 15 13	2087.8	-33.40	65.01
110.00	0 44 52	3392.44	-12.41	118.88	106.30	57.89	1 41 24	2792.4	-16.56	112.23

DIFFERENTIAL CORRECTIONS

TDE	.0847	TRA	-.4685	TC3	.1113	BAU	.4212
RDE	1.3393	RRA	1.3678	RC3	-1.7127	FAU	.03477
FDE	1.5631	FRA	1.5454	FC3	-1.6401	BSP	9507
BDE	1.3419	BRA	1.4458	BC3	1.7163	FSP	-902

MID-COURSE EXECUTION ACCURACY

SGT	745.0	SGR	3147.2	SG3	301.1		
RRT	-.6370	RRF	.9974	RTF	-.6377		
SGB	3234.1	R23	-.0246	R13	.9971		
SG1	3183.9	SG2	567.7	THA	98.86		

ORBIT DETERMINATION ACCURACY

ST	246.6	SR	1902.3	SS	1261.2		
CRT	.1335	CRS	-.9999	CST	-.1436		
LSA	2282.6	MSA	244.5	SSA	4.1		
EL1	1902.5	EL2	244.4	ALF	88.99		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 369.901

RL	151.54	LAL	.00	LOL	320.80	VL	26.926	GAL	-.48	AZL	81.10	HCA	163.46	SMA	129.28	ECC	.17237	INC	8.9046	V1	29.401		
RP	107.48	LAP	2.53	LOP	124.45	VP	37.986	GAP	-2.08	AZP	98.54	TAL	182.31	TAP	345.77	RCA	107.00	APO	151.56	V2	35.257		
RC	73.903	GL	56.10	GP	-71.09	ZAL	89.05	ZAP	79.66	ETS	22.16	ZAE	105.85	ETE	277.32	ZAC	31.11	ETC	249.91	CLP	-56.36		

PLANETOCENTRIC CONIC

C3	25.212	VHL	5.021	DLA	35.84	RAL	245.25	RAD	6568.0	VEL	12.107	PTH	2.17	VHP	7.527	DPA	-78.05	RAP	147.67	ECC	1.4149		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.06	21 24 43	4119.49	-22.72	178.55	119.82	61.51	22 33 22	3519.5	-26.34	171.12
112.94	3 1 35	3065.65	-22.71	99.48	119.81	61.50	3 52 40	2465.7	-26.33	92.06
67.06	21 24 43	4119.49	-22.72	178.55	119.82	61.51	22 33 22	3519.5	-26.34	171.12
112.94	3 1 35	3065.65	-22.71	99.48	119.81	61.50	3 52 40	2465.7	-26.33	92.06
67.06	21 24 43	4119.49	-22.72	178.55	119.82	61.51	22 33 22	3519.5	-26.34	171.12
112.94	3 1 35	3065.65	-22.71	99.48	119.81	61.50	3 52 40	2465.7	-26.33	92.06

DIFFERENTIAL CORRECTIONS

TDE	.2909	TRA	-.3499	TC3	-.0173	BAU	.4265
RDE	1.8032	RRA	1.6898	RC3	-1.2652	FAU	.02565
FDE	1.5362	FRA	1.4205	FC3	-.8807	BSP	10388
BDE	1.8265	BRA	1.7256	BC3	1.2653	FSP	-750

MID-COURSE EXECUTION ACCURACY

SGT	594.1	SGR	3391.9	SG3	242.1		
RRT	-.2313	RRF	.9980	RTF	-.2326		
SGB	3443.5	R23	-.0053	R13	.9980		
SG1	3394.8	SG2	577.5	THA	92.39		

ORBIT DETERMINATION ACCURACY

ST	363.4	SR	2178.2	SS	1205.0		
CRT	.7299	CRS	-1.0000	CST	-.7327		
LSA	2503.5	MSA	246.7	SSA	3.3		
EL1	2194.5	EL2	246.5	ALF	82.97		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 376.291

RL	151.54	LAL	.00	LOL	320.80	VL	26.939	GAL	-.46	AZL	78.46	HCA	166.64	SMA	129.37	ECC	.17152	INC	11.5397	V1	29.401		
RP	107.48	LAP	2.65	LOP	127.70	VP	37.997	GAP	-1.62	AZP	101.24	TAL	182.22	TAP	348.86	RCA	107.18	APO	151.56	V2	35.258		
RC	76.087	GL	60.84	GP	-77.15	ZAL	89.14	ZAP	83.22	ETS	17.01	ZAE	99.90	ETE	272.65	ZAC	25.24	ETC	244.18	CLP	-57.92		

PLANETOCENTRIC CONIC

C3	38.084	VHL	6.171	DLA	40.33	RAL	247.14	RAD	6568.5	VEL	12.627	PTH	2.29	VHP	9.001	DPA	-75.74	RAP	122.61	ECC	1.6268		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.99	20 56 55	4325.52	-21.36	194.57	129.73	54.94	22 9 0	3725.5	-25.79	187.72
120.01	3 44 28	3066.44	-21.34	98.63	129.72	54.93	4 35 35	2466.4	-25.78	91.78
59.99	20 56 55	4325.52	-21.36	194.57	129.73	54.94	22 9 0	3725.5	-25.79	187.72
120.01	3 44 28	3066.44	-21.34	98.63	129.72	54.93	4 35 35	2466.4	-25.78	91.78
59.99	20 56 55	4325.52	-21.36	194.57	129.73	54.94	22 9 0	3725.5	-25.79	187.72
120.01	3 44 28	3066.44	-21.34	98.63	129.72	54.93	4 35 35	2466.4	-25.78	91.78

DIFFERENTIAL CORRECTIONS

TDE	.6922	TRA	-.1430	TC3	-.0794	BAU	.3997
RDE	2.4198	RRA	2.1474	RC3	-.7810	FAU	.01625
FDE	1.4644	FRA	1.2927	FC3	-.3694	BSP	11106
BDE	2.5169	BRA	2.1522	BC3	.7850	FSP	-582

MID-COURSE EXECUTION ACCURACY

SGT	673.0	SGR	3580.1	SG3	184.0		
RRT	.4494	RRF	.9984	RTF	.4495		
SGB	3642.8	R23	.0135	R13	.9983		
SG1	3593.2	SG2	599.0	THA	85.03		

ORBIT DETERMINATION ACCURACY

ST	644.8	SR	2379.9	SS	1119.4		
CRT	.9142	CRS	-1.0000	CST	-.9149		
LSA	2695.9	MSA	254.7	SSA	2.7		
EL1	2452.6	EL2	253.5	ALF	75.93		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 382.610

RL	151.54	LAL	.00	LOL	320.80	VL	26.949	GAL	-.42	AZL	74.23	HCA	169.77	SMA	129.44	ECC	.17090	INC	15.7665	V1	29.401		
RP	107.48	LAP	2.77	LOP	130.95	VP	38.004	GAP	-1.19	AZP	105.53	TAL	182.03	TAP	351.80	RCA	107.32	APO	151.56	V2	35.259		
RC	78.289	GL	64.66	GP	-83.71	ZAL	89.21	ZAP	86.05	ETS	9.57	ZAE	93.14	ETE	266.14	ZAC	19.08	ETC	232.58	CLP	-51.06		

PLANETOCENTRIC CONIC

C3	65.636	VHL	8.102	DLA	43.94	RAL	248.87	RAD	6569.2	VEL	13.674	PTH	2.50	VHP	11.493	DPA	-71.46	RAP	103.90	ECC	2.0802		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.89	20 42 19	4519.44	-17.08	207.98	140.29	48.88	21 57 38	3919.4	-22.23	201.89
125.11	4 12 54	3142.77	-17.07	101.75	140.28	48.88	5 5 17	2542.8	-22.22	95.66
54.89	20 42 19	4519.44	-17.08	207.98	140.29	48.88	21 57 38	3919.4	-22.23	201.89
125.11	4 12 54	3142.77	-17.07	101.75	140.28	48.88	5 5 17	2542.8	-22.22	95.66
54.89	20 42 19	4519.44	-17.08	207.98	140.29	48.88	21 57 38	3919.4	-22.23	201.89
125.11	4 12 54	3142.77	-17.07	101.75	140.28	48.88	5 5 17	2542.8	-22.22	95.66

DIFFERENTIAL CORRECTIONS

TDE	1.7041	TRA	.3985	TC3	-.0759	BAU	.3037
RDE	3.1527	RRA	2.8157	RC3	-.3377	FAU	.00720
FDE	1.3867	FRA	1.1883	FC3	-.0950	BSP	11703
BDE	3.5838	BRA	2.8438	BC3	.3461	FSP	-425

MID-COURSE EXECUTION ACCURACY

SGT	1273.0	SGR	3594.1	SG3	132.4		
RRT	.8385	RRF	.9984	RTF	.8498		
SGB	3812.9	R23	.0311	R13	.9982		
SG1	3754.6	SG2	664.1	THA	72.91		

ORBIT DETERMINATION ACCURACY

ST	1210.9	SR	2379.0	SS	1034.0		
CRT	.9666	CRS	-.9999	CST	-.9699		
LSA	2848.9	MSA	280.5	SSA	2.2		
EL1	2654.9	EL2	278.0	ALF	63.49		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 388.796

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.955 GAL   -.34 AZL  66.42 HCA 172.80 SMA 129.48 ECC .17048 INC23.5798 V1  29.401
RP  107.48 LAP   2.87 LOP 134.20 VP  38.008 GAP   -.80 AZP 113.41 TAL 181.67 TAP 354.47 RCA 107.41 APO 151.55 V2  35.258
RC  80.507 GL   66.46 GP  -86.35 ZAL  89.28 ZAP  88.07 ETS 216.21 ZAE  84.70 ETE 113.94 ZAC  12.74 ETC  62.26 CLP  58.10
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PLANETOCENTRIC CONIC

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C3 138.333 VHL 11.762 DLA  45.63 RAL 249.70 RAD 6570.5 VEL 16.114 PTH   2.84 VHP 16.229 DPA -64.98 RAP  89.37 ECC 3.2766
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.59	20 36 53	4703.34	-10.01	218.05	149.77	45.24	21 55 16	4103.3	-15.59	212.58
127.41	4 24 57	3280.93	-10.00	107.62	149.75	45.24	5 19 38	2680.9	-15.57	102.15
52.59	20 36 53	4703.34	-10.01	218.05	149.77	45.24	21 55 16	4103.3	-15.59	212.58
127.41	4 24 57	3280.93	-10.00	107.62	149.75	45.24	5 19 38	2680.9	-15.57	102.15
52.59	20 36 53	4703.34	-10.01	218.05	149.77	45.24	21 55 16	4103.3	-15.59	212.58
127.41	4 24 57	3280.93	-10.00	107.62	149.75	45.24	5 19 38	2680.9	-15.57	102.15

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.1426 TRA 2.6985 TC3  .0022 BAU  .0086   SGT 2150.2 SGR 3293.8 SG3   92.5     ST  1186.4 SR  2542.9 SS  1016.6
RDE-5.0420 RRA-3.1501 RC3 -.0041 FAU-.00282   RRT -.9445 RRF -.9879 RTF  .9826    CRT -.9729 CRS  .9963 CST -.9892
FDE 1.3989 FRA 1.1843 FC3  .0177 BSP  12133   SGB 3933.5 R23 -.0533 R13 -.9979   LSA 2973.7 MSA  253.5 SSA    1.5
BDE 5.4784 BRA 4.1479 BC3  .0046 FSP   -300   SG1 3887.7 SG2  598.6 THA 122.52   EL1 2794.9 EL2  249.8 ALF 114.62
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 394.613

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.958 GAL   -.19 AZL  48.41 HCA 175.52 SMA 129.50 ECC .17024 INC41.5918 V1  29.401
RP  107.48 LAP   2.97 LOP 137.45 VP  38.009 GAP   -.52 AZP 131.50 TAL 180.93 TAP 356.46 RCA 107.45 APO 151.54 V2  35.257
RC  82.739 GL   62.69 GP  -73.83 ZAL  89.38 ZAP  89.22 ETS 188.79 ZAE  71.49 ETE  87.45 ZAC  11.95 ETC 333.85 CLP  87.20
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PLANETOCENTRIC CONIC

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C3 405.621 VHL 20.140 DLA  42.15 RAL 247.69 RAD 6572.1 VEL 22.955 PTH   3.27 VHP 27.064 DPA -53.54 RAP  76.13 ECC 7.6755
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.37	20 47 44	4804.26	-2.55	220.03	154.89	47.92	22 7 48	4204.3	-7.89	214.46
122.63	3 58 3	3482.12	-2.53	118.65	154.87	47.92	4 56 5	2882.1	-7.87	113.08
57.37	20 47 44	4804.26	-2.55	220.03	154.89	47.92	22 7 48	4204.3	-7.89	214.46
122.63	3 58 3	3482.12	-2.53	118.65	154.87	47.92	4 56 5	2882.1	-7.87	113.08
57.37	20 47 44	4804.26	-2.55	220.03	154.89	47.92	22 7 48	4204.3	-7.89	214.46
122.63	3 58 3	3482.12	-2.53	118.65	154.87	47.92	4 56 5	2882.1	-7.87	113.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4065 TRA  .2014 TC3 -.0494 BAU 1.1770   SGT  717.1 SGR 3839.2 SG3   68.0     ST   685.0 SR  2694.3 SS  1229.5
RDE-9.0238 RRA-7.1015 RC3 -.2113 FAU-.02216   RRT  .6234 RRF -.9987 RTF -.5900    CRT  .9420 CRS  .9996 CST  .9320
FDE 1.7441 FRA 1.5110 FC3  .0473 BSP  11886   SGB 3905.6 R23 -.0588 R13 -.9978   LSA 3031.0 MSA  230.0 SSA    1.6
BDE 9.3392 BRA 7.1044 BC3  .2170 FSP   -217   SG1 3865.7 SG2  556.9 THA  83.22   EL1 2771.0 EL2  223.5 ALF  76.44
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 398.953

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.957 GAL    .24 AZL   1.88 HCA 176.94 SMA 129.50 ECC .17028 INC88.1059 V1  29.401
RP  107.49 LAP   3.06 LOP 140.70 VP  38.007 GAP   -.62 AZP 178.12 TAL 178.82 TAP 355.76 RCA 107.44 APO 151.55 V2  35.255
RC  84.985 GL   43.38 GP  -47.38 ZAL  89.38 ZAP  89.50 ETS 184.08 ZAE  45.27 ETE  80.83 ZAC  33.96 ETC 290.11 CLP  89.27
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PLANETOCENTRIC CONIC

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C31538.818 VHL 39.228 DLA  23.79 RAL 240.48 RAD 6573.2 VEL 40.744 PTH   3.56 VHP 51.650 DPA -28.67 RAP  63.44 ECC26.3250
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 16 7	3754.77	-13.82	146.61	158.43	65.04	3 18 42	3154.8	-17.07	139.45
90.00	21 32 6	4687.59	15.09	199.89	145.38	65.75	22 50 13	4087.6	11.69	192.86
100.00	3 56 42	3430.45	-16.37	124.00	159.67	64.64	4 53 53	2830.5	-19.65	116.74
100.00	22 34 12	4487.13	17.66	183.94	144.17	65.48	23 48 59	3887.1	14.20	176.86
110.00	5 43 15	3097.13	-22.35	101.76	162.75	63.44	6 34 52	2497.1	-25.73	94.24
110.00	23 4 9	4393.22	23.68	173.83	141.17	64.60	24 17 22	3793.2	20.07	166.56

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-5.8831 TRA -.9252 TC3 -.0986 BAU 5.0524   SGT 1165.4 SGR 2980.1 SG3   59.3     ST   860.7 SR  1660.2 SS  1652.7
RD-10.7287 RR-11.3990 RC3 -.2249 FAU-.09269   RRT  .8580 RRF -.9997 RTF -.8469    CRT  .9601 CRS  .9998 CST  .9543
FDE 2.3762 FRA 2.6870 FC3  .0521 BSP   8992   SGB 3199.8 R23 -.0836 R13 -.9964   LSA 2484.5 MSA  235.9 SSA    1.2
BDE12.2359 BRA11.4365 BC3  .2456 FSP   -176   SG1 3149.3 SG2  566.4 THA  70.81   EL1 1857.7 EL2  215.2 ALF  63.15
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 410.043

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.954 GAL   -.58 AZL 134.93 HCA 184.44 SMA 129.47 ECC .17071 INC44.9337 V1  29.401
RP  107.50 LAP   3.14 LOP 143.95 VP  38.002 GAP   1.05 AZP  45.15 TAL 182.80 TAP   7.24 RCA 107.37 APO 151.58 V2  35.253
RC  87.241 GL  -61.54 GP   73.53 ZAL  89.90 ZAP  91.36 ETS 186.05 ZAE  76.55 ETE 283.52 ZAC 151.88 ETC 295.67 CLP  94.79
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PLANETOCENTRIC CONIC

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C3 468.868 VHL 21.653 DLA -72.55 RAL 178.11 RAD 6572.3 VEL 24.293 PTH   3.32 VHP 27.300 DPA  74.75 RAP 320.17 ECC 8.7164
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.92	2 25 11	2396.43	2.75	78.82	87.23	162.52	3 5 7	1796.4	10.38	76.81
160.08	13 5 29	628.30	2.76	285.72	87.25	162.52	13 15 57	28.3	10.38	283.70
19.92	2 25 11	2396.43	2.75	78.82	87.23	162.52	3 5 7	1796.4	10.38	76.81
160.08	13 5 29	628.30	2.76	285.72	87.25	162.52	13 15 57	28.3	10.38	283.70
19.92	2 25 11	2396.43	2.75	78.82	87.23	162.52	3 5 7	1796.4	10.38	76.81
160.08	13 5 29	628.30	2.76	285.72	87.25	162.52	13 15 57	28.3	10.38	283.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.8166 TRA 1.4803 TC3 -.1068 BAU 1.5592   SGT 1882.4 SGR 3638.7 SG3   72.9     ST  1333.4 SR  3095.9 SS  1706.2
RD-11.5349 RRA-1.9561 RC3  .2247 FAU-.02493   RRT -.9626 RRF  .9995 RTF -.9627    CRT -.9915 CRS-1.0000 CST  .9916
FDE-2.6950 FRA -.4579 FC3  .0460 BSP  13096   SGB 4096.8 R23 -.0543 R13  .9980   LSA 3774.6 MSA  162.0 SSA    1.8
BDE12.5002 BRA 2.4531 BC3  .2487 FSP   -236   SG1 4071.3 SG2  455.8 THA 116.84   EL1 3367.1 EL2  159.2 ALF 113.18
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 415.788

RL	151.54	LAL	.00	LOL	320.80	VL	26.948	GAL	-.39	AZL	116.68	HCA	187.16	SMA	129.43	ECC	.17091	INC	26.6780	V1	29.401
RP	107.51	LAP	3.21	LOP	147.20	VP	37.995	GAP	1.31	AZP	63.50	TAL	181.87	TAP	9.02	RCA	107.31	APO	151.56	V2	35.249
RC	89.506	GL	-66.26	GP	85.68	ZAL	89.45	ZAP	92.83	ETS	185.05	ZAE	89.54	ETE	281.22	ZAC	162.81	ETC	311.26	CLP	130.87

PLANETOCENTRIC CONIC

C3	174.709	VHL	13.218	DLA	-75.09	RAL	163.67	RAD	6570.9	VEL	17.206	PTH	2.94	VHP	16.329	DPA	69.87	RAP	277.82	ECC	3.8753		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.99	1 21 33	2279.71	10.87	78.76	70.72	164.81	1 59 32	1679.7	18.58	76.97
163.01	12 13 53	5787.28	10.87	260.59	70.75	164.81	13 50 21	5187.3	18.59	258.81
16.99	1 21 33	2279.71	10.87	78.76	70.72	164.81	1 59 32	1679.7	18.58	76.97
163.01	12 13 53	5787.28	10.87	260.59	70.75	164.81	13 50 21	5187.3	18.59	258.81
16.99	1 21 33	2279.71	10.87	78.76	70.72	164.81	1 59 32	1679.7	18.58	76.97
163.01	12 13 53	5787.28	10.87	260.59	70.75	164.81	13 50 21	5187.3	18.59	258.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.4157	TRA	1.0573	TC3	-.0319	BAU	.2132	SGT	2318.0	SGR	3675.2	SG3	100.9	ST	1574.1	SR	2654.9	SS	1230.2		
RDE	-5.8428	RRA	-1.5749	RC3	.0855	FAU	-.00200	RRT	-.9973	RRF	.9985	RTF	-.9943	CRT	-.9991	CRS	-.9998	CST	.9980		
FDE	-1.9311	FRA	-.4832	FC3	.0099	BSP	13560	SG8	4345.2	R23	-.0423	R13	.9979	LSA	3321.9	MSA	67.2	SSA	2.1		
BDE	6.7680	BRA	1.8969	BC3	.0913	FSP	-319	SG1	4342.8	SG2	143.2	THA	122.21	EL1	3085.9	EL2	56.7	ALF	120.65		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 421.862

RL	151.54	LAL	.00	LOL	320.80	VL	26.940	GAL	-.25	AZL	108.79	HCA	190.18	SMA	129.38	ECC	.17135	INC	18.7873	V1	29.401		
RP	107.52	LAP	3.26	LOP	150.45	VP	37.985	GAP	1.66	AZP	71.49	TAL	181.21	TAP	11.39	RCA	107.21	APO	151.55	V2	35.245		
RC	91.778	GL	-65.80	GP	83.06	ZAL	68.84	ZAP	95.07	ETS	25.31	ZAE	97.44	ETE	120.87	ZAC	166.66	ETC	177.19	CLP	-137.03		

PLANETOCENTRIC CONIC

C3	90.484	VHL	9.512	DLA	-75.50	RAL	166.13	RAD	6569.8	VEL	14.554	PTH	2.64	VHP	11.552	DPA	63.93	RAP	262.13	ECC	2.4891		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.53	1 30 26	2152.31	19.32	77.25	70.91	164.61	2 6 18	1552.3	27.02	75.29
163.47	12 24 40	5658.12	19.33	258.62	70.94	164.61	13 58 58	5058.1	27.02	256.66
16.53	1 30 26	2152.31	19.32	77.25	70.91	164.61	2 6 18	1552.3	27.02	75.29
163.47	12 24 40	5658.12	19.33	258.62	70.94	164.61	13 58 58	5058.1	27.02	256.66
16.53	1 30 26	2152.31	19.32	77.25	70.91	164.61	2 6 18	1552.3	27.02	75.29
163.47	12 24 40	5658.12	19.33	258.62	70.94	164.61	13 58 58	5058.1	27.02	256.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1618	TRA	-.9042	TC3	-.1273	BAU	.2076	SGT	2297.4	SGR	3815.1	SG3	144.4	ST	956.8	SR	3105.9	SS	1288.1		
RDE	5.0264	RRA	.9609	RC3	.1151	FAU	.01030	RRT	-.8212	RRF	-.9962	RTF	.8600	CRT	-.8652	CRS	.9995	CST	-.8810		
FDE	-2.0719	FRA	-.4557	FC3	-.0985	BSP	13938	SG8	4453.5	R23	.0728	R13	-.9962	LSA	3465.1	MSA	463.3	SSA	2.3		
BDE	5.1589	BRA	1.3195	BC3	.1716	FSP	-459	SG1	4298.8	SG2	1163.5	THA	118.60	EL1	3216.8	EL2	463.3	ALF	105.25		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 428.028

RL	151.54	LAL	.00	LOL	320.80	VL	26.930	GAL	-.12	AZL	104.53	HCA	193.31	SMA	129.31	ECC	.17196	INC	14.5293	V1	29.401		
RP	107.53	LAP	3.31	LOP	153.70	VP	37.974	GAP	2.03	AZP	75.85	TAL	180.59	TAP	13.90	RCA	107.07	APO	151.54	V2	35.240		
RC	94.056	GL	-63.69	GP	76.63	ZAL	88.09	ZAP	97.96	ETS	24.41	ZAE	103.37	ETE	119.97	ZAC	165.96	ETC	201.93	CLP	-126.79		

PLANETOCENTRIC CONIC

C3	56.804	VHL	7.537	DLA	-75.26	RAL	174.81	RAD	6569.0	VEL	13.348	PTH	2.44	VHP	9.045	DPA	58.59	RAP	253.29	ECC	1.9348		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.80	2 5 38	2042.60	26.44	75.25	77.28	163.49	2 39 41	1442.6	34.09	72.93
163.20	12 58 44	5549.46	26.45	256.90	77.30	163.49	14 31 13	4949.5	34.09	254.58
16.80	2 5 38	2042.60	26.44	75.25	77.28	163.49	2 39 41	1442.6	34.09	72.93
163.20	12 58 44	5549.46	26.45	256.90	77.30	163.49	14 31 13	4949.5	34.09	254.58
16.80	2 5 38	2042.60	26.44	75.25	77.28	163.49	2 39 41	1442.6	34.09	72.93
163.20	12 58 44	5549.46	26.45	256.90	77.30	163.49	14 31 13	4949.5	34.09	254.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0568	TRA	-.6874	TC3	-.3668	BAU	.3887	SGT	2639.4	SGR	3675.6	SG3	200.2	ST	1680.7	SR	3202.0	SS	1528.0		
RDE	4.1512	RRA	.6046	RC3	.3570	FAU	.02123	RRT	-.9215	RRF	-.9972	RTF	.9381	CRT	-.9790	CRS	.9999	CST	-.9820		
FDE	-2.5279	FRA	-.4017	FC3	-.3236	BSP	14369	SG8	4525.1	R23	.0827	R13	-.9950	LSA	3913.8	MSA	307.1	SSA	2.9		
BDE	4.6328	BRA	.9155	BC3	.5118	FSP	-647	SG1	4445.0	SG2	847.5	THA	124.95	EL1	3603.4	EL2	304.4	ALF	117.41		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 434.218

RL	151.54	LAL	.00	LOL	320.80	VL	26.917	GAL	.01	AZL	101.88	HCA	196.48	SMA	129.22	ECC	.17272	INC	11.8787	V1	29.401		
RP	107.55	LAP	3.35	LOP	156.95	VP	37.960	GAP	2.40	AZP	78.60	TAL	179.97	TAP	16.45	RCA	106.90	APO	151.54	V2	35.235		
RC	96.339	GL	-60.97	GP	70.66	ZAL	87.17	ZAP	101.35	ETS	26.81	ZAE	108.22	ETE	123.01	ZAC	162.75	ETC	220.55	CLP	-126.46		

PLANETOCENTRIC CONIC

C3	40.153	VHL	6.337	DLA	-74.46	RAL	185.13	RAD	6568.5	VEL	12.709	PTH	2.31	VHP	7.563	DPA	53.61	RAP	247.13	ECC	1.6608		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.72	2 48 40	1954.13	31.95	72.69	85.13	161.59	3 21 14	1354.1	39.50	69.84
162.28	13 38 2	5464.57	31.96	255.25	85.15	161.59	15 9 6	4864.6	39.51	252.41
17.72	2 48 40	1954.13	31.95	72.69	85.13	161.59	3 21 14	1354.1	39.50	69.84
162.28	13 38 2	5464.57	31.96	255.25	85.15	161.59	15 9 6	4864.6	39.51	252.41
17.72	2 48 40	1954.13	31.95	72.69	85.13	161.59	3 21 14	1354.1	39.50	69.84
162.28	13 38 2	5464.57	31.96	255.25	85.15	161.59	15 9 6	4864.6	39.51	252.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4196	TRA	-.5081	TC3	-.6459	BAU	.4396	SGT	2897.7	SGR	3466.7	SG3	259.5	ST	2247.6	SR	3255.0	SS	1798.7		
RDE	3.5827	RRA	.3131	RC3	.5035	FAU	.02845	RRT	-.9379	RRF	-.9968	RTF	.9503	CRT	-.9911	CRS	1.0000	CST	-.9920		
FDE	-3.0277	FRA	-.2841	FC3	-.6134	BSP	13161	SG8	4518.2	R23	.0995	R13	-.9929	LSA	4337.9	MSA	253.4	SSA	3.7		
BDE	4.3232	BRA	.5968	BC3	.8190	FSP	-749	SG1	4449.9	SG2	783.1	THA	129.56	EL1	3947.9	EL2	246.6	ALF	124.54		

LAUNCH DATE AUG 14 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 440.417

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RL  151.54 LAL    .00 LOL 320.80 VL  26.902 GAL    .14 AZL 100.07 HCA 199.68 SMA 129.12 ECC .17363 INC10.0672 V1  29.401
RP  107.57 LAP   3.37 LOP 160.20 VP  37.944 GAP   2.78 AZP  80.51 TAL 179.31 TAP  18.99 RCA 106.70 APO 151.54 V2  35.229
RC  98.624 GL  -58.02 GP   65.11 ZAL  86.10 ZAP 105.09 ETS  29.21 ZAE 112.28 ETE 126.67 ZAC 158.62 ETC 231.71 CLP-128.20
PLANETOCENTRIC CONIC
C3  30.733 VHL  5.544 DLA -73.19 RAL 195.10 RAD 6568.2 VEL 12.333 PTH   2.22 VHP  6.624 DPA  48.85 RAP 242.47 ECC 1.5058
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   19.18     3 31 25   1883.61      36.03     69.53      92.40      159.05    4  2 48    1283.6      43.44      66.01
  160.82    14 14 48   5400.18      36.03    253.57      92.42      159.05   15 44 48    4800.2      43.44     250.05
   19.18     3 31 25   1883.61      36.03     69.53      92.40      159.05    4  2 48    1283.6      43.44      66.01
  160.82    14 14 48   5400.18      36.03    253.57      92.42      159.05   15 44 48    4800.2      43.44     250.05
   19.18     3 31 25   1883.61      36.03     69.53      92.40      159.05    4  2 48    1283.6      43.44      66.01
  160.82    14 14 48   5400.18      36.03    253.57      92.42      159.05   15 44 48    4800.2      43.44     250.05
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
TDE-2.6058 TRA -.3676 TC3-1.0445 BAU  .5310   SGT 3212.4 SGR 3267.1 SG3  324.5         ST  2722.0 SR  3118.3 SS  1996.5
RDE 3.0134 RRA  .1434 RC3  .7610 FAU .04078   RRT -.9564 RRF -.9964 RTF  .9642         CRT -.9954 CRS 1.0000 CST -.9956
FDE-3.3708 FRA -.1657 FC3-1.1489 BSP  14380   SGB 4581.9 R23  .1063 R13 -.9915         LSA 4590.8 MSA  209.5 SSA    4.7
BDE 3.9838 BRA  .3946 BC3 1.2923 FSP  -1024   SG1 4531.7 SG2  676.4 THA 134.49         EL1 4134.6 EL2  197.0 ALF 131.10
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 446.606

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RL  151.54 LAL    .00 LOL 320.80 VL  26.886 GAL    .29 AZL  98.75 HCA 202.89 SMA 129.01 ECC .17468 INC 8.7461 V1  29.401
RP  107.59 LAP   3.39 LOP 163.45 VP  37.926 GAP   3.15 AZP  81.93 TAL 178.63 TAP  21.51 RCA 106.48 APO 151.55 V2  35.222
RC 100.910 GL  -55.01 GP   59.91 ZAL  84.88 ZAP 109.03 ETS  31.27 ZAE 115.67 ETE 130.54 ZAC 154.26 ETC 238.58 CLP-130.58
PLANETOCENTRIC CONIC
C3  24.900 VHL  4.990 DLA -71.57 RAL 204.00 RAD 6568.0 VEL 12.095 PTH   2.16 VHP  6.008 DPA  44.27 RAP 238.82 ECC 1.4098
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   21.04     4 10 49   1826.90      38.93     65.87      98.38      156.03    4 41 15    1226.9      46.15      61.61
  158.96    14 46 26   5352.11      38.94    251.82      98.40      156.02   16 15 38    4752.1      46.16     247.56
   21.04     4 10 49   1826.90      38.93     65.87      98.38      156.03    4 41 15    1226.9      46.15      61.61
  158.96    14 46 26   5352.11      38.94    251.82      98.40      156.02   16 15 38    4752.1      46.16     247.56
   21.04     4 10 49   1826.90      38.93     65.87      98.38      156.03    4 41 15    1226.9      46.15      61.61
  158.96    14 46 26   5352.11      38.94    251.82      98.40      156.02   16 15 38    4752.1      46.16     247.56
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
TDE-2.6783 TRA -.2248 TC3-1.4611 BAU  .5730   SGT 3500.0 SGR 3026.7 SG3  383.8         ST  3085.3 SR  2887.3 SS  2126.3
RDE 2.5145 RRA  .0063 RC3  .9101 FAU .04961   RRT -.9649 RRF -.9956 RTF  .9708         CRT -.9970 CRS 1.0000 CST -.9968
FDE-3.5669 FRA  .0034 FC3-1.7248 BSP  14610   SGB 4627.2 R23  .1132 R13 -.9899         LSA 4726.8 MSA  183.3 SSA    5.7
BDE 3.6736 BRA  .2249 BC3 1.7213 FSP  -1218   SG1 4587.3 SG2  606.6 THA 139.30         EL1 4222.4 EL2  162.9 ALF 136.90
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 452.783

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RL  151.54 LAL    .00 LOL 320.80 VL  26.868 GAL    .45 AZL  97.74 HCA 206.10 SMA 128.89 ECC .17588 INC 7.7352 V1  29.401
RP  107.61 LAP   3.39 LOP 166.70 VP  37.906 GAP   3.53 AZP  83.05 TAL 177.90 TAP  24.00 RCA 106.22 APO 151.56 V2  35.215
RC 103.196 GL  -52.00 GP   55.06 ZAL  83.50 ZAP 113.06 ETS  32.93 ZAE 118.45 ETE 134.47 ZAC 149.98 ETC 243.07 CLP-133.15
PLANETOCENTRIC CONIC
C3  21.057 VHL  4.589 DLA -69.72 RAL 211.75 RAD 6567.9 VEL 11.935 PTH   2.12 VHP  5.601 DPA  39.90 RAP 235.96 ECC 1.3465
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   23.18     4 46 15   1780.56      40.89     61.88     103.08      152.72    5 15 55    1180.6      47.88      56.84
  156.82    15 12 47   5316.86      40.90    250.06     103.10      152.71   16 41 23    4716.9      47.89     245.02
   23.18     4 46 15   1780.56      40.89     61.88     103.08      152.72    5 15 55    1180.6      47.88      56.84
  156.82    15 12 47   5316.86      40.90    250.06     103.10      152.71   16 41 23    4716.9      47.89     245.02
   23.18     4 46 15   1780.56      40.89     61.88     103.08      152.72    5 15 55    1180.6      47.88      56.84
  156.82    15 12 47   5316.86      40.90    250.06     103.10      152.71   16 41 23    4716.9      47.89     245.02
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
TDE-2.6702 TRA -.0882 TC3-1.9044 BAU  .6063   SGT 3777.8 SGR 2771.5 SG3  434.1         ST  3335.8 SR  2595.1 SS  2176.4
RDE 2.0768 RRA -.0895 RC3 1.0061 FAU .05687   RRT -.9701 RRF -.9945 RTF  .9752         CRT -.9978 CRS 1.0000 CST -.9973
FDE-3.5978 FRA  .1890 FC3-2.3382 BSP  14801   SGB 4685.4 R23  .1163 R13 -.9886         LSA 4751.0 MSA  165.3 SSA    6.8
BDE 3.3828 BRA  .1257 BC3 2.1538 FSP  -1380   SG1 4653.4 SG2  546.1 THA 143.99         EL1 4224.2 EL2  135.3 ALF 142.13
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 458.945

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RL  151.54 LAL    .00 LOL 320.80 VL  26.849 GAL    .62 AZL  96.93 HCA 209.32 SMA 128.76 ECC .17722 INC 6.9326 V1  29.401
RP  107.64 LAP   3.39 LOP 169.94 VP  37.885 GAP   3.90 AZP  83.95 TAL 177.13 TAP  26.45 RCA 105.94 APO 151.58 V2  35.207
RC 105.482 GL  -49.04 GP   50.57 ZAL  81.98 ZAP 117.05 ETS  34.23 ZAE 120.66 ETE 138.35 ZAC 145.93 ETC 246.16 CLP-135.73
PLANETOCENTRIC CONIC
C3  18.414 VHL  4.291 DLA -67.73 RAL 218.48 RAD 6567.7 VEL 11.824 PTH   2.09 VHP  5.335 DPA  35.75 RAP 233.74 ECC 1.3030
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   25.50     5 18 10   1741.96      42.09     57.71     106.75      149.28    5 47 12    1142.0      48.82      51.93
  154.50    15 34 33   5291.81      42.10    248.37     106.76      149.28   17  2 45    4691.8      48.82     242.59
   25.50     5 18 10   1741.96      42.09     57.71     106.75      149.28    5 47 12    1142.0      48.82      51.93
  154.50    15 34 33   5291.81      42.10    248.37     106.76      149.28   17  2 45    4691.8      48.82     242.59
   25.50     5 18 10   1741.96      42.09     57.71     106.75      149.28    5 47 12    1142.0      48.82      51.93
  154.50    15 34 33   5291.81      42.10    248.37     106.76      149.28   17  2 45    4691.8      48.82     242.59
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
TDE-2.6073 TRA  .0504 TC3-2.3538 BAU  .6344   SGT 4028.8 SGR 2509.6 SG3  471.6         ST  3482.2 SR  2279.7 SS  2151.6
RDE 1.7026 RRA -.1604 RC3 1.0494 FAU .06224   RRT -.9726 RRF -.9931 RTF  .9776         CRT -.9982 CRS  .9999 CST -.9973
FDE-3.4815 FRA  .3892 FC3-2.9263 BSP  15040   SGB 4746.5 R23  .1180 R13 -.9873         LSA 4682.8 MSA  154.6 SSA    7.8
BDE 3.1139 BRA  .1681 BC3 2.5771 FSP  -1513   SG1 4720.3 SG2  498.1 THA 148.40         EL1 4160.5 EL2  113.2 ALF 146.81
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 465.088

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RL  151.54 LAL    .00 LOL 320.80 VL  26.828 GAL    .80 AZL  96.28 HCA 212.54 SMA 128.62 ECC .17871 INC 6.2765 V1  29.401
RP  107.66 LAP   3.37 LOP 173.18 VP  37.862 GAP   4.27 AZP  84.70 TAL 176.33 TAP  28.86 RCA 105.64 APO 151.61 V2  35.198
RC 107.765 GL  -46.13 GP   46.45 ZAL  80.34 ZAP 120.92 ETS  35.22 ZAE 122.36 ETE 142.08 ZAC 142.18 ETC 248.38 CLP-138.24
PLANETOCENTRIC CONIC
C3  16.547 VHL  4.068 DLA -65.64 RAL 224.38 RAD 6567.7 VEL 11.744 PTH   2.07 VHP  5.171 DPA  31.84 RAP 232.06 ECC 1.2723
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   27.94     5 47 12   1709.22      42.69     53.50     109.68     145.86     6 15 41    1109.2      49.13      47.06
  152.06    15 52 38   5275.03      42.70    246.84     109.69     145.85    17 20 33    4675.0      49.13     240.40
   27.94     5 47 12   1709.22      42.69     53.50     109.68     145.86     6 15 41    1109.2      49.13      47.06
  152.06    15 52 38   5275.03      42.70    246.84     109.69     145.85    17 20 33    4675.0      49.13     240.40
   27.94     5 47 12   1709.22      42.69     53.50     109.68     145.86     6 15 41    1109.2      49.13      47.06
  152.06    15 52 38   5275.03      42.70    246.84     109.69     145.85    17 20 33    4675.0      49.13     240.40
DIFFERENTIAL CORRECTIONS                  MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5154 TRA  .1902 TC3-2.7967 BAU  .6609   SGT 4260.5 SGR 2264.0 SG3  497.3   ST  3549.0 SR  1981.4 SS  2076.9
RDE 1.3983 RRA -.2105 RC3 1.0503 FAU .06583   RRT -.9734 RRF -.9911 RTF  .9791   CRT -.9985 CRS  .9998 CST -.9972
FDE-3.2720 FRA  .5887 FC3-3.4442 BSP  15276   SGB 4824.7 R23  .1171 R13 -.9862   LSA 4562.1 MSA  148.5 SSA    8.9
BDE 2.8779 BRA  .2837 BC3 2.9874 FSP  -1602   SG1 4802.7 SG2  460.4 THA 152.37   EL1 4063.6 EL2   94.2 ALF 150.84
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 471.213

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RL  151.54 LAL    .00 LOL 320.80 VL  26.806 GAL    .99 AZL  95.73 HCA 215.76 SMA 128.47 ECC .18033 INC 5.7271 V1  29.401
RP  107.69 LAP   3.34 LOP 176.42 VP  37.838 GAP   4.63 AZP  85.35 TAL 175.49 TAP  31.24 RCA 105.31 APO 151.64 V2  35.189
RC 110.046 GL  -43.30 GP   42.69 ZAL  78.57 ZAP 124.63 ETS  35.95 ZAE 123.62 ETE 145.61 ZAC 138.76 ETC 250.03 CLP-140.65
PLANETOCENTRIC CONIC
C3  15.211 VHL  3.900 DLA -63.50 RAL 229.63 RAD 6567.6 VEL 11.687 PTH   2.06 VHP  5.081 DPA  28.19 RAP 230.84 ECC 1.2503
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   30.46     6 13 59   1680.92      42.81     49.34     112.11     142.54     6 41 59    1080.9      48.93      42.35
  149.54    16  7 45   5265.14      42.81    245.53     112.13     142.53    17 35 30    4665.1      48.94     238.54
   30.46     6 13 59   1680.92      42.81     49.34     112.11     142.54     6 41 59    1080.9      48.93      42.35
  149.54    16  7 45   5265.14      42.81    245.53     112.13     142.53    17 35 30    4665.1      48.94     238.54
   30.46     6 13 59   1680.92      42.81     49.34     112.11     142.54     6 41 59    1080.9      48.93      42.35
  149.54    16  7 45   5265.14      42.81    245.53     112.13     142.53    17 35 30    4665.1      48.94     238.54
DIFFERENTIAL CORRECTIONS                  MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4049 TRA  .3320 TC3-3.2184 BAU  .6864   SGT 4469.6 SGR 2036.0 SG3  511.1   ST  3548.9 SR  1710.4 SS  1963.0
RDE 1.1525 RRA -.2447 RC3 1.0176 FAU .06777   RRT -.9730 RRF -.9885 RTF  .9799   CRT -.9988 CRS  .9995 CST -.9968
FDE-2.9979 FRA  .7768 FC3-3.8572 BSP  15552   SGB 4911.5 R23  .1133 R13 -.9851   LSA 4399.1 MSA  145.5 SSA    9.9
BDE 2.6667 BRA  .4124 BC3 3.3754 FSP  -1660   SG1 4892.7 SG2  429.5 THA 155.90   EL1 3938.8 EL2   76.7 ALF 154.29
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 170.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 477.318

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RL  151.54 LAL    .00 LOL 320.80 VL  26.783 GAL   1.20 AZL  95.26 HCA 218.98 SMA 128.32 ECC .18211 INC 5.2575 V1  29.401
RP  107.72 LAP   3.30 LOP 179.66 VP  37.812 GAP   5.00 AZP  85.91 TAL 174.61 TAP  33.59 RCA 104.95 APO 151.69 V2  35.179
RC 112.324 GL  -40.53 GP   39.30 ZAL  76.70 ZAP 128.14 ETS  36.50 ZAE 124.51 ETE 148.87 ZAC 135.69 ETC 251.30 CLP-142.94
PLANETOCENTRIC CONIC
C3  14.257 VHL  3.776 DLA -61.33 RAL 234.37 RAD 6567.6 VEL 11.647 PTH   2.04 VHP  5.048 DPA  24.79 RAP 230.03 ECC 1.2346
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   33.02     6 39  3   1655.95      42.52     45.30     114.26     139.38     7  6 39    1055.9      48.35      37.89
  146.98    16 20 27   5261.26      42.53    244.50     114.27     139.38    17 48  9    4661.3      48.35     237.08
   33.02     6 39  3   1655.95      42.52     45.30     114.26     139.38     7  6 39    1055.9      48.35      37.89
  146.98    16 20 27   5261.26      42.53    244.50     114.27     139.38    17 48  9    4661.3      48.35     237.08
   33.02     6 39  3   1655.95      42.52     45.30     114.26     139.38     7  6 39    1055.9      48.35      37.89
  146.98    16 20 27   5261.26      42.53    244.50     114.27     139.38    17 48  9    4661.3      48.35     237.08
DIFFERENTIAL CORRECTIONS                  MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2815 TRA  .4799 TC3-3.5972 BAU  .7094   SGT 4654.9 SGR 1829.5 SG3  514.5   ST  3492.8 SR  1472.3 SS  1822.0
RDE  .9554 RRA -.2693 RC3  .9547 FAU .06796   RRT -.9711 RRF -.9850 RTF  .9801   CRT -.9990 CRS  .9990 CST -.9961
FDE-2.6869 FRA  .9547 FC3-4.1270 BSP  15786   SGB 5001.6 R23  .1083 R13 -.9840   LSA 4203.0 MSA  145.9 SSA   11.0
BDE 2.4735 BRA  .5503 BC3 3.7217 FSP  -1676   SG1 4984.9 SG2  407.6 THA 158.96   EL1 3789.9 EL2   60.4 ALF 157.16
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 483.402

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RL  151.54 LAL    .00 LOL 320.80 VL  26.758 GAL   1.42 AZL  94.85 HCA 222.20 SMA 128.16 ECC .18404 INC 4.8493 V1  29.401
RP  107.75 LAP   3.26 LOP 182.90 VP  37.786 GAP   5.36 AZP  86.40 TAL 173.70 TAP  35.90 RCA 104.57 APO 151.75 V2  35.169
RC 114.599 GL  -37.84 GP   36.24 ZAL  74.73 ZAP 131.43 ETS  36.92 ZAE 125.09 ETE 151.84 ZAC 132.94 ETC 252.31 CLP-145.12
PLANETOCENTRIC CONIC
C3  13.591 VHL  3.687 DLA -59.15 RAL 238.68 RAD 6567.5 VEL 11.618 PTH   2.04 VHP  5.058 DPA  21.65 RAP 229.57 ECC 1.2237
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   35.62     7  2 47   1633.54      41.92     41.43     116.24     136.44     7 30  0    1033.5      47.45      33.69
  144.38    16 31  9   5262.66      41.93    243.79     116.25     136.43    17 58 52    4662.7      47.46     236.06
   35.62     7  2 47   1633.54      41.92     41.43     116.24     136.44     7 30  0    1033.5      47.45      33.69
  144.38    16 31  9   5262.66      41.93    243.79     116.25     136.43    17 58 52    4662.7      47.46     236.06
   35.62     7  2 47   1633.54      41.92     41.43     116.24     136.44     7 30  0    1033.5      47.45      33.69
  144.38    16 31  9   5262.66      41.93    243.79     116.25     136.43    17 58 52    4662.7      47.46     236.06
DIFFERENTIAL CORRECTIONS                  MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1536 TRA  .6323 TC3-3.9331 BAU  .7322   SGT 4825.6 SGR 1648.9 SG3  510.4   ST  3397.2 SR  1271.6 SS  1669.8
RDE  .8008 RRA -.2858 RC3  .8779 FAU .06707   RRT -.9682 RRF -.9804 RTF  .9800   CRT -.9993 CRS  .9980 CST -.9952
FDE-2.3698 FRA 1.1147 FC3-4.2720 BSP  16059   SGB 5099.5 R23  .1012 R13 -.9829   LSA 3990.5 MSA  148.7 SSA   12.0
BDE 2.2977 BRA  .6939 BC3 4.0299 FSP  -1670   SG1 5084.4 SG2  391.6 THA 161.58   EL1 3627.1 EL2   44.3 ALF 159.49
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 489.463

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RL  151.54 LAL    .00 LOL 320.80 VL  26.733 GAL   1.65 AZL  94.49 HCA 225.42 SMA 127.99 ECC .18613 INC 4.4890 V1  29.401
RP  107.79 LAP   3.20 LOP 186.14 VP  37.758 GAP   5.73 AZP  86.85 TAL 172.75 TAP  38.17 RCA 104.17 APO 151.82 V2  35.158
RC 116.871 GL  -35.22 GP   33.50 ZAL  72.69 ZAP 134.49 ETS  37.25 ZAE 125.44 ETE 154.51 ZAC 130.51 ETC 253.13 CLP-147.18
PLANETOCENTRIC CONIC
C3  13.152 VHL  3.627 DLA -56.98 RAL 242.66 RAD 6567.5 VEL 11.599 PTH   2.03 VHP  5.102 DPA  18.75 RAP 229.41 ECC 1.2164
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.24	7 25 30	1613.00	41.07	37.73	118.15	133.71	7 52 23	1013.0	46.31	29.77
141.76	16 40 7	5268.94	41.08	243.43	118.16	133.71	18 7 56	4668.9	46.32	235.47
38.24	7 25 30	1613.00	41.07	37.73	118.15	133.71	7 52 23	1013.0	46.31	29.77
141.76	16 40 7	5268.94	41.08	243.43	118.16	133.71	18 7 56	4668.9	46.32	235.47
38.24	7 25 30	1613.00	41.07	37.73	118.15	133.71	7 52 23	1013.0	46.31	29.77
141.76	16 40 7	5268.94	41.08	243.43	118.16	133.71	18 7 56	4668.9	46.32	235.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.0249 TRA   .7876 TC3-4.2217 BAU  .7553   SGT 4982.5 SGR 1491.5 SG3  500.5          ST  3273.0 SR  1105.9 SS  1515.7
RDE  .6807 RRA -.2958 RC3  .7952 FAU .06539   RRT -.9641 RRF -.9745 RTF  .9798          CRT -.9996 CRS  .9961 CST -.9938
FDE-2.0634 FRA 1.2525 FC3-4.3045 BSP  16395   SGB 5200.9 R23  .0918 R13 -.9820          LSA 3769.5 MSA  153.3 SSA   13.0
BDE 2.1362 BRA  .8413 BC3 4.2959 FSP  -1652   SG1 5187.0 SG2  380.4 THA 163.81          EL1 3454.6 EL2   28.2 ALF 161.34
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 495.501

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RL  151.54 LAL    .00 LOL 320.80 VL  26.707 GAL   1.90 AZL  94.17 HCA 228.64 SMA 127.82 ECC .18839 INC 4.1667 V1  29.401
RP  107.82 LAP   3.13 LOP 189.37 VP  37.729 GAP   6.10 AZP  87.24 TAL 171.78 TAP  40.42 RCA 103.74 APO 151.90 V2  35.147
RC 119.138 GL  -32.68 GP   31.04 ZAL  70.59 ZAP 137.35 ETS  37.53 ZAE 125.60 ETE 156.88 ZAC 128.37 ETC 253.82 CLP-149.14
PLANETOCENTRIC CONIC
C3  12.900 VHL  3.592 DLA -54.82 RAL 246.33 RAD 6567.5 VEL 11.588 PTH   2.03 VHP  5.174 DPA  16.07 RAP 229.51 ECC 1.2123
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.87	7 47 26	1593.84	40.01	34.20	120.05	131.22	8 14 0	993.8	44.99	26.11
139.13	16 47 31	5279.74	40.02	243.43	120.06	131.21	18 15 31	4679.7	45.00	235.33
40.87	7 47 26	1593.84	40.01	34.20	120.05	131.22	8 14 0	993.8	44.99	26.11
139.13	16 47 31	5279.74	40.02	243.43	120.06	131.21	18 15 31	4679.7	45.00	235.33
40.87	7 47 26	1593.84	40.01	34.20	120.05	131.22	8 14 0	993.8	44.99	26.11
139.13	16 47 31	5279.74	40.02	243.43	120.06	131.21	18 15 31	4679.7	45.00	235.33

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-1.9023 TRA   .9409 TC3-4.4767 BAU  .7820   SGT 5132.1 SGR 1356.8 SG3  486.7          ST  3135.2 SR   973.8 SS  1370.9
RDE  .5901 RRA -.2994 RC3  .7196 FAU .06366   RRT -.9592 RRF -.9672 RTF  .9800          CRT -.9999 CRS  .9928 CST -.9921
FDE-1.7860 FRA 1.3604 FC3-4.2723 BSP  16914   SGB 5308.4 R23  .0786 R13 -.9816          LSA 3554.2 MSA  157.9 SSA   13.8
BDE 1.9917 BRA  .9873 BC3 4.5342 FSP  -1642   SG1 5295.4 SG2  371.6 THA 165.70          EL1 3282.9 EL2   15.0 ALF 162.75
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 501.518

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RL  151.54 LAL    .00 LOL 320.80 VL  26.680 GAL   2.16 AZL  93.88 HCA 231.86 SMA 127.65 ECC .19081 INC 3.8750 V1  29.401
RP  107.86 LAP   3.05 LOP 192.60 VP  37.699 GAP   6.47 AZP  87.60 TAL 170.77 TAP  42.63 RCA 103.29 APO 152.00 V2  35.136
RC 121.402 GL  -30.23 GP   28.85 ZAL  68.45 ZAP 140.00 ETS  37.79 ZAE 125.63 ETE 158.98 ZAC 126.49 ETC 254.41 CLP-150.99
PLANETOCENTRIC CONIC
C3  12.808 VHL  3.579 DLA -52.69 RAL 249.77 RAD 6567.5 VEL 11.584 PTH   2.03 VHP  5.270 DPA  13.60 RAP 229.85 ECC 1.2108
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.51	8 8 48	1575.61	38.79	30.85	121.97	128.95	8 35 4	975.6	43.52	22.69
136.49	16 53 32	5294.92	38.81	243.78	121.99	128.94	18 21 47	4694.9	43.53	235.61
43.51	8 8 48	1575.61	38.79	30.85	121.97	128.95	8 35 4	975.6	43.52	22.69
136.49	16 53 32	5294.92	38.81	243.78	121.99	128.94	18 21 47	4694.9	43.53	235.61
43.51	8 8 48	1575.61	38.79	30.85	121.97	128.95	8 35 4	975.6	43.52	22.69
136.49	16 53 32	5294.92	38.81	243.78	121.99	128.94	18 21 47	4694.9	43.53	235.61

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-1.7655 TRA 1.1153 TC3-4.6284 BAU  .7998   SGT 5257.6 SGR 1239.2 SG3  469.5          ST  2963.1 SR   859.4 SS  1221.3
RDE  .5149 RRA -.3062 RC3  .6280 FAU .06038   RRT -.9519 RRF -.9582 RTF  .9791          CRT -.9997 CRS  .9863 CST -.9891
FDE-1.5072 FRA 1.4747 FC3-4.0815 BSP  17089   SGB 5401.7 R23  .0703 R13 -.9803          LSA 3313.8 MSA  169.6 SSA   14.6
BDE 1.8391 BRA 1.1566 BC3 4.6709 FSP  -1577   SG1 5389.0 SG2  370.6 THA 167.29          EL1 3085.1 EL2   20.3 ALF 163.83
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 507.509

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RL  151.54 LAL    .00 LOL 320.80 VL  26.653 GAL   2.44 AZL  93.61 HCA 235.08 SMA 127.47 ECC .19342 INC 3.6082 V1  29.401
RP  107.89 LAP   2.96 LOP 195.83 VP  37.669 GAP   6.84 AZP  87.93 TAL 169.74 TAP  44.82 RCA 102.81 APO 152.12 V2  35.124
RC 123.660 GL  -27.86 GP   26.89 ZAL  66.28 ZAP 142.46 ETS  38.06 ZAE 125.56 ETE 160.82 ZAC 124.84 ETC 254.94 CLP-152.75
PLANETOCENTRIC CONIC
C3  12.861 VHL  3.586 DLA -50.59 RAL 252.98 RAD 6567.5 VEL 11.587 PTH   2.03 VHP  5.384 DPA  11.31 RAP 230.40 ECC 1.2117
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.15	8 29 44	1557.91	37.45	27.66	123.95	126.90	8 55 42	957.9	41.95	19.47
133.85	16 58 13	5314.38	37.46	244.51	123.96	126.88	18 26 47	4714.4	41.96	236.31
46.15	8 29 44	1557.91	37.45	27.66	123.95	126.90	8 55 42	957.9	41.95	19.47
133.85	16 58 13	5314.38	37.46	244.51	123.96	126.88	18 26 47	4714.4	41.96	236.31
46.15	8 29 44	1557.91	37.45	27.66	123.95	126.90	8 55 42	957.9	41.95	19.47
133.85	16 58 13	5314.38	37.46	244.51	123.96	126.88	18 26 47	4714.4	41.96	236.31

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-1.6343 TRA 1.2916 TC3-4.7336 BAU  .8193   SGT 5376.7 SGR 1139.8 SG3  450.8          ST  2789.1 SR   769.6 SS  1088.3
RDE  .4589 RRA -.3098 RC3  .5469 FAU .05717   RRT -.9432 RRF -.9474 RTF -.9784          CRT -.9986 CRS  .9754 CST -.9851
FDE-1.2624 FRA 1.5665 FC3-3.8483 BSP  17372   SGB 5496.2 R23  .0607 R13 -.9794          LSA 3085.8 MSA  182.5 SSA   15.2
BDE 1.6975 BRA 1.3282 BC3 4.7651 FSP  -1520   SG1 5483.6 SG2  371.4 THA 168.64          EL1 2893.1 EL2   39.3 ALF 164.59
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LAUNCH DATE AUG 14 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 513.474
RL 151.54 LAL .00 LOL 320.80 VL 26.625 GAL 2.73 AZL 93.36 HCA 238.29 SMA 127.28 ECC .19623 INC 3.3617 V1 29.401
RP 107.93 LAP 2.86 LOP 199.05 VP 37.638 GAP 7.21 AZP 88.23 TAL 168.68 TAP 46.97 RCA 102.31 APO 152.26 V2 35.112
RC 125.912 GL -25.58 GP 25.14 ZAL 64.11 ZAP 144.74 ETS 38.36 ZAE 125.42 ETE 162.43 ZAC 123.41 ETC 255.42 CLP-154.42
PLANETOCENTRIC CONIC
C3 13.047 VHL 3.612 DLA -48.53 RAL 255.99 RAD 6567.5 VEL 11.595 PTH 2.03 VHP 5.516 DPA 9.19 RAP 231.13 ECC 1.2147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.79	8 50 23	1540.40	36.01	24.59	125.99	125.04	9 16 3	940.4	40.31	16.42
131.21	17 1 37	5338.06	36.03	245.59	126.00	125.02	18 30 35	4738.1	40.32	237.41
48.79	8 50 23	1540.40	36.01	24.59	125.99	125.04	9 16 3	940.4	40.31	16.42
131.21	17 1 37	5338.06	36.03	245.59	126.00	125.02	18 30 35	4738.1	40.32	237.41
48.79	8 50 23	1540.40	36.01	24.59	125.99	125.04	9 16 3	940.4	40.31	16.42
131.21	17 1 37	5338.06	36.03	245.59	126.00	125.02	18 30 35	4738.1	40.32	237.41

DIFFERENTIAL CORRECTIONS
TDE-1.5044 TRA 1.4744 TC3-4.7828 BAU .8383
RDE .4165 RRA -.3126 RC3 .4737 FAU .05388
FDE-1.0441 FRA 1.6442 FC3-3.5756 BSP 17674
BDE 1.5610 BRA 1.5072 BC3 4.8062 FSP -1462

MID-COURSE EXECUTION ACCURACY
SGT 5486.6 SGR 1055.5 SG3 431.3
RRT -.9329 RRF -.9349 RTF .9778
SGB 5587.2 R23 .0511 R13 -.9785
SG1 5574.7 SG2 374.0 THA 169.78

ORBIT DETERMINATION ACCURACY
ST 2613.0 SR 697.9 SS 970.2
CRT -.9956 CRS .9575 CST -.9797
LSA 2866.5 MSA 198.3 SSA 15.7
EL1 2703.9 EL2 62.9 ALF 165.10

LAUNCH DATE AUG 14 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 519.412
RL 151.54 LAL .00 LOL 320.80 VL 26.596 GAL 3.04 AZL 93.13 HCA 241.51 SMA 127.10 ECC .19924 INC 3.1319 V1 29.401
RP 107.97 LAP 2.75 LOP 202.27 VP 37.606 GAP 7.59 AZP 88.50 TAL 167.60 TAP 49.11 RCA 101.77 APO 152.42 V2 35.099
RC 128.158 GL -23.39 GP 23.57 ZAL 61.93 ZAP 146.87 ETS 38.71 ZAE 125.23 ETE 163.84 ZAC 122.16 ETC 255.87 CLP-156.02
PLANETOCENTRIC CONIC
C3 13.361 VHL 3.655 DLA -46.51 RAL 258.82 RAD 6567.5 VEL 11.608 PTH 2.03 VHP 5.662 DPA 7.23 RAP 232.02 ECC 1.2199

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.43	9 10 51	1522.76	34.51	21.64	128.09	123.36	9 36 14	922.8	38.62	13.50
128.57	17 3 45	5366.00	34.52	247.04	128.10	123.35	18 33 11	4766.0	38.63	238.90
51.43	9 10 51	1522.76	34.51	21.64	128.09	123.36	9 36 14	922.8	38.62	13.50
128.57	17 3 45	5366.00	34.52	247.04	128.10	123.35	18 33 11	4766.0	38.63	238.90
51.43	9 10 51	1522.76	34.51	21.64	128.09	123.36	9 36 14	922.8	38.62	13.50
128.57	17 3 45	5366.00	34.52	247.04	128.10	123.35	18 33 11	4766.0	38.63	238.90

DIFFERENTIAL CORRECTIONS
TDE-1.3756 TRA 1.6648 TC3-4.7771 BAU .8564
RDE .3848 RRA -.3153 RC3 .4082 FAU .05055
FDE -.8507 FRA 1.7106 FC3-3.2758 BSP 17968
BDE 1.4285 BRA 1.6944 BC3 4.7945 FSP -1402

MID-COURSE EXECUTION ACCURACY
SGT 5587.7 SGR 984.2 SG3 411.6
RRT -.9212 RRF -.9208 RTF .9772
SGB 5673.7 R23 .0423 R13 -.9777
SG1 5661.1 SG2 378.1 THA 170.74

ORBIT DETERMINATION ACCURACY
ST 2440.2 SR 640.6 SS 868.2
CRT -.9895 CRS .9296 CST -.9727
LSA 2659.2 MSA 217.0 SSA 16.0
EL1 2521.3 EL2 89.7 ALF 165.42

LAUNCH DATE AUG 14 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 525.322
RL 151.54 LAL .00 LOL 320.80 VL 26.567 GAL 3.37 AZL 92.92 HCA 244.72 SMA 126.91 ECC .20247 INC 2.9158 V1 29.401
RP 108.01 LAP 2.64 LOP 205.49 VP 37.573 GAP 7.97 AZP 88.75 TAL 166.50 TAP 51.22 RCA 101.21 APO 152.60 V2 35.086
RC 130.397 GL -21.29 GP 22.17 ZAL 59.78 ZAP 148.86 ETS 39.14 ZAE 125.01 ETE 165.08 ZAC 121.06 ETC 256.30 CLP-157.54
PLANETOCENTRIC CONIC
C3 13.802 VHL 3.715 DLA -44.54 RAL 261.49 RAD 6567.5 VEL 11.627 PTH 2.04 VHP 5.822 DPA 5.40 RAP 233.05 ECC 1.2271

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.05	9 31 17	1504.62	32.96	18.76	130.26	121.85	9 56 21	904.6	36.90	10.68
125.95	17 4 38	5398.30	32.98	248.86	130.27	121.83	18 34 36	4798.3	36.91	240.77
54.05	9 31 17	1504.62	32.96	18.76	130.26	121.85	9 56 21	904.6	36.90	10.68
125.95	17 4 38	5398.30	32.98	248.86	130.27	121.83	18 34 36	4798.3	36.91	240.77
54.05	9 31 17	1504.62	32.96	18.76	130.26	121.85	9 56 21	904.6	36.90	10.68
125.95	17 4 38	5398.30	32.98	248.86	130.27	121.83	18 34 36	4798.3	36.91	240.77

DIFFERENTIAL CORRECTIONS
TDE-1.2475 TRA 1.8636 TC3-4.7199 BAU .8733
RDE .3616 RRA -.3184 RC3 .3503 FAU .04722
FDE -.6799 FRA 1.7680 FC3-2.9620 BSP 18256
BDE 1.2988 BRA 1.8906 BC3 4.7329 FSP -1343

MID-COURSE EXECUTION ACCURACY
SGT 5680.1 SGR 923.9 SG3 392.0
RRT -.9079 RRF -.9052 RTF .9766
SGB 5754.7 R23 .0345 R13 -.9770
SG1 5742.0 SG2 383.1 THA 171.56

ORBIT DETERMINATION ACCURACY
ST 2275.2 SR 594.9 SS 782.8
CRT -.9782 CRS .8887 CST -.9641
LSA 2466.9 MSA 238.7 SSA 16.2
EL1 2348.6 EL2 119.5 ALF 165.61

LAUNCH DATE AUG 14 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 531.202
RL 151.54 LAL .00 LOL 320.80 VL 26.537 GAL 3.71 AZL 92.71 HCA 247.93 SMA 126.72 ECC .20593 INC 2.7110 V1 29.401
RP 108.05 LAP 2.51 LOP 208.71 VP 37.540 GAP 8.36 AZP 88.98 TAL 165.38 TAP 53.30 RCA 100.62 APO 152.81 V2 35.074
RC 132.627 GL -19.29 GP 20.91 ZAL 57.65 ZAP 150.71 ETS 39.64 ZAE 124.78 ETE 166.15 ZAC 120.11 ETC 256.72 CLP-159.01
PLANETOCENTRIC CONIC
C3 14.372 VHL 3.791 DLA -42.64 RAL 264.01 RAD 6567.6 VEL 11.651 PTH 2.05 VHP 5.995 DPA 3.69 RAP 234.21 ECC 1.2365

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.68	9 51 48	1485.61	31.39	15.93	132.50	120.48	10 16 34	885.6	35.18	7.91
123.32	17 4 13	5435.14	31.40	251.04	132.50	120.47	18 34 48	4835.1	35.18	243.02
56.68	9 51 48	1485.61	31.39	15.93	132.50	120.48	10 16 34	885.6	35.18	7.91
123.32	17 4 13	5435.14	31.40	251.04	132.50	120.47	18 34 48	4835.1	35.18	243.02
56.68	9 51 48	1485.61	31.39	15.93	132.50	120.48	10 16 34	885.6	35.18	7.91
123.32	17 4 13	5435.14	31.40	251.04	132.50	120.47	18 34 48	4835.1	35.18	243.02

DIFFERENTIAL CORRECTIONS
TDE-1.1196 TRA 2.0717 TC3-4.6166 BAU .8889
RDE .3451 RRA -.3223 RC3 .2996 FAU .04392
FDE -.5291 FRA 1.8182 FC3-2.6458 BSP 18525
BDE 1.1716 BRA 2.0966 BC3 4.6264 FSP -1283

MID-COURSE EXECUTION ACCURACY
SGT 5764.7 SGR 872.9 SG3 372.8
RRT -.8934 RRF -.8884 RTF .9759
SGB 5830.5 R23 .0278 R13 -.9762
SG1 5817.5 SG2 388.5 THA 172.26

ORBIT DETERMINATION ACCURACY
ST 2122.5 SR 558.1 SS 713.8
CRT -.9597 CRS .8322 CST -.9541
LSA 2292.7 MSA 263.2 SSA 16.2
EL1 2189.4 EL2 152.0 ALF 165.77

LAUNCH DATE AUG 14 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 537.049

RL 151.54 LAL .00 LOL 320.80 VL 26.507 GAL 4.08 AZL 92.52 HCA 251.13 SMA 126.52 ECC .20965 INC 2.5155 V1 29.401
RP 108.09 LAP 2.38 LOP 211.92 VP 37.507 GAP 8.76 AZP 89.19 TAL 164.24 TAP 55.37 RCA 100.00 APO 153.05 V2 35.061
RC 134.850 GL -17.39 GP 19.78 ZAL 55.57 ZAP 152.44 ETS 40.25 ZAE 124.54 ETE 167.10 ZAC 119.29 ETC 257.13 CLP-160.41

PLANETOCENTRIC CONIC

C3 15.076 VHL 3.883 DLA -40.80 RAL 266.39 RAD 6567.6 VEL 11.682 PTH 2.05 VHP 6.181 DPA 2.10 RAP 235.49 ECC 1.2481

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.31	10 12 31	1465.39	29.81	13.12	134.79	119.25	10 36 56	865.4	33.45	5.17
120.69	17 2 28	5476.67	29.82	253.60	134.80	119.24	18 33 44	4876.7	33.46	245.64
59.31	10 12 31	1465.39	29.81	13.12	134.79	119.25	10 36 56	865.4	33.45	5.17
120.69	17 2 28	5476.67	29.82	253.60	134.80	119.24	18 33 44	4876.7	33.46	245.64
59.31	10 12 31	1465.39	29.81	13.12	134.79	119.25	10 36 56	865.4	33.45	5.17
120.69	17 2 28	5476.67	29.82	253.60	134.80	119.24	18 33 44	4876.7	33.46	245.64

DIFFERENTIAL CORRECTIONS
TDE-1.0006 TRA 2.2807 TC3-4.4963 BAU .9078
RDE .3355 RRA -.3255 RC3 .2604 FAU .04112
FDE -.4055 FRA 1.8541 FC3-2.3615 BSP 18983
BDE 1.0554 BRA 2.3039 BC3 4.5039 FSP -1242

MID-COURSE EXECUTION ACCURACY
SGT 5842.7 SGR 829.7 SG3 354.0
RRT -.8782 RRF -.8708 RTF .9757
SGB 5901.3 R23 .0209 R13 -.9759
SG1 5888.1 SG2 393.7 THA 172.86

ORBIT DETERMINATION ACCURACY
ST 1992.5 SR 530.4 SS 662.0
CRT -.9325 CRS .7649 CST -.9455
LSA 2146.4 MSA 287.2 SSA 16.1
EL1 2053.5 EL2 185.9 ALF 165.94

LAUNCH DATE AUG 14 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 542.864

RL 151.54 LAL .00 LOL 320.80 VL 26.477 GAL 4.47 AZL 92.33 HCA 254.34 SMA 126.33 ECC .21364 INC 2.3275 V1 29.401
RP 108.13 LAP 2.24 LOP 215.13 VP 37.473 GAP 9.17 AZP 89.37 TAL 163.08 TAP 57.42 RCA 99.34 APO 153.32 V2 35.047
RC 137.063 GL -15.58 GP 18.76 ZAL 53.54 ZAP 154.07 ETS 40.97 ZAE 124.29 ETE 167.92 ZAC 118.57 ETC 257.54 CLP-161.76

PLANETOCENTRIC CONIC

C3 15.922 VHL 3.990 DLA -39.02 RAL 268.64 RAD 6567.6 VEL 11.718 PTH 2.06 VHP 6.379 DPA .61 RAP 236.87 ECC 1.2620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.95	10 33 36	1443.47	28.23	10.27	137.14	118.14	10 57 39	843.5	31.75	2.39
118.05	16 59 18	5523.22	28.24	256.54	137.15	118.13	18 31 21	4923.2	31.76	248.66
61.95	10 33 36	1443.47	28.23	10.27	137.14	118.14	10 57 39	843.5	31.75	2.39
118.05	16 59 18	5523.22	28.24	256.54	137.15	118.13	18 31 21	4923.2	31.76	248.66
61.95	10 33 36	1443.47	28.23	10.27	137.14	118.14	10 57 39	843.5	31.75	2.39
118.05	16 59 18	5523.22	28.24	256.54	137.15	118.13	18 31 21	4923.2	31.76	248.66

DIFFERENTIAL CORRECTIONS
TDE -.8669 TRA 2.5154 TC3-4.3026 BAU .9171
RDE .3274 RRA -.3322 RC3 .2194 FAU .03767
FDE -.2829 FRA 1.8998 FC3-2.0484 BSP 19060
BDE .9266 BRA 2.5372 BC3 4.3082 FSP -1171

MID-COURSE EXECUTION ACCURACY
SGT 5912.1 SGR 792.9 SG3 336.5
RRT -.8621 RRF -.8528 RTF .9747
SGB 5965.0 R23 .0171 R13 -.9749
SG1 5951.6 SG2 399.2 THA 173.38

ORBIT DETERMINATION ACCURACY
ST 1872.2 SR 504.9 SS 622.8
CRT -.8913 CRS .6752 CST -.9358
LSA 2011.8 MSA 316.5 SSA 16.0
EL1 1926.3 EL2 222.5 ALF 166.30

LAUNCH DATE AUG 14 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 548.641

RL 151.54 LAL .00 LOL 320.80 VL 26.446 GAL 4.88 AZL 92.15 HCA 257.54 SMA 126.14 ECC .21792 INC 2.1454 V1 29.401
RP 108.17 LAP 2.09 LOP 218.34 VP 37.439 GAP 9.59 AZP 89.54 TAL 161.92 TAP 59.46 RCA 98.65 APO 153.62 V2 35.034
RC 139.266 GL -13.88 GP 17.84 ZAL 51.56 ZAP 155.59 ETS 41.82 ZAE 124.05 ETE 168.65 ZAC 117.94 ETC 257.96 CLP-163.06

PLANETOCENTRIC CONIC

C3 16.921 VHL 4.114 DLA -37.32 RAL 270.76 RAD 6567.7 VEL 11.760 PTH 2.08 VHP 6.590 DPA -.78 RAP 238.35 ECC 1.2785

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.61	10 55 16	1419.15	26.66	7.35	139.54	117.14	11 18 55	819.2	30.07	359.54
115.39	16 54 34	5575.35	26.67	259.92	139.55	117.12	18 27 29	4975.3	30.08	252.10
64.61	10 55 16	1419.15	26.66	7.35	139.54	117.14	11 18 55	819.2	30.07	359.54
115.39	16 54 34	5575.35	26.67	259.92	139.55	117.12	18 27 29	4975.3	30.08	252.10
64.61	10 55 16	1419.15	26.66	7.35	139.54	117.14	11 18 55	819.2	30.07	359.54
115.39	16 54 34	5575.35	26.67	259.92	139.55	117.12	18 27 29	4975.3	30.08	252.10

DIFFERENTIAL CORRECTIONS
TDE -.7379 TRA 2.7553 TC3-4.0965 BAU .9277
RDE .3237 RRA -.3390 RC3 .1868 FAU .03460
FDE -.1797 FRA 1.9361 FC3-1.7702 BSP 19245
BDE .8058 BRA 2.7761 BC3 4.1008 FSP -1112

MID-COURSE EXECUTION ACCURACY
SGT 5975.0 SGR 761.2 SG3 319.6
RRT -.8457 RRF -.8346 RTF .9741
SGB 6023.3 R23 .0132 R13 -.9742
SG1 6009.8 SG2 403.9 THA 173.82

ORBIT DETERMINATION ACCURACY
ST 1778.3 SR 484.8 SS 596.9
CRT -.8372 CRS .5789 CST -.9301
LSA 1906.7 MSA 343.5 SSA 15.8
EL1 1825.0 EL2 258.4 ALF 166.88

LAUNCH DATE AUG 14 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 554.377

RL 151.54 LAL .00 LOL 320.80 VL 26.416 GAL 5.31 AZL 91.97 HCA 260.74 SMA 125.94 ECC .22252 INC 1.9679 V1 29.401
RP 108.21 LAP 1.94 LOP 221.54 VP 37.405 GAP 10.02 AZP 89.68 TAL 160.74 TAP 61.48 RCA 97.92 APO 153.97 V2 35.021
RC 141.459 GL -12.26 GP 17.00 ZAL 49.65 ZAP 157.03 ETS 42.81 ZAE 123.81 ETE 169.28 ZAC 117.39 ETC 258.38 CLP-164.32

PLANETOCENTRIC CONIC

C3 18.086 VHL 4.253 DLA -35.68 RAL 272.76 RAD 6567.7 VEL 11.810 PTH 2.09 VHP 6.813 DPA -2.08 RAP 239.91 ECC 1.2976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.32	11 17 46	1391.65	25.12	4.27	141.99	116.22	11 40 58	791.6	28.43	356.53
112.68	16 48 4	5633.72	25.13	263.75	142.00	116.21	18 21 57	5033.7	28.44	256.01
67.32	11 17 46	1391.65	25.12	4.27	141.99	116.22	11 40 58	791.6	28.43	356.53
112.68	16 48 4	5633.72	25.13	263.75	142.00	116.21	18 21 57	5033.7	28.44	256.01
67.32	11 17 46	1391.65	25.12	4.27	141.99	116.22	11 40 58	791.6	28.43	356.53
112.68	16 48 4	5633.72	25.13	263.75	142.00	116.21	18 21 57	5033.7	28.44	256.01

DIFFERENTIAL CORRECTIONS
TDE -.6099 TRA 3.0058 TC3-3.8736 BAU .9374
RDE .3231 RRA -.3467 RC3 .1597 FAU .03171
FDE -.0904 FRA 1.9685 FC3-1.5178 BSP 19441
BDE .6901 BRA 3.0257 BC3 3.8769 FSP -1059

MID-COURSE EXECUTION ACCURACY
SGT 6032.1 SGR 733.9 SG3 303.5
RRT -.8295 RRF -.8168 RTF .9736
SGB 6076.6 R23 .0099 R13 -.9737
SG1 6062.9 SG2 407.8 THA 174.21

ORBIT DETERMINATION ACCURACY
ST 1709.4 SR 468.2 SS 581.5
CRT -.7697 CRS .4803 CST -.9292
LSA 1828.6 MSA 367.8 SSA 15.6
EL1 1748.1 EL2 292.3 ALF 167.75

LAUNCH DATE AUG 14 1970 FLIGHT TIME 198.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 560.071

RL	151.54	LAL	.00	LOL	320.80	VL	26.385	GAL	5.77	AZL	91.79	HCA	263.94	SMA	125.75	ECC	.22747	INC	1.7937
RP	108.25	LAP	1.78	LOP	224.74	VP	37.371	GAP	10.47	AZP	89.81	TAL	159.55	TAP	63.49	RCA	97.14	APO	154.35
RC	143.643	GL	-10.74	GP	16.25	ZAL	47.81	ZAP	158.38	ETS	43.97	ZAE	123.57	ETE	169.84	ZAC	116.91	ETC	258.80

V1	29.401	V2	35.008	CLP	-165.55														

PLANETOCENTRIC CONIC

C3	19.433	VHL	4.408	DLA	-34.12	RAL	274.66	RAD	6567.8	VEL	11.867	PTH	2.11	VHP	7.050	DPA	-3.31	RAP	241.54
ECC	1.3198																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.11	11 41 29	1359.71	23.60	.95	144.49	115.39	12 4 9	759.7	26.82	353.27
109.89	16 39 27	5699.45	23.62	268.13	144.49	115.38	18 14 26	5099.4	26.83	260.45
70.11	11 41 29	1359.71	23.60	.95	144.49	115.39	12 4 9	759.7	26.82	353.27
109.89	16 39 27	5699.45	23.62	268.13	144.49	115.38	18 14 26	5099.4	26.83	260.45
110.00	16 24 38	5744.61	22.24	270.93	143.76	116.65	18 0 22	5144.6	25.64	263.42
110.00	16 55 29	5650.58	24.99	265.01	145.19	114.12	18 29 40	5050.6	28.03	257.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.4810	TRA	3.2678	TC3	-3.6367	BAU	.9455	SGT	6082.2	SGR	709.7	SG3	288.3	ST	1664.0	SR	454.0	SS	573.7
RDE	.3247	RRA	-.3552	RC3	.1365	FAU	.02893	RRT	-.8134	RRF	-.7994	RTF	.9731	CRT	-.6906	CRS	.3836	CST	-.9324
FDE	-.0118	FRA	1.9982	FC3	-1.2889	BSP	19632	SGB	6123.4	R23	.0072	R13	-.9732	LSA	1775.8	MSA	388.0	SSA	15.3
BDE	.5803	BRA	3.2870	BC3	3.6393	FSP	-1008	SG1	6109.6	SG2	410.9	THA	174.55	EL1	1694.4	EL2	322.5	ALF	168.92

LAUNCH DATE AUG 14 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 565.716

RL	151.54	LAL	.00	LOL	320.80	VL	26.354	GAL	6.25	AZL	91.62	HCA	267.14	SMA	125.55	ECC	.23280	INC	1.6217
RP	108.29	LAP	1.62	LOP	227.94	VP	37.337	GAP	10.93	AZP	89.92	TAL	158.36	TAP	65.50	RCA	96.32	APO	154.78
RC	145.816	GL	-9.31	GP	15.57	ZAL	46.05	ZAP	159.66	ETS	45.31	ZAE	123.34	ETE	170.34	ZAC	116.48	ETC	259.24

V1	29.401	V2	34.995	CLP	-166.74														

PLANETOCENTRIC CONIC

C3	20.983	VHL	4.581	DLA	-32.63	RAL	276.45	RAD	6567.9	VEL	11.932	PTH	2.12	VHP	7.301	DPA	-4.45	RAP	243.24
ECC	1.3453																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.06	12 7 3	1321.34	22.13	357.23	147.02	114.62	12 29 5	721.3	25.26	349.61
106.94	16 28 10	5774.41	22.14	273.18	147.03	114.61	18 4 24	5174.4	25.27	265.55
73.06	12 7 3	1321.34	22.13	357.23	147.02	114.62	12 29 5	721.3	25.26	349.61
106.94	16 28 10	5774.41	22.14	273.18	147.03	114.61	18 4 24	5174.4	25.27	265.55
110.00	15 29 35	667.17	15.31	305.41	143.23	120.94	15 40 42	67.2	19.29	298.56
110.00	18 4 49	5476.58	29.31	253.33	150.16	108.44	19 36 6	4876.6	31.54	244.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.3514	TRA	3.5429	TC3	-3.3910	BAU	.9518	SGT	6126.6	SGR	688.1	SG3	273.9	ST	1641.3	SR	441.5	SS	571.6
RDE	.3282	RRA	-.3647	RC3	.1169	FAU	.02629	RRT	-.7979	RRF	-.7827	RTF	.9727	CRT	-.6034	CRS	.2937	CST	-.9390
FDE	.0571	FRA	2.0262	FC3	-1.0848	BSP	19806	SGB	6165.1	R23	.0050	R13	-.9728	LSA	1747.3	MSA	402.8	SSA	15.1
BDE	.4808	BRA	3.5616	BC3	3.3930	FSP	-959	SG1	6151.3	SG2	413.1	THA	174.86	EL1	1663.8	EL2	347.3	ALF	170.36

LAUNCH DATE AUG 14 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 571.308

RL	151.54	LAL	.00	LOL	320.80	VL	26.322	GAL	6.77	AZL	91.45	HCA	270.33	SMA	125.36	ECC	.23855	INC	1.4508
RP	108.33	LAP	1.45	LOP	231.13	VP	37.302	GAP	11.42	AZP	90.01	TAL	157.16	TAP	67.49	RCA	95.45	APO	155.26
RC	147.979	GL	-7.97	GP	14.95	ZAL	44.35	ZAP	160.86	ETS	46.86	ZAE	123.11	ETE	170.78	ZAC	116.11	ETC	259.69

V1	29.401	V2	34.982	CLP	-167.91														

PLANETOCENTRIC CONIC

C3	22.760	VHL	4.771	DLA	-31.22	RAL	278.14	RAD	6567.9	VEL	12.006	PTH	2.14	VHP	7.568	DPA	-5.52	RAP	245.00
ECC	1.3746																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.27	12 35 35	1272.91	20.68	352.86	149.59	113.92	12 56 48	672.9	23.74	345.28
103.73	16 13 8	5862.13	20.70	279.15	149.59	113.91	17 50 50	5262.1	23.75	271.58
76.27	12 35 35	1272.91	20.68	352.86	149.59	113.92	12 56 48	672.9	23.74	345.28
103.73	16 13 8	5862.13	20.70	279.15	149.59	113.91	17 50 50	5262.1	23.75	271.58
110.00	15 6 56	780.97	11.23	311.70	144.32	122.50	15 19 57	181.0	15.43	305.13
110.00	18 40 57	5402.07	30.80	248.04	153.62	105.63	20 10 59	4802.1	32.63	239.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.2205	TRA	3.8313	TC3	-3.1419	BAU	.9565	SGT	6164.9	SGR	668.3	SG3	260.3	ST	1638.1	SR	430.2	SS	573.3
RDE	.3332	RRA	-.3750	RC3	.1002	FAU	.02380	RRT	-.7831	RRF	-.7670	RTF	.9725	CRT	-.5126	CRS	.2123	CST	-.9475
FDE	.1179	FRA	2.0530	FC3	-.9053	BSP	19981	SGB	6201.0	R23	.0032	R13	-.9725	LSA	1739.9	MSA	412.0	SSA	14.8
BDE	.3995	BRA	3.8496	BC3	3.1435	FSP	-914	SG1	6187.1	SG2	414.2	THA	175.13	EL1	1653.7	EL2	365.9	ALF	171.94

LAUNCH DATE AUG 14 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 576.841

RL	151.54	LAL	.00	LOL	320.80	VL	26.291	GAL	7.32	AZL	91.28	HCA	273.52	SMA	125.16	ECC	.24475	INC	1.2799
RP	108.37	LAP	1.28	LOP	234.33	VP	37.268	GAP	11.92	AZP	90.08	TAL	155.97	TAP	69.49	RCA	94.53	APO	155.80
RC	150.132	GL	-6.72	GP	14.38	ZAL	42.74	ZAP	161.99	ETS	48.65	ZAE	122.88	ETE	171.17	ZAC	115.78	ETC	260.14

V1	29.401	V2	34.969	CLP	-169.05														

PLANETOCENTRIC CONIC

C3	24.793	VHL	4.979	DLA	-29.87	RAL	279.74	RAD	6568.0	VEL	12.090	PTH	2.16	VHP	7.852	DPA	-6.52	RAP	246.82
ECC	1.4080																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.06	13 9 44	1205.67	19.29	347.17	152.19	113.27	13 29 50	605.7	22.27	339.65
99.94	15 51 43	683.19	19.30	308.76	152.19	113.26	16 3 6	83.2	22.28	301.23
100.00	15 43 28	709.53	18.56	310.37	151.85	113.87	15 55 17	109.5	21.62	302.92
100.00	16 0 41	654.56	20.03	306.96	152.53	112.66	16 11 35	54.6	22.93	299.36
110.00	14 51 42	873.18	7.81	316.66	145.84	123.39	15 6 15	273.2	12.15	310.25
110.00	19 8 56	5351.71	31.66	244.37	156.75	103.62	20 38 7	4751.7	33.21	235.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-.0886	TRA	4.1335	TC3	-2.8930	BAU	.9593	SGT	6196.7	SGR	649.9	SG3	247.5	ST	1651.0	SR	419.8	SS	577.2
RDE	.3395	RRA	-.3860	RC3	.0860	FAU	.02144	RRT	-.7689	RRF	-.7521	RTF	.9724	CRT	-.4226	CRS	.1409	CST	-.9564
FDE	.1711	FRA	2.0786	FC3	-.7485	BSP	20159	SGB	6230.7	R23	.0017	R13	-.9724	LSA	1750.0	MSA	415.6	SSA	14.4
BDE	.3509	BRA	4.1515	BC3	2.8942	FSP	-871	SG1	6216.9	SG2	414.2	THA	175.37	EL1	1661.1	EL2	378.2	ALF	173.53

LAUNCH DATE AUG 14 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 582.308

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.260 GAL   7.90 AZL  91.11 HCA 276.71 SMA 124.97 ECC .25145 INC 1.1080 V1  29.401
RP  108.41 LAP   1.10 LOP 237.51 VP  37.234 GAP  12.45 AZP  90.13 TAL 154.77 TAP  71.48 RCA  93.55 APO 156.39 V2  34.956
RC 152.275 GL   -5.54 GP   13.87 ZAL  41.21 ZAP 163.06 ETS  50.69 ZAE 122.66 ETE 171.51 ZAC 115.48 ETC 260.61 CLP-170.17
```

PLANETOCENTRIC CONIC

```
C3  27.116 VHL  5.207 DLA -28.60 RAL 281.24 RAD 6568.1 VEL 12.186 PTH   2.19 VHP  8.154 DPA  -7.46 RAP 248.68 ECC 1.4463
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.81	14 1 35	1080.44	17.93	337.33	154.82	112.66	14 19 35	480.4	20.85	329.85
94.19	15 11 53	852.71	17.95	320.66	154.82	112.65	15 26 6	252.7	20.86	313.18
100.00	14 44 23	941.46	11.64	324.12	151.76	117.73	15 0 5	341.5	15.27	317.20
100.00	17 11 46	5754.97	24.46	272.70	157.39	107.74	18 47 41	5155.0	26.66	264.59
110.00	14 40 19	954.27	4.75	320.94	147.61	123.89	14 56 13	354.3	9.17	314.64
110.00	19 32 20	5314.92	32.22	241.64	159.74	102.09	21 0 55	4714.9	33.55	232.66

DIFFERENTIAL CORRECTIONS

```
TDE  .0445 TRA 4.4510 TC3-2.6480 BAU  .9603
RDE  .3469 RRA -.3976 RC3  .0737 FAU .01920
FDE  .2179 FRA 2.1041 FC3 -.6131 BSP  20350
BDE  .3497 BRA 4.4688 BC3 2.6490 FSP   -833
```

MID-COURSE EXECUTION ACCURACY

```
SGT 6222.8 SGR  632.4 SG3  235.3
RRT -.7554 RRF -.7382 RTF  .9724
SGB 6254.8 R23  .0006 R13 -.9724
SG1 6241.2 SG2  413.2 THA 175.59
```

ORBIT DETERMINATION ACCURACY

```
ST  1676.2 SR   409.9 SS   582.5
CRT -.3371 CRS  .0791 CST -.9648
LSA 1773.4 MSA  414.5 SSA   14.1
EL1 1682.2 EL2  384.6 ALF 175.03
```

LAUNCH DATE AUG 14 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 587.701

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.229 GAL   8.52 AZL  90.93 HCA 279.90 SMA 124.78 ECC .25872 INC  .9339 V1  29.401
RP  108.45 LAP    .92 LOP 240.70 VP  37.201 GAP  13.01 AZP  90.16 TAL 153.59 TAP  73.49 RCA  92.50 APO 157.06 V2  34.943
RC 154.408 GL   -4.44 GP   13.40 ZAL  39.75 ZAP 164.06 ETS  53.04 ZAE 122.44 ETE 171.82 ZAC 115.22 ETC 261.09 CLP-171.28
```

PLANETOCENTRIC CONIC

```
C3  29.770 VHL  5.456 DLA -27.39 RAL 282.66 RAD 6568.2 VEL 12.294 PTH   2.21 VHP  8.477 DPA  -8.33 RAP 250.59 ECC 1.4899
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 38 59	1196.63	11.29	342.70	155.01	116.14	13 58 56	596.6	14.72	335.70
90.00	15 45 49	783.14	22.12	317.23	159.60	108.15	15 58 52	183.1	24.39	309.30
100.00	14 21 26	1059.45	7.83	330.80	153.18	118.94	14 39 6	459.5	11.63	324.08
100.00	17 46 2	5683.60	25.86	267.85	160.84	105.55	19 20 46	5083.6	27.74	259.56
110.00	14 31 21	1028.32	1.93	324.82	149.55	124.14	14 48 29	428.3	6.40	318.58
110.00	19 52 37	5287.49	32.59	239.59	162.66	100.93	21 20 45	4687.5	33.75	230.55

DIFFERENTIAL CORRECTIONS

```
TDE  .1794 TRA 4.7846 TC3-2.4088 BAU  .9590
RDE  .3552 RRA -.4096 RC3  .0630 FAU .01709
FDE  .2592 FRA 2.1294 FC3 -.4971 BSP  20554
BDE  .3979 BRA 4.8021 BC3 2.4097 FSP   -797
```

MID-COURSE EXECUTION ACCURACY

```
SGT 6242.4 SGR  615.3 SG3  223.8
RRT -.7426 RRF -.7252 RTF  .9726
SGB 6272.7 R23 -.0003 R13 -.9726
SG1 6259.2 SG2  411.0 THA 175.80
```

ORBIT DETERMINATION ACCURACY

```
ST  1709.9 SR   400.3 SS   588.3
CRT -.2581 CRS  .0260 CST -.9722
LSA 1806.1 MSA  409.7 SSA   13.8
EL1 1713.2 EL2  386.0 ALF 176.36
```

LAUNCH DATE AUG 14 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 593.008

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.198 GAL   9.18 AZL  90.76 HCA 283.08 SMA 124.59 ECC .26660 INC  .7565 V1  29.401
RP  108.49 LAP    .74 LOP 243.89 VP  37.167 GAP  13.60 AZP  90.17 TAL 152.41 TAP  75.50 RCA  91.37 APO 157.80 V2  34.931
RC 156.530 GL   -3.42 GP   12.97 ZAL  38.38 ZAP 164.99 ETS  55.72 ZAE 122.21 ETE 172.10 ZAC 114.98 ETC 261.57 CLP-172.38
```

PLANETOCENTRIC CONIC

```
C3  32.805 VHL  5.728 DLA -26.25 RAL 284.00 RAD 6568.3 VEL 12.417 PTH   2.24 VHP  8.822 DPA  -9.14 RAP 252.53 ECC 1.5399
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 13 1	1325.22	7.34	350.09	156.42	117.43	13 35 6	725.2	10.96	343.27
90.00	16 22 26	703.36	23.71	311.92	163.15	105.95	16 34 10	103.4	25.67	303.80
100.00	14 5 47	1154.82	4.65	336.10	154.95	119.56	14 25 1	554.8	8.55	329.49
100.00	18 12 22	5637.03	26.67	264.63	164.02	104.03	19 46 19	5037.0	28.33	256.22
110.00	14 24 4	1097.42	-.71	328.42	151.62	124.18	14 42 21	497.4	3.78	322.21
110.00	20 10 33	5267.19	32.84	238.06	165.54	100.06	21 38 21	4667.2	33.88	228.98

DIFFERENTIAL CORRECTIONS

```
TDE  .3169 TRA 5.1364 TC3-2.1768 BAU  .9550
RDE  .3641 RRA -.4220 RC3  .0536 FAU .01508
FDE  .2961 FRA 2.1558 FC3 -.3979 BSP  20758
BDE  .4827 BRA 5.1537 BC3 2.1774 FSP   -763
```

MID-COURSE EXECUTION ACCURACY

```
SGT 6256.3 SGR  598.3 SG3  213.0
RRT -.7304 RRF -.7131 RTF  .9730
SGB 6284.9 R23 -.0009 R13 -.9730
SG1 6271.7 SG2  407.7 THA 175.99
```

ORBIT DETERMINATION ACCURACY

```
ST  1749.4 SR   390.7 SS   594.5
CRT -.1864 CRS -.0197 CST -.9783
LSA 1845.1 MSA  402.1 SSA   13.5
EL1 1750.9 EL2  383.5 ALF 177.50
```

LAUNCH DATE AUG 14 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 598.218

```
RL  151.54 LAL    .00 LOL 320.80 VL  26.167 GAL   9.89 AZL  90.57 HCA 286.26 SMA 124.40 ECC .27516 INC  .5745 V1  29.401
RP  108.53 LAP    .55 LOP 247.07 VP  37.134 GAP  14.23 AZP  90.16 TAL 151.25 TAP  77.52 RCA  90.17 APO 158.63 V2  34.919
RC 158.641 GL   -2.46 GP   12.58 ZAL  37.09 ZAP 165.85 ETS  58.79 ZAE 121.98 ETE 172.36 ZAC 114.75 ETC 262.07 CLP-173.47
```

PLANETOCENTRIC CONIC

```
C3  36.281 VHL  6.023 DLA -25.18 RAL 285.25 RAD 6568.4 VEL 12.556 PTH   2.28 VHP  9.193 DPA  -9.88 RAP 254.50 ECC 1.5971
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 56 0	1425.39	4.17	355.73	158.22	118.03	13 19 45	825.4	7.88	349.03
90.00	16 49 28	654.02	24.59	308.58	166.37	104.50	17 0 22	54.0	26.35	300.35
100.00	13 53 53	1238.49	1.83	340.71	156.93	119.84	14 14 32	638.5	5.79	334.16
100.00	18 34 16	5604.19	27.19	262.33	167.07	102.93	20 7 40	5004.2	28.70	253.85
110.00	14 18 1	1162.79	-3.21	331.84	153.79	124.05	14 37 24	562.8	1.28	325.63
110.00	20 26 37	5252.65	33.01	236.96	168.40	99.43	21 54 10	4652.7	33.96	227.85

DIFFERENTIAL CORRECTIONS

```
TDE  .4577 TRA 5.5083 TC3-1.9529 BAU  .9475
RDE  .3736 RRA -.4346 RC3  .0451 FAU .01315
FDE  .3293 FRA 2.1836 FC3 -.3137 BSP  20961
BDE  .5908 BRA 5.5255 BC3 1.9534 FSP   -731
```

MID-COURSE EXECUTION ACCURACY

```
SGT 6264.6 SGR  581.3 SG3  202.8
RRT -.7188 RRF -.7018 RTF  .9735
SGB 6291.5 R23 -.0013 R13 -.9735
SG1 6278.5 SG2  403.2 THA 176.17
```

ORBIT DETERMINATION ACCURACY

```
ST  1792.0 SR   380.9 SS   600.9
CRT -.1222 CRS -.0589 CST -.9833
LSA 1887.7 MSA  392.5 SSA   13.1
EL1 1792.7 EL2  377.9 ALF 178.44
```

LAUNCH DATE AUG 14 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 603.316

RL 151.54 LAL .00 LOL 320.80 VL 26.136 GAL 10.66 AZL 90.39 HCA 289.44 SMA 124.21 ECC .28450 INC .3867 V1 29.401
RP 108.56 LAP .37 LOP 250.25 VP 37.101 GAP 14.90 AZP 90.13 TAL 150.12 TAP 79.56 RCA 88.87 APO 159.55 V2 34.907
RC 160.740 GL -1.57 GP 12.22 ZAL 35.87 ZAP 166.64 EIS 62.27 ZAE 121.74 ETE 172.59 ZAC 114.54 ETC 262.57 CLP-174.55

PLANETOCENTRIC CONIC

C3 40.269 VHL 6.346 DLA -24.16 RAL 286.43 RAD 6568.5 VEL 12.714 PTH 2.31 VHP 9.592 DPA -10.57 RAP 256.50 ECC 1.6627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 43 13	1512.03	1.38	.58	160.22	118.29	13 8 26	912.0	5.15	353.93
90.00	17 11 37	620.08	25.15	306.25	169.45	103.46	17 21 57	20.1	26.76	297.95
100.00	13 44 21	1314.68	-.76	344.89	159.04	119.88	14 6 16	714.7	3.23	338.36
100.00	18 53 10	5580.70	27.53	260.67	170.05	102.12	20 26 11	4980.7	28.93	252.14
110.00	14 12 53	1225.21	-5.58	335.11	156.04	123.78	14 33 19	625.2	-1.11	328.88
110.00	20 41 7	5242.94	33.12	236.22	171.26	99.00	22 8 30	4642.9	34.00	227.10

DIFFERENTIAL CORRECTIONS
TDE .6037 TRA 5.9036 TC3-1.7376 BAU .9357
RDE .3835 RRA -.4472 RC3 .0375 FAU .01127
FDE .3603 FRA 2.2140 FC3 -.2422 BSP 21136
BDE .7152 BRA 5.9205 BC3 1.7380 FSP -700

MID-COURSE EXECUTION ACCURACY
SGT 6268.2 SGR 564.0 SG3 193.2
RRT -.7077 RRF -.6912 RTF .9742
SGB 6293.5 R23 -.0015 R13 -.9742
SG1 6280.9 SG2 397.6 THA 176.34

ORBIT DETERMINATION ACCURACY
ST 1836.6 SR 370.9 SS 607.8
CRT -.0647 CRS -.0932 CST -.9873
LSA 1932.5 MSA 381.4 SSA 12.8
EL1 1836.8 EL2 370.1 ALF 179.22

LAUNCH DATE AUG 14 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 608.284

RL 151.54 LAL .00 LOL 320.80 VL 26.106 GAL 11.48 AZL 90.19 HCA 292.62 SMA 124.03 ECC .29470 INC .1914 V1 29.401
RP 108.60 LAP .18 LOP 253.42 VP 37.069 GAP 15.62 AZP 90.07 TAL 149.01 TAP 81.63 RCA 87.48 APO 160.58 V2 34.896
RC 162.826 GL -.73 GP 11.89 ZAL 34.74 ZAP 167.35 ETS 66.23 ZAE 121.49 ETE 172.80 ZAC 114.35 ETC 263.08 CLP-175.64

PLANETOCENTRIC CONIC

C3 44.857 VHL 6.698 DLA -23.20 RAL 287.53 RAD 6568.7 VEL 12.893 PTH 2.35 VHP 10.023 DPA -11.20 RAP 258.51 ECC 1.7382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 33 2	1590.30	-1.15	4.94	162.36	118.30	12 59 33	990.3	2.64	358.31
90.00	17 30 33	5884.24	25.52	282.50	172.45	102.71	19 8 37	5284.2	27.02	274.15
100.00	13 36 29	1385.54	-3.16	348.78	161.25	119.74	13 59 34	785.5	.83	342.26
100.00	19 9 48	5564.24	27.76	259.50	172.99	101.55	20 42 32	4964.2	29.07	250.94
110.00	14 8 29	1285.17	-7.84	338.29	158.36	123.38	14 29 54	685.2	-3.40	332.02
110.00	20 54 17	5237.36	33.18	235.80	174.11	98.76	22 21 34	4637.4	34.03	226.66

DIFFERENTIAL CORRECTIONS
TDE .7559 TRA 6.3252 TC3-1.5309 BAU .9183
RDE .3937 RRA -.4598 RC3 .0304 FAU .00941
FDE .3895 FRA 2.2478 FC3 -.1817 BSP 21267
BDE .8522 BRA 6.3419 BC3 1.5312 FSP -669

MID-COURSE EXECUTION ACCURACY
SGT 6267.7 SGR 546.1 SG3 184.2
RRT -.6969 RRF -.6810 RTF .9750
SGB 6291.4 R23 -.0015 R13 -.9750
SG1 6279.3 SG2 391.0 THA 176.51

ORBIT DETERMINATION ACCURACY
ST 1881.8 SR 360.4 SS 615.4
CRT -.0134 CRS -.1234 CST -.9904
LSA 1978.3 MSA 369.2 SSA 12.4
EL1 1881.8 EL2 360.4 ALF 179.85

LAUNCH DATE AUG 14 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 613.100

RL 151.54 LAL .00 LOL 320.80 VL 26.076 GAL 12.36 AZL 89.99 HCA 295.80 SMA 123.85 ECC .30586 INC .0000 V1 29.401
RP 108.63 LAP -.01 LOP 256.60 VP 37.038 GAP 16.39 AZP 89.99 TAL 147.93 TAP 83.73 RCA 85.97 APO 161.73 V2 34.885
RC 164.900 GL .04 GP 11.59 ZAL 33.69 ZAP 167.97 ETS 70.69 ZAE 121.22 ETE 172.99 ZAC 114.16 ETC 263.59 CLP-176.74

PLANETOCENTRIC CONIC

C3 50.152 VHL 7.082 DLA -22.30 RAL 288.54 RAD 6568.8 VEL 13.096 PTH 2.39 VHP 10.491 DPA -11.77 RAP 260.54 ECC 1.8254

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 24 37	1662.67	-3.48	8.98	164.60	118.12	12 52 20	1062.7	.31	2.35
90.00	17 47 6	5867.75	25.76	281.36	175.38	102.18	19 24 54	5267.8	27.18	272.98
100.00	13 29 48	1452.28	-5.40	352.46	163.54	119.45	13 54 0	852.3	-1.44	345.92
100.00	19 24 37	5553.37	27.91	258.72	175.88	101.16	20 57 10	4953.4	29.17	250.15
110.00	14 4 39	1343.03	-9.99	341.38	160.74	122.86	14 27 2	743.0	-5.59	335.05
110.00	21 6 15	5235.38	33.20	235.65	176.95	98.67	22 33 30	4635.4	34.04	226.51

DIFFERENTIAL CORRECTIONS
TDE .9162 TRA 6.7768 TC3-1.3332 BAU .8940
RDE .4040 RRA -.4721 RC3 .0239 FAU .00756
FDE .4178 FRA 2.2858 FC3 -.1305 BSP 21333
BDE 1.0013 BRA 6.7932 BC3 1.3334 FSP -638

MID-COURSE EXECUTION ACCURACY
SGT 6263.7 SGR 527.7 SG3 175.9
RRT -.6862 RRF -.6712 RTF .9760
SGB 6285.9 R23 -.0015 R13 -.9760
SG1 6274.2 SG2 383.2 THA 176.68

ORBIT DETERMINATION ACCURACY
ST 1927.0 SR 349.6 SS 624.0
CRT .0327 CRS -.1505 CST -.9928
LSA 2024.3 MSA 356.2 SSA 12.1
EL1 1927.0 EL2 349.4 ALF .35

LAUNCH DATE AUG 14 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 617.735

RL 151.54 LAL .00 LOL 320.80 VL 26.046 GAL 13.32 AZL 89.77 HCA 298.97 SMA 123.67 ECC .31812 INC .2271 V1 29.401
RP 108.66 LAP -.20 LOP 259.77 VP 37.007 GAP 17.23 AZP 89.89 TAL 146.90 TAP 85.87 RCA 84.33 APO 163.01 V2 34.874
RC 166.961 GL .77 GP 11.31 ZAL 32.72 ZAP 168.49 ETS 75.69 ZAE 120.93 ETE 173.18 ZAC 113.98 ETC 264.11 CLP-177.84

PLANETOCENTRIC CONIC

C3 56.287 VHL 7.502 DLA -21.46 RAL 289.49 RAD 6569.0 VEL 13.328 PTH 2.44 VHP 11.000 DPA -12.29 RAP 262.56 ECC 1.9263

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 17 28	1730.51	-5.64	12.79	166.90	117.79	12 46 18	1130.5	-1.88	6.13
90.00	18 1 46	5857.05	25.91	280.61	178.26	101.84	19 39 23	5257.1	27.29	272.21
100.00	13 24 2	1515.68	-7.51	355.99	165.88	119.02	13 49 17	915.7	-3.58	349.40
100.00	19 37 53	5547.12	27.99	258.28	178.73	100.94	21 10 20	4947.1	29.22	249.69
110.00	14 1 15	1399.01	-12.04	344.42	163.16	122.24	14 24 34	799.0	-7.70	338.02
110.00	21 17 9	5236.56	33.18	235.74	179.78	98.72	22 44 26	4636.6	34.03	226.60

DIFFERENTIAL CORRECTIONS
TDE 1.0858 TRA 7.2622 TC3-1.1446 BAU .8614
RDE .4146 RRA -.4837 RC3 .0179 FAU .00568
FDE .4458 FRA 2.3288 FC3 -.0873 BSP 21310
BDE 1.1622 BRA 7.2783 BC3 1.1447 FSP -606

MID-COURSE EXECUTION ACCURACY
SGT 6256.9 SGR 508.4 SG3 168.1
RRT -.6755 RRF -.6614 RTF .9772
SGB 6277.5 R23 -.0014 R13 -.9772
SG1 6266.3 SG2 374.3 THA 176.85

ORBIT DETERMINATION ACCURACY
ST 1971.4 SR 338.3 SS 633.7
CRT .0744 CRS -.1752 CST -.9946
LSA 2069.9 MSA 342.6 SSA 11.7
EL1 1971.5 EL2 337.3 ALF .75

LAUNCH DATE AUG 15 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 24 1970

HELIOCENTRIC CONIC DISTANCE 151.739

RL	151.51	LAL	.00	LOL	321.76	VL	20.962	GAL	5.34	AZL	93.34	HCA	58.05	SMA	101.12	ECC	.50486	INC	3.3428	V1	29.407
RP	108.47	LAP	-2.84	LOP	19.77	VP	33.682	GAP	-30.06	AZP	91.77	TAL	174.72	TAP	232.77	RCA	50.07	APO	152.17	V2	34.935
RC	46.842	GL	-7.82	GP	-5.98	ZAL	75.33	ZAP	20.20	ETS	160.76	ZAE	163.69	ETE	169.92	ZAC	91.83	ETC	257.04	CLP	19.33

PLANETOCENTRIC CONIC

C3	80.054	VHL	8.947	DLA	-29.11	RAL	243.20	RAD	6569.6	VEL	14.192	PTH	2.58	VHP	17.742	DPA	-18.15	RAP	215.12	ECC	2.3175

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.97	11 2 49	1422.00	10.43	358.79	133.88	117.33	11 26 31	822.0	14.01	351.89
97.03	12 59 19	1045.28	10.45	331.17	133.89	117.32	13 16 44	445.3	14.03	324.27
100.00	12 24 54	1155.78	4.62	336.16	130.71	119.57	12 44 10	555.8	8.52	329.54
100.00	14 19 55	786.73	16.36	315.06	136.90	115.37	14 33 1	186.7	19.65	307.81
110.00	12 11 17	1198.68	-4.58	333.72	125.03	123.91	12 31 15	598.7	-.09	327.50
110.00	16 50 2	5604.63	26.24	262.02	141.62	112.74	18 23 26	5004.6	29.08	253.99

DIFFERENTIAL CORRECTIONS

TDE	.2069	TRA	-1.0656	TC3	-.0802	BAU	.0870
RDE	-.6942	RRA	-.0353	RC3	.0133	FAU	.01592
FDE	-.1505	FRA	.4939	FC3	-.1722	BSP	2056
BDE	.7244	BRA	1.0662	BC3	.0813	FSP	-88

MID-COURSE EXECUTION ACCURACY

SGT	805.1	SGR	446.0	SG3	41.9		
RRT	-.1173	RRF	.1208	RTF	-.6436		
SG8	920.4	R23	-.0129	R13	.6451		
SG1	807.5	SG2	441.6	THA	174.69		

ORBIT DETERMINATION ACCURACY

ST	269.2	SR	444.6	SS	223.0
CRT	-.4769	CRS	-.6492	CST	.9747
LSA	503.0	MSA	258.3	SSA	14.0
EL1	468.9	EL2	224.4	ALF	111.18

LAUNCH DATE AUG 15 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 158.125

RL	151.51	LAL	.00	LOL	321.76	VL	21.467	GAL	5.08	AZL	93.11	HCA	61.24	SMA	102.80	ECC	.48028	INC	3.1121	V1	29.407
RP	108.44	LAP	-2.73	LOP	22.97	VP	34.011	GAP	-28.55	AZP	91.50	TAL	174.46	TAP	235.70	RCA	53.43	APO	152.17	V2	34.948
RC	45.530	GL	-7.91	GP	-6.22	ZAL	74.77	ZAP	18.76	ETS	158.53	ZAE	165.64	ETE	170.25	ZAC	91.87	ETC	257.20	CLP	17.74

PLANETOCENTRIC CONIC

C3	71.122	VHL	8.433	DLA	-29.30	RAL	243.83	RAD	6569.4	VEL	13.874	PTH	2.53	VHP	16.926	DPA	-18.96	RAP	216.59	ECC	2.1705

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.13	10 58 41	1415.76	11.35	358.82	132.84	117.20	11 22 17	815.8	14.91	351.88
97.87	13 8 24	996.56	11.37	328.06	132.85	117.19	13 25 1	396.6	14.92	321.12
100.00	12 35 1	1103.62	6.36	333.27	130.13	119.27	12 53 24	503.6	10.22	326.60
100.00	14 14 46	783.92	16.45	314.89	135.43	115.32	14 27 50	183.9	19.72	307.63
110.00	12 16 24	1162.23	-3.19	331.81	124.25	124.05	12 35 46	562.2	1.30	325.60
110.00	16 49 52	5586.12	26.72	260.80	140.28	112.16	18 22 58	4986.1	29.48	252.70

DIFFERENTIAL CORRECTIONS

TDE	.2019	TRA	-1.0552	TC3	-.0778	BAU	.0748
RDE	-.6619	RRA	-.0241	RC3	.0121	FAU	.01640
FDE	-.1526	FRA	.5106	FC3	-.1997	BSP	2144
BDE	.6920	BRA	1.0554	BC3	.0787	FSP	-98

MID-COURSE EXECUTION ACCURACY

SGT	843.7	SGR	450.6	SG3	45.9		
RRT	-.1287	RRF	.1347	RTF	-.6626		
SG8	956.5	R23	-.0166	R13	.6642		
SG1	846.4	SG2	445.4	THA	174.56		

ORBIT DETERMINATION ACCURACY

ST	282.2	SR	449.7	SS	231.6
CRT	-.4751	CRS	-.6449	CST	.9755
LSA	513.3	MSA	268.2	SSA	14.3
EL1	476.4	EL2	234.4	ALF	112.26

LAUNCH DATE AUG 15 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 164.569

RL	151.51	LAL	.00	LOL	321.76	VL	21.936	GAL	4.80	AZL	92.90	HCA	64.42	SMA	104.44	ECC	.45684	INC	2.8950	V1	29.407
RP	108.40	LAP	-2.61	LOP	26.16	VP	34.322	GAP	-27.10	AZP	91.25	TAL	174.24	TAP	238.67	RCA	56.73	APO	152.15	V2	34.961
RC	44.337	GL	-7.98	GP	-6.48	ZAL	74.29	ZAP	17.37	ETS	155.88	ZAE	167.77	ETE	170.87	ZAC	91.89	ETC	257.38	CLP	16.15

PLANETOCENTRIC CONIC

C3	63.219	VHL	7.951	DLA	-29.45	RAL	244.35	RAD	6569.2	VEL	13.586	PTH	2.48	VHP	16.144	DPA	-19.78	RAP	218.06	ECC	2.0404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.54	10 56 5	1402.67	12.28	358.34	131.66	116.98	11 19 28	802.7	15.80	351.35
98.46	13 15 10	953.45	12.30	325.36	131.66	116.98	13 31 3	353.4	15.82	318.37
100.00	12 43 58	1053.38	8.03	330.46	129.37	118.89	13 1 31	453.4	11.82	323.73
100.00	14 9 59	777.98	16.62	314.54	133.85	115.21	14 22 57	178.0	19.88	307.26
110.00	12 20 35	1127.04	-1.85	329.97	123.32	124.14	12 39 22	527.0	2.65	323.76
110.00	16 49 51	5565.11	27.25	259.39	138.79	111.49	18 22 36	4965.1	29.92	251.22

DIFFERENTIAL CORRECTIONS

TDE	.2026	TRA	-1.0395	TC3	-.0702	BAU	.0600
RDE	-.6304	RRA	-.0137	RC3	.0101	FAU	.01697
FDE	-.1554	FRA	.5269	FC3	-.2324	BSP	2350
BDE	.6621	BRA	1.0396	BC3	.0709	FSP	-110

MID-COURSE EXECUTION ACCURACY

SGT	879.6	SGR	454.7	SG3	50.3		
RRT	-.1460	RRF	.1509	RTF	-.6835		
SG8	990.2	R23	-.0163	R13	.6853		
SG1	883.0	SG2	448.1	THA	174.18		

ORBIT DETERMINATION ACCURACY

ST	296.5	SR	454.3	SS	240.7
CRT	-.4859	CRS	-.6431	CST	.9786
LSA	525.2	MSA	276.0	SSA	14.5
EL1	485.2	EL2	242.7	ALF	113.93

LAUNCH DATE AUG 15 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 171.064

RL	151.51	LAL	.00	LOL	321.76	VL	22.371	GAL	4.52	AZL	92.69	HCA	67.61	SMA	106.05	ECC	.43455	INC	2.6890	V1	29.407
RP	108.36	LAP	-2.49	LOP	29.35	VP	34.615	GAP	-25.73	AZP	91.02	TAL	174.07	TAP	241.69	RCA	59.97	APO	152.13	V2	34.974
RC	43.276	GL	-8.02	GP	-6.77	ZAL	73.91	ZAP	16.03	ETS	152.72	ZAE	170.05	ETE	172.03	ZAC	91.87	ETC	257.56	CLP	14.56

PLANETOCENTRIC CONIC

C3	56.224	VHL	7.498	DLA	-29.56	RAL	244.77	RAD	6569.0	VEL	13.326	PTH	2.44	VHP	15.392	DPA	-20.62	RAP	219.54	ECC	1.9253

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.15	10 54 45	1383.84	13.20	357.42	130.32	116.69	11 17 48	783.8	16.68	350.38
98.85	13 19 54	915.14	13.22	323.00	130.33	116.68	13 35 9	315.1	16.69	315.96
100.00	12 51 8	1007.18	9.54	327.86	128.37	118.46	13 7 55	407.2	13.27	321.06
100.00	14 6 12	767.02	16.94	313.88	132.20	115.01	14 18 59	167.0	20.17	306.57
110.00	12 23 45	1093.52	-.56	328.22	122.22	124.18	12 41 58	493.5	3.92	322.01
110.00	16 50 4	5541.49	27.83	257.80	137.15	110.70	18 22 26	4941.5	30.38	249.54

DIFFERENTIAL CORRECTIONS

TDE	.2015	TRA	-1.0260	TC3	-.0612	BAU	.0463
RDE	-.5996	RRA	-.0039	RC3	.0072	FAU	.01758
FDE	-.1580	FRA	.5440	FC3	-.2707	BSP	2500
BDE	.6325	BRA	1.0260	BC3	.0616	FSP	-123

MID-COURSE EXECUTION ACCURACY

SGT	919.0	SGR	458.3	SG3	55.2		
RRT	-.1626	RRF	.1686	RTF	-.7022		
SG8	1026.9	R23	-.0186	R13	.7041		
SG1	922.9	SG2	450.3	THA	173.91		

ORBIT DETERMINATION ACCURACY

ST	311.2	SR	458.2	SS	249.8
CRT	-.4929	CRS	-.6410	CST	.9808
LSA	536.9	MSA	284.0	SSA	14.8
EL1	493.5	EL2	251.4	ALF	115.59

LAUNCH DATE AUG 15 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 177.607

RL	151.51	LAL	.00	LOL	321.76	VL	22.774	GAL	4.23	AZL	92.49	HCA	70.80	SMA	107.62	ECC	.41340	INC	2.4921	V1	29.407
RP	108.32	LAP	-2.35	LOP	32.55	VP	34.890	GAP	-24.42	AZP	90.82	TAL	173.96	TAP	244.76	RCA	63.13	APO	152.10	V2	34.987
RC	42.355	GL	-8.03	GP	-7.09	ZAL	73.63	ZAP	14.75	ETS	148.90	ZAE	172.48	ETE	174.33	ZAC	91.82	ETC	257.76	CLP	12.97

PLANETOCENTRIC CONIC

C3	50.031	VHL	7.073	DLA	-29.61	RAL	245.09	RAD	6568.8	VEL	13.092	PTH	2.39	VHP	14.671	DPA	-21.48	RAP	221.02	ECC	1.8234

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.96	10 54 33	1359.68	14.10	356.09	128.84	116.31	11 17 12	759.7	17.52	348.99
99.04	13 22 40	881.49	14.12	320.97	128.85	116.30	13 37 21	281.5	17.54	313.87
100.00	12 55 33	968.23	10.79	325.65	127.10	118.05	13 11 41	368.2	14.46	318.78
100.00	14 4 21	748.18	17.47	312.74	130.51	114.65	14 16 49	148.2	20.65	305.38
110.00	12 25 47	1062.07	.64	326.58	120.96	124.18	12 43 29	462.1	5.12	320.36
110.00	16 50 36	5515.14	28.45	256.00	135.37	109.80	18 22 31	4915.1	30.88	247.64

DIFFERENTIAL CORRECTIONS

TOE	.2010	TRA	-1.0123	TC3	-.0486	BAU	.0326
RDE	-.5696	RRA	.0054	RC3	.0029	FAU	.01826
FDE	-.1606	FRA	.5615	FC3	-.3159	BSP	2652
BDE	.6040	BRA	1.0123	BC3	.0487	FSP	-138

MID-COURSE EXECUTION ACCURACY

SGT	959.6	SGR	461.5	SG3	60.5		
RRT	-.1810	RRF	.1883	RTF	-.7201		
SGB	1064.8	R23	-.0211	R13	.7222		
SG1	964.2	SG2	451.6	THA	173.62		

ORBIT DETERMINATION ACCURACY

ST	326.4	SR	461.4	SS	259.0
CRT	-.5015	CRS	-.6394	CST	.9830
LSA	549.1	MSA	291.3	SSA	15.0
EL1	502.1	EL2	259.5	ALF	117.43

LAUNCH DATE AUG 15 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 184.191

RL	151.51	LAL	.00	LOL	321.76	VL	23.148	GAL	3.95	AZL	92.30	HCA	74.00	SMA	109.14	ECC	.39339	INC	2.3025	V1	29.407
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.148	GAP	-23.16	AZP	90.64	TAL	173.90	TAP	247.90	RCA	66.20	APO	152.07	V2	35.000
RC	41.583	GL	-7.99	GP	-7.44	ZAL	73.44	ZAP	13.57	ETS	144.28	ZAE	175.02	ETE	179.65	ZAC	91.73	ETC	257.96	CLP	11.38

PLANETOCENTRIC CONIC

C3	44.548	VHL	6.674	DLA	-29.61	RAL	245.31	RAD	6568.7	VEL	12.881	PTH	2.35	VHP	13.978	DPA	-22.36	RAP	222.50	ECC	1.7331

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.97	10 55 31	1330.32	14.97	354.35	127.23	115.85	11 17 41	730.3	18.33	347.19
99.03	13 23 27	852.70	14.98	319.27	127.23	115.84	13 37 39	252.7	18.34	312.11
100.00	12 56 13	939.79	11.70	324.03	125.53	117.71	13 11 53	339.8	15.32	317.11
100.00	14 5 25	718.47	18.31	310.92	128.85	114.05	14 17 24	118.5	21.40	303.50
110.00	12 26 37	1033.15	1.74	325.07	119.54	124.14	12 43 50	433.2	6.21	318.83
110.00	16 51 31	5485.91	29.11	253.98	133.46	108.77	18 22 57	4885.9	31.39	245.52

DIFFERENTIAL CORRECTIONS

TOE	.2013	TRA	-.9978	TC3	-.0316	BAU	.0189
RDE	-.5406	RRA	.0142	RC3	-.0029	FAU	.01901
FDE	-.1635	FRA	.5796	FC3	-.3695	BSP	2814
BDE	.5768	BRA	.9979	BC3	.0318	FSP	-154

MID-COURSE EXECUTION ACCURACY

SGT	1001.1	SGR	464.3	SG3	66.4		
RRT	-.2019	RRF	.2105	RTF	-.7374		
SGB	1103.6	R23	-.0239	R13	.7397		
SG1	1006.6	SG2	452.2	THA	173.29		

ORBIT DETERMINATION ACCURACY

ST	342.4	SR	464.1	SS	268.4
CRT	-.5125	CRS	-.6386	CST	.9854
LSA	562.1	MSA	297.5	SSA	15.3
EL1	511.2	EL2	266.9	ALF	119.46

LAUNCH DATE AUG 15 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 190.814

RL	151.51	LAL	.00	LOL	321.76	VL	23.494	GAL	3.64	AZL	92.12	HCA	77.20	SMA	110.61	ECC	.37450	INC	2.1188	V1	29.407
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.391	GAP	-21.96	AZP	90.47	TAL	173.89	TAP	251.08	RCA	69.18	APO	152.03	V2	35.013
RC	40.971	GL	-7.91	GP	-7.82	ZAL	73.35	ZAP	12.50	ETS	138.69	ZAE	177.51	ETE	197.71	ZAC	91.60	ETC	258.17	CLP	9.78

PLANETOCENTRIC CONIC

C3	39.697	VHL	6.301	DLA	-29.54	RAL	245.43	RAD	6568.5	VEL	12.691	PTH	2.31	VHP	13.313	DPA	-23.26	RAP	223.97	ECC	1.6533

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.21	10 57 49	1295.34	15.79	352.17	125.47	115.30	11 19 24	695.3	19.07	344.94
98.79	13 22 4	829.54	15.81	317.96	125.48	115.29	13 35 53	229.5	19.08	310.73
100.00	12 52 52	922.97	12.23	323.06	123.65	117.49	13 8 15	323.0	15.81	316.11
100.00	14 9 42	677.14	19.44	308.37	127.19	113.17	14 20 59	77.1	22.40	300.83
110.00	12 26 8	1007.23	2.73	323.72	117.96	124.09	12 42 55	407.2	7.19	317.46
110.00	16 52 55	5453.69	29.79	251.72	131.42	107.60	18 23 49	4853.7	31.90	243.15

DIFFERENTIAL CORRECTIONS

TOE	.1936	TRA	-.9914	TC3	-.0182	BAU	.0111
RDE	-.5122	RRA	.0229	RC3	-.0105	FAU	.01977
FDE	-.1647	FRA	.5998	FC3	-.4312	BSP	2780
BDE	.5476	BRA	.9916	BC3	.0210	FSP	-169

MID-COURSE EXECUTION ACCURACY

SGT	1051.4	SGR	466.6	SG3	72.8		
RRT	-.2170	RRF	.2337	RTF	-.7487		
SGB	1150.3	R23	-.0350	R13	.7514		
SG1	1057.3	SG2	452.9	THA	173.26		

ORBIT DETERMINATION ACCURACY

ST	357.3	SR	465.9	SS	277.2
CRT	-.5060	CRS	-.6335	CST	.9853
LSA	572.0	MSA	306.7	SSA	15.7
EL1	517.4	EL2	277.5	ALF	121.02

LAUNCH DATE AUG 15 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 197.467

RL	151.51	LAL	.00	LOL	321.76	VL	23.815	GAL	3.34	AZL	91.94	HCA	80.39	SMA	112.02	ECC	.35670	INC	1.9396	V1	29.407
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.617	GAP	-20.81	AZP	90.32	TAL	173.94	TAP	254.33	RCA	72.06	APO	151.98	V2	35.027
RC	40.525	GL	-7.77	GP	-8.24	ZAL	73.36	ZAP	11.58	ETS	131.95	ZAE	178.35	ETE	280.66	ZAC	91.42	ETC	258.39	CLP	8.16

PLANETOCENTRIC CONIC

C3	35.403	VHL	5.950	DLA	-29.41	RAL	245.44	RAD	6568.4	VEL	12.521	PTH	2.27	VHP	12.674	DPA	-24.19	RAP	225.44	ECC	1.5826

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.72	11 1 52	1253.58	16.55	349.45	123.59	114.66	11 22 45	653.6	19.74	342.14
98.28	13 18 6	813.45	16.57	317.14	123.60	114.65	13 31 39	213.4	19.76	309.83
100.00	12 46 3	916.14	12.44	322.67	121.52	117.40	13 1 19	316.1	16.02	315.70
100.00	14 16 36	626.12	20.77	305.17	125.51	112.00	14 27 2	26.1	23.57	297.49
110.00	12 24 16	984.73	3.59	322.54	116.22	124.02	12 40 41	384.7	8.03	316.27
110.00	16 54 52	5418.33	30.49	249.21	129.24	106.26	18 25 10	4818.3	32.41	240.52

DIFFERENTIAL CORRECTIONS

TOE	.1963	TRA	-.9741	TC3	.0105	BAU	.0110
RDE	-.4852	RRA	.0309	RC3	-.0208	FAU	.02072
FDE	-.1677	FRA	.6190	FC3	-.5066	BSP	2988
BDE	.5234	BRA	.9746	BC3	.0233	FSP	-189

MID-COURSE EXECUTION ACCURACY

SGT	1093.3	SGR	469.1	SG3	80.0		
RRT	-.2444	RRF	.2617	RTF	-.7652		
SGB	1189.7	R23	-.0373	R13	.7682		
SG1	1100.5	SG2	451.9	THA	172.79		

ORBIT DETERMINATION ACCURACY

ST	374.3	SR	467.3	SS	286.7
CRT	-.5238	CRS	-.6339	CST	.9883
LSA	586.7	MSA	310.0	SSA	15.9
EL1	528.1	EL2	282.1	ALF	123.43

LAUNCH DATE AUG 15 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 204.149

RL 151.51 LAL .00 LOL 321.76 VL 24.112 GAL 3.05 AZL 91.76 HCA 83.60 SMA 113.38 ECC .33998 INC 1.7636 V1 29.407
RP 108.15 LAP -1.75 LOP 45.36 VP 35.830 GAP -19.71 AZP 90.20 TAL 174.04 TAP 257.64 RCA 74.84 APO 151.93 V2 35.040
RC 40.252 GL -7.57 GP -8.71 ZAL 73.47 ZAP 10.87 ETS 124.00 ZAE 176.03 ETE 319.79 ZAC 91.19 ETC 258.62 CLP 6.54

PLANETOCENTRIC CONIC

C3 31.607 VHL 5.622 DLA -29.19 RAL 245.35 RAD 6568.3 VEL 12.368 PTH 2.23 VHP 12.061 DPA -25.14 RAP 226.89 ECC 1.5202

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.60	11 8 26	1202.70	17.24	346.01	121.59	113.93	11 28 28	602.7	20.33	338.63
97.40	13 10 47	807.13	17.25	317.00	121.60	113.92	13 24 14	207.1	20.34	309.62
100.00	12 36 36	916.86	12.42	322.71	119.19	117.41	12 51 53	316.9	15.99	315.74
100.00	14 25 18	5856.24	22.20	279.37	123.74	110.55	16 2 54	5256.2	24.80	271.53
110.00	12 20 57	966.12	4.30	321.56	114.33	123.94	12 37 3	366.1	8.73	315.27
110.00	16 57 26	5379.75	31.19	246.42	126.94	104.75	18 27 6	4779.7	32.90	237.61

DIFFERENTIAL CORRECTIONS
TDE .1978 TRA -.9579 TC3 .0444 BAU .0237
RDE -.4591 RRA .0387 RC3 -.0342 FAU .02175
FDE -.1703 FRA .6395 FC3 -.5958 BSP 3169
BDE .4999 BRA .9587 BC3 .0560 FSP -211

MID-COURSE EXECUTION ACCURACY
SGT 1137.4 SGR 471.6 SG3 88.0
RRT -.2736 RRF .2929 RTF -.7802
SGB 1231.3 R23 -.0414 R13 .7835
SG1 1146.0 SG2 450.2 THA 172.34

ORBIT DETERMINATION ACCURACY
ST 391.4 SR 468.1 SS 296.0
CRT -.5397 CRS -.6337 CST .9908
LSA 601.5 MSA 312.8 SSA 16.2
EL1 538.9 EL2 286.2 ALF 125.79

LAUNCH DATE AUG 15 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 210.854

RL 151.51 LAL .00 LOL 321.76 VL 24.387 GAL 2.77 AZL 91.59 HCA 86.80 SMA 114.69 ECC .32431 INC 1.5896 V1 29.407
RP 108.11 LAP -1.59 LOP 48.56 VP 36.028 GAP -18.65 AZP 90.09 TAL 174.20 TAP 261.00 RCA 77.49 APO 151.88 V2 35.053
RC 40.156 GL -7.30 GP -9.23 ZAL 73.67 ZAP 10.43 ETS 114.92 ZAE 173.21 ETE 328.21 ZAC 90.89 ETC 258.85 CLP 4.89

PLANETOCENTRIC CONIC

C3 28.253 VHL 5.315 DLA -28.89 RAL 245.15 RAD 6568.1 VEL 12.232 PTH 2.20 VHP 11.473 DPA -26.13 RAP 228.33 ECC 1.4650

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.03	11 19 12	1137.42	17.83	341.47	119.48	113.11	11 38 9	537.4	20.81	334.02
95.97	12 58 28	816.19	17.84	317.93	119.48	113.10	13 12 4	216.2	20.82	310.48
100.00	12 25 9	923.38	12.22	323.08	116.73	117.50	12 40 33	323.4	15.80	316.13
100.00	14 35 12	5793.51	23.64	275.27	121.86	108.85	16 11 45	5193.5	25.99	267.26
110.00	12 16 8	951.78	4.85	320.81	112.31	123.88	12 31 59	351.8	9.26	314.51
110.00	17 0 43	5337.87	31.88	243.35	124.51	103.05	18 29 41	4737.9	33.34	234.43

DIFFERENTIAL CORRECTIONS
TDE .1986 TRA -.9419 TC3 .0849 BAU .0375
RDE -.4340 RRA .0464 RC3 -.0512 FAU .02289
FDE -.1722 FRA .6612 FC3 -.7014 BSP 3332
BDE .4773 BRA .9430 BC3 .0992 FSP -235

MID-COURSE EXECUTION ACCURACY
SGT 1182.6 SGR 474.5 SG3 96.7
RRT -.3054 RRF .3276 RTF -.7939
SGB 1274.3 R23 -.0467 R13 .7975
SG1 1193.0 SG2 447.9 THA 171.86

ORBIT DETERMINATION ACCURACY
ST 408.5 SR 468.2 SS 304.9
CRT -.5550 CRS -.6325 CST .9930
LSA 616.2 MSA 314.8 SSA 16.5
EL1 549.9 EL2 289.3 ALF 128.08

LAUNCH DATE AUG 15 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 217.577

RL 151.51 LAL .00 LOL 321.76 VL 24.640 GAL 2.49 AZL 91.42 HCA 90.01 SMA 115.93 ECC .30965 INC 1.4166 V1 29.407
RP 108.07 LAP -1.42 LOP 51.77 VP 36.213 GAP -17.63 AZP 90.00 TAL 174.42 TAP 264.42 RCA 80.03 APO 151.83 V2 35.066
RC 40.238 GL -6.95 GP -9.80 ZAL 73.98 ZAP 10.31 ETS 105.07 ZAE 170.32 ETE 331.21 ZAC 90.53 ETC 259.08 CLP 3.22

PLANETOCENTRIC CONIC

C3 25.293 VHL 5.029 DLA -28.49 RAL 244.86 RAD 6568.0 VEL 12.111 PTH 2.17 VHP 10.909 DPA -27.15 RAP 229.73 ECC 1.4163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.77	11 40 32	1037.25	18.31	334.33	117.26	112.21	11 57 50	437.3	21.16	326.80
93.23	12 34 48	861.44	18.32	321.47	117.27	112.20	12 49 10	261.4	21.18	313.94
100.00	12 12 7	934.73	11.86	323.74	114.16	117.64	12 27 42	334.7	15.47	316.81
100.00	14 45 54	5727.24	25.03	270.83	119.83	106.90	16 21 22	5127.2	27.10	262.65
110.00	12 9 47	942.08	5.21	320.30	110.17	123.83	12 25 29	342.1	9.62	313.99
110.00	17 4 44	5292.66	32.52	239.98	121.97	101.15	18 32 57	4692.7	33.72	230.95

DIFFERENTIAL CORRECTIONS
TDE .1978 TRA -.9265 TC3 .1316 BAU .0509
RDE -.4099 RRA .0542 RC3 -.0728 FAU .02414
FDE -.1732 FRA .6845 FC3 -.8262 BSP 3471
BDE .4552 BRA .9281 BC3 .1504 FSP -262

MID-COURSE EXECUTION ACCURACY
SGT 1229.0 SGR 477.9 SG3 106.4
RRT -.3393 RRF .3659 RTF -.8060
SGB 1318.7 R23 -.0542 R13 .8101
SG1 1241.3 SG2 445.1 THA 171.37

ORBIT DETERMINATION ACCURACY
ST 425.0 SR 467.5 SS 313.2
CRT -.5680 CRS -.6297 CST .9947
LSA 630.0 MSA 316.4 SSA 16.9
EL1 560.3 EL2 291.8 ALF 130.22

LAUNCH DATE AUG 15 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 224.316

RL 151.51 LAL .00 LOL 321.76 VL 24.874 GAL 2.23 AZL 91.24 HCA 93.22 SMA 117.12 ECC .29599 INC 1.2435 V1 29.407
RP 108.03 LAP -1.24 LOP 54.98 VP 36.385 GAP -16.65 AZP 89.93 TAL 174.68 TAP 267.90 RCA 82.45 APO 151.79 V2 35.079
RC 40.497 GL -6.50 GP -10.44 ZAL 74.39 ZAP 10.55 ETS 95.07 ZAE 167.44 ETE 332.41 ZAC 90.10 ETC 259.32 CLP 1.51

PLANETOCENTRIC CONIC

C3 22.685 VHL 4.763 DLA -27.97 RAL 244.48 RAD 6567.9 VEL 12.003 PTH 2.14 VHP 10.369 DPA -28.22 RAP 231.11 ECC 1.3733

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 27 21	1048.70	15.57	333.94	113.62	113.96	11 44 50	448.7	18.67	326.65
90.00	12 44 56	796.69	21.83	318.12	116.19	108.50	12 58 12	196.7	24.15	310.22
100.00	11 57 44	950.49	11.36	324.64	111.52	117.84	12 13 34	350.5	15.00	317.74
100.00	14 57 15	5658.17	26.31	266.10	117.65	104.73	16 31 33	5058.2	28.07	257.74
110.00	12 1 55	937.33	5.39	320.05	107.93	123.81	12 17 32	337.3	9.80	313.73
110.00	17 9 33	5244.10	33.10	236.31	119.30	99.05	18 36 57	4644.1	34.00	227.19

DIFFERENTIAL CORRECTIONS
TDE .1938 TRA -.9134 TC3 .1826 BAU .0631
RDE -.3867 RRA .0623 RC3 -.0998 FAU .02549
FDE -.1721 FRA .7105 FC3 -.9729 BSP 3557
BDE .4326 BRA .9155 BC3 .2081 FSP -290

MID-COURSE EXECUTION ACCURACY
SGT 1277.6 SGR 482.3 SG3 117.2
RRT -.3742 RRF .4076 RTF -.8159
SGB 1365.6 R23 -.0654 R13 .8208
SG1 1292.0 SG2 442.3 THA 170.88

ORBIT DETERMINATION ACCURACY
ST 440.1 SR 465.9 SS 320.4
CRT -.5754 CRS -.6228 CST .9960
LSA 641.6 MSA 318.5 SSA 17.3
EL1 569.1 EL2 294.6 ALF 132.17

LAUNCH DATE AUG 15 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 231.064

RL	151.51	LAL	.00	LOL	321.76	VL	25.090	GAL	1.97	AZL	91.07	HCA	96.43	SMA	118.24	ECC	.28327	INC	1.0691	V1	29.407		
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.545	GAP	-15.71	AZP	89.88	TAL	175.01	TAP	271.43	RCA	84.75	APO	151.74	V2	35.092		
RC	40.930	GL	-5.95	GP	-11.15	ZAL	74.89	ZAP	11.15	ETS	85.58	ZAE	164.62	ETE	332.77	ZAC	89.58	ETC	259.55	CLP	-.22		

PLANETOCENTRIC CONIC

C3	20.389	VHL	4.515	DLA	-27.33	RAL	244.01	RAD	6567.8	VEL	11.907	PTH	2.12	VHP	9.851	DPA	-29.34	RAP	232.44	ECC	1.3356		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 51	1110.34	13.83	337.64	110.42	114.96	11 17 21	510.3	17.08	330.47
90.00	13 9 41	683.62	24.07	310.59	114.40	105.38	13 21 4	83.6	25.95	302.43
100.00	11 42 6	970.56	10.72	325.79	108.84	118.07	11 58 17	370.6	14.39	318.92
100.00	15 9 7	5586.66	27.45	261.09	115.32	102.33	16 42 13	4986.7	28.87	252.58
110.00	11 52 32	937.81	5.37	320.08	105.60	123.81	12 8 10	337.8	9.78	313.76
110.00	17 15 10	5192.18	33.59	232.34	116.52	96.75	18 41 42	4592.2	34.16	223.14

DIFFERENTIAL CORRECTIONS

TDE	.2056	TRA	-.8839	TC3	.2732	BAU	.0831
RDE	-.3653	RRA	.0698	RC3	-.1353	FAU	.02724
FDE	-.1747	FRA	.7334	FC3	-1.1565	BSP	4026
BDE	.4191	BRA	.8867	BC3	.3049	FSP	-333

MID-COURSE EXECUTION ACCURACY

SGT	1312.6	SGR	489.6	SG3	129.2		
RRT	-.4310	RRF	.4572	RTF	-.8344		
SGB	1401.0	R23	-.0588	R13	.8393		
SG1	1331.6	SG2	435.5	THA	169.76		

ORBIT DETERMINATION ACCURACY

ST	460.0	SR	464.5	SS	328.4
CRT	-.6191	CRS	-.6264	CST	.9978
LSA	662.3	MSA	310.3	SSA	17.5
EL1	588.2	EL2	285.2	ALF	134.55

LAUNCH DATE AUG 15 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 237.820

RL	151.51	LAL	.00	LOL	321.76	VL	25.288	GAL	1.72	AZL	90.89	HCA	99.64	SMA	119.31	ECC	.27147	INC	.8924	V1	29.407		
RP	107.95	LAP	-.88	LOP	61.41	VP	36.694	GAP	-14.80	AZP	89.85	TAL	175.38	TAP	275.02	RCA	86.92	APO	151.70	V2	35.105		
RC	41.530	GL	-5.27	GP	-11.95	ZAL	75.49	ZAP	12.11	ETS	77.11	ZAE	161.89	ETE	332.63	ZAC	88.96	ETC	259.78	CLP	-2.00		

PLANETOCENTRIC CONIC

C3	18.374	VHL	4.287	DLA	-26.56	RAL	243.46	RAD	6567.7	VEL	11.822	PTH	2.09	VHP	9.357	DPA	-30.52	RAP	233.72	ECC	1.3024		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 34 39	1158.90	12.41	340.50	107.43	115.66	10 53 58	558.9	15.77	333.43
90.00	13 29 32	5873.86	25.67	281.78	112.25	102.38	15 7 26	5273.9	27.12	273.41
100.00	11 25 24	995.01	9.93	327.18	106.14	118.34	11 41 59	395.0	13.64	320.35
100.00	15 21 29	5512.98	28.41	255.83	112.85	99.72	16 53 22	4913.0	29.46	247.18
110.00	11 41 43	943.78	5.15	320.39	103.23	123.84	11 57 27	343.8	9.56	314.08
110.00	17 21 39	5136.97	33.95	228.07	113.64	94.24	18 47 16	4537.0	34.17	218.83

DIFFERENTIAL CORRECTIONS

TDE	.2031	TRA	-.8670	TC3	.3540	BAU	.0973
RDE	-.3440	RRA	.0785	RC3	-.1780	FAU	.02899
FDE	-.1711	FRA	.7622	FC3	-1.3658	BSP	4196
BDE	.3995	BRA	.8705	BC3	.3962	FSP	-371

MID-COURSE EXECUTION ACCURACY

SGT	1358.0	SGR	498.5	SG3	142.5		
RRT	-.4773	RRF	.5077	RTF	-.8451		
SGB	1446.6	R23	-.0672	R13	.8508		
SG1	1381.0	SG2	430.7	THA	168.98		

ORBIT DETERMINATION ACCURACY

ST	474.2	SR	461.2	SS	333.6
CRT	-.6336	CRS	-.6166	CST	.9976
LSA	673.1	MSA	308.9	SSA	17.9
EL1	597.9	EL2	283.0	ALF	136.26

LAUNCH DATE AUG 15 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 244.580

RL	151.51	LAL	.00	LOL	321.76	VL	25.471	GAL	1.48	AZL	90.71	HCA	102.86	SMA	120.31	ECC	.26056	INC	.7122	V1	29.407		
RP	107.91	LAP	-.69	LOP	64.62	VP	36.831	GAP	-13.92	AZP	89.84	TAL	175.79	TAP	278.65	RCA	88.96	APO	151.66	V2	35.117		
RC	42.291	GL	-4.45	GP	-12.83	ZAL	76.17	ZAP	13.38	ETS	69.89	ZAE	159.27	ETE	332.13	ZAC	88.24	ETC	260.01	CLP	-3.83		

PLANETOCENTRIC CONIC

C3	16.609	VHL	4.075	DLA	-25.63	RAL	242.86	RAD	6567.7	VEL	11.747	PTH	2.07	VHP	8.885	DPA	-31.77	RAP	234.94	ECC	1.2733		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 39	1204.89	11.04	343.18	104.54	116.24	10 31 44	604.9	14.48	336.19
90.00	13 47 42	5781.06	26.86	275.25	109.88	99.31	15 24 3	5181.1	27.87	266.73
100.00	11 7 41	1024.01	8.99	328.81	103.46	118.63	11 24 45	424.0	12.74	322.04
100.00	15 34 22	5437.17	29.16	250.32	110.25	96.91	17 4 59	4837.2	29.81	241.57
110.00	11 29 32	955.46	4.71	321.00	100.84	123.90	11 45 27	355.5	9.13	314.70
110.00	17 29 0	5078.49	34.15	223.51	110.69	91.56	18 53 39	4478.5	33.99	214.27

DIFFERENTIAL CORRECTIONS

TDE	.1997	TRA	-.8494	TC3	.4457	BAU	.1114
RDE	-.3235	RRA	.0878	RC3	-.2307	FAU	.03092
FDE	-.1649	FRA	.7938	FC3	-1.6118	BSP	4376
BDE	.3801	BRA	.8539	BC3	.5019	FSP	-415

MID-COURSE EXECUTION ACCURACY

SGT	1401.8	SGR	510.8	SG3	157.2		
RRT	-.5270	RRF	.5615	RTF	-.8552		
SGB	1492.0	R23	-.0764	R13	.8617		
SG1	1430.0	SG2	425.6	THA	168.05		

ORBIT DETERMINATION ACCURACY

ST	486.6	SR	456.7	SS	337.4
CRT	-.6482	CRS	-.6023	CST	.9961
LSA	681.6	MSA	307.0	SSA	18.3
EL1	606.1	EL2	279.2	ALF	137.80

LAUNCH DATE AUG 15 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 251.340

RL	151.51	LAL	.00	LOL	321.76	VL	25.638	GAL	1.25	AZL	90.53	HCA	106.08	SMA	121.25	ECC	.25050	INC	.5271	V1	29.407		
RP	107.88	LAP	-.51	LOP	67.84	VP	36.959	GAP	-13.08	AZP	89.85	TAL	176.24	TAP	282.32	RCA	90.88	APO	151.62	V2	35.129		
RC	43.202	GL	-3.48	GP	-13.83	ZAL	76.94	ZAP	14.94	ETS	63.92	ZAE	156.78	ETE	331.36	ZAC	87.40	ETC	260.23	CLP	-5.71		

PLANETOCENTRIC CONIC

C3	15.068	VHL	3.882	DLA	-24.53	RAL	242.20	RAD	6567.6	VEL	11.681	PTH	2.05	VHP	8.436	DPA	-33.09	RAP	236.08	ECC	1.2480		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 57	1251.74	9.62	345.89	101.75	116.76	10 9 49	651.7	13.14	338.98
90.00	14 5 10	5690.09	27.70	268.72	107.36	96.14	15 40 0	5090.1	28.26	260.10
100.00	10 49 1	1057.82	7.88	330.71	100.82	118.93	11 6 39	457.8	11.68	323.98
100.00	15 47 47	5359.24	29.66	244.58	107.55	93.93	17 17 6	4759.2	29.89	235.78
110.00	11 16 3	973.06	4.04	321.93	98.46	123.97	11 32 16	373.1	8.47	315.64
110.00	17 37 15	5016.77	34.16	218.69	107.67	88.70	19 0 52	4416.8	33.60	209.49

DIFFERENTIAL CORRECTIONS

TDE	.1942	TRA	-.8320	TC3	.5473	BAU	.1253
RDE	-.3035	RRA	.0982	RC3	-.2955	FAU	.03307
FDE	-.1545	FRA	.8283	FC3	-1.8998	BSP	4546
BDE	.3603	BRA	.8377	BC3	.6219	FSP	-463

MID-COURSE EXECUTION ACCURACY

SGT	1443.8	SGR	527.8	SG3	173.5		
RRT	-.5784	RRF	.6174	RTF	-.8642		
SGB	1537.3	R23	-.0872	R13	.8718		
SG1	1478.7	SG2	420.4	THA	166.99		

ORBIT DETERMINATION ACCURACY

ST	496.3	SR	450.5	SS	339.2
CRT	-.6611	CRS	-.5807	CST	.9925
LSA	686.2	MSA	305.1	SSA	18.9
EL1	611.5	EL2	274.3	ALF	139.17

LAUNCH DATE AUG 15 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 258.098

RL	151.51	LAL	.00	LOL	321.76	VL	25.791	GAL	1.04	AZL	90.34	HCA	109.30	SMA	122.13	ECC	.24125	INC	.3357	V1	29.407
RP	107.84	LAP	-.32	LOP	71.06	VP	37.076	GAP	-12.27	AZP	89.89	TAL	176.72	TAP	286.02	RCA	92.66	APO	151.59	V2	35.141
RC	44.254	GL	-2.34	GP	-14.95	ZAL	77.79	ZAP	16.75	ETS	59.07	ZAE	154.43	ETE	330.33	ZAC	86.42	ETC	260.44	CLP	-7.65

PLANETOCENTRIC CONIC

C3	13.729	VHL	3.705	DLA	-23.25	RAL	241.52	RAD	6567.5	VEL	11.624	PTH	2.04	VHP	8.011	DPA	-34.52	RAP	237.13	ECC	1.2260		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 11	1301.19	8.09	348.72	99.08	117.23	9 47 52	701.2	11.68	341.88
90.00	14 22 29	5599.43	28.18	262.14	104.73	92.88	15 55 48	4999.4	28.28	253.47
100.00	10 29 32	1096.72	6.59	332.88	98.27	119.22	10 47 49	496.7	10.44	326.21
100.00	16 1 49	5279.14	29.88	238.64	104.79	90.81	17 29 48	4679.1	29.68	229.84
110.00	11 1 24	996.80	3.13	323.17	96.13	124.06	11 18 1	396.8	7.58	316.91
110.00	17 46 26	4951.82	33.95	213.63	104.65	85.72	19 8 58	4351.8	32.98	204.53

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1766	TRA	-.8236	TC3	.6316	BAU	.1345	SGT	1488.3	SGR	549.1	SG3	191.2	ST	497.6	SR	440.6	SS	338.0
RDE	-.2826	RRA	.1106	RC3	-.3717	FAU	.03519	RRT	-.6195	RRF	.6716	RTF	-.8680	CRT	-.6505	CRS	-.5347	CST	.9872
FDE	-.1333	FRA	.8714	FC3	-2.2190	BSP	4499	SGB	1586.3	R23	-.1112	R13	.8776	LSA	678.1	MSA	309.6	SSA	19.6
BDE	.3332	BRA	.8310	BC3	.7329	FSP	-507	SG1	1529.9	SG2	419.3	THA	166.06	EL1	605.0	EL2	275.3	ALF	140.31

LAUNCH DATE AUG 15 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 264.850

RL	151.51	LAL	.00	LOL	321.76	VL	25.931	GAL	.84	AZL	90.14	HCA	112.52	SMA	122.95	ECC	.23276	INC	.1362	V1	29.407
RP	107.81	LAP	-.13	LOP	74.28	VP	37.185	GAP	-11.48	AZP	89.95	TAL	177.24	TAP	289.75	RCA	94.33	APO	151.56	V2	35.152
RC	45.436	GL	-1.00	GP	-16.20	ZAL	78.70	ZAP	18.80	ETS	55.14	ZAE	152.22	ETE	329.06	ZAC	85.29	ETC	260.64	CLP	-9.67

PLANETOCENTRIC CONIC

C3	12.571	VHL	3.546	DLA	-21.76	RAL	240.81	RAD	6567.5	VEL	11.574	PTH	2.02	VHP	7.608	DPA	-36.05	RAP	238.08	ECC	1.2069		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 7	1354.44	6.42	351.74	96.54	117.64	9 25 42	754.4	10.07	344.96
90.00	14 39 55	5508.08	28.31	255.46	102.04	89.53	16 11 44	4908.1	27.95	246.81
100.00	10 9 13	1141.09	5.11	335.34	95.82	119.49	10 28 15	541.1	9.00	328.72
100.00	16 16 30	5196.66	29.80	232.51	102.00	87.59	17 43 7	4596.7	29.15	223.76
110.00	10 45 38	1026.94	1.98	324.75	93.88	124.13	11 2 45	426.9	6.45	318.51
110.00	17 56 35	4883.58	33.47	208.36	101.63	82.63	19 17 58	4283.6	32.09	199.40

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1748	TRA	-.7986	TC3	.7760	BAU	.1524	SGT	1521.0	SGR	581.2	SG3	211.3	ST	503.9	SR	430.5	SS	337.3
RDE	-.2633	RRA	.1232	RC3	-.4693	FAU	.03796	RRT	-.6801	RRF	.7286	RTF	-.8801	CRT	-.6787	CRS	-.4989	CST	.9726
FDE	-.1150	FRA	.9101	FC3	-2.6141	BSP	4877	SGB	1628.3	R23	-.1127	R13	.8907	LSA	678.3	MSA	304.1	SSA	20.0
BDE	.3161	BRA	.8081	BC3	.9069	FSP	-575	SG1	1575.5	SG2	411.3	THA	164.34	EL1	608.9	EL2	261.6	ALF	141.56

LAUNCH DATE AUG 15 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 271.595

RL	151.51	LAL	.00	LOL	321.76	VL	26.059	GAL	.65	AZL	89.93	HCA	115.74	SMA	123.71	ECC	.22501	INC	.0703	V1	29.407
RP	107.77	LAP	.06	LOP	77.50	VP	37.284	GAP	-10.72	AZP	90.03	TAL	177.77	TAP	293.51	RCA	95.87	APO	151.54	V2	35.163
RC	46.738	GL	.55	GP	-17.63	ZAL	79.67	ZAP	21.09	ETS	51.98	ZAE	150.14	ETE	327.54	ZAC	83.99	ETC	260.81	CLP	-11.77

PLANETOCENTRIC CONIC

C3	11.578	VHL	3.403	DLA	-20.04	RAL	240.12	RAD	6567.4	VEL	11.531	PTH	2.01	VHP	7.229	DPA	-37.71	RAP	238.89	ECC	1.1905		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 44	1412.33	4.58	355.00	94.18	117.97	9 3 16	812.3	8.29	348.28
90.00	14 57 46	5415.47	28.08	248.70	99.37	86.15	16 28 2	4815.5	27.25	240.13
100.00	9 48 13	1191.30	3.42	338.11	93.54	119.71	10 8 4	591.3	7.35	331.53
100.00	16 31 58	5111.73	29.39	226.23	99.24	84.31	17 57 10	4511.7	28.30	217.60
110.00	10 28 56	1063.72	.58	326.07	91.76	124.18	10 46 39	463.7	5.06	320.45
110.00	18 7 45	4812.07	32.72	202.92	98.69	79.49	19 27 57	4212.1	30.92	194.16

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1616	TRA	-.7808	TC3	.9035	BAU	.1665	SGT	1552.6	SGR	621.4	SG3	232.9	ST	500.6	SR	415.1	SS	335.1
RDE	-.2424	RRA	.1384	RC3	-.5842	FAU	.04078	RRT	-.7282	RRF	.7805	RTF	-.8872	CRT	-.6858	CRS	-.4313	CST	.9497
FDE	-.0830	FRA	.9563	FC3	-3.0496	BSP	5055	SGB	1672.4	R23	-.1259	R13	.8999	LSA	664.5	MSA	305.3	SSA	20.6
BDE	.2913	BRA	.7930	BC3	1.0759	FSP	-642	SG1	1621.9	SG2	407.7	THA	162.62	EL1	599.4	EL2	252.3	ALF	142.69

LAUNCH DATE AUG 15 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 278.330

RL	151.51	LAL	.00	LOL	321.76	VL	26.175	GAL	.47	AZL	89.71	HCA	118.97	SMA	124.41	ECC	.21796	INC	.2922	V1	29.407
RP	107.74	LAP	.26	LOP	80.73	VP	37.375	GAP	-9.99	AZP	90.14	TAL	178.31	TAP	297.28	RCA	97.30	APO	151.53	V2	35.174
RC	48.150	GL	2.34	GP	-19.23	ZAL	80.69	ZAP	23.61	ETS	49.42	ZAE	148.16	ETE	325.75	ZAC	82.49	ETC	260.96	CLP	-13.96

PLANETOCENTRIC CONIC

C3	10.736	VHL	3.277	DLA	-18.09	RAL	239.45	RAD	6567.4	VEL	11.495	PTH	2.00	VHP	6.875	DPA	-39.53	RAP	239.54	ECC	1.1767		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 15 57	1475.64	2.55	358.55	92.03	118.21	8 40 33	875.6	6.31	351.88
90.00	15 16 14	5321.02	27.45	241.86	96.76	82.78	16 44 55	4721.0	26.17	233.43
100.00	9 26 34	1247.79	1.51	341.22	91.45	119.86	9 47 22	647.8	5.47	334.67
100.00	16 48 18	5024.11	28.63	219.83	96.57	81.02	18 12 2	4424.1	27.09	211.36
110.00	10 11 21	1107.46	-1.10	328.95	89.82	124.17	10 29 49	507.5	3.39	322.74
110.00	18 20 0	4737.20	31.65	197.34	95.87	76.36	19 38 58	4137.2	29.45	188.82

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1461	TRA	-.7645	TC3	1.0261	BAU	.1799	SGT	1579.7	SGR	673.3	SG3	256.2	ST	493.6	SR	394.9	SS	336.0
RDE	-.2202	RRA	.1565	RC3	-.7192	FAU	.04373	RRT	-.7710	RRF	.8271	RTF	-.8931	CRT	-.6929	CRS	-.3434	CST	.9120
FDE	-.0411	FRA	1.0089	FC3	-3.5261	BSP	5249	SGB	1717.2	R23	-.1405	R13	.9084	LSA	645.7	MSA	308.6	SSA	21.2
BDE	.2643	BRA	.7804	BC3	1.2531	FSP	-717	SG1	1668.5	SG2	405.9	THA	160.61	EL1	584.7	EL2	240.4	ALF	143.99

LAUNCH DATE AUG 15 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 285.053

RL	151.51	LAL	.00	LOL	321.76	VL	26.281	GAL	.30	AZL	89.47	HCA	122.19	SMA	125.06	ECC	.21156	INC	.5272	V1	29.407
RP	107.71	LAP	.45	LOP	83.96	VP	37.459	GAP	-9.28	AZP	90.28	TAL	178.86	TAP	301.06	RCA	98.60	APO	151.52	V2	35.184
RC	49.661	GL	4.38	GP	-21.04	ZAL	81.73	ZAP	26.36	ETS	47.34	ZAE	146.26	ETE	323.69	ZAC	80.77	ETC	261.08	CLP	-16.25

PLANETOCENTRIC CONIC

C3	10.034	VHL	3.168	DLA	-15.88	RAL	238.84	RAD	6567.4	VEL	11.464	PTH	1.99	VHP	6.547	DPA	-41.51	RAP	240.01	ECC	1.1651

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 51 46	1545.14	.31	2.42	90.13	118.32	8 17 31	945.1	4.09	355.79
90.00	15 35 31	5224.27	26.44	234.96	94.29	79.47	17 2 35	4624.3	24.71	226.72
100.00	9 4 19	1311.08	-.63	344.69	89.61	119.89	9 26 10	711.1	3.35	338.17
100.00	17 5 40	4933.56	27.50	213.34	94.06	77.79	18 27 53	4333.6	25.54	205.09
110.00	9 53 1	1158.53	-3.05	331.61	88.10	124.06	10 12 19	558.5	1.44	325.41
110.00	18 33 27	4658.88	30.25	191.67	93.24	73.27	19 51 6	4058.9	27.66	183.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.1263	TRA	-.7494	TC3	1.1461	BAU	.1937	SGT 1601.8 SGR 739.5 SG3 281.3	ST 481.1	SR 368.0	SS 344.1
RDE	-.1955	RRA	.1782	RC3	-.8783	FAU	.04687	RRT -.8079 RRF .8675 RTF -.8984	CRT -.6985	CRS -.2323	CST .8548
FDE	.0155	FRA	1.0685	FC3	-4.0442	BSP	5382	SGB 1764.2 R23 -.1548 R13 .9170	LSA 620.6	MSA 315.6	SSA 21.7
BDE	.2328	BRA	.7703	BC3	1.4440	FSP	-790	SG1 1716.7 SG2 406.6 THA 158.26	EL1 562.2	EL2 225.3	ALF 145.61

LAUNCH DATE AUG 15 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 291.762

RL	151.51	LAL	.00	LOL	321.76	VL	26.376	GAL	.15	AZL	89.22	HCA	125.42	SMA	125.66	ECC	.20578	INC	.7795	V1	29.407
RP	107.68	LAP	.64	LOP	87.19	VP	37.534	GAP	-8.60	AZP	90.45	TAL	179.41	TAP	304.83	RCA	99.80	APO	151.51	V2	35.193
RC	51.263	GL	6.70	GP	-23.10	ZAL	82.79	ZAP	29.37	ETS	45.63	ZAE	144.41	ETE	321.34	ZAC	78.79	ETC	261.16	CLP	-18.67

PLANETOCENTRIC CONIC

C3	9.466	VHL	3.077	DLA	-13.40	RAL	238.30	RAD	6567.3	VEL	11.439	PTH	1.98	VHP	6.248	DPA	-43.70	RAP	240.24	ECC	1.1558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 8	1621.60	-2.16	6.69	88.54	118.24	7 54 10	1021.6	1.64	.06
90.00	15 55 50	5124.75	25.01	228.02	92.04	76.27	17 21 15	4524.7	22.88	220.00
100.00	8 41 28	1381.77	-3.03	348.57	88.06	119.75	9 4 30	781.8	.95	342.05
100.00	17 24 11	4839.82	25.98	206.79	91.76	74.66	18 44 51	4239.8	23.62	198.78
110.00	9 33 58	1217.35	-5.28	334.70	86.66	123.82	9 54 15	617.4	-.81	328.48
110.00	18 48 11	4576.99	28.51	185.93	90.86	70.28	20 4 28	3977.0	25.55	178.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.1019	TRA	-.7350	TC3	1.2583	BAU	.2084	SGT 1617.3 SGR 822.3 SG3 308.0	ST 463.4	SR 331.9	SS 366.6
RDE	-.1664	RRA	.2044	RC3	-1.0621	FAU	.05014	RRT -.8387 RRF .9009 RTF -.9035	CRT -.7073	CRS -.1124	CST .7778
FDE	.0916	FRA	1.1349	FC3	-4.5857	BSP	5521	SGB 1814.4 R23 -.1665 R13 .9261	LSA 593.2	MSA 326.9	SSA 21.9
BDE	.1951	BRA	.7629	BC3	1.6467	FSP	-871	SG1 1767.5 SG2 409.8 THA 155.50	EL1 532.1	EL2 204.3	ALF 147.83

LAUNCH DATE AUG 15 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 298.453

RL	151.51	LAL	.00	LOL	321.76	VL	26.462	GAL	.01	AZL	88.95	HCA	128.65	SMA	126.20	ECC	.20058	INC	1.0531	V1	29.407
RP	107.65	LAP	.82	LOP	90.42	VP	37.603	GAP	-7.93	AZP	90.66	TAL	179.94	TAP	308.59	RCA	100.89	APO	151.51	V2	35.202
RC	52.948	GL	9.32	GP	-25.42	ZAL	83.84	ZAP	32.65	ETS	44.18	ZAE	142.55	ETE	318.67	ZAC	76.53	ETC	261.19	CLP	-21.21

PLANETOCENTRIC CONIC

C3	9.026	VHL	3.004	DLA	-10.63	RAL	237.86	RAD	6567.3	VEL	11.420	PTH	1.98	VHP	5.979	DPA	-46.11	RAP	240.19	ECC	1.1485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 2 0	1705.90	-4.86	11.41	87.31	117.93	7 30 26	1105.9	-1.08	4.76
90.00	16 17 28	5021.98	23.17	221.06	90.06	73.25	17 41 10	4422.0	20.65	213.29
100.00	8 18 3	1460.56	-5.68	352.92	86.86	119.40	8 42 23	860.6	-1.72	346.37
100.00	17 44 6	4742.55	24.06	200.20	89.76	71.70	19 3 9	4142.5	21.33	192.46
110.00	9 14 16	1284.49	-7.81	338.25	85.55	123.38	9 35 41	684.5	-3.37	331.98
110.00	19 4 22	4491.39	26.40	180.16	88.79	67.46	20 19 13	3891.4	23.11	172.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.0061	TRA	-.7309	TC3	1.3317	BAU	.2207	SGT 1628.4 SGR 908.9 SG3 336.3	ST 426.3	SR 250.1	SS 469.0
RDE	-.1082	RRA	.2398	RC3	-1.2532	FAU	.05263	RRT -.8545 RRF .9256 RTF -.9133	CRT -.5844	CRS .0580	CST .7720
FDE	.2913	FRA	1.2236	FC3	-5.0483	BSP	5375	SGB 1864.9 R23 -.1695 R13 .9399	LSA 600.7	MSA 320.8	SSA 21.4
BDE	.1084	BRA	.7692	BC3	1.8287	FSP	-916	SG1 1816.2 SG2 423.2 THA 152.91	EL1 456.5	EL2 189.6	ALF 156.85

LAUNCH DATE AUG 15 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 305.132

RL	151.51	LAL	.00	LOL	321.76	VL	26.539	GAL	-.11	AZL	88.65	HCA	131.88	SMA	126.69	ECC	.19592	INC	1.3527	V1	29.407
RP	107.63	LAP	1.01	LOP	93.65	VP	37.665	GAP	-7.29	AZP	90.90	TAL	180.46	TAP	312.34	RCA	101.87	APO	151.51	V2	35.210
RC	54.707	GL	12.25	GP	-28.05	ZAL	84.87	ZAP	36.20	ETS	42.90	ZAE	140.63	ETE	315.68	ZAC	73.96	ETC	261.16	CLP	-23.89

PLANETOCENTRIC CONIC

C3	8.716	VHL	2.952	DLA	-7.55	RAL	237.54	RAD	6567.3	VEL	11.406	PTH	1.97	VHP	5.744	DPA	-48.76	RAP	239.78	ECC	1.1434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 36 15	1799.03	-7.80	16.67	86.51	117.31	7 6 14	1199.0	-4.08	9.97
90.00	16 40 41	4915.47	20.91	214.07	88.45	70.46	18 2 36	4315.5	18.05	206.56
100.00	7 53 58	1548.32	-8.58	357.82	86.09	118.74	8 19 46	948.3	-4.68	351.20
100.00	18 5 39	4641.42	21.74	193.58	88.12	68.96	19 23 0	4041.4	18.68	186.12
110.00	8 53 56	1360.58	-10.64	342.33	84.85	122.68	9 16 36	760.6	-6.26	335.98
110.00	19 22 11	4401.92	23.94	174.38	87.10	64.84	20 35 33	3801.9	20.35	167.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.0595	TRA	-.7002	TC3	1.4253	BAU	.2420	SGT 1612.6 SGR 1054.4 SG3 363.0	ST 427.9	SR 246.5	SS 460.0
RDE	-.0959	RRA	.2715	RC3	-1.5098	FAU	.05697	RRT -.8823 RRF .9483 RTF -.9095	CRT -.8318	CRS -.0935	CST .6237
FDE	.2781	FRA	1.2717	FC3	-5.6588	BSP	6128	SGB 1926.8 R23 -.1804 R13 .9438	LSA 581.0	MSA 342.7	SSA 20.9
BDE	.1128	BRA	.7510	BC3	2.0764	FSP	-1077	SG1 1879.1 SG2 425.9 THA 148.19	EL1 478.4	EL2 122.4	ALF 152.44

LAUNCH DATE AUG 15 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 311.790

RL	151.51	LAL	.00	LOL	321.76	VL	26.608	GAL	-.22	AZL	88.32	HCA	135.11	SMA	127.14	ECC	.19177	INC	1.6844	V1	29.407
RP	107.60	LAP	1.19	LOP	96.89	VP	37.721	GAP	-6.67	AZP	91.19	TAL	180.95	TAP	316.06	RCA	102.75	APO	151.52	V2	35.218
RC	56.533	GL	15.52	GP	-31.00	ZAL	85.85	ZAP	40.04	ETS	41.72	ZAE	138.57	ETE	312.39	ZAC	71.05	ETC	261.05	CLP	-26.73

PLANETOCENTRIC CONIC

C3	8.543	VHL	2.923	DLA	-4.16	RAL	237.37	RAD	6567.3	VEL	11.399	PTH	1.97	VHP	5.548	DPA	-51.69	RAP	238.93	ECC	1.1406		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 9 43	1902.21	-10.97	22.59	86.21	116.27	6 41 25	1302.2	-7.35	15.78
90.00	17 5 51	4804.69	18.22	207.05	87.28	67.95	18 25 55	4204.7	15.07	199.79
100.00	7 29 6	1646.10	-11.73	3.37	85.81	117.69	7 56 32	1046.1	-7.93	356.64
100.00	18 29 8	4536.03	19.01	186.94	86.93	66.49	19 44 44	3936.0	15.67	179.74
110.00	8 32 53	1446.45	-13.75	347.04	84.64	121.61	8 56 59	846.5	-9.47	340.55
110.00	19 41 51	4308.44	21.11	168.60	85.86	62.47	20 53 40	3708.4	17.26	161.59

DIFFERENTIAL CORRECTIONS

TDE	.0229	TRA	-.6883	TC3	1.4293	BAU	.2577	SGT	1590.6	SGR	1200.5	SG3	388.1	ST	409.1	SR	207.1	SS	556.6
RDE	-.0414	RRA	.3191	RC3	-1.7456	FAU	.05942	RRT	-.8927	RRF	.9631	RTF	-.9105	CRT	-.9531	CRS	-.3564	CST	.6091
FDE	.4265	FRA	1.3549	FC3	-6.0217	BSP	6278	SGB	1992.8	R23	-.1796	R13	.9529	LSA	641.1	MSA	329.7	SSA	19.3
BDE	.0473	BRA	.7586	BC3	2.2561	FSP	-1151	SG1	1942.9	SG2	442.9	THA	143.86	EL1	455.0	EL2	56.4	ALF	153.81

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 15 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 318.429

RL	151.51	LAL	.00	LOL	321.76	VL	26.669	GAL	-.32	AZL	87.94	HCA	138.34	SMA	127.53	ECC	.18809	INC	2.0561	V1	29.407		
RP	107.58	LAP	1.37	LOP	100.12	VP	37.771	GAP	-6.07	AZP	91.54	TAL	181.40	TAP	319.74	RCA	103.55	APO	151.52	V2	35.225		
RC	58.419	GL	19.13	GP	-34.31	ZAL	86.76	ZAP	44.17	ETS	40.54	ZAE	136.30	ETE	308.80	ZAC	67.77	ETC	260.84	CLP	-29.74		

PLANETOCENTRIC CONIC

C3	8.522	VHL	2.919	DLA	-.45	RAL	237.36	RAD	6567.3	VEL	11.398	PTH	1.97	VHP	5.396	DPA	-54.89	RAP	237.49	ECC	1.1402		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 42 5	2016.96	-14.34	29.34	86.51	114.68	6 15 42	1417.0	-10.89	22.36
90.00	17 33 26	4688.98	15.12	199.97	86.63	65.77	18 51 35	4089.0	11.73	192.94
100.00	7 3 13	1755.26	-15.10	9.72	86.14	116.11	7 32 29	1155.3	-11.47	2.81
100.00	18 54 59	4425.92	15.89	180.26	86.26	64.34	20 8 45	3825.9	12.31	173.30
110.00	8 10 59	1543.14	-17.13	352.49	85.01	120.04	8 36 42	943.1	-13.01	345.81
110.00	20 3 43	4210.80	17.93	162.81	85.15	60.40	21 13 53	3610.8	13.85	156.07

DIFFERENTIAL CORRECTIONS

TDE	-.0058	TRA	-.6731	TC3	1.4034	BAU	.2777	SGT	1554.7	SGR	1378.7	SG3	410.8	ST	397.3	SR	229.1	SS	665.8
RDE	.0239	RRA	.3762	RC3	-1.9927	FAU	.06165	RRT	-.9001	RRF	.9742	RTF	-.9101	CRT	-.9799	CRS	-.7478	CST	.6174
FDE	.5842	FRA	1.4336	FC3	-6.2625	BSP	6482	SGB	2078.0	R23	-.1712	R13	.9620	LSA	746.2	MSA	310.5	SSA	17.1
BDE	.0246	BRA	.7711	BC3	2.4373	FSP	-1217	SG1	2026.2	SG2	461.0	THA	138.81	EL1	456.9	EL2	39.8	ALF	150.29

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 15 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 325.046

RL	151.51	LAL	.00	LOL	321.76	VL	26.723	GAL	-.41	AZL	87.52	HCA	141.57	SMA	127.89	ECC	.18485	INC	2.4783	V1	29.407		
RP	107.56	LAP	1.54	LOP	103.36	VP	37.815	GAP	-5.48	AZP	91.94	TAL	181.81	TAP	323.38	RCA	104.25	APO	151.53	V2	35.232		
RC	60.358	GL	23.09	GP	-37.99	ZAL	87.58	ZAP	48.59	ETS	39.28	ZAE	133.74	ETE	304.98	ZAC	64.11	ETC	260.51	CLP	-32.93		

PLANETOCENTRIC CONIC

C3	8.679	VHL	2.946	DLA	3.57	RAL	237.55	RAD	6567.3	VEL	11.405	PTH	1.97	VHP	5.296	DPA	-58.36	RAP	235.28	ECC	1.1428		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 12 56	2145.32	-17.83	37.14	87.54	112.37	5 48 41	1545.3	-14.64	29.92
90.00	18 4 4	4567.55	11.61	192.79	86.62	63.99	19 20 11	3967.6	8.02	185.95
100.00	6 35 57	1877.56	-18.62	17.10	87.19	113.82	7 7 14	1277.6	-15.24	9.93
100.00	19 23 44	4310.54	12.38	173.49	86.22	62.57	20 35 34	3710.5	8.60	166.74
110.00	7 48 1	1651.97	-20.72	358.89	86.11	117.82	8 15 33	1052.0	-16.83	351.92
110.00	20 28 9	4108.90	14.41	157.01	85.05	58.66	21 36 38	3508.9	10.15	150.50

DIFFERENTIAL CORRECTIONS

TDE	-.0353	TRA	-.6546	TC3	1.3144	BAU	.2990	SGT	1493.8	SGR	1581.9	SG3	426.6	ST	389.5	SR	338.5	SS	793.3
RDE	.1096	RRA	.4449	RC3	-2.2165	FAU	.06272	RRT	-.9021	RRF	.9819	RTF	-.9072	CRT	-.8727	CRS	-.9380	CST	.6533
FDE	.7664	FRA	1.5026	FC3	-6.2563	BSP	6811	SGB	2175.7	R23	-.1555	R13	.9708	LSA	901.4	MSA	287.9	SSA	14.6
BDE	.1152	BRA	.7914	BC3	2.5769	FSP	-1280	SG1	2122.0	SG2	480.5	THA	133.18	EL1	499.7	EL2	128.8	ALF	139.58

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 15 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 331.641

RL	151.51	LAL	.00	LOL	321.76	VL	26.771	GAL	-.48	AZL	87.03	HCA	144.80	SMA	128.20	ECC	.18201	INC	2.9654	V1	29.407		
RP	107.54	LAP	1.71	LOP	106.60	VP	37.854	GAP	-4.92	AZP	92.42	TAL	182.17	TAP	326.98	RCA	104.87	APO	151.54	V2	35.238		
RC	62.346	GL	27.39	GP	-42.04	ZAL	88.29	ZAP	53.24	ETS	37.83	ZAE	130.82	ETE	300.96	ZAC	60.07	ETC	260.03	CLP	-36.31		

PLANETOCENTRIC CONIC

C3	9.059	VHL	3.010	DLA	7.90	RAL	237.94	RAD	6567.3	VEL	11.421	PTH	1.98	VHP	5.259	DPA	-62.08	RAP	232.00	ECC	1.1491		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 41 30	2290.13	-21.33	46.32	89.45	109.08	5 19 40	1690.1	-18.53	38.77
90.00	18 38 38	4439.17	7.68	185.40	87.36	62.66	19 52 37	3839.2	3.96	178.70
100.00	6 6 39	2015.48	-22.17	25.80	89.12	110.58	6 40 15	1415.5	-19.17	18.29
100.00	19 56 10	4189.05	8.47	166.58	86.93	61.23	21 5 59	3589.0	4.57	159.97
110.00	7 23 36	1774.70	-24.42	6.50	88.10	114.70	7 53 10	1174.7	-20.88	359.14
110.00	20 55 43	4002.60	10.57	151.17	85.67	57.30	22 2 25	3402.6	6.18	144.83

DIFFERENTIAL CORRECTIONS

TDE	-.0587	TRA	-.6369	TC3	1.1654	BAU	.3222	SGT	1415.3	SGR	1814.4	SG3	434.2	ST	384.4	SR	520.2	SS	926.6
RDE	.2196	RRA	.5318	RC3	-2.3917	FAU	.06234	RRT	-.8987	RRF	.9874	RTF	-.9006	CRT	-.8010	CRS	-.9846	CST	.6860
FDE	.9588	FRA	1.5668	FC3	-5.9577	BSP	7168	SGB	2301.1	R23	-.1353	R13	.9785	LSA	1097.0	MSA	271.0	SSA	12.1
BDE	.2273	BRA	.8298	BC3	2.6605	FSP	-1310	SG1	2245.8	SG2	501.5	THA	127.20	EL1	617.0	EL2	194.0	ALF	124.51

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 15 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 338.214

RL 151.51 LAL .00 LOL 321.76 VL 26.812 GAL -.54 AZL 86.46 HCA 148.03 SMA 128.47 ECC .17955 INC 3.5373 V1 29.407
RP 107.53 LAP 1.87 LOP 109.85 VP 37.888 GAP -4.37 AZP 93.00 TAL 182.48 TAP 330.52 RCA 105.41 APO 151.54 V2 35.243
RC 64.375 GL 32.01 GP -46.46 ZAL 88.87 ZAP 58.08 ETS 36.10 ZAE 127.48 ETE 296.82 ZAC 55.65 ETC 259.33 CLP -39.87

PLANETOCENTRIC CONIC

C3 9.737 VHL 3.120 DLA 12.51 RAL 238.56 RAD 6567.4 VEL 11.451 PTH 1.99 VHP 5.298 DPA -65.96 RAP 227.16 ECC 1.1603

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 6 32	2455.82	-24.60	57.36	92.41	104.49	4 47 28	1855.8	-22.37	49.40
90.00	19 18 34	4301.66	3.32	177.66	89.05	61.86	20 30 15	3701.7	-.47	171.02
100.00	5 34 19	2172.74	-25.55	36.25	92.13	106.07	6 10 31	1572.7	-23.10	28.31
100.00	20 33 28	4059.97	4.18	159.41	88.57	60.37	21 41 8	3460.0	.20	152.88
110.00	6 57 4	1913.81	-28.06	15.67	91.20	110.38	7 28 57	1313.8	-25.03	7.81
110.00	21 27 13	3891.67	6.43	145.25	87.18	56.35	22 32 4	3291.7	1.96	139.01

DIFFERENTIAL CORRECTIONS
TDE -.0718 TRA -.6147 TC3 .9670 BAU .3477
RDE .3608 RRA .6384 RC3-2.4896 FAU .06028
FDE 1.1488 FRA 1.6106 FC3-5.3592 BSP 7580
BDE .3679 BRA .8862 BC3 2.6708 FSP -1303

MID-COURSE EXECUTION ACCURACY
SGT 1310.7 SGR 2072.4 SG3 430.4
RRT -.8884 RRF .9911 RTF -.8881
SGB 2452.1 R23 -.1116 R13 .9850
SG1 2396.2 SG2 520.4 THA 120.95

ORBIT DETERMINATION ACCURACY
ST 371.5 SR 755.6 SS 1052.4
CRT -.7594 CRS -.9957 CST .6969
LSA 1322.6 MSA 258.9 SSA 9.9
EL1 811.3 EL2 225.1 ALF 112.28

LAUNCH DATE AUG 15 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 344.762

RL 151.51 LAL .00 LOL 321.76 VL 26.847 GAL -.59 AZL 85.78 HCA 151.26 SMA 128.71 ECC .17744 INC 4.2230 V1 29.407
RP 107.51 LAP 2.03 LOP 113.09 VP 37.917 GAP -3.84 AZP 93.70 TAL 182.74 TAP 334.00 RCA 105.87 APO 151.55 V2 35.247
RC 66.441 GL 36.91 GP -51.21 ZAL 89.31 ZAP 63.02 ETS 33.98 ZAE 123.71 ETE 292.61 ZAC 50.89 ETC 258.37 CLP -43.60

PLANETOCENTRIC CONIC

C3 10.837 VHL 3.292 DLA 17.35 RAL 239.43 RAD 6567.4 VEL 11.499 PTH 2.00 VHP 5.433 DPA -69.88 RAP 219.94 ECC 1.1784

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 25 39	2650.33	-27.21	70.99	96.60	98.15	4 9 49	2050.3	-25.80	62.61
90.00	20 6 22	4150.17	-1.57	169.20	91.95	61.72	21 15 33	3550.2	-5.34	162.55
100.00	4 57 2	2355.64	-28.36	49.11	96.40	99.87	5 36 17	1755.6	-26.70	40.70
100.00	21 17 41	3920.08	-.55	151.72	91.38	60.11	22 23 1	3320.1	-4.53	145.19
110.00	6 27 21	2073.07	-31.32	26.91	95.66	104.46	7 1 54	1473.1	-29.01	18.47
110.00	22 3 51	3775.42	2.01	139.15	89.78	55.87	23 6 47	3175.4	-2.48	132.94

DIFFERENTIAL CORRECTIONS
TDE -.0702 TRA -.5846 TC3 .7322 BAU .3742
RDE .5437 RRA .7688 RC3-2.4769 FAU .05624
FDE 1.3242 FRA 1.6243 FC3-4.4925 BSP 8111
BDE .5483 BRA .9658 BC3 2.5828 FSP -1261

MID-COURSE EXECUTION ACCURACY
SGT 1176.3 SGR 2349.5 SG3 412.9
RRT -.8670 RRF .9937 RTF -.8655
SGB 2627.5 R23 -.0864 R13 .9900
SG1 2572.4 SG2 535.4 THA 114.60

ORBIT DETERMINATION ACCURACY
ST 342.7 SR 1036.8 SS 1160.3
CRT -.7061 CRS -.9987 CST .6696
LSA 1573.6 MSA 249.5 SSA 7.9
EL1 1066.1 EL2 236.0 ALF 103.83

LAUNCH DATE AUG 15 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 351.283

RL 151.51 LAL .00 LOL 321.76 VL 26.877 GAL -.62 AZL 84.93 HCA 154.48 SMA 128.91 ECC .17564 INC 5.0661 V1 29.407
RP 107.50 LAP 2.18 LOP 116.33 VP 37.942 GAP -3.32 AZP 94.57 TAL 182.92 TAP 337.41 RCA 106.27 APO 151.55 V2 35.251
RC 68.539 GL 42.01 GP -56.24 ZAL 89.62 ZAP 67.93 ETS 31.37 ZAE 119.49 ETE 288.37 ZAC 45.85 ETC 257.02 CLP -47.46

PLANETOCENTRIC CONIC

C3 12.573 VHL 3.546 DLA 22.35 RAL 240.56 RAD 6567.5 VEL 11.574 PTH 2.02 VHP 5.692 DPA -73.58 RAP 208.90 ECC 1.2069

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 33 6	2892.03	-28.31	88.55	102.00	89.44	3 21 18	2292.0	-28.09	79.89
90.00	21 7 55	3970.55	-7.30	159.11	96.54	62.56	22 14 6	3370.6	-10.92	152.30
100.00	4 10 41	2577.38	-29.86	65.39	101.99	91.45	4 53 39	1977.4	-29.34	56.62
100.00	22 13 1	3760.43	-5.94	142.93	95.80	60.65	23 15 42	3160.4	-9.81	136.28
110.00	5 52 28	2258.97	-33.63	40.90	101.68	96.50	6 30 7	1659.0	-32.37	31.89
110.00	22 47 44	3651.62	-2.72	132.69	95.80	55.91	23 48 35	3051.6	-7.18	126.44

DIFFERENTIAL CORRECTIONS
TDE -.0437 TRA -.5458 TC3 .4827 BAU .3997
RDE .7793 RRA .9323 RC3-2.3283 FAU .05014
FDE 1.4654 FRA 1.6079 FC3-3.4526 BSP 8714
BDE .7805 BRA 1.0804 BC3 2.3778 FSP -1175

MID-COURSE EXECUTION ACCURACY
SGT 1015.7 SGR 2639.1 SG3 381.5
RRT -.8235 RRF .9955 RTF -.8216
SGB 2827.8 R23 -.0620 R13 .9936
SG1 2774.2 SG2 548.1 THA 108.33

ORBIT DETERMINATION ACCURACY
ST 294.9 SR 1351.6 SS 1236.7
CRT -.5752 CRS -.9996 CST .5518
LSA 1839.4 MSA 243.7 SSA 6.3
EL1 1362.5 EL2 239.3 ALF 97.38

LAUNCH DATE AUG 15 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 357.777

RL 151.51 LAL .00 LOL 321.76 VL 26.902 GAL -.64 AZL 83.87 HCA 157.70 SMA 129.08 ECC .17414 INC 6.1347 V1 29.407
RP 107.49 LAP 2.32 LOP 119.58 VP 37.962 GAP -2.82 AZP 95.68 TAL 183.05 TAP 340.75 RCA 106.60 APO 151.56 V2 35.254
RC 70.666 GL 47.24 GP -61.52 ZAL 89.79 ZAP 72.67 ETS 28.19 ZAE 114.84 ETE 284.12 ZAC 40.57 ETC 255.15 CLP -51.36

PLANETOCENTRIC CONIC

C3 15.333 VHL 3.916 DLA 27.42 RAL 241.95 RAD 6567.6 VEL 11.693 PTH 2.06 VHP 6.119 DPA -76.59 RAP 191.88 ECC 1.2523

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 0 38	3270.80	-25.04	115.66	107.51	76.33	1 55 8	2670.8	-26.68	107.38
90.00	22 51 31	3678.85	-15.95	142.06	104.23	66.29	23 52 50	3078.8	-19.02	134.73
100.00	3 1 12	2882.12	-28.25	87.82	108.27	79.81	3 49 14	2282.1	-29.37	79.20
100.00	23 33 38	3542.76	-12.99	130.61	102.78	62.84	24 32 41	2942.8	-16.52	123.61
110.00	5 7 59	2485.35	-33.99	58.52	109.10	86.10	5 49 24	1885.4	-34.15	49.28
110.00	23 43 20	3512.29	-7.99	125.35	99.82	56.65	24 41 52	2912.3	-12.33	118.93

DIFFERENTIAL CORRECTIONS
TDE .0252 TRA -.4889 TC3 .2487 BAU .4212
RDE 1.0784 RRA 1.1347 RC3-2.0398 FAU .04227
FDE 1.5507 FRA 1.5510 FC3-2.3868 BSP 9361
BDE 1.0787 BRA 1.2356 BC3 2.0549 FSP -1047

MID-COURSE EXECUTION ACCURACY
SGT 829.9 SGR 2922.4 SG3 336.6
RRT -.7258 RRF .9967 RTF -.7240
SGB 3038.0 R23 -.0391 R13 .9960
SG1 2986.1 SG2 558.7 THA 102.08

ORBIT DETERMINATION ACCURACY
ST 244.6 SR 1675.4 SS 1266.6
CRT -.1898 CRS -.9999 CST .1743
LSA 2100.7 MSA 240.9 SSA 4.9
EL1 1676.1 EL2 240.1 ALF 91.62

LAUNCH DATE AUG 15 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 364.239

RL	151.51	LAL	.00	LOL	321.76	VL	26.922	GAL	-.65	AZL	82.46	HCA	160.91	SMA	129.21	ECC	.17292	INC	7.5425	V1	29.407		
RP	107.48	LAP	2.46	LOP	122.83	VP	37.979	GAP	-2.34	AZP	97.13	TAL	183.09	TAP	344.01	RCA	106.87	APO	151.56	V2	35.256		
RC	72.818	GL	52.44	GP	-67.01	ZAL	89.85	ZAP	77.09	ETS	24.34	ZAE	109.78	ETE	279.80	ZAC	35.12	ETC	252.47	CLP	-55.10		

PLANETOCENTRIC CONIC

C3	19.871	VHL	4.458	DLA	32.42	RAL	243.61	RAD	6567.8	VEL	11.885	PTH	2.11	VHP	6.784	DPA	-78.15	RAP	167.58	ECC	1.3270		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.52	21 53 18	3942.62	-22.36	164.56	113.25	65.90	22 59 1	3342.6	-25.43	156.89
106.48	2 12 4	3127.11	-22.35	104.08	113.24	65.89	3 4 11	2527.1	-25.42	96.41
73.52	21 53 18	3942.62	-22.36	164.56	113.25	65.90	22 59 1	3342.6	-25.43	156.89
106.48	2 12 4	3127.11	-22.35	104.08	113.24	65.89	3 4 11	2527.1	-25.42	96.41
110.00	3 57 3	2803.14	-29.92	82.31	116.43	72.65	4 43 46	2203.1	-32.00	73.71
110.00	1 11 26	3314.59	-15.19	114.55	109.30	59.00	2 6 41	2714.6	-19.18	107.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1544	TRA	-.4120	TC3	.0453	BAU	.4269	SGT	659.2	SGR	3206.6	SG3	284.5	ST	273.5	SR	2007.4	SS	1261.9
RDE	1.4787	RRA	1.4116	RC3	-1.6063	FAU	.03252	RRT	-.4869	RRF	.9975	RTF	-.4875	CRT	.4657	CRS	-1.0000	CST	-.4727
FDE	1.5901	FRA	1.4789	FC3	-1.4167	BSP	9612	SGB	3273.7	R23	-.0162	R13	.9974	LSA	2374.5	MSA	241.5	SSA	3.9
BDE	1.4867	BRA	1.4705	BC3	1.6069	FSP	-854	SG1	3223.1	SG2	572.9	THA	95.90	EL1	2011.5	EL2	241.5	ALF	86.32

LAUNCH DATE AUG 15 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 370.661

RL	151.51	LAL	.00	LOL	321.76	VL	26.938	GAL	-.64	AZL	80.51	HCA	164.11	SMA	129.32	ECC	.17194	INC	9.4934	V1	29.407		
RP	107.48	LAP	2.59	LOP	126.08	VP	37.991	GAP	-1.87	AZP	99.14	TAL	183.07	TAP	347.17	RCA	107.09	APO	151.56	V2	35.258		
RC	74.992	GL	57.43	GP	-72.73	ZAL	89.82	ZAP	81.01	ETS	19.70	ZAE	104.29	ETE	275.27	ZAC	29.48	ETC	248.44	CLP	-58.26		

PLANETOCENTRIC CONIC

C3	27.790	VHL	5.272	DLA	37.17	RAL	245.48	RAD	6568.1	VEL	12.213	PTH	2.19	VHP	7.815	DPA	-77.50	RAP	140.37	ECC	1.4574		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.84	21 9 52	4178.72	-22.67	183.28	122.07	59.72	22 19 30	3578.7	-26.52	175.98
115.16	3 10 26	3054.70	-22.66	98.57	122.06	59.71	4 1 20	2454.7	-26.51	91.27
64.84	21 9 52	4178.72	-22.67	183.28	122.07	59.72	22 19 30	3578.7	-26.52	175.98
115.16	3 10 26	3054.70	-22.66	98.57	122.06	59.71	4 1 20	2454.7	-26.51	91.27
64.84	21 9 52	4178.72	-22.67	183.28	122.07	59.72	22 19 30	3578.7	-26.52	175.98
115.16	3 10 26	3054.70	-22.66	98.57	122.06	59.71	4 1 20	2454.7	-26.51	91.27

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4165	TRA	-.2711	TC3	-.0619	BAU	.4271	SGT	588.2	SGR	3430.3	SG3	225.9	ST	466.1	SR	2258.4	SS	1193.5
RDE	1.9700	RRA	1.7530	RC3	-1.1480	FAU	.02338	RRT	.0813	RRF	.9980	RTF	.0811	CRT	.8453	CRS	-1.0000	CST	-.8472
FDE	1.5438	FRA	1.3581	FC3	-.7285	BSP	10478	SGB	3480.4	R23	.0025	R13	.9980	LSA	2584.9	MSA	245.8	SSA	3.2
BDE	2.0136	BRA	1.7739	BC3	1.1496	FSP	-701	SG1	3430.6	SG2	586.2	THA	89.18	EL1	2292.9	EL2	245.3	ALF	79.99

LAUNCH DATE AUG 15 1970 FLIGHT TIME 138.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 377.032

RL	151.51	LAL	.00	LOL	321.76	VL	26.949	GAL	-.61	AZL	77.61	HCA	167.28	SMA	129.40	ECC	.17119	INC	12.3906	V1	29.407		
RP	107.48	LAP	2.71	LOP	129.33	VP	38.000	GAP	-1.43	AZP	102.10	TAL	182.95	TAP	350.22	RCA	107.25	APO	151.55	V2	35.259		
RC	77.186	GL	61.92	GP	-78.81	ZAL	89.74	ZAP	84.31	ETS	13.84	ZAE	98.27	ETE	270.05	ZAC	23.63	ETC	241.61	CLP	-59.29		

PLANETOCENTRIC CONIC

C3	42.952	VHL	6.554	DLA	41.40	RAL	247.44	RAD	6568.6	VEL	12.819	PTH	2.33	VHP	9.462	DPA	-74.67	RAP	117.62	ECC	1.7069		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.44	20 47 22	4374.93	-20.62	198.23	132.20	53.27	22 0 17	3774.9	-25.25	191.57
121.56	3 48 35	3077.77	-20.60	99.03	132.18	53.26	4 39 53	2477.8	-25.24	92.37
58.44	20 47 22	4374.93	-20.62	198.23	132.20	53.27	22 0 17	3774.9	-25.25	191.57
121.56	3 48 35	3077.77	-20.60	99.03	132.18	53.26	4 39 53	2477.8	-25.24	92.37
58.44	20 47 22	4374.93	-20.62	198.23	132.20	53.27	22 0 17	3774.9	-25.25	191.57
121.56	3 48 35	3077.77	-20.60	99.03	132.18	53.26	4 39 53	2477.8	-25.24	92.37

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9395	TRA	-.0054	TC3	-.1012	BAU	.3900	SGT	832.0	SGR	3572.5	SG3	169.5	ST	821.3	SR	2411.0	SS	1102.2
RDE	2.6087	RRA	2.2353	RC3	-.6717	FAU	.01417	RRT	.6640	RRF	.9984	RTF	.6676	CRT	.9452	CRS	-1.0000	CST	-.9465
FDE	1.4608	FRA	1.2364	FC3	-.2856	BSP	11182	SGB	3668.1	R23	.0207	R13	.9982	LSA	2763.4	MSA	256.7	SSA	2.6
BDE	2.7727	BRA	2.2353	BC3	.6792	FSP	-538	SG1	3616.2	SG2	614.6	THA	80.95	EL1	2534.2	EL2	255.0	ALF	71.96

LAUNCH DATE AUG 15 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 383.324

RL	151.51	LAL	.00	LOL	321.76	VL	26.957	GAL	-.56	AZL	72.85	HCA	170.39	SMA	129.46	ECC	.17065	INC	17.1483	V1	29.407		
RP	107.48	LAP	2.82	LOP	132.57	VP	38.006	GAP	-1.00	AZP	106.92	TAL	182.71	TAP	353.10	RCA	107.36	APO	151.55	V2	35.259		
RC	79.396	GL	65.35	GP	-85.43	ZAL	89.65	ZAP	86.87	ETS	3.31	ZAE	91.33	ETE	260.56	ZAC	17.43	ETC	225.54	CLP	-46.64		

PLANETOCENTRIC CONIC

C3	76.473	VHL	8.745	DLA	44.59	RAL	249.16	RAD	6569.5	VEL	14.065	PTH	2.56	VHP	12.293	DPA	-70.01	RAP	100.62	ECC	2.2585		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.00	20 36 6	4564.58	-15.64	210.75	142.67	47.69	21 52 10	3964.6	-20.93	204.84
126.00	4 13 35	3169.67	-15.63	102.86	142.66	47.69	5 6 25	2569.7	-20.92	96.95
54.00	20 36 6	4564.58	-15.64	210.75	142.67	47.69	21 52 10	3964.6	-20.93	204.84
126.00	4 13 35	3169.67	-15.63	102.86	142.66	47.69	5 6 25	2569.7	-20.92	96.95
54.00	20 36 6	4564.58	-15.64	210.75	142.67	47.69	21 52 10	3964.6	-20.93	204.84
126.00	4 13 35	3169.67	-15.63	102.86	142.66	47.69	5 6 25	2569.7	-20.92	96.95

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.4743	TRA	.8557	TC3	-.0817	BAU	.2661	SGT	1807.8	SGR	3372.5	SG3	121.0	ST	1638.3	SR	2186.2	SS	1024.0
RDE	3.1076	RRA	2.8842	RC3	-.2471	FAU	.00521	RRT	.8941	RRF	.9970	RTF	.9180	CRT	.9741	CRS	-.9993	CST	-.9818
FDE	1.3892	FRA	1.1517	FC3	-.0589	BSP	11860	SGB	3826.5	R23	.0375	R13	.9980	LSA	2901.9	MSA	301.2	SSA	2.1
BDE	3.9724	BRA	3.0085	BC3	.2602	FSP	-394	SG1	3756.8	SG2	726.7	THA	63.31	EL1	2715.6	EL2	298.2	ALF	53.36

LAUNCH DATE AUG 15 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 389.455

RL	151.51	LAL	.00	LOL	321.76	VL	26.962	GAL	-.47	AZL	63.73	HCA	173.38	SMA	129.49	ECC	.17029	INC	26.2717
RP	107.48	LAP	2.92	LOP	135.83	VP	38.008	GAP	-.63	AZP	116.12	TAL	182.28	TAP	355.66	RCA	107.44	APO	151.54
RC	81.621	GL	66.34	GP	-84.50	ZAL	89.58	ZAP	88.59	ETS	202.96	ZAE	82.33	ETE	101.41	ZAC	11.27	ETC	41.88

V1	29.407	V2	35.258	CLP	75.17														

PLANETOCENTRIC CONIC

C3	169.765	VHL	13.029	DLA	45.49	RAL	249.75	RAD	6570.8	VEL	17.061	PTH	2.93	VHP	17.836	DPA	-62.89	RAP	86.89
ECC	3.7939																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.78	20 33 51	4738.07	-8.24	219.49	151.58	45.10	21 52 49	4138.1	-13.83	214.08
127.22	4 20 31	3319.27	-8.23	109.41	151.57	45.10	5 15 51	2719.3	-13.82	104.00
52.78	20 33 51	4738.07	-8.24	219.49	151.58	45.10	21 52 49	4138.1	-13.83	214.08
127.22	4 20 31	3319.27	-8.23	109.41	151.57	45.10	5 15 51	2719.3	-13.82	104.00
52.78	20 33 51	4738.07	-8.24	219.49	151.58	45.10	21 52 49	4138.1	-13.83	214.08
127.22	4 20 31	3319.27	-8.23	109.41	151.57	45.10	5 15 51	2719.3	-13.82	104.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.6875	TRA	1.6748	TC3	.0002	BAU	.1415	SGT	1093.1	SGR	3778.9	SG3	85.2	ST	436.7	SR	2812.5
RDE	-6.1370	RRA	-4.2091	RC3	-.0623	FAU	-.00551	RRT	-.8689	RRF	-.9952	RTF	.9094	CRT	-.8675	CRS	.9985
FDE	1.4458	FRA	1.1959	FC3	.0281	BSP	12007	SGB	3933.8	R23	-.0560	R13	-.9977	LSA	3022.1	MSA	219.6
BDE	6.1754	BRA	4.5301	BC3	.0623	FSP	-274	SG1	3898.7	SG2	524.4	THA	104.38	EL1	2838.1	EL2	215.3

SS	1039.3	CST	-.8934	SSA	1.6	ALF	97.72										

LAUNCH DATE AUG 15 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 395.104

RL	151.51	LAL	.00	LOL	321.76	VL	26.963	GAL	-.28	AZL	41.66	HCA	175.96	SMA	129.49	ECC	.17010	INC	48.3418
RP	107.48	LAP	3.02	LOP	139.08	VP	38.008	GAP	-.39	AZP	138.27	TAL	181.37	TAP	357.33	RCA	107.47	APO	151.52
RC	83.861	GL	60.31	GP	-69.70	ZAL	89.55	ZAP	89.46	ETS	187.77	ZAE	67.27	ETE	86.96	ZAC	14.19	ETC	318.79

V1	29.407	V2	35.256	CLP	88.45												

PLANETOCENTRIC CONIC

C3	537.699	VHL	23.188	DLA	39.82	RAL	246.99	RAD	6572.4	VEL	25.671	PTH	3.36	VHP	30.966	DPA	-49.55	RAP	73.91
ECC	9.8492																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.75	20 55 52	4787.26	-1.37	217.54	155.36	50.20	22 15 39	4187.3	-6.47	211.78
119.25	3 36 27	3547.85	-1.35	123.28	155.35	50.20	4 35 35	2947.9	-6.46	117.52
60.75	20 55 52	4787.26	-1.37	217.54	155.36	50.20	22 15 39	4187.3	-6.47	211.78
119.25	3 36 27	3547.85	-1.35	123.28	155.35	50.20	4 35 35	2947.9	-6.46	117.52
60.75	20 55 52	4787.26	-1.37	217.54	155.36	50.20	22 15 39	4187.3	-6.47	211.78
119.25	3 36 27	3547.85	-1.35	123.28	155.35	50.20	4 35 35	2947.9	-6.46	117.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.0882	TRA	.0351	TC3	-.0606	BAU	1.7160	SGT	813.3	SGR	3745.1	SG3	64.6	ST	763.1	SR	2609.4
RD	-10.0835	RRA	-8.0295	RC3	-.2309	FAU	-.03028	RRT	.7134	RRF	-.9989	RTF	-.6862	CRT	.9536	CRS	.9997
FDE	1.9068	FRA	1.6607	FC3	.0488	BSP	11600	SGB	3832.4	R23	-.0613	R13	-.9978	LSA	3018.7	MSA	229.0
BDE	10.5458	BRA	8.0296	BC3	.2387	FSP	-205	SG1	3790.9	SG2	563.0	THA	80.99	EL1	2709.7	EL2	221.3

CST	-.9453	SSA	1.5	ALF	74.31												

LAUNCH DATE AUG 15 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 405.830

RL	151.51	LAL	.00	LOL	321.76	VL	26.961	GAL	-1.04	AZL	169.70	HCA	183.15	SMA	129.48	ECC	.17107	INC	79.6973
RP	107.49	LAP	3.10	LOP	142.33	VP	38.005	GAP	1.19	AZP	10.32	TAL	185.04	TAP	8.19	RCA	107.33	APO	151.63
RC	86.111	GL	-47.17	GP	53.47	ZAL	90.27	ZAP	90.92	ETS	183.86	ZAE	56.71	ETE	283.18	ZAC	132.76	ETC	285.91

V1	29.407	V2	35.254	CLP	91.55												

PLANETOCENTRIC CONIC

C3	1307.816	VHL	36.164	DLA	-62.14	RAL	204.72	RAD	6573.1	VEL	37.803	PTH	3.54	VHP	46.300	DPA	65.58	RAP	16.49
ECC	22.5233																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.06	4 34 28	2417.22	-1.03	73.35	115.25	152.14	5 14 46	1817.2	6.04	70.02
147.94	14 20 35	726.29	-1.02	293.51	115.27	152.14	14 32 42	126.3	6.05	290.17
32.06	4 34 28	2417.22	-1.03	73.35	115.25	152.14	5 14 46	1817.2	6.04	70.02
147.94	14 20 35	726.29	-1.02	293.51	115.27	152.14	14 32 42	126.3	6.05	290.17
32.06	4 34 28	2417.22	-1.03	73.35	115.25	152.14	5 14 46	1817.2	6.04	70.02
147.94	14 20 35	726.29	-1.02	293.51	115.27	152.14	14 32 42	126.3	6.05	290.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	7.1461	TRA	1.7526	TC3	-.1224	BAU	4.6009	SGT	1555.3	SGR	3056.3	SG3	61.2	ST	1146.4	SR	2550.5
RD	-16.0947	RRA	-.0253	RC3	.2329	FAU	-.07790	RRT	-.9223	RRF	.9995	RTF	-.9246	CRT	-.9880	CRS	-1.0000
FDE	-3.8008	FRA	-.0333	FC3	.0516	BSP	10727	SGB	3429.3	R23	-.0701	R13	.9970	LSA	3687.3	MSA	166.4
BDE	17.6099	BRA	1.7528	BC3	.2631	FSP	-197	SG1	3386.0	SG2	542.7	THA	115.85	EL1	2791.6	EL2	161.9

SS	2409.4	CST	.9887	SSA	2.4	ALF	114.03										

LAUNCH DATE AUG 15 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 410.597

RL	151.51	LAL	.00	LOL	321.76	VL	26.957	GAL	-.67	AZL	129.80	HCA	184.96	SMA	129.45	ECC	.17080	INC	39.8019
RP	107.50	LAP	3.17	LOP	145.58	VP	37.999	GAP	1.19	AZP	50.30	TAL	183.25	TAP	8.21	RCA	107.34	APO	151.56
RC	88.372	GL	-63.25	GP	76.76	ZAL	90.00	ZAP	91.73	ETS	186.03	ZAE	79.81	ETE	282.71	ZAC	154.71	ETC	297.99

V1	29.407	V2	35.251	CLP	97.57												

PLANETOCENTRIC CONIC

C3	373.357	VHL	19.322	DLA	-73.73	RAL	173.67	RAD	6572.0	VEL	22.241	PTH	3.25	VHP	24.289	DPA	74.71	RAP	307.15
ECC	7.1445																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.56	2 0 43	2378.01	4.17	79.25	82.44	163.68	2 40 21	1778.0	11.84	77.38
161.44	12 46 39	603.88	4.17	284.76	82.46	163.68	12 56 43	3.9	11.85	282.89
18.56	2 0 43	2378.01	4.17	79.25	82.44	163.68	2 40 21	1778.0	11.84	77.38
161.44	12 46 39	603.88	4.17	284.76	82.46	163.68	12 56 43	3.9	11.85	282.89
18.56	2 0 43	2378.01	4.17	79.25	82.44	163.68	2 40 21	1778.0	11.84	77.38
161.44	12 46 39	603.88	4.17	284.76	82.46	163.68	12 56 43	3.9	11.85	282.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.0774	TRA	1.3524	TC3	-.0959	BAU	1.1342	SGT	1909.8	SGR	3683.5	SG3	76.4	ST	1283.1	SR	3009.8
RDE	-9.9329	RRA	-1.9501	RC3	.2060	FAU	-.01817	RRT	-.9680	RRF	.9995	RTF	-.9672	CRT	-.9910	CRS	-1.0000
FDE	-2.4074	FRA	-.4695	FC3	.0421	BSP	12862	SGB	4149.1	R23	-.0537	R13	.9980	LSA	3608.6	MSA	160.8
BDE	10.7372	BRA	2.3732	BC3	.2272	FSP	-240	SG1	4127.0	SG2	427.7	THA	116.96	EL1	3268.1	EL2	157.9

SS	1530.5	CST	.9908	SSA	1.8	ALF	112.96										

LAUNCH DATE AUG 15 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 416.439

RL	151.51	LAL	.00	LOL	321.76	VL	26.950	GAL	-.49	AZL	114.69	HCA	187.77	SMA	129.40	ECC	.17107	INC	24.6877	V1	29.407
RP	107.51	LAP	3.24	LOP	148.83	VP	37.990	GAP	1.48	AZP	65.51	TAL	182.39	TAP	10.16	RCA	107.27	APO	151.54	V2	35.247
RC	90.641	GL	-66.39	GP	86.23	ZAL	89.61	ZAP	93.44	ETS	175.63	ZAE	91.26	ETE	271.22	ZAC	163.81	ETC	305.82	CLP	155.72

PLANETOCENTRIC CONIC

C3	150.899	VHL	12.284	DLA	-75.35	RAL	163.45	RAD	6570.6	VEL	16.499	PTH	2.87	VHP	15.153	DPA	68.83	RAP	273.21	ECC	3.4834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.70	1 16 9	2254.87	12.55	78.60	70.10	164.98	1 53 44	1654.9	20.27	76.81
163.30	12 9 41	5761.33	12.56	260.15	70.12	164.98	13 45 42	5161.3	20.27	258.36
16.70	1 16 9	2254.87	12.55	78.60	70.10	164.98	1 53 44	1654.9	20.27	76.81
163.30	12 9 41	5761.33	12.56	260.15	70.12	164.98	13 45 42	5161.3	20.27	258.36
16.70	1 16 9	2254.87	12.55	78.60	70.10	164.98	1 53 44	1654.9	20.27	76.81
163.30	12 9 41	5761.33	12.56	260.15	70.12	164.98	13 45 42	5161.3	20.27	258.36

DIFFERENTIAL CORRECTIONS

TDE	3.3320	TRA	.8320	TC3	-.0060	BAU	.0872
RDE	-5.1977	RRA	-1.5712	RC3	.0428	FAU	.00097
FDE	-1.8738	FRA	-.4787	FC3	-.0055	BSP	13722
BDE	6.1740	BRA	1.7779	BC3	.0432	FSP	-343

MID-COURSE EXECUTION ACCURACY

SGT	2183.7	SGR	3778.9	SG3	107.3		
RRT	-.9953	RRF	.9957	RTF	-.9998		
SGB	4364.5	R23	.0657	R13	.9976		
SG1	4360.6	SG2	184.0	THA	119.96		

ORBIT DETERMINATION ACCURACY

ST	1620.8	SR	2575.4	SS	1195.6
CRT	-.9984	CRS	-.9987	CST	1.0000
LSA	3268.3	MSA	86.1	SSA	.9
EL1	3042.0	EL2	77.2	ALF	122.17

LAUNCH DATE AUG 15 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 422.533

RL	151.51	LAL	.00	LOL	321.76	VL	26.940	GAL	-.36	AZL	107.79	HCA	190.82	SMA	129.34	ECC	.17155	INC	17.7926	V1	29.407
RP	107.53	LAP	3.29	LOP	152.08	VP	37.979	GAP	1.83	AZP	72.50	TAL	181.72	TAP	12.55	RCA	107.15	APO	151.53	V2	35.243
RC	92.917	GL	-65.47	GP	81.68	ZAL	89.06	ZAP	95.88	ETS	26.98	ZAE	98.62	ETE	122.12	ZAC	166.64	ETC	183.53	CLP	-135.05

PLANETOCENTRIC CONIC

C3	81.879	VHL	9.049	DLA	-75.54	RAL	167.58	RAD	6569.6	VEL	14.256	PTH	2.59	VHP	10.995	DPA	62.95	RAP	259.71	ECC	2.3475

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.48	1 32 12	2129.98	20.80	76.95	71.95	164.50	2 7 42	1530.0	28.49	74.94
163.52	12 26 36	5635.63	20.80	258.28	71.97	164.50	14 0 32	5035.6	28.49	256.27
16.48	1 32 12	2129.98	20.80	76.95	71.95	164.50	2 7 42	1530.0	28.49	74.94
163.52	12 26 36	5635.63	20.80	258.28	71.97	164.50	14 0 32	5035.6	28.49	256.27
16.48	1 32 12	2129.98	20.80	76.95	71.95	164.50	2 7 42	1530.0	28.49	74.94
163.52	12 26 36	5635.63	20.80	258.28	71.97	164.50	14 0 32	5035.6	28.49	256.27

DIFFERENTIAL CORRECTIONS

TDE	-1.7227	TRA	-.9051	TC3	-.1783	BAU	.2614
RDE	4.6267	RRA	.8556	RC3	.1588	FAU	.01266
FDE	-2.0954	FRA	-.4490	FC3	-.1338	BSP	14060
BDE	4.9370	BRA	1.2455	BC3	.2388	FSP	-489

MID-COURSE EXECUTION ACCURACY

SGT	2561.2	SGR	3656.6	SG3	152.5		
RRT	-.8827	RRF	-.9957	RTF	.9154		
SGB	4464.4	R23	.0767	R13	-.9958		
SG1	4348.1	SG2	1012.4	THA	123.80		

ORBIT DETERMINATION ACCURACY

ST	1289.9	SR	3001.0	SS	1301.6
CRT	-.9413	CRS	.9994	CST	-.9520
LSA	3493.0	MSA	403.8	SSA	2.4
EL1	3241.5	EL2	403.2	ALF	112.39

LAUNCH DATE AUG 15 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 428.700

RL	151.51	LAL	.00	LOL	321.76	VL	26.928	GAL	-.23	AZL	103.94	HCA	193.96	SMA	129.26	ECC	.17220	INC	13.9373	V1	29.407
RP	107.54	LAP	3.33	LOP	155.33	VP	37.966	GAP	2.20	AZP	76.46	TAL	181.09	TAP	15.05	RCA	107.00	APO	151.52	V2	35.238
RC	95.197	GL	-63.20	GP	75.36	ZAL	88.35	ZAP	98.93	ETS	26.43	ZAE	104.28	ETE	121.73	ZAC	165.33	ETC	206.83	CLP	-127.88

PLANETOCENTRIC CONIC

C3	52.800	VHL	7.266	DLA	-75.15	RAL	176.75	RAD	6568.9	VEL	13.197	PTH	2.41	VHP	8.746	DPA	57.64	RAP	251.68	ECC	1.8689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.92	2 9 40	2024.34	27.60	74.82	78.77	163.19	2 43 24	1424.3	35.23	72.41
163.08	13 2 17	5531.65	27.61	256.59	78.79	163.19	14 34 29	4931.6	35.24	254.18
16.92	2 9 40	2024.34	27.60	74.82	78.77	163.19	2 43 24	1424.3	35.23	72.41
163.08	13 2 17	5531.65	27.61	256.59	78.79	163.19	14 34 29	4931.6	35.24	254.18
16.92	2 9 40	2024.34	27.60	74.82	78.77	163.19	2 43 24	1424.3	35.23	72.41
163.08	13 2 17	5531.65	27.61	256.59	78.79	163.19	14 34 29	4931.6	35.24	254.18

DIFFERENTIAL CORRECTIONS

TDE	-2.2357	TRA	-.6806	TC3	-.4378	BAU	.4174
RDE	3.9100	RRA	.5423	RC3	.3976	FAU	.02332
FDE	-2.5610	FRA	-.3902	FC3	-.3824	BSP	14338
BDE	4.5040	BRA	.8702	BC3	.5914	FSP	-671

MID-COURSE EXECUTION ACCURACY

SGT	2810.4	SGR	3552.9	SG3	208.6		
RRT	-.9311	RRF	-.9968	RTF	.9474		
SGB	4530.0	R23	.0886	R13	-.9943		
SG1	4455.6	SG2	817.5	THA	127.87		

ORBIT DETERMINATION ACCURACY

ST	1871.6	SR	3123.5	SS	1550.1
CRT	-.9836	CRS	.9999	CST	-.9863
LSA	3946.5	MSA	294.2	SSA	3.1
EL1	3629.6	EL2	290.6	ALF	120.73

LAUNCH DATE AUG 15 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 434.888

RL	151.51	LAL	.00	LOL	321.76	VL	26.915	GAL	-.09	AZL	101.48	HCA	197.14	SMA	129.17	ECC	.17301	INC	11.4825	V1	29.407
RP	107.56	LAP	3.36	LOP	158.58	VP	37.951	GAP	2.57	AZP	79.01	TAL	180.44	TAP	17.58	RCA	106.82	APO	151.51	V2	35.232
RC	97.481	GL	-60.42	GP	69.49	ZAL	87.47	ZAP	102.43	ETS	28.51	ZAE	108.94	ETE	124.60	ZAC	161.90	ETC	223.39	CLP	-127.91

PLANETOCENTRIC CONIC

C3	37.955	VHL	6.161	DLA	-74.24	RAL	187.06	RAD	6568.5	VEL	12.622	PTH	2.29	VHP	7.392	DPA	52.66	RAP	245.97	ECC	1.6246

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.97	2 52 56	1939.40	32.83	72.11	86.56	161.14	3 25 15	1339.4	40.36	69.15
162.03	13 41 17	5450.85	32.84	254.94	86.58	161.14	15 12 8	4850.8	40.36	251.97
17.97	2 52 56	1939.40	32.83	72.11	86.56	161.14	3 25 15	1339.4	40.36	69.15
162.03	13 41 17	5450.85	32.84	254.94	86.58	161.14	15 12 8	4850.8	40.36	251.97
17.97	2 52 56	1939.40	32.83	72.11	86.56	161.14	3 25 15	1339.4	40.36	69.15
162.03	13 41 17	5450.85	32.84	254.94	86.58	161.14	15 12 8	4850.8	40.36	251.97

DIFFERENTIAL CORRECTIONS

TDE	-2.5170	TRA	-.5089	TC3	-.7679	BAU	.5004
RDE	3.3656	RRA	.2974	RC3	.6186	FAU	.03353
FDE	-3.0212	FRA	-.2873	FC3	-.7647	BSP	14447
BDE	4.2027	BRA	.5894	BC3	.9861	FSP	-865

MID-COURSE EXECUTION ACCURACY

SGT	3067.7	SGR	3378.7	SG3	269.8		
RRT	-.9477	RRF	-.9967	RTF	.9586		
SGB	4563.6	R23	.1015	R13	-.9925		
SG1	4504.1	SG2	734.5	THA	132.09		

ORBIT DETERMINATION ACCURACY

ST	2398.7	SR	3145.0	SS	1804.5
CRT	-.9925	CRS	1.0000	CST	-.9934
LSA	4340.8	MSA	241.4	SSA	3.9
EL1	3948.5	EL2	233.4	ALF	127.28

LAUNCH DATE AUG 15 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 441.077

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RL  151.51 LAL    .00 LOL 321.76 VL  26.899 GAL    .05 AZL  99.78 HCA 200.33 SMA 129.06 ECC .17396 INC 9.7791 V1  29.407
RP  107.58 LAP   3.38 LOP 161.83 VP  37.934 GAP   2.94 AZP  80.82 TAL 179.76 TAP  20.10 RCA 106.61 APO 151.51 V2  35.226
RC  99.767 GL  -57.45 GP   64.01 ZAL  86.41 ZAP 106.24 ETS  30.65 ZAE 112.85 ETE 128.13 ZAC 157.71 ETC 233.40 CLP-129.66
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PLANETOCENTRIC CONIC

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C3  29.379 VHL  5.420 DLA -72.89 RAL 196.85 RAD 6568.2 VEL 12.278 PTH   2.21 VHP  6.526 DPA  47.90 RAP 241.62 ECC 1.4835
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.53	3 35 10	1871.54	36.68	68.83	93.58	158.48	4 6 21	1271.5	44.05	65.18
160.47	14 17 7	5389.65	36.68	253.23	93.60	158.47	15 46 56	4789.7	44.06	249.57
19.53	3 35 10	1871.54	36.68	68.83	93.58	158.48	4 6 21	1271.5	44.05	65.18
160.47	14 17 7	5389.65	36.68	253.23	93.60	158.47	15 46 56	4789.7	44.06	249.57
19.53	3 35 10	1871.54	36.68	68.83	93.58	158.48	4 6 21	1271.5	44.05	65.18
160.47	14 17 7	5389.65	36.68	253.23	93.60	158.47	15 46 56	4789.7	44.06	249.57

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6580 TRA -.3546 TC3-1.1503 BAU  .5484   SGT 3327.4 SGR 3141.4 SG3  328.9     ST  2835.8 SR  2995.3 SS  1985.9
RDE 2.8310 RRA  .1173 RC3  .7914 FAU .04257   RRT -.9580 RRF -.9961 RTF  .9658     CRT -.9957 CRS 1.0000 CST -.9958
FDE-3.3283 FRA -.1426 FC3-1.2543 BSP  14351   SGB 4576.1 R23  .1128 R13 -.9905     LSA 4573.3 MSA  206.1 SSA    4.9
BDE 3.8832 BRA  .3735 BC3 1.3963 FSP  -1036   SG1 4528.0 SG2  661.7 THA 136.72     EL1 4120.3 EL2  191.6 ALF 133.43
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 447.258

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.882 GAL    .20 AZL  98.52 HCA 203.54 SMA 128.94 ECC .17506 INC 8.5229 V1  29.407
RP  107.60 LAP   3.39 LOP 165.07 VP  37.915 GAP   3.31 AZP  82.18 TAL 179.05 TAP  22.59 RCA 106.37 APO 151.52 V2  35.218
RC 102.053 GL  -54.42 GP   58.88 ZAL  85.20 ZAP 110.22 ETS  32.49 ZAE 116.11 ETE 131.89 ZAC 153.38 ETC 239.66 CLP-131.98
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PLANETOCENTRIC CONIC

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C3  23.993 VHL  4.898 DLA -71.22 RAL 205.54 RAD 6568.0 VEL 12.057 PTH   2.16 VHP  5.957 DPA  43.34 RAP 238.22 ECC 1.3949
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.46	4 13 53	1816.77	39.40	65.09	99.31	155.37	4 44 10	1216.8	46.57	60.66
158.54	14 47 47	5344.02	39.40	251.46	99.33	155.37	16 16 51	4744.0	46.58	247.04
21.46	4 13 53	1816.77	39.40	65.09	99.31	155.37	4 44 10	1216.8	46.57	60.66
158.54	14 47 47	5344.02	39.40	251.46	99.33	155.37	16 16 51	4744.0	46.58	247.04
21.46	4 13 53	1816.77	39.40	65.09	99.31	155.37	4 44 10	1216.8	46.57	60.66
158.54	14 47 47	5344.02	39.40	251.46	99.33	155.37	16 16 51	4744.0	46.58	247.04

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7021 TRA -.2158 TC3-1.5755 BAU  .5856   SGT 3603.7 SGR 2909.2 SG3  385.4     ST  3169.7 SR  2765.4 SS  2102.7
RDE 2.3641 RRA -.0038 RC3  .9224 FAU .05066   RRT -.9657 RRF -.9952 RTF  .9718     CRT -.9971 CRS 1.0000 CST -.9969
FDE-3.4926 FRA  .0188 FC3-1.8278 BSP  14681   SGB 4631.4 R23  .1175 R13 -.9891     LSA 4699.3 MSA  180.7 SSA    5.9
BDE 3.5903 BRA  .2159 BC3 1.8257 FSP  -1232   SG1 4593.3 SG2  592.9 THA 141.30     EL1 4203.5 EL2  158.2 ALF 138.91
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 453.426

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.863 GAL    .36 AZL  97.55 HCA 206.76 SMA 128.82 ECC .17629 INC 7.5538 V1  29.407
RP  107.63 LAP   3.39 LOP 168.32 VP  37.894 GAP   3.68 AZP  83.25 TAL 178.30 TAP  25.05 RCA 106.11 APO 151.53 V2  35.211
RC 104.339 GL  -51.41 GP   54.11 ZAL  83.82 ZAP 114.24 ETS  33.97 ZAE 118.76 ETE 135.71 ZAC 149.17 ETC 243.80 CLP-134.46
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PLANETOCENTRIC CONIC

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C3  20.410 VHL  4.518 DLA -69.33 RAL 213.12 RAD 6567.8 VEL 11.908 PTH   2.12 VHP  5.579 DPA  38.98 RAP 235.57 ECC 1.3359
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.64	4 48 47	1771.81	41.21	61.03	103.81	152.01	5 18 19	1171.8	48.15	55.83
156.36	15 13 19	5310.67	41.22	249.70	103.83	152.01	16 41 50	4710.7	48.15	244.50
23.64	4 48 47	1771.81	41.21	61.03	103.81	152.01	5 18 19	1171.8	48.15	55.83
156.36	15 13 19	5310.67	41.22	249.70	103.83	152.01	16 41 50	4710.7	48.15	244.50
23.64	4 48 47	1771.81	41.21	61.03	103.81	152.01	5 18 19	1171.8	48.15	55.83
156.36	15 13 19	5310.67	41.22	249.70	103.83	152.01	16 41 50	4710.7	48.15	244.50

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6744 TRA -.0785 TC3-2.0305 BAU  .6190   SGT 3866.5 SGR 2661.2 SG3  432.4     ST  3393.3 SR  2478.4 SS  2139.1
RDE 1.9525 RRA -.0940 RC3 1.0121 FAU .05759   RRT -.9701 RRF -.9941 RTF  .9754     CRT -.9978 CRS 1.0000 CST -.9972
FDE-3.4941 FRA  .2036 FC3-2.4428 BSP  14864   SGB 4693.8 R23  .1204 R13 -.9878     LSA 4712.3 MSA  164.5 SSA    6.9
BDE 3.3113 BRA  .1225 BC3 2.2687 FSP  -1382   SG1 4663.1 SG2  535.9 THA 145.76     EL1 4200.0 EL2  132.1 ALF 143.87
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 459.578

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.843 GAL    .54 AZL  96.78 HCA 209.97 SMA 128.68 ECC .17767 INC 6.7793 V1  29.407
RP  107.65 LAP   3.38 LOP 171.56 VP  37.872 GAP   4.05 AZP  84.12 TAL 177.51 TAP  27.48 RCA 105.82 APO 151.54 V2  35.202
RC 106.624 GL  -48.44 GP   49.70 ZAL  82.29 ZAP 118.20 ETS  35.12 ZAE 120.87 ETE 139.47 ZAC 145.20 ETC 246.68 CLP-136.94
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PLANETOCENTRIC CONIC

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C3  17.930 VHL  4.234 DLA -67.30 RAL 219.73 RAD 6567.7 VEL 11.803 PTH   2.09 VHP  5.335 DPA  34.85 RAP 233.54 ECC 1.2951
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.00	5 20 19	1734.20	42.30	56.82	107.35	148.55	5 49 13	1134.2	48.96	50.89
154.00	15 34 31	5287.13	42.30	248.02	107.36	148.55	17 2 38	4687.1	48.97	242.08
26.00	5 20 19	1734.20	42.30	56.82	107.35	148.55	5 49 13	1134.2	48.96	50.89
154.00	15 34 31	5287.13	42.30	248.02	107.36	148.55	17 2 38	4687.1	48.97	242.08
26.00	5 20 19	1734.20	42.30	56.82	107.35	148.55	5 49 13	1134.2	48.96	50.89
154.00	15 34 31	5287.13	42.30	248.02	107.36	148.55	17 2 38	4687.1	48.97	242.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5997 TRA  .0605 TC3-2.4865 BAU  .6467   SGT 4105.2 SGR 2410.1 SG3  466.8     ST  3518.8 SR  2175.9 SS  2106.0
RDE 1.6031 RRA -.1605 RC3 1.0472 FAU .06249   RRT -.9720 RRF -.9925 RTF  .9774     CRT -.9982 CRS  .9999 CST -.9972
FDE-3.3616 FRA  .4002 FC3-3.0174 BSP  15056   SGB 4760.4 R23  .1215 R13 -.9865     LSA 4639.8 MSA  154.7 SSA    8.0
BDE 3.0542 BRA  .1715 BC3 2.6981 FSP  -1495   SG1 4735.1 SG2  490.8 THA 149.93     EL1 4135.7 EL2  110.8 ALF 148.29
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 465.713

RL 151.51 LAL .00 LOL 321.76 VL 26.821 GAL .72 AZL 96.14 HCA 213.19 SMA 128.54 ECC .17918 INC 6.1427 V1 29.407
RP 107.68 LAP 3.36 LOP 174.80 VP 37.849 GAP 4.42 AZP 84.85 TAL 176.68 TAP 29.87 RCA 105.50 APO 151.57 V2 35.193
RC 108.906 GL -45.53 GP 45.66 ZAL 80.63 ZAP 122.03 ETS 35.99 ZAE 122.49 ETE 143.09 ZAC 141.53 ETC 248.77 CLP-139.37

PLANETOCENTRIC CONIC

C3 16.171 VHL 4.021 DLA -65.19 RAL 225.55 RAD 6567.6 VEL 11.728 PTH 2.07 VHP 5.186 DPA 30.98 RAP 232.02 ECC 1.2661

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.46	5 49 7	1702.16	42.80	52.58	110.20	145.12	6 17 29	1102.2	49.17	46.01
151.54	15 52 11	5271.59	42.81	246.50	110.21	145.12	17 20 2	4671.6	49.17	239.93
28.46	5 49 7	1702.16	42.80	52.58	110.20	145.12	6 17 29	1102.2	49.17	46.01
151.54	15 52 11	5271.59	42.81	246.50	110.21	145.12	17 20 2	4671.6	49.17	239.93
28.46	5 49 7	1702.16	42.80	52.58	110.20	145.12	6 17 29	1102.2	49.17	46.01
151.54	15 52 11	5271.59	42.81	246.50	110.21	145.12	17 20 2	4671.6	49.17	239.93

DIFFERENTIAL CORRECTIONS
TDE-2.4985 TRA .2003 TC3-2.9328 BAU .6729
RDE 1.3181 RRA -.2071 RC3 1.0427 FAU .06570
FDE-3.1410 FRA .5930 FC3-3.5170 BSP 15308
BDE 2.8249 BRA .2882 BC3 3.1127 FSP -1578

MID-COURSE EXECUTION ACCURACY
SGT 4324.2 SGR 2173.7 SG3 489.4
RRT -.9726 RRF -.9903 RTF .9788
SGB 4839.8 R23 .1194 R13 -.9854
SG1 4818.5 SG2 453.5 THA 153.69

ORBIT DETERMINATION ACCURACY
ST 3566.4 SR 1890.0 SS 2023.9
CRT -.9985 CRS .9997 CST -.9970
LSA 4512.8 MSA 148.8 SSA 9.0
EL1 4035.2 EL2 91.8 ALF 152.10

LAUNCH DATE AUG 15 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 471.828

RL 151.51 LAL .00 LOL 321.76 VL 26.798 GAL .92 AZL 95.61 HCA 216.41 SMA 128.38 ECC .18084 INC 5.6072 V1 29.407
RP 107.71 LAP 3.32 LOP 178.04 VP 37.824 GAP 4.78 AZP 85.48 TAL 175.81 TAP 32.23 RCA 105.17 APO 151.60 V2 35.184
RC 111.186 GL -42.69 GP 41.98 ZAL 78.84 ZAP 125.68 ETS 36.64 ZAE 123.67 ETE 146.50 ZAC 138.20 ETC 250.34 CLP-141.69

PLANETOCENTRIC CONIC

C3 14.911 VHL 3.862 DLA -63.03 RAL 230.75 RAD 6567.6 VEL 11.675 PTH 2.05 VHP 5.108 DPA 27.37 RAP 230.95 ECC 1.2454

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.00	6 15 48	1674.30	42.83	48.41	112.60	141.81	6 43 43	1074.3	48.89	41.31
149.00	16 6 59	5262.84	42.84	245.23	112.61	141.80	17 34 42	4662.8	48.90	238.13
31.00	6 15 48	1674.30	42.83	48.41	112.60	141.81	6 43 43	1074.3	48.89	41.31
149.00	16 6 59	5262.84	42.84	245.23	112.61	141.80	17 34 42	4662.8	48.90	238.13
31.00	6 15 48	1674.30	42.83	48.41	112.60	141.81	6 43 43	1074.3	48.89	41.31
149.00	16 6 59	5262.84	42.84	245.23	112.61	141.80	17 34 42	4662.8	48.90	238.13

DIFFERENTIAL CORRECTIONS
TDE-2.3817 TRA .3435 TC3-3.3547 BAU .6982
RDE 1.0886 RRA -.2402 RC3 1.0054 FAU .06726
FDE-2.8645 FRA .7775 FC3-3.9049 BSP 15595
BDE 2.6187 BRA .4192 BC3 3.5021 FSP -1628

MID-COURSE EXECUTION ACCURACY
SGT 4523.7 SGR 1956.9 SG3 501.1
RRT -.9718 RRF -.9874 RTF .9794
SGB 4928.9 R23 .1154 R13 -.9843
SG1 4910.5 SG2 425.1 THA 157.02

ORBIT DETERMINATION ACCURACY
ST 3550.8 SR 1632.5 SS 1906.1
CRT -.9987 CRS .9994 CST -.9966
LSA 4345.7 MSA 146.5 SSA 10.1
EL1 3907.4 EL2 74.8 ALF 155.33

LAUNCH DATE AUG 15 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 477.923

RL 151.51 LAL .00 LOL 321.76 VL 26.774 GAL 1.13 AZL 95.15 HCA 219.63 SMA 128.22 ECC .18265 INC 5.1479 V1 29.407
RP 107.74 LAP 3.28 LOP 181.28 VP 37.797 GAP 5.14 AZP 86.03 TAL 174.91 TAP 34.55 RCA 104.80 APO 151.64 V2 35.174
RC 113.462 GL -39.91 GP 38.67 ZAL 76.94 ZAP 129.12 ETS 37.12 ZAE 124.51 ETE 149.64 ZAC 135.21 ETC 251.56 CLP-143.91

PLANETOCENTRIC CONIC

C3 14.013 VHL 3.743 DLA -60.85 RAL 235.46 RAD 6567.6 VEL 11.636 PTH 2.04 VHP 5.083 DPA 24.01 RAP 230.26 ECC 1.2306

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.59	6 40 51	1649.65	42.48	44.37	114.74	138.67	7 8 21	1049.6	48.23	36.86
146.41	16 19 28	5259.94	42.49	244.25	114.75	138.66	17 47 8	4659.9	48.24	236.74
33.59	6 40 51	1649.65	42.48	44.37	114.74	138.67	7 8 21	1049.6	48.23	36.86
146.41	16 19 28	5259.94	42.49	244.25	114.75	138.66	17 47 8	4659.9	48.24	236.74
33.59	6 40 51	1649.65	42.48	44.37	114.74	138.67	7 8 21	1049.6	48.23	36.86
146.41	16 19 28	5259.94	42.49	244.25	114.75	138.66	17 47 8	4659.9	48.24	236.74

DIFFERENTIAL CORRECTIONS
TDE-2.2542 TRA .4915 TC3-3.7324 BAU .7211
RDE .9049 RRA -.2634 RC3 .9409 FAU .06722
FDE-2.5575 FRA .9484 FC3-4.1528 BSP 15854
BDE 2.4290 BRA .5576 BC3 3.8492 FSP -1643

MID-COURSE EXECUTION ACCURACY
SGT 4700.8 SGR 1760.5 SG3 502.8
RRT -.9697 RRF -.9836 RTF .9795
SGB 5019.7 R23 .1095 R13 -.9831
SG1 5003.4 SG2 404.1 THA 159.90

ORBIT DETERMINATION ACCURACY
ST 3482.2 SR 1407.2 SS 1763.8
CRT -.9990 CRS .9989 CST -.9959
LSA 4146.7 MSA 147.0 SSA 11.2
EL1 3755.3 EL2 58.5 ALF 158.01

LAUNCH DATE AUG 15 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 483.997

RL 151.51 LAL .00 LOL 321.76 VL 26.749 GAL 1.36 AZL 94.75 HCA 222.85 SMA 128.06 ECC .18461 INC 4.7473 V1 29.407
RP 107.77 LAP 3.23 LOP 184.52 VP 37.770 GAP 5.51 AZP 86.52 TAL 173.98 TAP 36.83 RCA 104.42 APO 151.70 V2 35.164
RC 115.736 GL -37.22 GP 35.68 ZAL 74.95 ZAP 132.34 ETS 37.49 ZAE 125.05 ETE 152.50 ZAC 132.54 ETC 252.53 CLP-146.02

PLANETOCENTRIC CONIC

C3 13.390 VHL 3.659 DLA -58.66 RAL 239.75 RAD 6567.5 VEL 11.609 PTH 2.03 VHP 5.099 DPA 20.92 RAP 229.91 ECC 1.2204

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.22	7 4 38	1627.40	41.82	40.49	116.73	135.74	7 31 46	1027.4	47.27	32.68
143.78	16 29 58	5262.31	41.83	243.60	116.74	135.73	17 57 40	4662.3	47.28	235.79
36.22	7 4 38	1627.40	41.82	40.49	116.73	135.74	7 31 46	1027.4	47.27	32.68
143.78	16 29 58	5262.31	41.83	243.60	116.74	135.73	17 57 40	4662.3	47.28	235.79
36.22	7 4 38	1627.40	41.82	40.49	116.73	135.74	7 31 46	1027.4	47.27	32.68
143.78	16 29 58	5262.31	41.83	243.60	116.74	135.73	17 57 40	4662.3	47.28	235.79

DIFFERENTIAL CORRECTIONS
TDE-2.1230 TRA .6441 TC3-4.0647 BAU .7439
RDE .7609 RRA -.2792 RC3 .8636 FAU .06615
FDE-2.2479 FRA 1.1024 FC3-4.2770 BSP 16128
BDE 2.2553 BRA .7020 BC3 4.1554 FSP -1633

MID-COURSE EXECUTION ACCURACY
SGT 4864.1 SGR 1589.2 SG3 497.8
RRT -.9664 RRF -.9787 RTF .9793
SGB 5117.1 R23 .1017 R13 -.9821
SG1 5102.3 SG2 389.1 THA 162.37

ORBIT DETERMINATION ACCURACY
ST 3375.9 SR 1217.9 SS 1612.1
CRT -.9993 CRS .9977 CST -.9948
LSA 3931.5 MSA 150.0 SSA 12.2
EL1 3588.7 EL2 42.4 ALF 160.17

LAUNCH DATE AUG 15 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 490.049

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.723 GAL   1.60 AZL  94.39 HCA 226.07 SMA 127.89 ECC .18674 INC 4.3927 V1  29.407
RP  107.80 LAP   3.16 LOP 187.75 VP  37.742 GAP   5.87 AZP  86.95 TAL 173.01 TAP  39.09 RCA 104.01 APO 151.77 V2  35.153
RC 118.005 GL  -34.60 GP   33.01 ZAL  72.88 ZAP 135.34 ETS  37.78 ZAE 125.38 ETE 155.06 ZAC 130.19 ETC 253.32 CLP-148.02
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PLANETOCENTRIC CONIC

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C3  12.985 VHL  3.604 DLA -56.47 RAL 243.72 RAD 6567.5 VEL 11.592 PTH   2.03 VHP  5.149 DPA  18.06 RAP 229.85 ECC 1.2137
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.86	7 27 28	1686.86	40.91	36.79	118.66	133.04	7 54 15	1006.9	46.08	28.78
141.14	16 38 44	5269.56	40.92	243.30	118.68	133.03	18 6 34	4669.6	46.09	235.29
38.86	7 27 28	1606.86	40.91	36.79	118.66	133.04	7 54 15	1006.9	46.08	28.78
141.14	16 38 44	5269.56	40.92	243.30	118.68	133.03	18 6 34	4669.6	46.09	235.29
38.86	7 27 28	1606.86	40.91	36.79	118.66	133.04	7 54 15	1006.9	46.08	28.78
141.14	16 38 44	5269.56	40.92	243.30	118.68	133.03	18 6 34	4669.6	46.09	235.29

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9909 TRA  .8007 TC3-4.3475 BAU  .7668   SGT 5014.9 SGR 1440.4 SG3  487.5     ST  3241.5 SR  1061.3 SS  1458.9
RDE  .6487 RRA -.2893 RC3  .7817 FAU .06439   RRT -.9621 RRF -.9724 RTF  .9791     CRT -.9997 CRS  .9955 CST -.9932
FDE-1.9494 FRA 1.2362 FC3-4.2927 BSP  16451   SGB 5217.7 R23  .0917 R13 -.9811     LSA 3706.4 MSA  155.0 SSA   13.2
BDE 2.0939 BRA  .8513 BC3 4.4172 FSP  -1611   SG1 5203.9 SG2  378.7 THA 164.47     EL1 3410.7 EL2   26.4 ALF 161.88
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 496.077

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.697 GAL   1.85 AZL  94.07 HCA 229.29 SMA 127.71 ECC .18902 INC 4.0747 V1  29.407
RP  107.84 LAP   3.09 LOP 190.98 VP  37.712 GAP   6.24 AZP  87.34 TAL 172.02 TAP  41.31 RCA 103.57 APO 151.85 V2  35.141
RC 120.271 GL  -32.05 GP   30.62 ZAL  70.75 ZAP 138.13 ETS  38.04 ZAE 125.53 ETE 157.35 ZAC 128.11 ETC 254.00 CLP-149.92
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PLANETOCENTRIC CONIC

```
C3  12.763 VHL  3.572 DLA -54.30 RAL 247.39 RAD 6567.5 VEL 11.582 PTH   2.03 VHP  5.225 DPA  15.42 RAP 230.05 ECC 1.2100
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.52	7 49 34	1587.62	39.80	33.26	120.60	130.57	8 16 1	987.6	44.70	25.13
138.48	16 45 58	5281.38	39.81	243.37	120.61	130.56	18 14 0	4681.4	44.71	235.24
41.52	7 49 34	1587.62	39.80	33.26	120.60	130.57	8 16 1	987.6	44.70	25.13
138.48	16 45 58	5281.38	39.81	243.37	120.61	130.56	18 14 0	4681.4	44.71	235.24
41.52	7 49 34	1587.62	39.80	33.26	120.60	130.57	8 16 1	987.6	44.70	25.13
138.48	16 45 58	5281.38	39.81	243.37	120.61	130.56	18 14 0	4681.4	44.71	235.24

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8650 TRA  .9563 TC3-4.5895 BAU  .7923   SGT 5158.2 SGR 1313.0 SG3  473.6     ST  3094.8 SR   936.8 SS  1315.9
RDE  .5642 RRA -.2937 RC3  .7047 FAU .06244   RRT -.9567 RRF -.9646 RTF  .9792     CRT -.9999 CRS  .9917 CST -.9913
FDE-1.6804 FRA 1.3428 FC3-4.2355 BSP  16949   SGB 5322.7 R23  .0787 R13 -.9807     LSA 3487.3 MSA  160.2 SSA   14.1
BDE 1.9485 BRA 1.0004 BC3 4.6433 FSP  -1598   SG1 5309.8 SG2  371.4 THA 166.25     EL1 3233.5 EL2   14.5 ALF 163.16
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 502.084

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.669 GAL   2.12 AZL  93.79 HCA 232.51 SMA 127.53 ECC .19148 INC 3.7863 V1  29.407
RP  107.87 LAP   3.00 LOP 194.21 VP  37.682 GAP   6.60 AZP  87.69 TAL 170.99 TAP  43.50 RCA 103.11 APO 151.95 V2  35.130
RC 122.531 GL  -29.60 GP   28.48 ZAL  68.58 ZAP 140.72 ETS  38.29 ZAE 125.55 ETE 159.36 ZAC 126.29 ETC 254.58 CLP-151.72
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PLANETOCENTRIC CONIC

```
C3  12.697 VHL  3.563 DLA -52.15 RAL 250.82 RAD 6567.5 VEL 11.579 PTH   2.03 VHP  5.323 DPA  12.98 RAP 230.47 ECC 1.2090
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.18	8 11 6	1569.20	38.54	29.91	122.56	128.33	8 37 16	969.2	43.20	21.71
135.82	16 51 48	5297.60	38.55	243.81	122.58	128.32	18 20 5	4697.6	43.21	235.62
44.18	8 11 6	1569.20	38.54	29.91	122.56	128.33	8 37 16	969.2	43.20	21.71
135.82	16 51 48	5297.60	38.55	243.81	122.58	128.32	18 20 5	4697.6	43.21	235.62
44.18	8 11 6	1569.20	38.54	29.91	122.56	128.33	8 37 16	969.2	43.20	21.71
135.82	16 51 48	5297.60	38.55	243.81	122.58	128.32	18 20 5	4697.6	43.21	235.62

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7266 TRA 1.1313 TC3-4.7340 BAU  .8104   SGT 5280.0 SGR 1202.3 SG3  456.8     ST  2917.0 SR   829.5 SS  1170.2
RDE  .4944 RRA -.3007 RC3  .6159 FAU .05923   RRT -.9489 RRF -.9550 RTF  .9783     CRT -.9996 CRS  .9842 CST -.9879
FDE-1.4128 FRA 1.4532 FC3-4.0386 BSP  17130   SGB 5415.2 R23  .0700 R13 -.9794     LSA 3246.0 MSA  172.3 SSA   14.8
BDE 1.7960 BRA 1.1705 BC3 4.7739 FSP  -1534   SG1 5402.5 SG2  370.8 THA 167.75     EL1 3032.6 EL2   22.5 ALF 164.13
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 508.065

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.641 GAL   2.40 AZL  93.52 HCA 235.73 SMA 127.35 ECC .19413 INC 3.5219 V1  29.407
RP  107.91 LAP   2.91 LOP 197.44 VP  37.651 GAP   6.97 AZP  88.01 TAL 169.94 TAP  45.67 RCA 102.63 APO 152.07 V2  35.118
RC 124.786 GL  -27.23 GP   26.57 ZAL  66.38 ZAP 143.12 ETS  38.56 ZAE 125.48 ETE 161.13 ZAC 124.70 ETC 255.11 CLP-153.43
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PLANETOCENTRIC CONIC

```
C3  12.773 VHL  3.574 DLA -50.04 RAL 254.03 RAD 6567.5 VEL 11.583 PTH   2.03 VHP  5.440 DPA  10.73 RAP 231.08 ECC 1.2102
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.85	8 32 16	1551.17	37.16	26.70	124.58	126.30	8 58 7	951.2	41.59	18.49
133.15	16 56 16	5318.19	37.17	244.63	124.59	126.29	18 24 54	4718.2	41.60	236.42
46.85	8 32 16	1551.17	37.16	26.70	124.58	126.30	8 58 7	951.2	41.59	18.49
133.15	16 56 16	5318.19	37.17	244.63	124.59	126.29	18 24 54	4718.2	41.60	236.42
46.85	8 32 16	1551.17	37.16	26.70	124.58	126.30	8 58 7	951.2	41.59	18.49
133.15	16 56 16	5318.19	37.17	244.63	124.59	126.29	18 24 54	4718.2	41.60	236.42

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.5937 TRA 1.3080 TC3-4.8312 BAU  .8301   SGT 5395.5 SGR 1108.5 SG3  438.6     ST  2738.1 SR   745.2 SS  1041.2
RDE  .4425 RRA -.3046 RC3  .5377 FAU .05611   RRT -.9399 RRF -.9437 RTF  .9777     CRT -.9982 CRS  .9717 CST -.9834
FDE-1.1781 FRA 1.5417 FC3-3.8031 BSP  17425   SGB 5508.2 R23  .0597 R13 -.9786     LSA 3017.0 MSA  185.6 SSA   15.4
BDE 1.6540 BRA 1.3430 BC3 4.8610 FSP  -1480   SG1 5495.6 SG2  371.7 THA 169.02     EL1 2837.4 EL2   42.7 ALF 164.80
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 514.020

RL	151.51	LAL	.00	LOL	321.76	VL	26.613	GAL	2.70	AZL	93.28	HCA	238.94	SMA	127.16	ECC	.19697	INC	3.2772	V1	29.407
RP	107.95	LAP	2.81	LOP	200.66	VP	37.619	GAP	7.34	AZP	88.31	TAL	168.86	TAP	47.80	RCA	102.12	APO	152.21	V2	35.105
RC	127.036	GL	-24.95	GP	24.86	ZAL	64.18	ZAP	145.36	ETS	38.86	ZAE	125.35	ETE	162.68	ZAC	123.31	ETC	255.59	CLP	-155.06

PLANETOCENTRIC CONIC

C3	12.982	VHL	3.603	DLA	-47.96	RAL	257.05	RAD	6567.5	VEL	11.592	PTH	2.03	VHP	5.574	DPA	8.64	RAP	231.87	ECC	1.2136

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.52	8 53 10	1533.23	35.69	23.62	126.67	124.46	9 18 43	933.2	39.92	15.43
130.48	16 59 25	5343.09	35.70	245.81	126.67	124.45	18 28 28	4743.1	39.93	237.62
49.52	8 53 10	1533.23	35.69	23.62	126.67	124.46	9 18 43	933.2	39.92	15.43
130.48	16 59 25	5343.09	35.70	245.81	126.67	124.45	18 28 28	4743.1	39.93	237.62
49.52	8 53 10	1533.23	35.69	23.62	126.67	124.46	9 18 43	933.2	39.92	15.43
130.48	16 59 25	5343.09	35.70	245.81	126.67	124.45	18 28 28	4743.1	39.93	237.62

DIFFERENTIAL CORRECTIONS

TDE	-1.4621	TRA	1.4923	TC3	-4.8675	BAU	.8486
RDE	.4033	RRA	-.3080	RC3	.4658	FAU	.05284
FDE	-.9691	FRA	1.6182	FC3	-3.5237	BSP	17719
BDE	1.5167	BRA	1.5237	BC3	4.8898	FSP	-1424

MID-COURSE EXECUTION ACCURACY

SGT	5501.6	SGR	1029.1	SG3	419.6		
RRT	-.9292	RRF	-.9306	RTF	.9771		
SGB	5597.0	R23	.0502	R13	-.9777		
SG1	5584.5	SG2	374.7	THA	170.10		

ORBIT DETERMINATION ACCURACY

ST	2558.7	SR	677.9	SS	927.6
CRT	-.9947	CRS	.9513	CST	-.9774
LSA	2797.5	MSA	202.0	SSA	15.9
EL1	2646.2	EL2	67.2	ALF	165.23

LAUNCH DATE AUG 15 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 519.948

RL	151.51	LAL	.00	LOL	321.76	VL	26.583	GAL	3.02	AZL	93.05	HCA	242.15	SMA	126.98	ECC	.20002	INC	3.0486	V1	29.407
RP	107.99	LAP	2.70	LOP	203.88	VP	37.587	GAP	7.72	AZP	88.57	TAL	167.76	TAP	49.92	RCA	101.58	APO	152.37	V2	35.093
RC	129.278	GL	-22.76	GP	23.33	ZAL	61.98	ZAP	147.44	ETS	39.23	ZAE	125.17	ETE	164.04	ZAC	122.09	ETC	256.04	CLP	-156.62

PLANETOCENTRIC CONIC

C3	13.318	VHL	3.649	DLA	-45.94	RAL	259.89	RAD	6567.5	VEL	11.606	PTH	2.03	VHP	5.722	DPA	6.70	RAP	232.82	ECC	1.2192

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.19	9 13 55	1515.05	34.16	20.64	128.81	122.81	9 39 10	915.0	38.20	12.49
127.81	17 1 18	5372.33	34.17	247.36	128.82	122.80	18 30 51	4772.3	38.22	239.22
52.19	9 13 55	1515.05	34.16	20.64	128.81	122.81	9 39 10	915.0	38.20	12.49
127.81	17 1 18	5372.33	34.17	247.36	128.82	122.80	18 30 51	4772.3	38.22	239.22
52.19	9 13 55	1515.05	34.16	20.64	128.81	122.81	9 39 10	915.0	38.20	12.49
127.81	17 1 18	5372.33	34.17	247.36	128.82	122.80	18 30 51	4772.3	38.22	239.22

DIFFERENTIAL CORRECTIONS

TDE	-1.3313	TRA	1.6845	TC3	-4.8489	BAU	.8663
RDE	.3741	RRA	-.3115	RC3	.4017	FAU	.04954
FDE	-.7834	FRA	1.6842	FC3	-3.2202	BSP	18006
BDE	1.3828	BRA	1.7130	BC3	4.8655	FSP	-1366

MID-COURSE EXECUTION ACCURACY

SGT	5599.5	SGR	961.9	SG3	400.6		
RRT	-.9170	RRF	-.9160	RTF	.9764		
SGB	5681.5	R23	.0414	R13	-.9769		
SG1	5668.9	SG2	379.1	THA	171.01		

ORBIT DETERMINATION ACCURACY

ST	2383.5	SR	624.1	SS	830.1
CRT	-.9876	CRS	.9196	CST	-.9694
LSA	2590.4	MSA	221.7	SSA	16.2
EL1	2462.1	EL2	94.9	ALF	165.48

LAUNCH DATE AUG 15 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 525.848

RL	151.51	LAL	.00	LOL	321.76	VL	26.554	GAL	3.35	AZL	92.83	HCA	245.36	SMA	126.78	ECC	.20328	INC	2.8334	V1	29.407
RP	108.03	LAP	2.58	LOP	207.10	VP	37.554	GAP	8.10	AZP	88.82	TAL	166.65	TAP	52.01	RCA	101.01	APO	152.56	V2	35.080
RC	131.513	GL	-20.67	GP	21.96	ZAL	59.80	ZAP	149.38	ETS	39.67	ZAE	124.97	ETE	165.23	ZAC	121.04	ETC	256.48	CLP	-158.11

PLANETOCENTRIC CONIC

C3	13.782	VHL	3.712	DLA	-43.96	RAL	262.56	RAD	6567.5	VEL	11.626	PTH	2.04	VHP	5.884	DPA	4.90	RAP	233.91	ECC	1.2268

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.85	9 34 41	1496.17	32.59	17.72	131.02	121.32	9 59 37	896.2	36.47	9.64
125.15	17 1 51	5406.13	32.60	249.29	131.03	121.31	18 31 58	4806.1	36.48	241.21
54.85	9 34 41	1496.17	32.59	17.72	131.02	121.32	9 59 37	896.2	36.47	9.64
125.15	17 1 51	5406.13	32.60	249.29	131.03	121.31	18 31 58	4806.1	36.48	241.21
54.85	9 34 41	1496.17	32.59	17.72	131.02	121.32	9 59 37	896.2	36.47	9.64
125.15	17 1 51	5406.13	32.60	249.29	131.03	121.31	18 31 58	4806.1	36.48	241.21

DIFFERENTIAL CORRECTIONS

TDE	-1.2013	TRA	1.8847	TC3	-4.7795	BAU	.8829
RDE	.3528	RRA	-.3152	RC3	.3453	FAU	.04626
FDE	-.6196	FRA	1.7409	FC3	-2.9062	BSP	18289
BDE	1.2520	BRA	1.9109	BC3	4.7920	FSP	-1308

MID-COURSE EXECUTION ACCURACY

SGT	5688.8	SGR	904.9	SG3	381.6		
RRT	-.9034	RRF	-.8999	RTF	.9758		
SGB	5760.3	R23	.0336	R13	-.9762		
SG1	5747.5	SG2	384.1	THA	171.79		

ORBIT DETERMINATION ACCURACY

ST	2217.8	SR	581.0	SS	749.4
CRT	-.9747	CRS	.8736	CST	-.9598
LSA	2399.5	MSA	244.4	SSA	16.3
EL1	2289.2	EL2	125.7	ALF	165.63

LAUNCH DATE AUG 15 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 531.714

RL	151.51	LAL	.00	LOL	321.76	VL	26.524	GAL	3.70	AZL	92.63	HCA	248.57	SMA	126.59	ECC	.20679	INC	2.6291	V1	29.407
RP	108.07	LAP	2.45	LOP	210.31	VP	37.520	GAP	8.49	AZP	89.04	TAL	165.51	TAP	54.08	RCA	100.41	APO	152.77	V2	35.067
RC	133.740	GL	-18.68	GP	20.73	ZAL	57.66	ZAP	151.19	ETS	40.20	ZAE	124.75	ETE	166.27	ZAC	120.11	ETC	256.90	CLP	-159.54

PLANETOCENTRIC CONIC

C3	14.375	VHL	3.791	DLA	-42.05	RAL	265.07	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	6.059	DPA	3.22	RAP	235.12	ECC	1.2366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.51	9 55 33	1476.30	31.00	14.85	133.30	119.97	10 20 9	876.3	34.72	6.83
122.49	17 1 4	5444.56	31.01	251.60	133.30	119.96	18 31 49	4844.6	34.73	243.58
57.51	9 55 33	1476.30	31.00	14.85	133.30	119.97	10 20 9	876.3	34.72	6.83
122.49	17 1 4	5444.56	31.01	251.60	133.30	119.96	18 31 49	4844.6	34.73	243.58
57.51	9 55 33	1476.30	31.00	14.85	133.30	119.97	10 20 9	876.3	34.72	6.83
122.49	17 1 4	5444.56	31.01	251.60	133.30	119.96	18 31 49	4844.6	34.73	243.58

DIFFERENTIAL CORRECTIONS

TDE	-1.0977	TRA	2.0684	TC3	-4.7355	BAU	.9120
RDE	.3429	RRA	-.3150	RC3	.3105	FAU	.04431
FDE	-.5033	FRA	1.7655	FC3	-2.6688	BSP	19178
BDE	1.1500	BRA	2.0922	BC3	4.7456	FSP	-1307

MID-COURSE EXECUTION ACCURACY

SGT	5776.4	SGR	857.2	SG3	362.3		
RRT	-.8893	RRF	-.8829	RTF	.9765		
SGB	5839.6	R23	.0231	R13	-.9768		
SG1	5826.7	SG2	388.7	THA	172.45		

ORBIT DETERMINATION ACCURACY

ST	2087.5	SR	552.8	SS	691.3
CRT	-.9560	CRS	.8244	CST	-.9538
LSA	2252.2	MSA	262.0	SSA	16.2
EL1	2153.8	EL2	157.2	ALF	165.72

LAUNCH DATE AUG 15 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 537.553

RL 151.51 LAL .00 LOL 321.76 VL 26.493 GAL 4.07 AZL 92.43 HCA 251.78 SMA 126.40 ECC .21055 INC 2.4337 V1 29.407
RP 108.11 LAP 2.31 LOP 213.53 VP 37.487 GAP 8.89 AZP 89.24 TAL 164.35 TAP 56.13 RCA 99.78 APO 153.01 V2 35.054
RC 135.957 GL -16.78 GP 19.63 ZAL 55.56 ZAP 152.89 ETS 40.83 ZAE 124.52 ETE 167.18 ZAC 119.31 ETC 257.32 CLP-160.92

PLANETOCENTRIC CONIC

C3 15.105 VHL 3.887 DLA -40.21 RAL 267.46 RAD 6567.6 VEL 11.683 PTH 2.05 VHP 6.246 DPA 1.66 RAP 236.44 ECC 1.2486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.17	10 16 42	1455.00	29.40	11.97	135.63	118.76	10 40 57	855.0	32.99	4.02
119.83	16 58 55	5487.92	29.41	254.30	135.64	118.75	18 30 23	4887.9	33.00	246.35
60.17	10 16 42	1455.00	29.40	11.97	135.63	118.76	10 40 57	855.0	32.99	4.02
119.83	16 58 55	5487.92	29.41	254.30	135.64	118.75	18 30 23	4887.9	33.00	246.35
60.17	10 16 42	1455.00	29.40	11.97	135.63	118.76	10 40 57	855.0	32.99	4.02
119.83	16 58 55	5487.92	29.41	254.30	135.64	118.75	18 30 23	4887.9	33.00	246.35

DIFFERENTIAL CORRECTIONS
TDE -.9498 TRA 2.3066 TC3-4.5290 BAU .9161
RDE .3291 RRA -.3237 RC3 .2569 FAU .04021
FDE -.3562 FRA 1.8286 FC3-2.3046 BSP 18970
BDE 1.0052 BRA 2.3292 BC3 4.5363 FSP -1208

MID-COURSE EXECUTION ACCURACY
SGT 5846.2 SGR 816.0 SG3 345.0
RRT -.8731 RRF -.8650 RTF .9749
SGB 5902.9 R23 .0204 R13 -.9751
SG1 5889.6 SG2 394.9 THA 173.02

ORBIT DETERMINATION ACCURACY
ST 1938.0 SR 520.2 SS 638.5
CRT -.9229 CRS .7370 CST -.9399
LSA 2084.9 MSA 295.0 SSA 16.2
EL1 1997.2 EL2 194.3 ALF 165.95

LAUNCH DATE AUG 15 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 543.356

RL 151.51 LAL .00 LOL 321.76 VL 26.463 GAL 4.47 AZL 92.25 HCA 254.98 SMA 126.20 ECC .21459 INC 2.2455 V1 29.407
RP 108.15 LAP 2.17 LOP 216.73 VP 37.453 GAP 9.30 AZP 89.42 TAL 163.18 TAP 58.16 RCA 99.12 APO 153.28 V2 35.041
RC 138.166 GL -14.99 GP 18.63 ZAL 53.51 ZAP 154.48 ETS 41.58 ZAE 124.28 ETE 167.98 ZAC 118.61 ETC 257.74 CLP-162.24

PLANETOCENTRIC CONIC

C3 15.979 VHL 3.997 DLA -38.43 RAL 269.70 RAD 6567.6 VEL 11.720 PTH 2.07 VHP 6.445 DPA .19 RAP 237.86 ECC 1.2630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.85	10 38 18	1431.65	27.81	9.04	138.02	117.67	11 2 10	831.7	31.27	1.17
117.15	16 55 13	5536.64	27.82	257.41	138.03	117.66	18 27 30	4936.6	31.29	249.53
62.85	10 38 18	1431.65	27.81	9.04	138.02	117.67	11 2 10	831.7	31.27	1.17
117.15	16 55 13	5536.64	27.82	257.41	138.03	117.66	18 27 30	4936.6	31.29	249.53
62.85	10 38 18	1431.65	27.81	9.04	138.02	117.67	11 2 10	831.7	31.27	1.17
117.15	16 55 13	5536.64	27.82	257.41	138.03	117.66	18 27 30	4936.6	31.29	249.53

DIFFERENTIAL CORRECTIONS
TDE -.8150 TRA 2.5423 TC3-4.3264 BAU .9254
RDE .3221 RRA -.3310 RC3 .2173 FAU .03686
FDE -.2392 FRA 1.8738 FC3-1.9972 BSP 19057
BDE .8764 BRA 2.5637 BC3 4.3319 FSP -1141

MID-COURSE EXECUTION ACCURACY
SGT 5913.3 SGR 781.1 SG3 328.1
RRT -.8568 RRF -.8468 RTF .9740
SGB 5964.6 R23 .0165 R13 -.9741
SG1 5951.2 SG2 400.2 THA 173.51

ORBIT DETERMINATION ACCURACY
ST 1822.9 SR 496.2 SS 604.3
CRT -.8772 CRS .6414 CST -.9305
LSA 1956.7 MSA 324.5 SSA 16.1
EL1 1875.0 EL2 231.6 ALF 166.36

LAUNCH DATE AUG 15 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 549.122

RL 151.51 LAL .00 LOL 321.76 VL 26.432 GAL 4.88 AZL 92.06 HCA 258.18 SMA 126.00 ECC .21892 INC 2.0631 V1 29.407
RP 108.19 LAP 2.02 LOP 219.94 VP 37.418 GAP 9.72 AZP 89.58 TAL 162.00 TAP 60.18 RCA 98.42 APO 153.59 V2 35.028
RC 140.364 GL -13.29 GP 17.73 ZAL 51.53 ZAP 155.97 ETS 42.46 ZAE 124.05 ETE 168.68 ZAC 118.00 ETC 258.17 CLP-163.52

PLANETOCENTRIC CONIC

C3 17.007 VHL 4.124 DLA -36.72 RAL 271.82 RAD 6567.7 VEL 11.764 PTH 2.08 VHP 6.657 DPA -1.18 RAP 239.37 ECC 1.2799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.57	11 0 36	1405.53	26.24	6.00	140.46	116.67	11 24 2	805.5	29.59	358.20
114.43	16 49 51	5591.31	26.25	260.97	140.47	116.66	18 23 2	4991.3	29.60	253.16
65.57	11 0 36	1405.53	26.24	6.00	140.46	116.67	11 24 2	805.5	29.59	358.20
114.43	16 49 51	5591.31	26.25	260.97	140.47	116.66	18 23 2	4991.3	29.60	253.16
65.57	11 0 36	1405.53	26.24	6.00	140.46	116.67	11 24 2	805.5	29.59	358.20
114.43	16 49 51	5591.31	26.25	260.97	140.47	116.66	18 23 2	4991.3	29.60	253.16

DIFFERENTIAL CORRECTIONS
TDE -.6848 TRA 2.7838 TC3-4.1125 BAU .9360
RDE .3193 RRA -.3383 RC3 .1858 FAU .03388
FDE -.1408 FRA 1.9105 FC3-1.7246 BSP 19248
BDE .7556 BRA 2.8043 BC3 4.1167 FSP -1085

MID-COURSE EXECUTION ACCURACY
SGT 5974.5 SGR 751.1 SG3 311.9
RRT -.8404 RRF -.8287 RTF .9734
SGB 6021.5 R23 .0127 R13 -.9735
SG1 6007.9 SG2 404.8 THA 173.94

ORBIT DETERMINATION ACCURACY
ST 1735.3 SR 477.3 SS 582.9
CRT -.8177 CRS .5411 CST -.9261
LSA 1858.7 MSA 351.5 SSA 15.9
EL1 1779.6 EL2 267.9 ALF 167.03

LAUNCH DATE AUG 15 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 554.847

RL 151.51 LAL .00 LOL 321.76 VL 26.400 GAL 5.32 AZL 91.89 HCA 261.38 SMA 125.81 ECC .22358 INC 1.8850 V1 29.407
RP 108.23 LAP 1.86 LOP 223.14 VP 37.384 GAP 10.15 AZP 89.72 TAL 160.81 TAP 62.19 RCA 97.68 APO 153.94 V2 35.014
RC 142.552 GL -11.69 GP 16.92 ZAL 49.61 ZAP 157.38 ETS 43.50 ZAE 123.82 ETE 169.30 ZAC 117.46 ETC 258.60 CLP-164.76

PLANETOCENTRIC CONIC

C3 18.205 VHL 4.267 DLA -35.09 RAL 273.82 RAD 6567.7 VEL 11.815 PTH 2.09 VHP 6.882 DPA -2.46 RAP 240.96 ECC 1.2996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.35	11 23 52	1375.74	24.69	2.78	142.95	115.77	11 46 48	775.7	27.94	355.04
111.65	16 42 33	5652.68	24.70	265.03	142.95	115.76	18 16 46	5052.7	27.95	257.29
68.35	11 23 52	1375.74	24.69	2.78	142.95	115.77	11 46 48	775.7	27.94	355.04
111.65	16 42 33	5652.68	24.70	265.03	142.95	115.76	18 16 46	5052.7	27.95	257.29
68.35	11 23 52	1375.74	24.69	2.78	142.95	115.77	11 46 48	775.7	27.94	355.04
111.65	16 42 33	5652.68	24.70	265.03	142.95	115.76	18 16 46	5052.7	27.95	257.29

DIFFERENTIAL CORRECTIONS
TDE -.5548 TRA 3.0359 TC3-3.8809 BAU .9453
RDE .3193 RRA -.3463 RC3 .1591 FAU .03104
FDE -.0551 FRA 1.9431 FC3-1.4760 BSP 19444
BDE .6402 BRA 3.0556 BC3 3.8842 FSP -1034

MID-COURSE EXECUTION ACCURACY
SGT 6029.0 SGR 724.8 SG3 296.3
RRT -.8241 RRF -.8108 RTF .9729
SGB 6072.4 R23 .0094 R13 -.9730
SG1 6058.6 SG2 408.6 THA 174.32

ORBIT DETERMINATION ACCURACY
ST 1673.1 SR 461.5 SS 571.0
CRT -.7444 CRS .4401 CST -.9267
LSA 1788.1 MSA 375.1 SSA 15.6
EL1 1709.2 EL2 301.6 ALF 168.02

LAUNCH DATE AUG 15 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 560.527

RL	151.51	LAL	.00	LOL	321.76	VL	26.369	GAL	5.79	AZL	91.71	HCA	264.58	SMA	125.61	ECC	.22859	INC	1.7100	V1	29.407
RP	108.27	LAP	1.70	LOP	226.34	VP	37.350	GAP	10.60	AZP	89.84	TAL	159.61	TAP	64.19	RCA	96.90	APO	154.33	V2	35.001
RC	144.730	GL	-10.19	GP	16.18	ZAL	47.76	ZAP	158.71	ETS	44.70	ZAE	123.59	ETE	169.84	ZAC	116.99	ETC	259.03	CLP	-165.97

PLANETOCENTRIC CONIC

C3	19.589	VHL	4.426	DLA	-33.54	RAL	275.72	RAD	6567.8	VEL	11.873	PTH	2.11	VHP	7.121	DPA	-3.66	RAP	242.62	ECC	1.3224

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.24	11 48 38	1340.65	23.17	359.25	145.48	114.95	12 10 58	740.6	26.33	351.57
108.76	16 32 53	5722.28	23.18	269.68	145.48	114.94	18 8 16	5122.3	26.35	262.01
71.24	11 48 38	1340.65	23.17	359.25	145.48	114.95	12 10 58	740.6	26.33	351.57
108.76	16 32 53	5722.28	23.18	269.68	145.48	114.94	18 8 16	5122.3	26.35	262.01
110.00	15 50 2	5853.53	18.77	277.47	143.07	119.11	17 27 35	5253.5	22.51	270.33
110.00	17 30 40	5545.43	27.73	258.07	147.61	110.84	19 3 5	4945.4	30.31	249.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4241	TRA	3.3004	TC3	-3.6370	BAU	.9531	SGT	6077.8	SGR	701.7	SG3	281.7	ST	1635.7	SR	447.8	SS	566.4
RDE	.3214	RRA	-.3554	RC3	.1364	FAU	.02833	RRT	-.8081	RRF	-.7935	RTF	.9725	CRT	-.6600	CRS	.3431	CST	-.9317
FDE	.0203	FRA	1.9740	FC3	-1.2522	BSP	19627	SGB	6118.2	R23	.0067	R13	-.9725	LSA	1743.9	MSA	394.0	SSA	15.4
BDE	.5321	BRA	3.3195	BC3	3.6395	FSP	-985	SG1	6104.3	SG2	411.5	THA	174.65	EL1	1663.3	EL2	330.8	ALF	169.33

LAUNCH DATE AUG 15 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 566.159

RL	151.51	LAL	.00	LOL	321.76	VL	26.338	GAL	6.28	AZL	91.54	HCA	267.77	SMA	125.41	ECC	.23399	INC	1.5370	V1	29.407
RP	108.31	LAP	1.54	LOP	229.54	VP	37.315	GAP	11.07	AZP	89.94	TAL	158.40	TAP	66.18	RCA	96.07	APO	154.76	V2	34.988
RC	146.899	GL	-8.78	GP	15.51	ZAL	45.99	ZAP	159.95	ETS	46.09	ZAE	123.37	ETE	170.32	ZAC	116.57	ETC	259.48	CLP	-167.14

PLANETOCENTRIC CONIC

C3	21.180	VHL	4.602	DLA	-32.05	RAL	277.50	RAD	6567.9	VEL	11.940	PTH	2.12	VHP	7.374	DPA	-4.79	RAP	244.35	ECC	1.3486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.32	12 15 40	1297.68	21.69	355.21	148.04	114.19	12 37 17	697.7	24.77	347.60
105.68	16 20 7	5802.55	21.71	275.12	148.05	114.18	17 56 50	5202.6	24.78	267.50
74.32	12 15 40	1297.68	21.69	355.21	148.04	114.19	12 37 17	697.7	24.77	347.60
105.68	16 20 7	5802.55	21.71	275.12	148.05	114.18	17 56 50	5202.6	24.78	267.50
110.00	15 16 34	711.63	13.73	307.89	143.62	121.61	15 28 25	111.6	17.82	301.16
110.00	18 18 23	5436.60	30.14	250.51	151.56	106.95	19 49 0	4836.6	32.16	241.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2923	TRA	3.5777	TC3	-3.3849	BAU	.9590	SGT	6120.2	SGR	680.8	SG3	267.8	ST	1620.7	SR	435.8	SS	566.8
RDE	.3252	RRA	-.3653	RC3	.1170	FAU	.02574	RRT	-.7926	RRF	-.7769	RTF	.9721	CRT	-.5684	CRS	.2539	CST	-.9397
FDE	.0868	FRA	2.0030	FC3	-1.0520	BSP	19797	SGB	6158.0	R23	.0046	R13	-.9722	LSA	1723.9	MSA	407.2	SSA	15.1
BDE	.4373	BRA	3.5963	BC3	3.3870	FSP	-938	SG1	6144.1	SG2	413.5	THA	174.94	EL1	1640.5	EL2	354.2	ALF	170.88

LAUNCH DATE AUG 15 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 571.737

RL	151.51	LAL	.00	LOL	321.76	VL	26.306	GAL	6.80	AZL	91.36	HCA	270.97	SMA	125.22	ECC	.23981	INC	1.3649	V1	29.407
RP	108.35	LAP	1.36	LOP	232.73	VP	37.281	GAP	11.55	AZP	90.02	TAL	157.20	TAP	68.16	RCA	95.19	APO	155.25	V2	34.975
RC	149.057	GL	-7.45	GP	14.90	ZAL	44.30	ZAP	161.13	ETS	47.70	ZAE	123.15	ETE	170.75	ZAC	116.20	ETC	259.94	CLP	-168.29

PLANETOCENTRIC CONIC

C3	23.004	VHL	4.796	DLA	-30.64	RAL	279.19	RAD	6567.9	VEL	12.016	PTH	2.14	VHP	7.643	DPA	-5.84	RAP	246.14	ECC	1.3786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.77	12 46 35	1241.58	20.26	350.30	150.64	113.50	13 7 16	641.6	23.26	342.73
102.23	16 2 40	610.59	20.27	303.79	150.65	113.49	16 12 50	10.6	23.27	296.22
77.77	12 46 35	1241.58	20.26	350.30	150.64	113.50	13 7 16	641.6	23.26	342.73
102.23	16 2 40	610.59	20.27	303.79	150.65	113.49	16 12 50	10.6	23.27	296.22
110.00	14 57 25	815.57	9.95	313.57	144.94	122.87	15 11 1	215.6	14.22	307.07
110.00	18 51 0	5372.64	31.32	245.90	154.86	104.46	20 20 32	4772.6	32.98	237.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1595	TRA	3.8685	TC3	-3.1306	BAU	.9633	SGT	6156.8	SGR	661.6	SG3	254.7	ST	1625.2	SR	424.9	SS	570.4
RDE	.3306	RRA	-.3760	RC3	.1004	FAU	.02328	RRT	-.7778	RRF	-.7612	RTF	.9719	CRT	-.4749	CRS	.1748	CST	-.9491
FDE	.1450	FRA	2.0307	FC3	-.8763	BSP	19966	SGB	6192.3	R23	.0029	R13	-.9719	LSA	1724.9	MSA	414.3	SSA	14.8
BDE	.3671	BRA	3.8868	BC3	3.1322	FSP	-894	SG1	6178.4	SG2	414.4	THA	175.20	EL1	1638.3	EL2	370.9	ALF	172.54

LAUNCH DATE AUG 15 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 577.255

RL	151.51	LAL	.00	LOL	321.76	VL	26.275	GAL	7.36	AZL	91.19	HCA	274.16	SMA	125.02	ECC	.24610	INC	1.1925	V1	29.407
RP	108.39	LAP	1.19	LOP	235.92	VP	37.246	GAP	12.06	AZP	90.09	TAL	155.99	TAP	70.15	RCA	94.26	APO	155.79	V2	34.962
RC	151.205	GL	-6.22	GP	14.35	ZAL	42.69	ZAP	162.24	ETS	49.54	ZAE	122.94	ETE	171.13	ZAC	115.88	ETC	260.40	CLP	-169.42

PLANETOCENTRIC CONIC

C3	25.089	VHL	5.009	DLA	-29.31	RAL	280.78	RAD	6568.0	VEL	12.102	PTH	2.17	VHP	7.929	DPA	-6.82	RAP	247.98	ECC	1.4129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.12	13 25 58	1157.40	18.86	343.41	153.27	112.85	13 45 16	557.4	21.80	335.88
97.88	15 35 58	737.30	18.88	312.58	153.28	112.84	15 48 15	137.3	21.81	305.06
100.00	15 2 37	844.22	14.66	318.48	151.26	116.35	15 16 42	244.2	18.08	311.35
100.00	16 42 0	5813.76	23.19	276.60	155.07	109.41	18 18 54	5213.8	25.62	268.65
110.00	14 43 53	903.22	6.68	318.25	146.59	123.60	14 58 56	303.2	11.05	311.89
110.00	19 17 14	5327.52	32.04	242.58	157.93	102.62	20 46 1	4727.5	33.44	233.63

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0256	TRA	4.1732	TC3	-2.8782	BAU	.9658	SGT	6187.3	SGR	643.6	SG3	242.2	ST	1644.8	SR	414.7	SS	575.8
RDE	.3372	RRA	-.3872	RC3	.0862	FAU	.02097	RRT	-.7637	RRF	-.7465	RTF	.9718	CRT	-.3838	CRS	.1057	CST	-.9584
FDE	.1963	FRA	2.0574	FC3	-.7235	BSP	20150	SGB	6220.6	R23	.0015	R13	-.9719	LSA	1742.3	MSA	416.0	SSA	14.4
BDE	.3381	BRA	4.1911	BC3	2.8795	FSP	-853	SG1	6206.8	SG2	414.2	THA	175.44	EL1	1652.9	EL2	381.1	ALF	174.16

LAUNCH DATE AUG 15 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 582.705

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RL  151.51 LAL    .00 LOL 321.76 VL  26.243 GAL   7.95 AZL  91.02 HCA 277.34 SMA 124.83 ECC .25290 INC 1.0189 V1  29.407
RP  108.43 LAP   1.01 LOP 239.11 VP  37.212 GAP  12.59 AZP  90.13 TAL 154.79 TAP  72.13 RCA  93.26 APO 156.40 V2  34.949
RC 153.343 GL   -5.06 GP   13.84 ZAL  41.15 ZAP 163.28 ETS  51.66 ZAE 122.72 ETE 171.47 ZAC 115.58 ETC 260.88 CLP-170.53
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PLANETOCENTRIC CONIC

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C3  27.473 VHL  5.241 DLA -28.04 RAL 282.29 RAD 6568.1 VEL 12.200 PTH   2.19 VHP  8.234 DPA  -7.73 RAP 249.87 ECC 1.4521
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 2 12	1082.70	14.62	335.99	154.63	114.53	14 20 15	482.7	17.81	328.76
90.00	15 11 43	856.96	20.47	322.02	157.14	110.00	15 26 0	257.0	23.01	314.27
100.00	14 30 8	992.35	10.02	327.02	152.29	118.31	14 46 41	392.3	13.72	320.20
100.00	17 26 28	5710.58	25.35	269.70	158.88	106.39	19 1 39	5110.6	27.35	261.47
110.00	14 33 33	981.60	3.71	322.38	148.45	124.01	14 49 55	381.6	8.15	316.10
110.00	19 39 32	5294.09	32.51	240.09	160.89	101.21	21 7 46	4694.1	33.71	231.06

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE  .1096 TRA 4.4932 TC3-2.6302 BAU  .9664   SGT 6211.7 SGR  626.3 SG3  230.5    ST  1675.8 SR   405.0 SS   582.0
ROE  .3448 RRA -.3990 RC3  .0740 FAU .01878   RRT -.7502 RRF -.7327 RTF  .9720    CRT -.2984 CRS  .0465 CST -.9669
FOE  .2412 FRA 2.0837 FC3 -.5919 BSP  20343   SGB 6243.1 R23  .0004 R13 -.9720    LSA 1772.0 MSA  413.3 SSA   14.1
BOE  .3618 BRA 4.5109 BC3 2.6312 FSP   -816   SG1 6229.5 SG2  412.9 THA 175.66    EL1 1680.4 EL2  385.5 ALF 175.65
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 588.079

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.212 GAL   8.58 AZL  90.84 HCA 280.53 SMA 124.64 ECC .26027 INC  .8430 V1  29.407
RP  108.47 LAP    .83 LOP 242.29 VP  37.178 GAP  13.15 AZP  90.15 TAL 153.59 TAP  74.12 RCA  92.20 APO 157.07 V2  34.937
RC 155.470 GL   -3.98 GP   13.38 ZAL  39.70 ZAP 164.25 ETS  54.08 ZAE 122.51 ETE 171.78 ZAC 115.32 ETC 261.36 CLP-171.63
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PLANETOCENTRIC CONIC

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C3  30.197 VHL  5.495 DLA -26.84 RAL 283.70 RAD 6568.2 VEL 12.311 PTH   2.22 VHP  8.560 DPA  -8.58 RAP 251.79 ECC 1.4970
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 22 30	1255.50	9.51	346.11	155.51	116.80	13 43 25	655.5	13.03	339.20
90.00	16 2 42	731.41	23.17	313.80	161.18	106.75	16 14 54	131.4	25.25	305.75
100.00	14 11 0	1098.85	6.52	333.00	153.91	119.24	14 29 19	498.8	10.37	326.33
100.00	17 56 54	5651.34	26.43	265.63	162.19	104.51	19 31 5	5051.3	28.16	257.25
110.00	14 25 20	1053.84	.95	326.15	150.47	124.17	14 42 54	453.8	5.43	319.93
110.00	19 59 3	5269.10	32.82	238.21	163.79	100.14	21 26 52	4669.1	33.87	229.13

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE  .2470 TRA 4.8298 TC3-2.3884 BAU  .9645   SGT 6229.8 SGR  609.4 SG3  219.3    ST  1714.5 SR   395.5 SS   588.7
ROE  .3532 RRA -.4112 RC3  .0632 FAU .01670   RRT -.7374 RRF -.7198 RTF  .9722    CRT -.2203 CRS -.0043 CST -.9742
FOE  .2813 FRA 2.1103 FC3 -.4788 BSP  20543   SGB 6259.6 R23 -.0004 R13 -.9722    LSA 1810.1 MSA  407.1 SSA   13.8
BOE  .4310 BRA 4.8473 BC3 2.3892 FSP   -781   SG1 6246.1 SG2  410.5 THA 175.86    EL1 1716.8 EL2  385.3 ALF 176.94
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 593.366

```
RL  151.51 LAL    .00 LOL 321.76 VL  26.181 GAL   9.26 AZL  90.66 HCA 283.71 SMA 124.44 ECC .26826 INC  .6634 V1  29.407
RP  108.51 LAP    .64 LOP 245.48 VP  37.145 GAP  13.75 AZP  90.16 TAL 152.41 TAP  76.12 RCA  91.06 APO 157.83 V2  34.925
RC 157.587 GL   -2.97 GP   12.96 ZAL  38.33 ZAP 165.16 ETS  56.84 ZAE 122.29 ETE 172.05 ZAC 115.07 ETC 261.86 CLP-172.71
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PLANETOCENTRIC CONIC

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C3  33.313 VHL  5.772 DLA -25.71 RAL 285.03 RAD 6568.3 VEL 12.437 PTH   2.25 VHP  8.909 DPA  -9.36 RAP 253.75 ECC 1.5482
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 1 32	1368.49	5.98	352.53	157.16	117.73	13 24 21	768.5	9.64	345.77
90.00	16 34 17	667.82	24.35	309.52	164.55	104.91	16 45 25	67.8	26.17	301.32
100.00	13 57 11	1188.82	3.51	337.98	155.80	119.70	14 17 0	588.8	7.44	331.39
100.00	18 21 20	5610.76	27.09	262.79	165.31	103.15	19 54 50	5010.8	28.63	254.33
110.00	14 18 36	1121.63	-1.64	329.69	152.60	124.15	14 37 17	521.6	2.85	323.48
110.00	20 16 24	5250.71	33.03	236.81	166.67	99.34	21 43 55	4650.7	33.97	227.70

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE  .3869 TRA 5.1848 TC3-2.1547 BAU  .9599   SGT 6242.4 SGR  592.5 SG3  208.8    ST  1757.9 SR   386.0 SS   595.5
ROE  .3623 RRA -.4236 RC3  .0538 FAU .01472   RRT -.7252 RRF -.7077 RTF  .9726    CRT -.1502 CRS -.0477 CST -.9801
FOE  .3170 FRA 2.1378 FC3 -.3826 BSP  20748   SGB 6270.4 R23 -.0010 R13 -.9726    LSA 1853.3 MSA  398.5 SSA   13.4
BOE  .5301 BRA 5.2020 BC3 2.1554 FSP   -749   SG1 6257.2 SG2  407.0 THA 176.05    EL1 1758.9 EL2  381.4 ALF 178.02
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 598.553

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RL  151.51 LAL    .00 LOL 321.76 VL  26.150 GAL   9.98 AZL  90.48 HCA 286.89 SMA 124.26 ECC .27696 INC  .4791 V1  29.407
RP  108.54 LAP    .46 LOP 248.66 VP  37.112 GAP  14.38 AZP  90.14 TAL 151.24 TAP  78.14 RCA  89.84 APO 158.67 V2  34.913
RC 159.692 GL   -2.03 GP   12.58 ZAL  37.04 ZAP 166.00 ETS  59.99 ZAE 122.06 ETE 172.30 ZAC 114.84 ETC 262.36 CLP-173.79
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PLANETOCENTRIC CONIC

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C3  36.882 VHL  6.073 DLA -24.64 RAL 286.28 RAD 6568.4 VEL 12.580 PTH   2.28 VHP  9.284 DPA -10.08 RAP 255.74 ECC 1.6070
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 46 43	1462.04	2.99	357.78	159.08	118.17	13 11 5	862.0	6.74	351.11
90.00	16 59 5	625.68	25.06	306.63	167.70	103.63	17 9 30	25.7	26.69	298.34
100.00	13 46 26	1269.25	.79	342.40	157.86	119.88	14 7 35	669.2	4.76	335.86
100.00	18 42 3	5581.74	27.52	260.74	168.33	102.16	20 15 4	4981.7	28.92	252.22
110.00	14 12 58	1186.00	-4.09	333.05	154.82	123.97	14 32 44	586.0	.39	326.84
110.00	20 31 59	5237.75	33.17	235.83	169.54	98.77	21 59 17	4637.7	34.03	226.69

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE  .5309 TRA 5.5604 TC3-1.9296 BAU  .9517   SGT 6249.5 SGR  575.5 SG3  198.9    ST  1803.9 SR   376.3 SS   602.5
ROE  .3720 RRA -.4362 RC3  .0452 FAU .01282   RRT -.7135 RRF -.6964 RTF  .9732    CRT -.0877 CRS -.0852 CST -.9848
FOE  .3496 FRA 2.1670 FC3 -.3009 BSP  20945   SGB 6275.9 R23 -.0013 R13 -.9732    LSA 1899.4 MSA  388.1 SSA   13.1
BOE  .6482 BRA 5.5775 BC3 1.9302 FSP   -718   SG1 6263.0 SG2  402.3 THA 176.23    EL1 1804.2 EL2  374.8 ALF 178.90
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LAUNCH DATE AUG 15 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 603.625

RL	151.51	LAL	.00	LOL	321.76	VL	26.119	GAL	10.76	AZL	90.29	HCA	290.07	SMA	124.07	ECC	.28645	INC	.2885
RP	108.58	LAP	.27	LOP	251.83	VP	37.079	GAP	15.06	AZP	90.10	TAL	150.10	TAP	80.17	RCA	88.53	APO	159.61
RC	161.784	GL	-1.16	GP	12.22	ZAL	35.83	ZAP	166.76	ETS	63.57	ZAE	121.82	ETE	172.53	ZAC	114.63	ETC	262.87

PLANETOCENTRIC CONIC

C3	40.980	VHL	6.402	DLA	-23.64	RAL	287.45	RAD	6568.6	VEL	12.742	PTH	2.32	VHP	9.688	DPA	-10.75	RAP	257.75

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 35 15	1544.83	.32	2.41	161.18	118.32	13 1 0	944.8	4.10	355.77
90.00	17 19 52	5884.15	25.52	282.50	170.75	102.71	18 57 56	5284.2	27.02	274.15
100.00	13 37 42	1343.22	-1.72	346.45	160.04	119.85	14 0 5	743.2	2.26	339.93
100.00	19 0 6	5561.00	27.81	259.27	171.30	101.43	20 32 47	4961.0	29.10	250.70
110.00	14 8 12	1247.61	-6.43	336.29	157.12	123.65	14 28 59	647.6	-1.96	330.05
110.00	20 46 6	5229.38	33.26	235.19	172.40	98.40	22 13 15	4629.4	34.06	226.04

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6803	TRA	5.9598	TC3	-1.7132	BAU	.9388	SGT	6252.0	SGR	558.1	SG3	189.7	ST	1851.1	SR	366.3	SS	610.0
RDE	.3820	RRA	-.4488	RC3	.0374	FAU	.01095	RRT	-.7022	RRF	-.6856	RTF	.9739	CRT	-.0320	CRS	-.1180	CST	-.9885
FDE	.3801	FRA	2.1988	FC3	-.2314	BSP	21111	SGB	6276.9	R23	-.0015	R13	-.9739	LSA	1947.1	MSA	376.4	SSA	12.7
BDE	.7802	BRA	5.9767	BC3	1.7136	FSP	-687	SG1	6264.3	SG2	396.5	THA	176.40	EL1	1851.2	EL2	366.1	ALF	179.62

LAUNCH DATE AUG 15 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 608.564

RL	151.51	LAL	.00	LOL	321.76	VL	26.088	GAL	11.59	AZL	90.09	HCA	293.25	SMA	123.88	ECC	.29681	INC	.0890
RP	108.61	LAP	.08	LOP	255.01	VP	37.047	GAP	15.79	AZP	90.04	TAL	148.99	TAP	82.23	RCA	87.11	APO	160.65
RC	163.865	GL	-.34	GP	11.90	ZAL	34.71	ZAP	167.44	ETS	67.61	ZAE	121.57	ETE	172.74	ZAC	114.43	ETC	263.38

PLANETOCENTRIC CONIC

C3	45.697	VHL	6.760	DLA	-22.69	RAL	288.54	RAD	6568.7	VEL	12.925	PTH	2.36	VHP	10.125	DPA	-11.36	RAP	259.78

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 25 57	1620.52	-2.12	6.63	163.38	118.24	12 52 58	1020.5	1.67	360.00
90.00	17 37 52	5863.35	25.82	281.05	173.73	102.04	19 15 36	5263.3	27.23	272.66
100.00	13 30 25	1412.44	-4.06	350.26	162.31	119.64	13 53 57	812.4	-.09	343.73
100.00	19 16 5	5546.66	26.00	258.25	174.22	100.93	20 48 32	4946.7	29.22	249.65
110.00	14 4 5	1306.90	-8.65	339.44	159.49	123.20	14 25 52	706.9	-4.22	333.16
110.00	20 58 55	5224.96	33.30	234.85	175.26	98.21	22 26 0	4625.0	34.08	225.70

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8363	TRA	6.3860	TC3	-1.5060	BAU	.9202	SGT	6250.4	SGR	540.1	SG3	181.0	ST	1898.4	SR	355.9	SS	618.1
RDE	.3922	RRA	-.4612	RC3	.0303	FAU	.00911	RRT	-.6912	RRF	-.6753	RTF	.9748	CRT	.0175	CRS	-.1469	CST	-.9913
FDE	.4089	FRA	2.2341	FC3	-.1726	BSP	21230	SGB	6273.7	R23	-.0016	R13	-.9748	LSA	1995.0	MSA	363.8	SSA	12.4
BDE	.9237	BRA	6.4027	BC3	1.5063	FSP	-657	SG1	6261.6	SG2	389.6	THA	176.57	EL1	1898.4	EL2	355.9	ALF	.20

LAUNCH DATE AUG 15 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 613.345

RL	151.51	LAL	.00	LOL	321.76	VL	26.058	GAL	12.49	AZL	89.88	HCA	296.42	SMA	123.70	ECC	.30817	INC	.1170
RP	108.65	LAP	-.11	LOP	258.18	VP	37.016	GAP	16.57	AZP	89.95	TAL	147.91	TAP	84.33	RCA	85.58	APO	161.82
RC	165.932	GL	.42	GP	11.60	ZAL	33.66	ZAP	168.03	ETS	72.16	ZAE	121.31	ETE	172.93	ZAC	114.24	ETC	263.90

PLANETOCENTRIC CONIC

C3	51.146	VHL	7.152	DLA	-21.80	RAL	289.55	RAD	6568.9	VEL	13.134	PTH	2.40	VHP	10.599	DPA	-11.91	RAP	261.81

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 18 11	1690.99	-4.38	10.57	165.67	118.00	12 46 22	1091.0	-.60	3.93
90.00	17 53 43	5849.20	26.02	280.06	176.65	101.58	19 31 12	5249.2	27.36	271.65
100.00	13 24 12	1477.89	-6.26	353.88	164.65	119.29	13 48 50	877.9	-2.30	347.32
100.00	19 30 23	5537.52	28.11	257.59	177.11	100.60	21 2 40	4937.5	29.29	248.98
110.00	14 0 29	1364.17	-10.77	342.52	161.91	122.64	14 23 13	764.2	-6.39	336.17
110.00	21 10 35	5224.01	33.31	234.78	178.11	98.17	22 37 39	4624.0	34.08	225.62

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0003	TRA	6.8425	TC3	-1.3084	BAU	.8948	SGT	6245.5	SGR	521.5	SG3	172.9	ST	1945.0	SR	345.1	SS	627.1
RDE	.4027	RRA	-.4732	RC3	.0237	FAU	.00727	RRT	-.6802	RRF	-.6652	RTF	.9759	CRT	.0619	CRS	-.1729	CST	-.9936
FDE	.4369	FRA	2.2736	FC3	-.1231	BSP	21287	SGB	6267.2	R23	-.0015	R13	-.9759	LSA	2042.6	MSA	350.6	SSA	12.0
BDE	1.0784	BRA	6.8588	BC3	1.3086	FSP	-627	SG1	6255.6	SG2	381.6	THA	176.74	EL1	1945.1	EL2	344.4	ALF	.65

LAUNCH DATE AUG 15 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 617.942

RL	151.51	LAL	.00	LOL	321.76	VL	26.028	GAL	13.47	AZL	89.66	HCA	299.59	SMA	123.52	ECC	.32064	INC	.3367
RP	108.68	LAP	-.29	LOP	261.36	VP	36.985	GAP	17.42	AZP	89.83	TAL	146.88	TAP	86.47	RCA	83.92	APO	163.13
RC	167.985	GL	1.13	GP	11.33	ZAL	32.70	ZAP	168.52	ETS	77.23	ZAE	121.02	ETE	173.12	ZAC	114.05	ETC	264.42

PLANETOCENTRIC CONIC

C3	57.463	VHL	7.580	DLA	-20.97	RAL	290.48	RAD	6569.0	VEL	13.372	PTH	2.44	VHP	11.116	DPA	-12.40	RAP	263.84

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 11 32	1757.34	-6.49	14.31	168.02	117.62	12 40 49	1157.3	-2.74	7.63
90.00	18 7 48	5840.38	26.14	279.44	179.53	101.29	19 45 9	5240.4	27.44	271.01
100.00	13 18 49	1540.22	-8.32	357.36	167.03	118.82	13 44 29	940.2	-4.41	350.75
100.00	19 43 13	5532.73	28.17	257.25	179.96	100.43	21 15 25	4932.7	29.32	248.63
110.00	13 57 18	1419.61	-12.79	345.55	164.37	121.97	14 20 57	819.6	-8.47	339.11
110.00	21 21 13	5226.11	33.29	234.94	180.94	98.26	22 48 19	4626.1	34.07	225.78

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1749	TRA	7.3338	TC3	-1.1201	BAU	.8606	SGT	6238.0	SGR	502.1	SG3	165.3	ST	1990.7	SR	333.9	SS	637.4
RDE	.4134	RRA	-.4844	RC3	.0176	FAU	.00540	RRT	-.6691	RRF	-.6551	RTF	.9771	CRT	.1022	CRS	-.1968	CST	-.9952
FDE	.4651	FRA	2.3183	FC3	-.0813	BSP	21248	SGB	6258.2	R23	-.0014	R13	-.9771	LSA	2089.8	MSA	336.8	SSA	11.6
BDE	1.2455	BRA	7.3498	BC3	1.1202	FSP	-595	SG1	6247.1	SG2	372.6	THA	176.91	EL1	1991.0	EL2	332.1	ALF	1.01

LAUNCH DATE AUG 16 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 25 1970

HELIOCENTRIC CONIC DISTANCE 152.507

RL	151.48	LAL	.00	LOL	322.72	VL	21.121	GAL	4.89	AZL	93.26	HCA	58.69	SMA	101.61	ECC	.49641	INC	3.2580
RP	108.45	LAP	-2.78	LOP	21.37	VP	33.783	GAP	-29.53	AZP	91.69	TAL	175.00	TAP	233.69	RCA	51.17	APO	152.05
RC	46.171	GL	-7.86	GP	-6.13	ZAL	75.95	ZAP	19.78	ETS	159.88	ZAE	164.95	ETE	170.06	ZAC	91.88	ETC	257.15

V1	29.412	V2	34.942	CLP	18.84														

PLANETOCENTRIC CONIC

C3	76.504	VHL	8.747	DLA	-29.21	RAL	243.57	RAD	6569.5	VEL	14.066	PTH	2.56	VHP	17.460	DPA	-18.70	RAP	216.14

ECC	2.2591																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.52	10 56 49	1422.91	10.79	359.05	133.62	117.31	11 20 32	822.9	14.36	352.13
97.48	13 0 23	1023.49	10.81	329.75	133.63	117.30	13 17 26	423.5	14.38	322.84
100.00	12 26 16	1132.97	5.38	334.89	130.68	119.45	12 45 9	533.0	9.27	328.26
100.00	14 13 38	788.66	16.31	315.18	136.44	115.40	14 26 46	188.7	19.60	307.93
110.00	12 10 11	1183.61	-4.00	332.93	124.89	123.98	12 29 54	583.6	.49	326.72
110.00	16 46 12	5598.83	26.39	261.64	141.24	112.56	18 19 31	4998.8	29.21	253.59

DIFFERENTIAL CORRECTIONS

TDE	.2012	TRA	-1.0430	TC3	-.0758	BAU	.0786
RDE	-.6785	RRA	-.0310	RC3	.0123	FAU	.01610
FDE	-.1473	FRA	.4868	FC3	-.1822	BSP	2045
BDE	.7077	BRA	1.0435	BC3	.0768	FSP	-90

MID-COURSE EXECUTION ACCURACY

SGT	804.8	SGR	445.6	SG3	42.7		
RRT	-.1205	RRF	.1249	RTF	-.6445		
SGB	919.9	R23	-.0140	R13	.6461		
SG1	807.3	SG2	440.9	THA	174.56		

ORBIT DETERMINATION ACCURACY

ST	269.3	SR	444.5	SS	220.8
CRT	-.4756	CRS	-.6475	CST	.9748
LSA	502.0	MSA	258.1	SSA	14.1
EL1	468.6	EL2	224.7	ALF	111.16

LAUNCH DATE AUG 16 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 158.913

RL	151.48	LAL	.00	LOL	322.72	VL	21.617	GAL	4.65	AZL	93.03	HCA	61.87	SMA	103.29	ECC	.47207	INC	3.0285
RP	108.42	LAP	-2.67	LOP	24.56	VP	34.108	GAP	-28.04	AZP	91.43	TAL	174.77	TAP	236.64	RCA	54.53	APO	152.05
RC	44.918	GL	-7.94	GP	-6.38	ZAL	75.43	ZAP	18.35	ETS	157.50	ZAE	166.98	ETE	170.53	ZAC	91.90	ETC	257.32

V1	29.412	V2	34.954	CLP	17.24														

PLANETOCENTRIC CONIC

C3	67.907	VHL	8.241	DLA	-29.38	RAL	244.14	RAD	6569.3	VEL	13.757	PTH	2.51	VHP	16.651	DPA	-19.50	RAP	217.60

ECC	2.1176																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.82	10 53 33	1412.74	11.72	358.79	132.50	117.13	11 17 5	812.7	15.27	351.83
98.18	13 8 13	977.66	11.74	326.86	132.51	117.13	13 24 30	377.7	15.28	319.90
100.00	12 35 46	1081.63	7.09	332.04	129.99	119.11	12 53 48	481.6	10.92	325.35
100.00	14 8 41	784.01	16.44	314.90	134.90	115.32	14 21 45	184.0	19.72	307.64
110.00	12 14 49	1147.63	-2.63	331.04	124.02	124.09	12 33 56	547.6	1.86	324.84
110.00	16 46 7	5578.82	26.90	260.31	139.81	111.93	18 19 6	4978.8	29.63	252.19

DIFFERENTIAL CORRECTIONS

TDE	.1999	TRA	-1.0289	TC3	-.0705	BAU	.0648
RDE	-.6465	RRA	-.0204	RC3	.0108	FAU	.01663
FDE	-.1498	FRA	.5027	FC3	-.2120	BSP	2206
BDE	.6767	BRA	1.0291	BC3	.0713	FSP	-101

MID-COURSE EXECUTION ACCURACY

SGT	840.7	SGR	450.2	SG3	46.8		
RRT	-.1352	RRF	.1397	RTF	-.6653		
SGB	953.7	R23	-.0150	R13	.6670		
SG1	843.8	SG2	444.4	THA	174.26		

ORBIT DETERMINATION ACCURACY

ST	282.8	SR	449.6	SS	229.4
CRT	-.4819	CRS	-.6447	CST	.9771
LSA	513.1	MSA	266.9	SSA	14.3
EL1	477.0	EL2	233.5	ALF	112.55

LAUNCH DATE AUG 16 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 165.374

RL	151.48	LAL	.00	LOL	322.72	VL	22.078	GAL	4.38	AZL	92.81	HCA	65.06	SMA	104.93	ECC	.44889	INC	2.8121
RP	108.38	LAP	-2.55	LOP	27.76	VP	34.415	GAP	-26.61	AZP	91.19	TAL	174.58	TAP	239.64	RCA	57.83	APO	152.03
RC	43.790	GL	-7.99	GP	-6.66	ZAL	75.01	ZAP	16.97	ETS	154.66	ZAE	169.18	ETE	171.39	ZAC	91.90	ETC	257.50

V1	29.412	V2	34.967	CLP	15.64														

PLANETOCENTRIC CONIC

C3	60.309	VHL	7.766	DLA	-29.51	RAL	244.61	RAD	6569.1	VEL	13.478	PTH	2.46	VHP	15.875	DPA	-20.33	RAP	219.07

ECC	1.9925																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.34	10 51 38	1396.33	12.65	358.06	131.22	116.88	11 14 55	796.3	16.16	351.05
98.66	13 13 53	936.96	12.67	324.33	131.23	116.87	13 29 30	337.0	16.18	317.32
100.00	12 43 48	1033.25	8.69	329.33	129.10	118.71	13 1 1	433.3	12.45	322.57
100.00	14 4 24	775.26	16.70	314.37	133.26	115.16	14 17 19	175.3	19.95	307.09
110.00	12 18 27	1113.10	-1.31	329.24	122.98	124.16	12 37 1	513.1	3.18	323.03
110.00	16 46 14	5556.22	27.47	258.80	138.23	111.19	18 18 50	4956.2	30.09	250.59

DIFFERENTIAL CORRECTIONS

TDE	.1984	TRA	-1.0154	TC3	-.0630	BAU	.0512
RDE	-.6154	RRA	-.0104	RC3	.0083	FAU	.01720
FDE	-.1522	FRA	.5190	FC3	-.2469	BSP	2354
BDE	.6466	BRA	1.0155	BC3	.0635	FSP	-113

MID-COURSE EXECUTION ACCURACY

SGT	878.7	SGR	454.3	SG3	51.4		
RRT	-.1507	RRF	.1560	RTF	-.6849		
SGB	989.1	R23	-.0169	R13	.6867		
SG1	882.2	SG2	447.3	THA	174.00		

ORBIT DETERMINATION ACCURACY

ST	296.9	SR	454.0	SS	238.2
CRT	-.4881	CRS	-.6420	CST	.9793
LSA	524.4	MSA	275.3	SSA	14.6
EL1	485.3	EL2	242.4	ALF	114.06

LAUNCH DATE AUG 16 1970 FLIGHT TIME 76.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 171.886

RL	151.48	LAL	.00	LOL	322.72	VL	22.505	GAL	4.11	AZL	92.61	HCA	68.25	SMA	106.54	ECC	.42687	INC	2.6065
RP	108.34	LAP	-2.42	LOP	30.95	VP	34.704	GAP	-25.25	AZP	90.97	TAL	174.45	TAP	242.70	RCA	61.06	APO	152.01
RC	42.797	GL	-8.02	GP	-6.95	ZAL	74.68	ZAP	15.64	ETS	151.27	ZAE	171.53	ETE	173.06	ZAC	91.87	ETC	257.69

V1	29.412	V2	34.980	CLP	14.05														

PLANETOCENTRIC CONIC

C3	53.592	VHL	7.321	DLA	-29.58	RAL	244.98	RAD	6568.9	VEL	13.227	PTH	2.42	VHP	15.131	DPA	-21.17	RAP	220.54

ECC	1.8820																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.05	10 50 56	1374.33	13.57	356.91	129.80	116.54	11 13 50	774.3	17.03	349.84
98.95	13 17 31	901.00	13.59	322.14	129.81	116.53	13 32 32	301.0	17.04	315.08
100.00	12 49 32	990.54	10.08	326.92	127.95	118.29	13 6 3	390.5	13.78	320.09
100.00	14 1 36	760.02	17.14	313.45	131.58	114.87	14 14 16	160.0	20.35	306.13
110.00	12 21 1	1080.45	-.06	327.54	121.79	124.18	12 39 1	480.4	4.42	321.32
110.00	16 46 36	5530.92	28.08	257.08	136.50	110.35	18 18 47	4930.9	30.58	248.78

DIFFERENTIAL CORRECTIONS

TDE	.1976	TRA	-1.0016	TC3	-.0522	BAU	.0375
RDE	-.5850	RRA	-.0010	RC3	.0048	FAU	.01784
FDE	-.1548	FRA	.5356	FC3	-.2882	BSP	2502
BDE	.6175	BRA	1.0016	BC3	.0524	FSP	-126

MID-COURSE EXECUTION ACCURACY

SGT	917.8	SGR	457.9	SG3	56.3		
RRT	-.1678	RRF	.1744	RTF	-.7036		
SGB	1025.6	R23	-.0193	R13	.7056		
SG1	922.0	SG2	449.3	THA	173.71		

ORBIT DETERMINATION ACCURACY

ST	311.5	SR	457.8	SS	247.2
CRT	-.4960	CRS	-.6402	CST	.9815
LSA	536.1	MSA	283.1	SSA	14.8
EL1	493.7	EL2	250.9	ALF	115.75

LAUNCH DATE AUG 16 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 178.444

RL	151.48	LAL	.00	LOL	322.72	VL	22.901	GAL	3.83	AZL	92.41	HCA	71.44	SMA	108.10	ECC	.40602	INC	2.4097	V1	29.412
RP	108.29	LAP	-2.28	LOP	34.15	VP	34.975	GAP	-23.95	AZP	90.77	TAL	174.36	TAP	245.81	RCA	64.21	APO	151.98	V2	34.993
RC	41.950	GL	-8.00	GP	-7.28	ZAL	74.45	ZAP	14.39	ETS	147.17	ZAE	174.01	ETE	176.62	ZAC	91.80	ETC	257.89	CLP	12.45

PLANETOCENTRIC CONIC

C3	47.655	VHL	6.903	DLA	-29.61	RAL	245.25	RAD	6568.8	VEL	13.001	PTH	2.37	VHP	14.417	DPA	-22.03	RAP	222.02	ECC	1.7843

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.97	10 51 19	1347.21	14.46	355.35	128.23	116.12	11 13 46	747.2	17.86	348.23
99.03	13 19 14	869.65	14.48	320.27	128.24	116.11	13 33 44	269.6	17.87	313.15
100.00	12 51 58	956.87	11.16	325.01	126.50	117.91	13 7 55	356.9	14.80	318.12
100.00	14 1 16	735.23	17.84	311.95	129.89	114.39	14 13 31	135.2	20.98	304.56
110.00	12 22 24	1050.11	1.10	325.96	120.42	124.17	12 39 54	450.1	5.57	319.73
110.00	16 47 20	5502.79	28.73	255.15	134.64	109.37	18 19 3	4902.8	31.10	246.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1916	TRA	-.9933	TC3	-.0425	BAU	.0271	SGT	963.3	SGR	461.0	SG3	61.8	ST	325.9	SR	460.9	SS	255.9
RDE	-.5553	RRA	.0080	RC3	-.0000	FAU	.01851	RRT	-.1813	RRF	.1938	RTF	-.7178	CRT	-.4923	CRS	-.6359	CST	.9818
FDE	-.1564	FRA	.5537	FC3	-.3362	BSP	2513	SGB	1067.9	R23	-.0275	R13	.7202	LSA	546.1	MSA	292.7	SSA	15.2
BDE	.5875	BRA	.9933	BC3	.0425	FSP	-139	SG1	967.9	SG2	451.2	THA	173.66	EL1	500.4	EL2	261.3	ALF	117.15

LAUNCH DATE AUG 16 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 185.042

RL	151.48	LAL	.00	LOL	322.72	VL	23.268	GAL	3.54	AZL	92.22	HCA	74.64	SMA	109.61	ECC	.38630	INC	2.2199	V1	29.412
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.229	GAP	-22.71	AZP	90.59	TAL	174.34	TAP	248.97	RCA	67.27	APO	151.95	V2	35.007
RC	41.257	GL	-7.94	GP	-7.65	ZAL	74.32	ZAP	13.24	ETS	142.21	ZAE	176.55	ETE	186.55	ZAC	91.69	ETC	258.10	CLP	10.84

PLANETOCENTRIC CONIC

C3	42.404	VHL	6.512	DLA	-29.57	RAL	245.40	RAD	6568.6	VEL	12.797	PTH	2.33	VHP	13.731	DPA	-22.92	RAP	223.49	ECC	1.6979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.10	10 52 58	1314.57	15.32	353.36	126.52	115.61	11 14 53	714.6	18.64	346.17
98.90	13 18 50	843.61	15.33	318.77	126.52	115.60	13 32 53	243.6	18.65	311.58
100.00	12 50 25	934.52	11.86	323.73	124.74	117.64	13 6 0	334.5	15.47	316.79
100.00	14 4 4	698.90	18.85	309.72	128.21	113.64	14 15 43	98.9	21.88	302.24
110.00	12 22 30	1022.53	2.15	324.52	118.89	124.12	12 39 33	422.5	6.61	318.27
110.00	16 48 29	5471.69	29.41	252.99	132.63	108.26	18 19 40	4871.7	31.62	244.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1944	TRA	-.9763	TC3	-.0219	BAU	.0130	SGT	1002.7	SGR	463.9	SG3	67.9	ST	342.1	SR	463.6	SS	265.2
RDE	-.5268	RRA	.0163	RC3	-.0068	FAU	.01930	RRT	-.2049	RRF	.2171	RTF	-.7363	CRT	-.5091	CRS	-.6361	CST	.9851
FDE	-.1595	FRA	.5709	FC3	-.3941	BSP	2724	SGB	1104.9	R23	-.0285	R13	.7389	LSA	559.8	MSA	297.7	SSA	15.4
BDE	.5615	BRA	.9764	BC3	.0229	FSP	-156	SG1	1008.4	SG2	451.5	THA	173.22	EL1	510.3	EL2	267.5	ALF	119.39

LAUNCH DATE AUG 16 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 191.675

RL	151.48	LAL	.00	LOL	322.72	VL	23.607	GAL	3.26	AZL	92.04	HCA	77.84	SMA	111.07	ECC	.36772	INC	2.0358	V1	29.412
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.468	GAP	-21.53	AZP	90.43	TAL	174.37	TAP	252.20	RCA	70.23	APO	151.91	V2	35.020
RC	40.727	GL	-7.83	GP	-8.05	ZAL	74.29	ZAP	12.22	ETS	136.21	ZAE	178.55	ETE	237.03	ZAC	91.54	ETC	258.32	CLP	9.23

PLANETOCENTRIC CONIC

C3	37.763	VHL	6.145	DLA	-29.47	RAL	245.45	RAD	6568.5	VEL	12.615	PTH	2.29	VHP	13.073	DPA	-23.82	RAP	224.96	ECC	1.6215

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.49	10 56 9	1275.75	16.12	350.88	124.67	115.01	11 17 25	675.8	19.36	343.61
98.51	13 16 3	823.89	16.13	317.70	124.68	115.00	13 29 47	223.9	19.37	310.44
100.00	12 45 6	923.00	12.23	323.06	122.69	117.49	13 0 29	323.0	15.81	316.11
100.00	14 9 47	651.87	20.10	306.79	126.52	112.60	14 20 39	51.9	22.99	299.19
110.00	12 21 14	998.17	3.08	323.24	117.20	124.06	12 37 53	398.2	7.53	316.98
110.00	16 50 8	5437.51	30.12	250.58	130.49	106.99	18 20 46	4837.5	32.15	241.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1962	TRA	-.9601	TC3	.0035	BAU	.0081	SGT	1044.4	SGR	466.6	SG3	74.5	ST	358.7	SR	465.5	SS	274.3
RDE	-.4992	RRA	.0242	RC3	-.0158	FAU	.02019	RRT	-.2297	RRF	.2429	RTF	-.7532	CRT	-.5245	CRS	-.6359	CST	.9879
FDE	-.1622	FRA	.5890	FC3	-.4629	BSP	2911	SGB	1143.9	R23	-.0310	R13	.7560	LSA	573.6	MSA	302.2	SSA	15.7
BDE	.5364	BRA	.9604	BC3	.0161	FSP	-175	SG1	1051.1	SG2	451.2	THA	172.81	EL1	520.3	EL2	273.2	ALF	121.65

LAUNCH DATE AUG 16 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 198.339

RL	151.48	LAL	.00	LOL	322.72	VL	23.922	GAL	2.98	AZL	91.86	HCA	81.04	SMA	112.47	ECC	.35023	INC	1.8559	V1	29.412
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.691	GAP	-20.39	AZP	90.29	TAL	174.45	TAP	255.49	RCA	73.08	APO	151.87	V2	35.033
RC	40.367	GL	-7.66	GP	-8.49	ZAL	74.36	ZAP	11.38	ETS	129.03	ZAE	177.15	ETE	312.14	ZAC	91.33	ETC	258.54	CLP	7.60

PLANETOCENTRIC CONIC

C3	33.663	VHL	5.802	DLA	-29.29	RAL	245.40	RAD	6568.3	VEL	12.451	PTH	2.25	VHP	12.441	DPA	-24.76	RAP	226.42	ECC	1.5540

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.19	11 1 28	1228.96	16.85	347.77	122.70	114.31	11 21 57	629.0	19.99	340.43
97.81	13 10 17	812.64	16.86	317.22	122.70	114.31	13 23 50	212.6	20.00	309.88
100.00	12 36 47	920.09	12.32	322.89	120.42	117.45	12 52 7	320.1	15.90	315.93
100.00	14 17 39	5884.78	21.51	281.21	124.77	111.28	15 55 44	5284.8	24.21	273.45
110.00	12 18 33	977.49	3.87	322.16	115.36	123.99	12 34 50	377.5	8.30	315.88
110.00	16 52 23	5400.14	30.83	247.90	128.22	105.55	18 22 23	4800.1	32.65	239.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1979	TRA	-.9441	TC3	.0346	BAU	.0199	SGT	1087.4	SGR	469.2	SG3	81.9	ST	375.5	SR	466.9	SS	283.4
RDE	-.4726	RRA	.0319	RC3	-.0274	FAU	.02116	RRT	-.2569	RRF	.2719	RTF	-.7690	CRT	-.5400	CRS	-.6357	CST	.9904
FDE	-.1649	FRA	.6080	FC3	-.5443	BSP	3093	SGB	1184.3	R23	-.0345	R13	.7720	LSA	587.8	MSA	305.8	SSA	16.0
BDE	.5124	BRA	.9446	BC3	.0441	FSP	-196	SG1	1095.4	SG2	450.1	THA	172.38	EL1	530.7	EL2	278.0	ALF	123.94

LAUNCH DATE AUG 16 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 205.029

RL	151.48	LAL	.00	LOL	322.72	VL	24.212	GAL	2.70	AZL	91.68	HCA	84.24	SMA	113.82	ECC	.33383	INC	1.6790	V1	29.412
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.899	GAP	-19.30	AZP	90.17	TAL	174.59	TAP	258.83	RCA	75.83	APO	151.82	V2	35.046
RC	40.182	GL	-7.43	GP	-8.98	ZAL	74.54	ZAP	10.76	ETS	120.65	ZAE	174.42	ETE	326.41	ZAC	91.07	ETC	258.77	CLP	5.96

PLANETOCENTRIC CONIC

C3	30.045	VHL	5.481	DLA	-29.03	RAL	245.23	RAD	6568.2	VEL	12.305	PTH	2.22	VHP	11.835	DPA	-25.72	RAP	227.86	ECC	1.4945

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.34	11 9 59	1170.85	17.49	343.78	120.60	113.54	11 29 30	570.8	20.53	336.37
96.66	13 0 28	813.53	17.51	317.59	120.61	113.53	13 14 1	213.5	20.54	310.17
100.00	12 26 11	923.67	12.21	323.10	117.99	117.50	12 41 35	323.7	15.79	316.15
100.00	14 26 57	5823.97	22.96	277.27	122.91	109.69	16 4 1	5224.0	25.43	269.35
110.00	12 14 21	960.91	4.50	321.29	113.37	123.92	12 30 22	360.9	8.92	315.00
110.00	16 55 16	5359.50	31.54	244.94	125.82	103.93	18 24 36	4759.5	33.13	236.08

DIFFERENTIAL CORRECTIONS

TDE	.1991	TRA	-.9279	TC3	.0724	BAU	.0337
RDE	-.4471	RRA	.0394	RC3	-.0425	FAU	.02225
FDE	-.1671	FRA	.6279	FC3	-.6412	BSP	3258
BDE	.4894	BRA	.9287	BC3	.0840	FSP	-219

MID-COURSE EXECUTION ACCURACY

SGT	1131.4	SGR	472.0	SG3	90.1		
RRT	-.2868	RRF	.3042	RTF	-.7836		
SGB	1225.9	R23	-.0391	R13	.7870		
SG1	1141.0	SG2	448.4	THA	171.92		

ORBIT DETERMINATION ACCURACY

ST	392.5	SR	467.6	SS	292.2
CRT	-.5556	CRS	-.6351	CST	.9926
LSA	602.3	MSA	308.4	SSA	16.3
EL1	541.6	EL2	281.7	ALF	126.22

LAUNCH DATE AUG 16 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 211.740

RL	151.48	LAL	.00	LOL	322.72	VL	24.481	GAL	2.42	AZL	91.50	HCA	87.44	SMA	115.12	ECC	.31847	INC	1.5040	V1	29.412
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.094	GAP	-18.25	AZP	90.07	TAL	174.79	TAP	262.24	RCA	78.45	APO	151.78	V2	35.060
RC	40.174	GL	-7.12	GP	-9.52	ZAL	74.81	ZAP	10.43	ETS	111.25	ZAE	171.55	ETE	330.75	ZAC	90.75	ETC	259.00	CLP	4.29

PLANETOCENTRIC CONIC

C3	26.853	VHL	5.182	DLA	-28.67	RAL	244.97	RAD	6568.1	VEL	12.175	PTH	2.18	VHP	11.254	DPA	-26.72	RAP	229.28	ECC	1.4419

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.32	11 25 0	1091.01	18.04	338.15	118.40	112.67	11 43 11	491.0	20.95	330.67
94.68	12 43 21	837.30	18.05	319.58	118.41	112.66	12 57 18	237.3	20.97	312.09
100.00	12 13 50	932.48	11.93	323.61	115.44	117.61	12 29 22	332.5	15.53	316.67
100.00	14 37 12	5759.11	24.38	272.98	120.91	107.86	16 13 11	5159.1	26.59	264.88
110.00	12 8 38	948.79	4.96	320.65	111.25	123.86	12 24 27	348.8	9.37	314.35
110.00	16 58 53	5315.56	32.21	241.69	123.29	102.12	18 27 28	4715.6	33.54	232.71

DIFFERENTIAL CORRECTIONS

TDE	.1998	TRA	-.9113	TC3	.1177	BAU	.0477
RDE	-.4226	RRA	.0468	RC3	-.0617	FAU	.02344
FDE	-.1686	FRA	.6489	FC3	-.7558	BSP	3433
BDE	.4674	BRA	.9125	BC3	.1329	FSP	-245

MID-COURSE EXECUTION ACCURACY

SGT	1175.7	SGR	475.2	SG3	99.2		
RRT	-.3198	RRF	.3399	RTF	-.7972		
SGB	1268.1	R23	-.0444	R13	.8010		
SG1	1187.1	SG2	446.0	THA	171.42		

ORBIT DETERMINATION ACCURACY

ST	409.2	SR	467.5	SS	300.5
CRT	-.5712	CRS	-.6332	CST	.9946
LSA	616.4	MSA	310.0	SSA	16.6
EL1	552.5	EL2	284.2	ALF	128.42

LAUNCH DATE AUG 16 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 218.470

RL	151.48	LAL	.00	LOL	322.72	VL	24.729	GAL	2.16	AZL	91.33	HCA	90.65	SMA	116.35	ECC	.30413	INC	1.3297	V1	29.412
RP	108.05	LAP	-1.33	LOP	53.38	VP	36.275	GAP	-17.24	AZP	89.98	TAL	175.05	TAP	265.70	RCA	80.96	APO	151.73	V2	35.073
RC	40.345	GL	-6.72	GP	-10.11	ZAL	75.19	ZAP	10.44	ETS	101.29	ZAE	168.67	ETE	332.46	ZAC	90.35	ETC	259.24	CLP	2.60

PLANETOCENTRIC CONIC

C3	24.042	VHL	4.903	DLA	-28.21	RAL	244.61	RAD	6568.0	VEL	12.059	PTH	2.16	VHP	10.697	DPA	-27.75	RAP	230.67	ECC	1.3957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 41 1	1007.30	16.69	331.43	115.34	113.21	11 57 48	407.3	19.69	324.04
90.00	12 24 26	866.44	20.25	322.62	116.84	110.23	12 38 53	266.4	22.82	314.90
100.00	12 0 0	945.86	11.51	324.38	112.79	117.78	12 15 46	345.9	15.13	317.47
100.00	14 48 9	5691.15	25.72	268.37	118.77	105.79	16 23 0	5091.2	27.63	260.09
110.00	12 1 23	941.49	5.24	320.27	109.02	123.83	12 17 5	341.5	9.64	313.95
110.00	17 3 14	5268.29	32.83	238.14	120.64	100.11	18 31 3	4668.3	33.88	229.06

DIFFERENTIAL CORRECTIONS

TDE	.1998	TRA	-.8951	TC3	.1716	BAU	.0617
RDE	-.3990	RRA	.0542	RC3	-.0861	FAU	.02478
FDE	-.1694	FRA	.6717	FC3	-.8923	BSP	3584
BDE	.4463	BRA	.8967	BC3	.1920	FSP	-273

MID-COURSE EXECUTION ACCURACY

SGT	1221.2	SGR	479.3	SG3	109.2		
RRT	-.3560	RRF	.3799	RTF	-.8100		
SGB	1311.9	R23	-.0511	R13	.8143		
SG1	1234.9	SG2	442.9	THA	170.86		

ORBIT DETERMINATION ACCURACY

ST	425.8	SR	466.8	SS	308.3
CRT	-.5863	CRS	-.6302	CST	.9961
LSA	630.3	MSA	310.9	SSA	17.0
EL1	563.5	EL2	285.7	ALF	130.54

LAUNCH DATE AUG 16 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 225.212

RL	151.48	LAL	.00	LOL	322.72	VL	24.957	GAL	1.90	AZL	91.16	HCA	93.86	SMA	117.52	ECC	.29078	INC	1.1550	V1	29.412
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.444	GAP	-16.27	AZP	89.92	TAL	175.35	TAP	269.22	RCA	83.34	APO	151.69	V2	35.086
RC	40.692	GL	-6.22	GP	-10.78	ZAL	75.67	ZAP	10.82	ETS	91.43	ZAE	165.82	ETE	333.09	ZAC	89.88	ETC	259.47	CLP	.88

PLANETOCENTRIC CONIC

C3	21.569	VHL	4.644	DLA	-27.63	RAL	244.15	RAD	6567.9	VEL	11.956	PTH	2.13	VHP	10.164	DPA	-28.84	RAP	232.02	ECC	1.3550

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 6 13	1088.61	14.45	336.34	111.87	114.62	11 24 21	488.6	17.65	329.13
90.00	12 55 38	732.36	23.15	313.87	115.34	106.77	13 7 51	132.4	25.23	305.81
100.00	11 44 53	963.59	10.94	325.39	110.09	117.99	12 0 57	363.6	14.60	318.51
100.00	14 59 39	5620.64	26.93	263.48	116.47	103.49	16 33 19	5020.6	28.52	255.04
110.00	11 52 37	939.30	5.32	320.16	106.70	123.82	12 8 17	339.3	9.72	313.84
110.00	17 8 24	5217.70	33.37	234.30	117.87	97.89	18 35 22	4617.7	34.10	225.13

DIFFERENTIAL CORRECTIONS

TDE	.1976	TRA	-.8796	TC3	.2319	BAU	.0748
RDE	-.3764	RRA	.0619	RC3	-.1164	FAU	.02623
FDE	-.1683	FRA	.6961	FC3	-1.0528	BSP	3707
BDE	.4251	BRA	.8818	BC3	.2595	FSP	-303

MID-COURSE EXECUTION ACCURACY

SGT	1267.3	SGR	484.5	SG3	120.3		
RRT	-.3942	RRF	.4234	RTF	-.8208		
SGB	1356.8	R23	-.0603	R13	.8258		
SG1	1283.6	SG2	439.6	THA	170.28		

ORBIT DETERMINATION ACCURACY

ST	441.0	SR	465.1	SS	314.8
CRT	-.5984	CRS	-.6239	CST	.9972
LSA	642.3	MSA	311.6	SSA	17.4
EL1	573.3	EL2	286.7	ALF	132.46

LAUNCH DATE AUG 16 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 231.964

RL	151.48	LAL	.00	LOL	322.72	VL	25.168	GAL	1.65	AZL	90.98	HCA	97.07	SMA	118.62	ECC	.27838	INC	.9789	V1	29.412
RP	107.97	LAP	-.97	LOP	59.80	VP	36.600	GAP	-15.34	AZP	89.88	TAL	175.71	TAP	272.79	RCA	85.60	APO	151.65	V2	35.098
RC	41.209	GL	-5.60	GP	-11.52	ZAL	76.25	ZAP	11.56	ETS	82.30	ZAE	163.05	ETE	333.12	ZAC	89.32	ETC	259.71	CLP	-.88

PLANETOCENTRIC CONIC

C3 19.399 VHL 4.404 DLA -26.92 RAL 243.62 RAD 6567.8 VEL 11.865 PTH 2.10 VHP 9.654 DPA -29.97 RAP 233.33 ECC 1.3193

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 40 50	1140.06	12.97	339.39	108.78	115.39	10 59 50	540.1	16.28	332.28
90.00	13 16 45	630.22	24.99	306.95	113.29	103.77	13 27 16	30.2	26.64	298.67
100.00	11 28 38	985.65	10.23	326.65	107.36	118.24	11 45 3	385.7	13.93	319.81
100.00	15 11 39	5547.89	27.98	258.33	114.02	100.97	16 44 6	4947.9	29.21	249.75
110.00	11 42 23	942.46	5.20	320.32	104.31	123.83	11 58 5	342.5	9.61	314.01
110.00	17 14 22	5163.84	33.80	230.15	115.00	95.47	18 40 26	4563.8	34.18	220.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1934	TRA	-.8654	TC3	.3006	BAU	.0876	SGT	1314.4	SGR	491.5	SG3	132.6	ST	454.8	SR	462.2	SS	319.8
RDE	-.3545	RRA	.0701	RC3	-.1540	FAU	.02782	RRT	-.4351	RRF	.4704	RTF	-.8308	CRT	-.6074	CRS	-.6116	CST	.9976
FDE	-.1643	FRA	.7236	FC3	-1.2417	BSP	3830	SGB	1403.3	R23	-.0712	R13	.8365	LSA	651.7	MSA	312.6	SSA	17.9
BDE	.4038	BRA	.8683	BC3	.3378	FSP	-337	SG1	1333.8	SG2	436.1	THA	169.64	EL1	581.4	EL2	287.2	ALF	134.24

LAUNCH DATE AUG 16 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 238.721

RL	151.48	LAL	.00	LOL	322.72	VL	25.361	GAL	1.41	AZL	90.80	HCA	100.29	SMA	119.67	ECC	.26689	INC	.8002	V1	29.412
RP	107.93	LAP	-.79	LOP	63.01	VP	36.746	GAP	-14.44	AZP	89.86	TAL	176.12	TAP	276.41	RCA	87.73	APO	151.61	V2	35.111
RC	41.891	GL	-4.86	GP	-12.35	ZAL	76.92	ZAP	12.64	ETS	74.29	ZAE	160.38	ETE	332.77	ZAC	88.66	ETC	259.94	CLP	-2.69

PLANETOCENTRIC CONIC

C3 17.496 VHL 4.183 DLA -26.06 RAL 243.01 RAD 6567.7 VEL 11.785 PTH 2.08 VHP 9.167 DPA -31.17 RAP 234.59 ECC 1.2879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 17 26	1186.09	11.61	342.09	105.80	116.01	10 37 12	586.1	15.01	335.07
90.00	13 35 17	5823.86	26.35	278.28	110.97	100.75	15 12 21	5223.9	27.57	269.82
100.00	11 11 17	1012.18	9.37	328.15	104.63	118.51	11 28 9	412.2	13.11	321.35
100.00	15 24 7	5472.99	28.83	252.93	111.43	98.25	16 55 20	4873.0	29.67	244.23
110.00	11 30 43	951.22	4.87	320.78	101.88	123.88	11 46 34	351.2	9.28	314.48
110.00	17 21 11	5106.72	34.08	225.71	112.03	92.86	18 46 18	4506.7	34.10	216.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1988	TRA	-.8396	TC3	.4031	BAU	.1055	SGT	1351.7	SGR	502.4	SG3	146.5	ST	470.9	SR	459.2	SS	324.9
RDE	-.3342	RRA	.0781	RC3	-.2024	FAU	.02979	RRT	-.4921	RRF	.5244	RTF	-.8459	CRT	-.6401	CRS	-.6068	CST	.9968
FDE	-.1625	FRA	.7490	FC3	-1.4742	BSP	4196	SGB	1442.0	R23	-.0703	R13	.8521	LSA	666.4	MSA	306.2	SSA	18.2
BDE	.3888	BRA	.8432	BC3	.4511	FSP	-383	SG1	1376.6	SG2	429.4	THA	168.50	EL1	595.7	EL2	278.9	ALF	136.13

LAUNCH DATE AUG 16 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 245.482

RL	151.48	LAL	.00	LOL	322.72	VL	25.539	GAL	1.18	AZL	90.62	HCA	103.51	SMA	120.65	ECC	.25629	INC	.6177	V1	29.412
RP	107.89	LAP	-.60	LOP	66.23	VP	36.880	GAP	-13.58	AZP	89.86	TAL	176.57	TAP	280.07	RCA	89.73	APO	151.58	V2	35.123
RC	42.728	GL	-3.97	GP	-13.28	ZAL	77.68	ZAP	14.02	ETS	67.55	ZAE	157.84	ETE	332.12	ZAC	87.89	ETC	260.16	CLP	-4.54

PLANETOCENTRIC CONIC

C3 15.835 VHL 3.979 DLA -25.05 RAL 242.35 RAD 6567.6 VEL 11.714 PTH 2.06 VHP 8.702 DPA -32.45 RAP 235.77 ECC 1.2606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 54 38	1231.79	10.23	344.74	102.93	116.55	10 15 10	631.8	13.72	337.80
90.00	13 52 47	5732.41	27.35	271.77	108.46	97.63	15 28 20	5132.4	28.12	263.19
100.00	10 53 0	1043.38	8.36	329.90	101.93	118.81	11 10 23	443.4	12.14	323.15
100.00	15 37 7	5396.06	29.45	247.30	108.73	95.35	17 7 3	4796.1	29.88	238.52
110.00	11 17 44	965.79	4.31	321.55	99.45	123.94	11 33 49	365.8	8.74	315.26
110.00	17 28 52	5046.41	34.18	221.01	109.00	90.07	18 52 58	4446.4	33.82	211.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1943	TRA	-.8221	TC3	.5001	BAU	.1194	SGT	1394.2	SGR	516.1	SG3	161.6	ST	481.7	SR	453.8	SS	326.8
RDE	-.3139	RRA	.0872	RC3	-.2605	FAU	.03181	RRT	-.5421	RRF	.5787	RTF	-.8557	CRT	-.6533	CRS	-.5869	CST	.9941
FDE	-.1538	FRA	.7797	FC3	-1.7391	BSP	4358	SGB	1486.7	R23	-.0801	R13	.8628	LSA	672.1	MSA	304.7	SSA	18.7
BDE	.3691	BRA	.8267	BC3	.5639	FSP	-428	SG1	1424.8	SG2	424.4	THA	167.53	EL1	602.0	EL2	275.0	ALF	137.61

LAUNCH DATE AUG 16 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 252.241

RL	151.48	LAL	.00	LOL	322.72	VL	25.702	GAL	.96	AZL	90.43	HCA	106.72	SMA	121.58	ECC	.24652	INC	.4300	V1	29.412
RP	107.86	LAP	-.41	LOP	69.45	VP	37.004	GAP	-12.74	AZP	89.88	TAL	177.05	TAP	283.77	RCA	91.61	APO	151.55	V2	35.135
RC	43.711	GL	-2.92	GP	-14.32	ZAL	78.52	ZAP	15.68	ETS	62.01	ZAE	155.43	ETE	331.22	ZAC	87.00	ETC	260.38	CLP	-6.46

PLANETOCENTRIC CONIC

C3 14.390 VHL 3.793 DLA -23.86 RAL 241.64 RAD 6567.6 VEL 11.652 PTH 2.05 VHP 8.261 DPA -33.81 RAP 236.87 ECC 1.2368

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 53	1279.41	8.77	347.48	100.16	117.03	9 53 12	679.4	12.33	340.60
90.00	14 9 54	5641.89	28.00	265.23	105.83	94.42	15 43 56	5041.9	28.32	256.58
100.00	10 33 49	1079.50	7.17	331.92	99.29	119.10	10 51 48	479.5	10.99	325.22
100.00	15 50 39	5317.04	29.81	241.45	105.95	92.29	17 19 16	4717.0	29.81	232.65
110.00	11 3 31	986.36	3.53	322.62	97.05	124.02	11 19 57	386.4	7.97	316.35
110.00	17 37 26	4982.94	34.08	216.05	105.93	87.14	19 0 29	4382.9	33.31	206.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1874	TRA	-.8043	TC3	.6081	BAU	.1333	SGT	1434.4	SGR	535.0	SG3	178.5	ST	489.0	SR	446.5	SS	326.8
RDE	-.2939	RRA	.0975	RC3	-.3316	FAU	.03406	RRT	-.5936	RRF	.6348	RTF	-.8647	CRT	-.6640	CRS	-.5572	CST	.9884
FDE	-.1404	FRA	.8137	FC3	-2.0489	BSP	4536	SGB	1530.9	R23	-.0911	R13	.8731	LSA	672.9	MSA	303.6	SSA	19.2
BDE	.3485	BRA	.8102	BC3	.6927	FSP	-478	SG1	1472.3	SG2	419.4	THA	166.39	EL1	604.6	EL2	270.0	ALF	138.90

LAUNCH DATE AUG 16 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 258.997

RL	151.48	LAL	.00	LOL	322.72	VL	25.851	GAL	.76	AZL	90.24	HCA	109.95	SMA	122.44	ECC	.23756	INC	.2357	V1	29.412
RP	107.82	LAP	-.22	LOP	72.67	VP	37.119	GAP	-11.94	AZP	89.92	TAL	177.56	TAP	287.51	RCA	93.35	APO	151.53	V2	35.146
RC	44.829	GL	-1.68	GP	-15.49	ZAL	79.44	ZAP	17.59	ETS	57.51	ZAE	153.16	ETE	330.07	ZAC	85.97	ETC	260.58	CLP	-8.44

PLANETOCENTRIC CONIC

C3	13.138	VHL	3.625	DLA	-22.47	RAL	240.91	RAD	6567.5	VEL	11.598	PTH	2.03	VHP	7.843	DPA	-35.26	RAP	237.88	ECC	1.2162		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 8 56	1330.28	7.18	350.37	97.51	117.46	9 31 6	730.3	10.81	343.57
90.00	14 27 0	5551.20	28.30	258.61	103.12	91.11	15 59 31	4951.2	28.15	249.95
100.00	10 13 49	1120.85	5.79	334.22	96.76	119.38	10 32 30	520.8	9.66	327.57
100.00	16 4 48	5235.86	29.88	235.42	103.13	89.12	17 32 4	4635.9	29.44	226.64
110.00	10 48 11	1013.14	2.51	324.03	94.72	124.10	11 5 4	413.1	6.97	317.78
110.00	17 46 56	4916.33	33.73	210.88	102.86	84.10	19 8 52	4316.3	32.55	201.85

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1782	TRA	-.7881	TC3	.7210	BAU	.1463	SGT	1473.1	SGR	560.3	SG3	196.9	ST	493.1	SR	436.8	SS	325.5
RDE	-.2740	RRA	.1092	RC3	-.4173	FAU	.03646	RRT	-.6444	RRF	.6908	RTF	-.8725	CRT	-.6723	CRS	-.5151	CST	.9782
FDE	-.1214	FRA	.8521	FC3	-2.4025	BSP	4696	SGB	1576.0	R23	-.1044	R13	.8824	LSA	668.9	MSA	303.3	SSA	19.8
BDE	.3268	BRA	.7956	BC3	.8330	FSP	-533	SG1	1520.4	SG2	415.1	THA	165.09	EL1	603.4	EL2	264.2	ALF	140.13

LAUNCH DATE AUG 16 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 265.747

RL	151.48	LAL	.00	LOL	322.72	VL	25.987	GAL	.56	AZL	90.03	HCA	113.17	SMA	123.24	ECC	.22937	INC	.0313	V1	29.412
RP	107.79	LAP	-.03	LOP	75.89	VP	37.224	GAP	-11.16	AZP	89.99	TAL	178.10	TAP	291.27	RCA	94.97	APO	151.51	V2	35.158
RC	46.073	GL	-.25	GP	-16.81	ZAL	80.42	ZAP	19.74	ETS	53.87	ZAE	151.03	ETE	328.69	ZAC	84.77	ETC	260.77	CLP	-10.50

PLANETOCENTRIC CONIC

C3	12.061	VHL	3.473	DLA	-20.87	RAL	240.17	RAD	6567.5	VEL	11.552	PTH	2.02	VHP	7.449	DPA	-36.84	RAP	238.77	ECC	1.1985		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 45 42	1385.34	5.44	353.48	95.03	117.83	9 8 47	785.3	9.13	346.74
90.00	14 44 22	5459.59	28.24	251.91	100.40	87.76	16 15 22	4859.6	27.63	243.30
100.00	9 53 6	1167.78	4.22	336.82	94.35	119.62	10 12 34	567.8	8.13	330.22
100.00	16 19 38	5152.39	29.63	229.23	100.31	85.87	17 45 31	4552.4	28.74	220.53
110.00	10 31 50	1046.38	1.24	325.76	92.50	124.16	10 49 17	446.4	5.71	319.53
110.00	17 57 24	4846.55	33.12	205.53	99.84	80.99	19 18 10	4246.6	31.52	196.67

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1659	TRA	-.7704	TC3	.8443	BAU	.1600	SGT	1506.3	SGR	593.6	SG3	217.2	ST	491.6	SR	423.2	SS	322.6
RDE	-.2534	RRA	.1225	RC3	-.5208	FAU	.03912	RRT	-.6942	RRF	.7447	RTF	-.8802	CRT	-.6780	CRS	-.4511	CST	.9590
FDE	-.0933	FRA	.8939	FC3	-2.8083	BSP	4891	SGB	1619.1	R23	-.1171	R13	.8919	LSA	657.1	MSA	304.5	SSA	20.5
BDE	.3028	BRA	.7800	BC3	.9920	FSP	-597	SG1	1566.0	SG2	411.0	THA	163.53	EL1	595.7	EL2	256.7	ALF	141.26

LAUNCH DATE AUG 16 1970 FLIGHT TIME 106.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 272.489

RL	151.48	LAL	.00	LOL	322.72	VL	26.111	GAL	.38	AZL	89.82	HCA	116.39	SMA	123.98	ECC	.22189	INC	.1787	V1	29.412
RP	107.76	LAP	.16	LOP	79.12	VP	37.321	GAP	-10.41	AZP	90.08	TAL	178.66	TAP	295.05	RCA	96.47	APO	151.50	V2	35.168
RC	47.431	GL	1.40	GP	-18.30	ZAL	81.45	ZAP	22.12	ETS	50.94	ZAE	149.02	ETE	327.06	ZAC	83.39	ETC	260.93	CLP	-12.65

PLANETOCENTRIC CONIC

C3	11.143	VHL	3.338	DLA	-19.05	RAL	239.45	RAD	6567.4	VEL	11.512	PTH	2.01	VHP	7.078	DPA	-38.55	RAP	239.51	ECC	1.1834		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 6	1445.37	3.53	356.85	92.73	118.11	8 46 12	845.4	7.26	350.16
90.00	15 2 13	5366.53	27.80	245.14	97.71	84.39	16 31 40	4766.5	26.73	236.64
100.00	9 31 44	1220.66	2.43	339.73	92.13	119.80	9 52 5	620.7	6.38	333.17
100.00	16 35 16	5066.47	29.04	222.91	97.55	82.59	17 59 43	4466.5	27.71	214.36
110.00	10 14 37	1086.31	-.29	327.84	90.43	124.18	10 32 43	486.3	4.20	321.63
110.00	18 8 53	4773.59	32.20	200.03	96.92	77.86	19 28 27	4173.6	30.20	191.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1516	TRA	-.7557	TC3	.9724	BAU	.1738	SGT	1540.1	SGR	638.3	SG3	239.7	ST	487.4	SR	405.7	SS	322.3
RDE	-.2321	RRA	.1384	RC3	-.6450	FAU	.04205	RRT	-.7408	RRF	.7956	RTF	-.8871	CRT	-.6826	CRS	-.3688	CST	.9279
FDE	-.0574	FRA	.9428	FC3	-3.2670	BSP	5012	SGB	1667.1	R23	-.1316	R13	.9012	LSA	641.1	MSA	307.5	SSA	21.1
BDE	.2772	BRA	.7682	BC3	1.1669	FSP	-660	SG1	1616.3	SG2	408.6	THA	161.73	EL1	583.8	EL2	247.5	ALF	142.56

LAUNCH DATE AUG 16 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 279.219

RL	151.48	LAL	.00	LOL	322.72	VL	26.224	GAL	.21	AZL	89.60	HCA	119.62	SMA	124.67	ECC	.21510	INC	.4037	V1	29.412
RP	107.72	LAP	.35	LOP	82.34	VP	37.409	GAP	-9.69	AZP	90.20	TAL	179.22	TAP	298.84	RCA	97.85	APO	151.49	V2	35.179
RC	48.893	GL	3.29	GP	-19.97	ZAL	82.51	ZAP	24.73	ETS	48.55	ZAE	147.11	ETE	325.16	ZAC	81.81	ETC	261.07	CLP	-14.89

PLANETOCENTRIC CONIC

C3	10.370	VHL	3.220	DLA	-16.98	RAL	238.77	RAD	6567.4	VEL	11.479	PTH	2.00	VHP	6.734	DPA	-40.42	RAP	240.09	ECC	1.1707		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 9	1511.08	1.41	.52	90.68	118.28	8 23 20	911.1	5.18	353.87
90.00	15 20 45	5271.54	26.98	238.31	95.13	81.06	16 48 37	4671.5	25.47	229.97
100.00	9 9 47	1279.95	.42	342.98	90.13	119.89	9 31 7	679.9	4.40	336.45
100.00	16 51 49	4977.91	28.10	216.50	94.91	79.35	18 14 47	4377.9	26.34	208.14
110.00	9 56 37	1133.23	-2.08	330.29	88.56	124.13	10 15 30	533.2	2.41	324.09
110.00	18 21 28	4697.38	30.97	194.43	94.15	74.76	19 39 46	4097.4	28.57	186.06

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1327	TRA	-.7392	TC3	1.0860	BAU	.1860	SGT	1560.8	SGR	693.1	SG3	263.1	ST	475.8	SR	381.6	SS	325.9
RDE	-.2086	RRA	.1568	RC3	-.7880	FAU	.04496	RRT	-.7800	RRF	.8395	RTF	-.8921	CRT	-.6831	CRS	-.2547	CST	.8767
FDE	-.0072	FRA	.9950	FC3	-3.7532	BSP	5212	SGB	1707.8	R23	-.1474	R13	.9093	LSA	615.7	MSA	314.0	SSA	21.7
BDE	.2472	BRA	.7557	BC3	1.3418	FSP	-736	SG1	1658.3	SG2	408.3	THA	159.60	EL1	562.5	EL2	235.7	ALF	144.02

LAUNCH DATE AUG 16 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 285.936

RL	151.48	LAL	.00	LOL	322.72	VL	26.326	GAL	.06	AZL	89.36	HCA	122.85	SMA	125.30	ECC	.20896	INC	.6439	V1	29.412
RP	107.69	LAP	.54	LOP	85.57	VP	37.490	GAP	-8.99	AZP	90.35	TAL	179.79	TAP	302.63	RCA	99.12	APO	151.48	V2	35.188
RC	50.451	GL	5.44	GP	-21.87	ZAL	83.60	ZAP	27.58	ETS	46.59	ZAE	145.27	ETE	322.98	ZAC	80.00	ETC	261.17	CLP	-17.24

PLANETOCENTRIC CONIC

C3	9.734	VHL	3.120	DLA	-14.66	RAL	238.16	RAD	6567.4	VEL	11.451	PTH	1.99	VHP	6.416	DPA	-42.47	RAP	240.46	ECC	1.1602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 49	1583.16	-.92	4.54	88.89	118.30	8 0 12	983.2	2.87	357.91
90.00	15 40 11	5174.20	25.77	231.45	92.73	77.83	17 6 25	4574.2	23.83	223.31
100.00	8 47 17	1346.12	-1.82	346.61	88.39	119.84	9 9 43	746.1	2.16	340.09
100.00	17 9 24	4886.47	26.78	210.02	92.47	76.19	18 30 51	4286.5	24.61	201.89
110.00	9 37 55	1187.51	-4.15	333.13	86.94	123.96	9 57 42	587.5	.34	326.92
110.00	18 35 15	4617.85	29.41	188.77	91.61	71.74	19 52 13	4017.9	26.64	180.68

DIFFERENTIAL CORRECTIONS

TDE	.1023	TRA	-.7278	TC3	1.1904	BAU	.1986
RDE	-.1789	RRA	.1805	RC3	-.9546	FAU	.04804
FDE	.0734	FRA	1.0610	FC3	-4.2725	BSP	5305
BDE	.2060	BRA	.7498	BC3	1.5259	FSP	-804

MID-COURSE EXECUTION ACCURACY

SGT	1579.7	SGR	761.6	SG3	288.9		
RRT	-.8124	RRF	.8771	RTF	-.8968		
SGB	1753.7	R23	-.1629	R13	.9179		
SG1	1704.7	SG2	411.6	THA	157.21		

ORBIT DETERMINATION ACCURACY

ST	455.5	SR	344.6	SS	346.0
CRT	-.6667	CRS	-.0896	CST	.7979
LSA	580.4	MSA	329.6	SSA	22.1
EL1	526.1	EL2	222.4	ALF	146.49

LAUNCH DATE AUG 16 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 292.640

RL	151.48	LAL	.00	LOL	322.72	VL	26.418	GAL	-.09	AZL	89.10	HCA	126.08	SMA	125.88	ECC	.20343	INC	.9021	V1	29.412
RP	107.67	LAP	.73	LOP	88.80	VP	37.563	GAP	-8.31	AZP	90.53	TAL	180.34	TAP	306.42	RCA	100.27	APO	151.48	V2	35.198
RC	52.096	GL	7.87	GP	-24.02	ZAL	84.68	ZAP	30.70	ETS	44.96	ZAE	143.46	ETE	320.50	ZAC	77.92	ETC	261.23	CLP	-19.72

PLANETOCENTRIC CONIC

C3	9.228	VHL	3.038	DLA	-12.06	RAL	237.63	RAD	6567.3	VEL	11.429	PTH	1.98	VHP	6.127	DPA	-44.72	RAP	240.58	ECC	1.1519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 9 3	1662.38	-3.47	8.97	87.44	118.12	7 36 45	1062.4	.32	2.33
90.00	16 0 44	5074.08	24.15	224.56	90.58	74.74	17 25 18	4474.1	21.82	216.66
100.00	8 24 15	1419.79	-4.31	350.67	86.98	119.61	8 47 54	819.8	-.33	344.13
100.00	17 28 14	4791.90	25.07	203.52	90.28	73.17	18 48 6	4191.9	22.53	195.64
110.00	9 18 36	1249.57	-6.50	336.40	85.62	123.63	9 39 25	649.6	-2.04	330.16
110.00	18 50 22	4534.89	27.51	183.06	89.35	68.85	20 5 57	3934.9	24.38	175.29

DIFFERENTIAL CORRECTIONS

TDE	.0906	TRA	-.6980	TC3	1.3393	BAU	.2189
RDE	-.1528	RRA	.2016	RC3	-1.1638	FAU	.05212
FDE	.1334	FRA	1.1001	FC3	-4.8897	BSP	5727
BDE	.1776	BRA	.7265	BC3	1.7743	FSP	-926

MID-COURSE EXECUTION ACCURACY

SGT	1582.3	SGR	856.9	SG3	316.2		
RRT	-.8468	RRF	.9099	RTF	-.9034		
SGB	1799.4	R23	-.1669	R13	.9287		
SG1	1751.7	SG2	411.8	THA	153.81		

ORBIT DETERMINATION ACCURACY

ST	439.2	SR	311.6	SS	365.4
CRT	-.7078	CRS	-.0168	CST	.7133
LSA	558.1	MSA	334.0	SSA	22.3
EL1	503.1	EL2	192.2	ALF	148.16

LAUNCH DATE AUG 16 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 299.326

RL	151.48	LAL	.00	LOL	322.72	VL	26.500	GAL	-.22	AZL	88.82	HCA	129.31	SMA	126.40	ECC	.19846	INC	1.1827	V1	29.412
RP	107.64	LAP	.92	LOP	92.03	VP	37.630	GAP	-7.65	AZP	90.75	TAL	180.88	TAP	310.19	RCA	101.32	APO	151.49	V2	35.206
RC	53.818	GL	10.60	GP	-26.44	ZAL	85.74	ZAP	34.08	ETS	43.56	ZAE	141.62	ETE	317.71	ZAC	75.56	ETC	261.24	CLP	-22.33

PLANETOCENTRIC CONIC

C3	8.850	VHL	2.975	DLA	-9.18	RAL	237.21	RAD	6567.3	VEL	11.412	PTH	1.98	VHP	5.870	DPA	-47.21	RAP	240.39	ECC	1.1456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 43 48	1749.59	-6.25	13.87	86.38	117.68	7 12 58	1149.6	-2.49	7.20
90.00	16 22 40	4970.72	22.12	217.66	88.74	71.86	17 45 30	4370.7	19.44	210.02
100.00	8 0 40	1501.64	-7.04	355.20	85.95	119.13	8 25 41	901.6	-3.11	348.63
100.00	17 48 29	4693.90	22.98	196.99	88.43	70.34	19 6 43	4093.9	20.09	189.38
110.00	8 58 41	1319.94	-9.14	340.14	84.67	123.08	9 20 41	719.9	-4.72	333.84
110.00	19 6 57	4448.37	25.25	177.35	87.43	66.15	20 21 5	3848.4	21.81	169.89

DIFFERENTIAL CORRECTIONS

TDE	.0640	TRA	-.6904	TC3	1.4126	BAU	.2337
RDE	-.1160	RRA	.2362	RC3	-1.3806	FAU	.05534
FDE	.2357	FRA	1.1814	FC3	-5.4136	BSP	5854
BDE	.1325	BRA	.7297	BC3	1.9752	FSP	-1005

MID-COURSE EXECUTION ACCURACY

SGT	1592.5	SGR	968.0	SG3	344.4		
RRT	-.8684	RRF	.9346	RTF	-.9066		
SGB	1863.6	R23	-.1761	R13	.9376		
SG1	1815.4	SG2	421.0	THA	150.42		

ORBIT DETERMINATION ACCURACY

ST	423.2	SR	263.8	SS	422.4
CRT	-.7525	CRS	.0154	CST	.6409
LSA	555.4	MSA	343.7	SSA	21.8
EL1	474.0	EL2	155.2	ALF	151.55

LAUNCH DATE AUG 16 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 305.995

RL	151.48	LAL	.00	LOL	322.72	VL	26.574	GAL	-.34	AZL	88.51	HCA	132.54	SMA	126.88	ECC	.19402	INC	1.4906	V1	29.412
RP	107.61	LAP	1.10	LOP	95.27	VP	37.690	GAP	-7.02	AZP	91.01	TAL	181.40	TAP	313.04	RCA	102.26	APO	151.49	V2	35.214
RC	55.612	GL	13.63	GP	-29.17	ZAL	86.76	ZAP	37.74	ETS	42.30	ZAE	139.70	ETE	314.59	ZAC	72.88	ETC	261.18	CLP	-25.09

PLANETOCENTRIC CONIC

C3	8.601	VHL	2.933	DLA	-6.00	RAL	236.93	RAD	6567.3	VEL	11.401	PTH	1.97	VHP	5.649	DPA	-49.94	RAP	239.82	ECC	1.1416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 17 57	1845.80	-9.25	19.34	85.77	116.88	6 48 42	1245.8	-5.57	12.59
90.00	16 46 16	4863.66	19.69	210.76	87.31	69.23	18 7 20	4263.7	16.69	203.36
100.00	7 36 27	1592.56	-10.02	.31	85.36	118.31	8 2 59	992.6	-6.16	353.65
100.00	18 10 28	4592.13	20.50	190.45	86.97	67.75	19 27 0	3992.1	17.30	183.11
110.00	8 38 11	1399.28	-12.05	344.44	84.15	122.23	9 1 30	799.3	-7.71	338.03
110.00	19 25 13	4358.17	22.64	171.64	85.93	63.68	20 37 51	3758.2	18.92	164.48

DIFFERENTIAL CORRECTIONS

TDE	.0357	TRA	-.6737	TC3	1.4436	BAU	.2488
RDE	-.0708	RRA	.2743	RC3	-1.6115	FAU	.05819
FDE	.3591	FRA	1.2513	FC3	-5.8565	BSP	6000
BDE	.0793	BRA	.7274	BC3	2.1636	FSP	-1085

MID-COURSE EXECUTION ACCURACY

SGT	1572.7	SGR	1096.8	SG3	370.0		
RRT	-.8830	RRF	.9528	RTF	-.9078		
SGB	1917.4	R23	-.1796	R13	.9463		
SG1	1867.7	SG2	433.4	THA	146.32		

ORBIT DETERMINATION ACCURACY

ST	403.9	SR	214.6	SS	499.2
CRT	-.8598	CRS	-.1142	CST	.5966
LSA	586.3	MSA	338.1	SSA	20.6
EL1	446.5	EL2	99.1	ALF	154.07

LAUNCH DATE AUG 16 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 312.645

RL	151.48	LAL	.00	LOL	322.72	VL	26.640	GAL	-.44	AZL	88.17	HCA	135.77	SMA	127.30	ECC	.19008	INC	1.8322	V1	29.412
RP	107.59	LAP	1.28	LOP	98.51	VP	37.743	GAP	-6.41	AZP	91.31	TAL	181.89	TAP	317.65	RCA	103.11	APO	151.50	V2	35.222
RC	57.469	GL	17.00	GP	-32.23	ZAL	87.71	ZAP	41.69	ETS	41.09	ZAE	137.61	ETE	311.17	ZAC	69.85	ETC	261.03	CLP	-28.02

PLANETOCENTRIC CONIC

C3	8.492	VHL	2.914	DLA	-2.52	RAL	236.81	RAD	6567.3	VEL	11.397	PTH	1.97	VHP	5.467	DPA	-52.94	RAP	238.75	ECC	1.1397

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 51 16	1952.24	-12.46	25.51	85.70	115.63	6 23 48	1352.2	-8.91	18.63
90.00	17 11 58	4752.35	16.86	203.82	86.34	66.91	18 31 10	4152.4	13.59	196.67
100.00	7 11 26	1693.63	-13.22	6.11	85.31	117.06	7 39 40	1093.6	-9.49	359.31
100.00	18 34 29	4486.20	17.63	183.89	85.99	65.46	19 49 15	3886.2	14.17	176.80
110.00	8 16 59	1488.42	-15.24	349.38	84.16	120.98	8 41 48	888.4	-11.02	342.82
110.00	19 45 25	4264.17	19.69	165.95	84.90	61.48	20 56 29	3664.2	15.73	159.06

DIFFERENTIAL CORRECTIONS

TDE	.0071	TRA	-.6608	TC3	1.4362	BAU	.2663
RDE	-.0143	RRA	.3229	RC3	-1.8545	FAU	.06072
FDE	.5041	FRA	1.3305	FC3	-6.1909	BSP	6189
BDE	.0160	BRA	.7354	BC3	2.3456	FSP	-1161

MID-COURSE EXECUTION ACCURACY

SGT	1546.6	SGR	1254.1	SG3	394.6		
RRT	-.8927	RRF	.9665	RTF	-.9077		
SGB	1991.2	R23	-.1768	R13	.9554		
SG1	1939.5	SG2	450.7	THA	141.65		

ORBIT DETERMINATION ACCURACY

ST	391.2	SR	195.4	SS	599.6
CRT	-.9887	CRS	-.5052	CST	.5948
LSA	669.6	MSA	319.3	SSA	18.8
EL1	436.5	EL2	26.3	ALF	153.61

LAUNCH DATE AUG 16 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 319.275

RL	151.48	LAL	.00	LOL	322.72	VL	26.699	GAL	-.53	AZL	87.78	HCA	139.00	SMA	127.69	ECC	.18659	INC	2.2162	V1	29.412
RP	107.57	LAP	1.45	LOP	101.74	VP	37.791	GAP	-5.81	AZP	91.67	TAL	182.33	TAP	321.33	RCA	103.86	APO	151.51	V2	35.229
RC	59.382	GL	20.69	GP	-35.65	ZAL	88.57	ZAP	45.92	ETS	39.85	ZAE	135.29	ETE	307.47	ZAC	66.46	ETC	260.78	CLP	-31.12

PLANETOCENTRIC CONIC

C3	8.538	VHL	2.922	DLA	1.27	RAL	236.86	RAD	6567.3	VEL	11.399	PTH	1.97	VHP	5.332	DPA	-56.22	RAP	237.04	ECC	1.1405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 23 26	2070.53	-15.83	32.56	86.27	113.79	5 57 57	1470.5	-12.48	25.49
90.00	17 40 13	4636.14	13.62	196.82	85.94	64.93	18 57 30	4036.1	10.13	189.88
100.00	6 45 22	1806.25	-16.60	12.76	85.90	115.22	7 15 29	1206.3	-13.07	5.75
100.00	19 0 59	4375.65	14.39	177.28	85.56	63.51	20 13 54	3775.6	10.71	170.42
110.00	7 54 58	1588.42	-18.65	355.12	84.80	119.18	8 21 26	988.4	-14.62	348.33
110.00	20 7 52	4166.25	16.41	160.25	84.43	59.58	21 17 19	3566.2	12.25	153.61

DIFFERENTIAL CORRECTIONS

TDE	-.0212	TRA	-.6452	TC3	1.3837	BAU	.2866
RDE	.0580	RRA	.3815	RC3	-2.0947	FAU	.06261
FDE	.6716	FRA	1.4051	FC3	-6.3487	BSP	6492
BDE	.0618	BRA	.7495	BC3	2.5104	FSP	-1237

MID-COURSE EXECUTION ACCURACY

SGT	1502.3	SGR	1439.2	SG3	415.2		
RRT	-.8979	RRF	.9765	RTF	-.9062		
SGB	2080.4	R23	-.1657	R13	.9646		
SG1	2026.7	SG2	469.5	THA	136.37		

ORBIT DETERMINATION ACCURACY

ST	382.7	SR	254.3	SS	718.2
CRT	-.9334	CRS	-.8562	CST	.6225
LSA	799.2	MSA	296.6	SSA	16.4
EL1	452.9	EL2	77.1	ALF	147.12

LAUNCH DATE AUG 16 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 325.883

RL	151.48	LAL	.00	LOL	322.72	VL	26.750	GAL	-.61	AZL	87.35	HCA	142.23	SMA	128.03	ECC	.18353	INC	2.6535	V1	29.412
RP	107.55	LAP	1.62	LOP	104.98	VP	37.833	GAP	-5.23	AZP	92.10	TAL	182.73	TAP	324.96	RCA	104.53	APO	151.52	V2	35.235
RC	61.346	GL	24.72	GP	-39.43	ZAL	89.31	ZAP	50.41	ETS	38.49	ZAE	132.66	ETE	303.54	ZAC	62.69	ETC	260.40	CLP	-34.41

PLANETOCENTRIC CONIC

C3	8.772	VHL	2.962	DLA	5.35	RAL	237.12	RAD	6567.3	VEL	11.409	PTH	1.97	VHP	5.252	DPA	-59.75	RAP	234.47	ECC	1.1444

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 53 56	2202.84	-19.28	40.74	87.60	111.15	5 30 39	1602.8	-16.24	33.39
90.00	18 11 45	4514.11	10.00	189.69	86.21	63.37	19 26 59	3914.1	6.34	182.92
100.00	6 17 48	1932.33	-20.09	20.50	87.26	112.61	6 50 1	1332.3	-16.85	13.20
100.00	19 30 34	4259.85	10.77	170.59	85.80	61.95	20 41 34	3659.9	6.93	163.90
110.00	7 31 50	1700.66	-22.23	1.86	86.20	116.66	8 0 10	1100.7	-18.48	354.74
110.00	20 33 2	4064.28	12.81	154.54	84.60	58.03	21 40 47	3464.3	8.50	148.10

DIFFERENTIAL CORRECTIONS

TDE	-.0480	TRA	-.6288	TC3	1.2687	BAU	.3084
RDE	.1523	RRA	.4542	RC3	-2.3035	FAU	.06327
FDE	.8601	FRA	1.4753	FC3	-6.2440	BSP	6786
BDE	.1597	BRA	.7757	BC3	2.6298	FSP	-1282

MID-COURSE EXECUTION ACCURACY

SGT	1437.3	SGR	1651.6	SG3	429.1		
RRT	-.8977	RRF	.9835	RTF	-.9016		
SGB	2189.4	R23	-.1482	R13	.9732		
SG1	2133.9	SG2	490.1	THA	130.59		

ORBIT DETERMINATION ACCURACY

ST	378.7	SR	398.3	SS	851.4
CRT	-.8308	CRS	-.9669	CST	.6644
LSA	975.0	MSA	276.0	SSA	13.9
EL1	525.9	EL2	159.6	ALF	133.27

LAUNCH DATE AUG 16 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 332.469

RL	151.48	LAL	.00	LOL	322.72	VL	26.795	GAL	-.68	AZL	86.84	HCA	145.46	SMA	128.32	ECC	.18087	INC	3.1598	V1	29.412
RP	107.53	LAP	1.79	LOP	108.22	VP	37.870	GAP	-4.68	AZP	92.60	TAL	183.08	TAP	328.54	RCA	105.11	APO	151.53	V2	35.240
RC	63.355	GL	29.06	GP	-43.57	ZAL	89.92	ZAP	55.13	ETS	36.90	ZAE	129.66	ETE	299.44	ZAC	58.54	ETC	259.84	CLP	-37.90

PLANETOCENTRIC CONIC

C3	9.245	VHL	3.041	DLA	9.70	RAL	237.59	RAD	6567.3	VEL	11.430	PTH	1.98	VHP	5.237	DPA	-63.49	RAP	230.68	ECC	1.1522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 21 54	2352.34	-22.66	50.40	89.86	107.46	5 1 6	1752.3	-20.05	42.69
90.00	18 47 34	4384.82	5.97	182.33	87.28	62.27	20 0 39	3784.8	2.21	175.66
100.00	5 48 1	2074.59	-23.54	29.66	89.54	108.98	6 22 36	1474.6	-20.73	21.99
100.00	20 4 8	4137.81	6.78	163.72	86.84	60.82	21 13 6	3537.8	2.84	157.15
110.00	7 7 8	1827.03	-25.87	9.87	88.55	113.17	7 37 35	1227.0	-22.50	2.33
110.00	21 1 31	3958.13	8.92	148.78	85.54	56.86	22 7 29	3358.1	4.50	142.49

DIFFERENTIAL CORRECTIONS

TDE	-.0666	TRA	-.6089	TC3	1.0981	BAU	.3324
RDE	.2725	RRA	.5432	RC3	-2.4554	FAU	.06241
FDE	1.0530	FRA	1.5312	FC3	-5.8442	BSP	7187
BDE	.2805	BRA	.8160	BC3	2.6897	FSP	-1306

MID-COURSE EXECUTION ACCURACY

SGT	1347.9	SGR	1889.9	SG3	433.2		
RRT	-.8913	RRF	.9884	RTF	-.8923		
SGB	2321.3	R23	-.1262	R13	.9806		
SG1	2264.6	SG2	510.0	THA	124.44		

ORBIT DETERMINATION ACCURACY

ST	371.7	SR	602.2	SS	983.0
CRT	-.7782	CRS	-.9914	CST	.6910
LSA	1182.7	MSA	261.0	SSA	11.4
EL1	676.5	EL2	207.8	ALF	118.60

LAUNCH DATE AUG 16 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 339.031

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RL  151.48 LAL    .00 LOL 322.72 VL  26.834 GAL   -.73 AZL  86.24 HCA 148.69 SMA 128.58 ECC .17857 INC 3.7566 V1  29.412
RP  107.52 LAP   1.95 LOP 111.47 VP  37.902 GAP  -4.13 AZP  93.21 TAL 183.37 TAP 332.06 RCA 105.62 APO 151.54 V2  35.245
RC  65.403 GL   33.70 GP  -48.06 ZAL  90.38 ZAP  60.00 ETS  34.99 ZAE 126.24 ETE 295.23 ZAC  54.05 ETC 259.05 CLP -41.57
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PLANETOCENTRIC CONIC

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C3  10.041 VHL  3.169 DLA  14.31 RAL 238.30 RAD 6567.4 VEL 11.464 PTH   1.99 VHP  5.303 DPA -67.34 RAP 225.11 ECC 1.1653
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 45 49	2524.20	-25.68	62.08	93.21	102.36	4 27 53	1924.2	-23.72	53.96
90.00	19 29 19	4245.48	1.51	174.52	89.36	61.72	20 40 5	3645.5	-2.29	167.89
100.00	5 14 48	2237.26	-26.69	40.71	92.94	103.99	5 52 5	1637.3	-24.50	32.59
100.00	20 43 2	4007.66	2.41	156.53	88.85	60.20	21 49 49	3407.7	-1.57	150.01
110.00	6 40 7	1970.27	-29.34	19.56	92.07	108.39	7 12 58	1370.3	-26.54	11.49
110.00	21 34 11	3847.42	4.75	142.92	87.40	56.11	22 38 19	3247.4	.27	136.70

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.0736 TRA -.5853 TC3  .8824 BAU  .3584   SGT 1234.2 SGR 2153.1 SG3  425.6     ST   354.0 SR   855.5 SS  1104.1
 RDE  .4268 RRA  .6540 RC3-2.5201 FAU .05977   RRT -.8763 RRF  .9918 RTF -.8755     CRT -.7377 CRS -.9975 CST  .6889
 FDE 1.2398 FRA 1.5691 FC3-5.1529 BSP  7668    SGB 2481.7 R23 -.1016 R13  .9867     LSA 1418.9 MSA  250.6 SSA    9.3
 BDE  .4331 BRA  .8777 BC3 2.6701 FSP  -1294   SG1 2424.9 SG2  527.9 THA 118.12     EL1  897.4 EL2  227.9 ALF 108.19
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 345.569

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RL  151.48 LAL    .00 LOL 322.72 VL  26.867 GAL   -.77 AZL  85.52 HCA 151.92 SMA 128.80 ECC .17660 INC 4.4757 V1  29.412
RP  107.51 LAP   2.11 LOP 114.71 VP  37.929 GAP  -3.61 AZP  93.95 TAL 183.60 TAP 335.52 RCA 106.06 APO 151.55 V2  35.249
RC  67.486 GL   38.58 GP  -52.85 ZAL  90.68 ZAP  64.91 ETS  32.65 ZAE 122.38 ETE 290.96 ZAC  49.25 ETC 257.97 CLP -45.41
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PLANETOCENTRIC CONIC

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C3  11.302 VHL  3.362 DLA  19.12 RAL 239.26 RAD 6567.4 VEL 11.519 PTH   2.01 VHP  5.470 DPA -71.15 RAP 216.81 ECC 1.1860
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 2 41	2728.30	-27.84	76.61	97.78	95.40	3 48 9	2128.3	-26.80	68.10
90.00	20 20 10	4089.47	-3.52	165.81	92.74	61.89	21 28 19	3489.5	-7.26	159.12
100.00	4 35 48	2428.00	-29.09	54.36	97.62	97.20	5 16 16	1828.0	-27.79	45.80
100.00	21 29 43	3865.00	-2.42	148.70	92.13	60.20	22 34 8	3265.0	-6.37	142.14
110.00	6 9 34	2134.66	-32.27	31.46	96.99	101.93	6 45 8	1534.7	-30.30	22.80
110.00	22 12 27	3731.11	.32	136.84	90.42	55.82	23 14 38	3131.1	-4.17	130.63

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.0618 TRA -.5523 TC3  .6370 BAU  .3847   SGT 1089.5 SGR 2430.5 SG3  403.9     ST   317.1 SR  1149.0 SS  1201.9
 RDE  .6252 RRA  .7889 RC3-2.4649 FAU .05506   RRT -.8458 RRF  .9942 RTF -.8439     CRT -.6599 CRS -.9992 CST  .6300
 FDE 1.4048 FRA 1.5756 FC3-4.2177 BSP  8206    SGB 2663.5 R23 -.0765 R13  .9913     LSA 1675.2 MSA  242.9 SSA    7.4
 BDE  .6283 BRA  .9630 BC3 2.5459 FSP  -1237   SG1 2607.8 SG2  541.7 THA 111.75     EL1 1168.7 EL2  234.3 ALF 100.76
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 352.079

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RL  151.48 LAL    .00 LOL 322.72 VL  26.895 GAL   -.80 AZL  84.64 HCA 155.14 SMA 128.99 ECC .17494 INC 5.3645 V1  29.412
RP  107.50 LAP   2.25 LOP 117.96 VP  37.952 GAP  -3.10 AZP  94.87 TAL 183.77 TAP 338.91 RCA 106.42 APO 151.55 V2  35.253
RC  69.600 GL   43.64 GP  -57.90 ZAL  90.83 ZAP  69.75 ETS  29.78 ZAE 118.09 ETE 286.66 ZAC  44.19 ETC 256.47 CLP -49.36
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PLANETOCENTRIC CONIC

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C3  13.273 VHL  3.643 DLA  24.05 RAL 240.50 RAD 6567.5 VEL 11.604 PTH   2.03 VHP  5.770 DPA -74.61 RAP 204.15 ECC 1.2184
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 4 14	2990.92	-28.03	95.77	103.38	85.83	2 54 5	2390.9	-28.32	87.12
90.00	21 28 26	3895.00	-9.64	154.80	98.04	63.25	22 33 21	3295.0	-13.16	147.88
100.00	3 45 29	2664.44	-29.83	71.86	103.49	88.04	4 29 54	2064.4	-29.79	63.06
100.00	22 29 51	3696.71	-8.05	139.38	97.18	61.11	23 31 28	3096.7	-11.84	132.64
110.00	5 33 1	2328.01	-34.04	46.25	103.43	93.36	6 11 49	1728.0	-33.20	37.11
110.00	22 58 49	3605.90	-4.46	130.30	94.98	56.07	23 58 55	3005.9	-8.89	124.00

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.0188 TRA -.5079 TC3  .3904 BAU  .4099   SGT  920.3 SGR 2716.2 SG3  368.7     ST   264.2 SR  1466.9 SS  1262.8
 RDE  .8775 RRA  .9578 RC3-2.2769 FAU .04848   RRT -.7823 RRF  .9958 RTF -.7799     CRT -.4414 CRS -.9997 CST  .4212
 FDE 1.5273 FRA 1.5513 FC3-3.1620 BSP  8823    SGB 2867.9 R23 -.0527 R13  .9944     LSA 1938.9 MSA  238.7 SSA    5.9
 BDE  .8777 BRA 1.0841 BC3 2.3101 FSP  -1139   SG1 2814.0 SG2  553.3 THA 105.46     EL1 1471.7 EL2  236.3 ALF  94.67
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 358.560

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RL  151.48 LAL    .00 LOL 322.72 VL  26.917 GAL   -.81 AZL  83.50 HCA 158.35 SMA 129.14 ECC .17356 INC 6.4993 V1  29.412
RP  107.49 LAP   2.39 LOP 121.20 VP  37.970 GAP  -2.60 AZP  96.04 TAL 183.86 TAP 342.22 RCA 106.73 APO 151.56 V2  35.255
RC  71.740 GL   48.78 GP  -63.16 ZAL  90.83 ZAP  74.36 ETS  26.30 ZAE 113.39 ETE 282.31 ZAC  38.93 ETC 254.38 CLP -53.35
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PLANETOCENTRIC CONIC

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C3  16.406 VHL  4.050 DLA  29.01 RAL 242.00 RAD 6567.7 VEL 11.738 PTH   2.07 VHP  6.249 DPA -77.18 RAP 185.09 ECC 1.2700
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.41	22 55 52	3666.46	-21.21	143.39	107.59	69.73	23 56 58	3066.5	-23.78	135.61
96.59	0 48 48	3313.87	-21.20	117.54	107.59	69.72	1 44 2	2713.9	-23.77	109.75
100.00	2 16 33	3032.19	-25.99	98.39	109.26	74.69	3 7 5	2432.2	-27.84	90.08
100.00	0 14 44	3423.37	-16.58	123.57	105.54	64.77	1 11 47	2823.4	-19.84	116.30
110.00	4 44 33	2568.75	-33.41	64.96	111.00	82.33	5 27 21	1968.7	-34.11	55.79
110.00	0 3 13	3459.58	-9.95	122.53	101.76	57.13	1 0 53	2859.6	-14.22	116.02

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0737 TRA -.4427 TC3  .1683 BAU  .4302   SGT  736.4 SGR 2990.6 SG3  321.4     ST   238.8 SR  1787.0 SS  1277.5
 RDE 1.1976 RRA 1.1676 RC3-1.9543 FAU .04026   RRT -.6320 RRF  .9969 RTF -.6296     CRT  .1281 CRS -.9999 CST -.1404
 FDE 1.5923 FRA 1.4892 FC3-2.1245 BSP  9482    SGB 3079.9 R23 -.0304 R13  .9964     LSA 2196.9 MSA  237.0 SSA    4.7
 BDE 1.1999 BRA 1.2488 BC3 1.9616 FSP  -1004   SG1 3027.9 SG2  563.6 THA  99.17     EL1 1787.2 EL2  236.8 ALF  89.00
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 365.010

RL	151.48	LAL	.00	LOL	322.72	VL	26.935	GAL	-.81	AZL	81.99	HCA	161.56	SMA	129.27	ECC	.17244	INC	8.0079	V1	29.412
RP	107.48	LAP	2.53	LOP	124.45	VP	37.985	GAP	-2.13	AZP	97.60	TAL	183.88	TAP	345.44	RCA	106.97	APO	151.56	V2	35.257
RC	73.903	GL	53.85	GP	-68.62	ZAL	90.71	ZAP	78.59	ETS	22.11	ZAE	108.29	ETE	277.85	ZAC	33.50	ETC	251.38	CLP	-57.13

PLANETOCENTRIC CONIC

C3 21.589 VHL 4.646 DLA 33.86 RAL 243.77 RAD 6567.9 VEL 11.957 PTH 2.13 VHP 6.988 DPA -78.08 RAP 159.71 ECC 1.3553

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.61	21 31 35	4019.24	-22.71	170.65	115.19	64.18	22 38 35	3419.2	-25.99	163.05
109.39	2 27 10	3090.21	-22.70	101.41	115.19	64.17	3 18 40	2490.2	-25.98	93.82
70.61	21 31 35	4019.24	-22.71	170.65	115.19	64.18	22 38 35	3419.2	-25.99	163.05
109.39	2 27 10	3090.21	-22.70	101.41	115.19	64.17	3 18 40	2490.2	-25.98	93.82
110.00	3 6 32	2969.99	-25.99	93.68	116.83	66.97	3 56 2	2370.0	-28.87	85.69
110.00	1 55 20	3187.46	-19.50	107.22	113.42	61.35	2 48 27	2587.5	-23.17	100.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2418	TRA	-.3510	TC3	-.0141	BAU	.4323	SGT	600.6	SGR	3260.3	SG3	268.3	ST	336.7	SR	2105.0
RDE	1.6235	RRA	1.4577	RC3	-1.4976	FAU	.03032	RRT	-.2620	RRF	.9976	RTF	-.2620	CRT	.6990	CRS	-1.0000
FDE	1.6111	FRA	1.4158	FC3	-1.2160	BSP	9703	SGB	3315.2	R23	-.0082	R13	.9976	LSA	2464.0	MSA	239.4
BDE	1.6414	BRA	1.4993	BC3	1.4977	FSP	-806	SG1	3264.3	SG2	578.9	THA	92.85	EL1	2118.3	EL2	239.3

SS	1258.7	CST	-.7035
SSA	3.8	ALF	83.54

LAUNCH DATE AUG 16 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 371.416

RL	151.48	LAL	.00	LOL	322.72	VL	26.949	GAL	-.79	AZL	79.88	HCA	164.75	SMA	129.36	ECC	.17156	INC	10.1240	V1	29.412
RP	107.48	LAP	2.65	LOP	127.70	VP	37.996	GAP	-1.67	AZP	99.77	TAL	183.82	TAP	348.57	RCA	107.17	APO	151.55	V2	35.258
RC	76.087	GL	58.67	GP	-74.33	ZAL	90.51	ZAP	82.29	ETS	17.00	ZAE	102.76	ETE	273.03	ZAC	27.89	ETC	246.74	CLP	-60.20

PLANETOCENTRIC CONIC

C3 30.751 VHL 5.545 DLA 38.41 RAL 245.74 RAD 6568.2 VEL 12.334 PTH 2.22 VHP 8.132 DPA -76.79 RAP 133.89 ECC 1.5061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.89	20 57 7	4232.66	-22.44	187.56	124.35	57.98	22 7 40	3632.7	-26.50	180.40
117.11	3 17 21	3051.41	-22.43	98.15	124.34	57.97	4 8 12	2451.4	-26.49	90.99
62.89	20 57 7	4232.66	-22.44	187.56	124.35	57.98	22 7 40	3632.7	-26.50	180.40
117.11	3 17 21	3051.41	-22.43	98.15	124.34	57.97	4 8 12	2451.4	-26.49	90.99
62.89	20 57 7	4232.66	-22.44	187.56	124.35	57.98	22 7 40	3632.7	-26.50	180.40
117.11	3 17 21	3051.41	-22.43	98.15	124.34	57.97	4 8 12	2451.4	-26.49	90.99

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5733	TRA	-.1807	TC3	-.0991	BAU	.4269	SGT	647.9	SGR	3452.5	SG3	210.1	ST	596.7	SR	2322.8
RDE	2.1378	RRA	1.8148	RC3	-1.0337	FAU	.02124	RRT	.3865	RRF	.9980	RTF	.3883	CRT	.9071	CRS	-1.0000
FDE	1.5461	FRA	1.2967	FC3	-.5980	BSP	10563	SGB	3512.7	R23	.0100	R13	.9980	LSA	2661.0	MSA	245.4
BDE	2.2134	BRA	1.8238	BC3	1.0385	FSP	-654	SG1	3461.8	SG2	595.9	THA	85.73	EL1	2385.7	EL2	244.5

SS	1178.9	CST	-.9086
SSA	3.1	ALF	76.74

LAUNCH DATE AUG 16 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 377.767

RL	151.48	LAL	.00	LOL	322.72	VL	26.959	GAL	-.75	AZL	76.68	HCA	167.91	SMA	129.43	ECC	.17090	INC	13.3209	V1	29.412
RP	107.48	LAP	2.77	LOP	130.95	VP	38.003	GAP	-1.23	AZP	103.04	TAL	183.66	TAP	351.57	RCA	107.31	APO	151.55	V2	35.259
RC	78.289	GL	62.90	GP	-80.46	ZAL	90.27	ZAP	85.32	ETS	10.17	ZAE	96.64	ETE	266.99	ZAC	22.03	ETC	238.43	CLP	-60.55

PLANETOCENTRIC CONIC

C3 48.681 VHL 6.977 DLA 42.35 RAL 247.77 RAD 6568.8 VEL 13.040 PTH 2.38 VHP 9.975 DPA -73.53 RAP 113.31 ECC 1.8012

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.09	20 38 59	4422.09	-19.71	201.60	134.64	51.72	21 52 41	3822.1	-24.52	195.12
122.91	3 51 41	3093.47	-19.69	99.65	134.63	51.72	4 43 14	2493.5	-24.51	93.18
57.09	20 38 59	4422.09	-19.71	201.60	134.64	51.72	21 52 41	3822.1	-24.52	195.12
122.91	3 51 41	3093.47	-19.69	99.65	134.63	51.72	4 43 14	2493.5	-24.51	93.18
57.09	20 38 59	4422.09	-19.71	201.60	134.64	51.72	21 52 41	3822.1	-24.52	195.12
122.91	3 51 41	3093.47	-19.69	99.65	134.63	51.72	4 43 14	2493.5	-24.51	93.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2612	TRA	.1669	TC3	-.1180	BAU	.3759	SGT	1064.9	SGR	3535.7	SG3	156.0	ST	1037.2	SR	2410.7
RDE	2.7797	RRA	2.3240	RC3	-.5654	FAU	.01213	RRT	.7896	RRF	.9983	RTF	.7974	CRT	.9628	CRS	-1.0000
FDE	1.4566	FRA	1.1861	FC3	-.2158	BSP	11260	SGB	3692.6	R23	.0279	R13	.9980	LSA	2828.0	MSA	260.8
BDE	3.0524	BRA	2.3300	BC3	.5776	FSP	-497	SG1	3637.5	SG2	635.2	THA	76.19	EL1	2611.5	EL2	258.6

SS	1085.7	CST	-.9649
SSA	2.5	ALF	67.26

LAUNCH DATE AUG 16 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 384.028

RL	151.48	LAL	.00	LOL	322.72	VL	26.966	GAL	-.69	AZL	71.29	HCA	171.01	SMA	129.47	ECC	.17044	INC	18.7064	V1	29.412
RP	107.48	LAP	2.87	LOP	134.20	VP	38.007	GAP	-.82	AZP	108.49	TAL	183.38	TAP	354.39	RCA	107.40	APO	151.54	V2	35.258
RC	80.507	GL	65.89	GP	-87.07	ZAL	90.02	ZAP	87.59	ETS	352.29	ZAE	89.46	ETE	250.24	ZAC	15.79	ETC	213.18	CLP	-34.72

PLANETOCENTRIC CONIC

C3 89.768 VHL 9.475 DLA 45.09 RAL 249.45 RAD 6569.8 VEL 14.530 PTH 2.64 VHP 13.203 DPA -68.48 RAP 97.68 ECC 2.4774

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.32	20 30 46	4607.58	-14.10	213.21	144.97	46.72	21 47 33	4007.6	-19.50	207.46
126.68	4 13 22	3199.33	-14.08	104.10	144.95	46.71	5 6 41	2599.3	-19.48	98.35
53.32	20 30 46	4607.58	-14.10	213.21	144.97	46.72	21 47 33	4007.6	-19.50	207.46
126.68	4 13 22	3199.33	-14.08	104.10	144.95	46.71	5 6 41	2599.3	-19.48	98.35
53.32	20 30 46	4607.58	-14.10	213.21	144.97	46.72	21 47 33	4007.6	-19.50	207.46
126.68	4 13 22	3199.33	-14.08	104.10	144.95	46.71	5 6 41	2599.3	-19.48	98.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.6862	TRA	1.6726	TC3	-.0855	BAU	.2161	SGT	2654.7	SGR	2777.4	SG3	110.9	ST	2270.2	SR	1625.0
RDE	2.4233	RRA	2.7322	RC3	-.1585	FAU	.00318	RRT	.9043	RRF	.9852	RTF	.9612	CRT	.9673	CRS	-.9931
FDE	1.3980	FRA	1.1251	FC3	-.0307	BSP	11801	SGB	3842.1	R23	.0443	R13	.9979	LSA	2952.4	MSA	341.2
BDE	4.4114	BRA	3.2035	BC3	.1801	FSP	-358	SG1	3749.2	SG2	839.4	THA	46.43	EL1	2771.4	EL2	337.4

SS	1019.3	CST	-.9904
SSA	2.0	ALF	35.30

LAUNCH DATE AUG 16 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 390.093

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RL  151.48 LAL    .00 LOL 322.72 VL  26.969 GAL   -.59 AZL  60.55 HCA 173.95 SMA 129.49 ECC .17015 INC29.4549 V1  29.412
RP  107.48 LAP   2.97 LOP 137.45 VP  38.008 GAP   -.46 AZP 119.32 TAL 182.87 TAP 356.82 RCA 107.46 APO 151.52 V2  35.257
RC  82.739 GL   65.91 GP  -82.18 ZAL  89.82 ZAP  89.03 ETS 198.23 ZAE  79.76 ETE  97.38 ZAC  10.07 ETC  26.70 CLP  82.88
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PLANETOCENTRIC CONIC

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C3 211.001 VHL 14.526 DLA  45.04 RAL 249.74 RAD 6571.2 VEL 18.230 PTH   3.02 VHP 19.737 DPA -60.59 RAP  84.56 ECC 4.4725
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.39	20 32 9	4766.86	-6.52	220.43	153.20	45.33	21 51 36	4166.9	-12.10	215.04
126.61	4 14 15	3359.90	-6.50	111.44	153.19	45.33	5 10 15	2759.9	-12.08	106.05
53.39	20 32 9	4766.86	-6.52	220.43	153.20	45.33	21 51 36	4166.9	-12.10	215.04
126.61	4 14 15	3359.90	-6.50	111.44	153.19	45.33	5 10 15	2759.9	-12.08	106.05
53.39	20 32 9	4766.86	-6.52	220.43	153.20	45.33	21 51 36	4166.9	-12.10	215.04
126.61	4 14 15	3359.90	-6.50	111.44	153.19	45.33	5 10 15	2759.9	-12.08	106.05

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1471 TRA 1.2125 TC3 -.0090 BAU  .3112   SGT  679.8 SGR 3860.1 SG3   78.7      ST   211.2 SR  2861.7 SS  1072.4
 RDE-6.9595 RRA-4.8279 RC3 -.1099 FAU-.00850  RRT -.6312 RRF -.9965 RTF  .6863      CRT -.0081 CRS  .9990 CST -.0536
 FDE 1.5072 FRA 1.2236 FC3  .0349 BSP  12138  SGB 3919.5 R23 -.0586 R13 -.9976      LSA 3055.7 MSA  216.0 SSA     .0
 BDE 6.9611 BRA 4.9778 BC3  .1103 FSP   -257  SG1 3884.3 SG2  524.0 THA  96.46      EL1 2861.7 EL2  211.2 ALF  90.03
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 395.518

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RL  151.48 LAL    .00 LOL 322.72 VL  26.968 GAL   -.35 AZL  33.43 HCA 176.33 SMA 129.49 ECC .16997 INC56.5676 V1  29.412
RP  107.49 LAP   3.06 LOP 140.70 VP  38.006 GAP   -.28 AZP 146.51 TAL 181.73 TAP 358.06 RCA 107.48 APO 151.50 V2  35.255
RC  84.985 GL   57.11 GP  -64.88 ZAL  89.67 ZAP  89.64 ETS 186.77 ZAE  62.39 ETE  86.40 ZAC  17.67 ETC 307.07 CLP  89.14
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PLANETOCENTRIC CONIC

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C3 718.300 VHL 26.801 DLA  36.66 RAL 246.16 RAD 6572.7 VEL 28.976 PTH   3.43 VHP 35.592 DPA -44.86 RAP  71.83 ECC12.8214
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.67	21 12 58	4736.68	-.47	212.67	155.54	53.34	22 31 55	4136.7	-5.23	206.65
114.33	3 4 52	3638.21	-.45	130.02	155.53	53.34	4 5 30	3038.2	-5.22	124.00
65.67	21 12 58	4736.68	-.47	212.67	155.54	53.34	22 31 55	4136.7	-5.23	206.65
114.33	3 4 52	3638.21	-.45	130.02	155.53	53.34	4 5 30	3038.2	-5.22	124.00
65.67	21 12 58	4736.68	-.47	212.67	155.54	53.34	22 31 55	4136.7	-5.23	206.65
114.33	3 4 52	3638.21	-.45	130.02	155.53	53.34	4 5 30	3038.2	-5.22	124.00

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.8507 TRA -.1462 TC3 -.0713 BAU 2.4144  SGT  908.5 SGR 3609.3 SG3   62.0      ST   823.4 SR  2467.7 SS  1446.5
 RD-11.0366 RRA-9.0288 RC3 -.2411 FAU-.04117  RRT  .7716 RRF -.9992 RTF -.7495      CRT  .9603 CRS  .9997 CST  .9534
 FDE 2.0877 FRA 1.8551 FC3  .0496 BSP  11135  SGB 3721.9 R23 -.0644 R13 -.9977      LSA 2967.8 MSA  228.0 SSA    1.4
 BDE11.6891 BRA 9.0300 BC3  .2514 FSP   -194  SG1 3678.5 SG2  567.0 THA  78.74      EL1 2592.2 EL2  218.6 ALF  72.10
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 406.062

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RL  151.48 LAL    .00 LOL 322.72 VL  26.965 GAL  -1.07 AZL 158.63 HCA 183.37 SMA 129.47 ECC .17106 INC68.6308 V1  29.412
RP  107.50 LAP   3.14 LOP 143.95 VP  38.002 GAP   1.25 AZP  21.40 TAL 185.22 TAP   8.59 RCA 107.32 APO 151.61 V2  35.253
RC  87.241 GL  -52.04 GP   59.55 ZAL  90.33 ZAP  91.10 ETS 184.19 ZAE  62.70 ETE 282.15 ZAC 138.49 ETC 287.43 CLP  92.16
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PLANETOCENTRIC CONIC

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C31014.027 VHL 31.844 DLA -66.45 RAL 199.31 RAD 6573.0 VEL 33.694 PTH   3.50 VHP 40.658 DPA  70.51 RAP   6.37 ECC17.6883
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.00	3 57 10	2425.87	-.43	75.92	109.49	156.45	4 37 36	1825.9	6.91	73.13
153.00	14 6 55	697.19	-.42	290.31	109.51	156.45	14 18 32	97.2	6.91	287.52
27.00	3 57 10	2425.87	-.43	75.92	109.49	156.45	4 37 36	1825.9	6.91	73.13
153.00	14 6 55	697.19	-.42	290.31	109.51	156.45	14 18 32	97.2	6.91	287.52
27.00	3 57 10	2425.87	-.43	75.92	109.49	156.45	4 37 36	1825.9	6.91	73.13
153.00	14 6 55	697.19	-.42	290.31	109.51	156.45	14 18 32	97.2	6.91	287.52

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.7331 TRA 1.6759 TC3 -.1202 BAU 3.6603  SGT 1619.7 SGR 3263.0 SG3   62.9      ST  1232.6 SR  2853.1 SS  2268.5
 RD-15.8413 RRA -.8659 RC3  .2418 FAU-.05940  RRT -.9321 RRF  .9995 RTF -.9338      CRT -.9897 CRS-1.0000 CST  .9901
 FDE-3.5851 FRA -.2109 FC3  .0507 BSP  11081  SGB 3642.8 R23 -.0640 R13  .9974      LSA 3844.2 MSA  166.1 SSA    2.3
 BDE17.2128 BRA 1.8863 BC3  .2700 FSP   -195  SG1 3603.9 SG2  531.1 THA 115.42      EL1 3103.7 EL2  162.3 ALF 113.22
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 411.180

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RL  151.48 LAL    .00 LOL 322.72 VL  26.959 GAL   -.77 AZL 125.65 HCA 185.51 SMA 129.43 ECC .17093 INC35.6452 V1  29.412
RP  107.51 LAP   3.21 LOP 147.20 VP  37.994 GAP   1.34 AZP  54.48 TAL 183.72 TAP   9.23 RCA 107.30 APO 151.55 V2  35.249
RC  89.506 GL  -64.47 GP   79.45 ZAL  90.13 ZAP  92.17 ETS 185.45 ZAE  82.60 ETE 281.41 ZAC 157.04 ETC 300.01 CLP 101.92
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PLANETOCENTRIC CONIC

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C3 303.100 VHL 17.410 DLA -74.53 RAL 170.17 RAD 6571.7 VEL 20.601 PTH   3.17 VHP 21.830 DPA  74.10 RAP 296.37 ECC 5.9883
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.64	1 40 56	2356.89	5.70	79.45	78.58	164.45	2 20 13	1756.9	13.40	77.67
162.36	12 30 39	5867.00	5.70	261.94	78.60	164.45	14 8 26	5267.0	13.40	260.16
17.64	1 40 56	2356.89	5.70	79.45	78.58	164.45	2 20 13	1756.9	13.40	77.67
162.36	12 30 39	5867.00	5.70	261.94	78.60	164.45	14 8 26	5267.0	13.40	260.16
17.64	1 40 56	2356.89	5.70	79.45	78.58	164.45	2 20 13	1756.9	13.40	77.67
162.36	12 30 39	5867.00	5.70	261.94	78.60	164.45	14 8 26	5267.0	13.40	260.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.4349 TRA 1.2320 TC3 -.0808 BAU  .7989  SGT 1915.2 SGR 3742.3 SG3   80.9      ST  1219.0 SR  2918.1 SS  1391.7
 RDE-8.6003 RRA-1.9182 RC3  .1799 FAU-.01261  RRT -.9730 RRF  .9994 RTF -.9710      CRT -.9905 CRS-1.0000 CST  .9900
 FDE-2.1768 FRA -.4773 FC3  .0360 BSP  13303  SGB 4203.9 R23 -.0534 R13  .9980      LSA 3451.6 MSA  157.6 SSA    1.7
 BDE 9.2609 BRA 2.2798 BC3  .1972 FSP   -260  SG1 4185.2 SG2  395.3 THA 116.73      EL1 3158.7 EL2  154.5 ALF 112.54
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 417.094

```
RL  151.48 LAL    .00 LOL 322.72 VL  26.951 GAL   -.60 AZL 112.98 HCA 188.39 SMA 129.37 ECC .17125 INC22.9757 V1  29.412
RP  107.52 LAP   3.26 LOP 150.45 VP  37.985 GAP   1.64 AZP  67.24 TAL 182.91 TAP  11.29 RCA 107.21 APO 151.52 V2  35.245
RC  91.778 GL  -66.39 GP   85.90 ZAL  89.80 ZAP  94.10 ETS 137.72 ZAE  92.84 ETE 232.78 ZAC 164.59 ETC 272.16 CLP-179.82
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PLANETOCENTRIC CONIC

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C3 131.810 VHL 11.481 DLA -75.53 RAL 163.69 RAD 6570.4 VEL 15.910 PTH   2.81 VHP 14.150 DPA  67.77 RAP 269.27 ECC 3.1693
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.49	1 12 48	2230.12	14.21	78.40	69.94	165.06	1 49 58	1630.1	21.93	76.60
163.51	12 7 7	5735.84	14.22	259.74	69.95	165.06	13 42 43	5135.8	21.94	257.94
16.49	1 12 48	2230.12	14.21	78.40	69.94	165.06	1 49 58	1630.1	21.93	76.60
163.51	12 7 7	5735.84	14.22	259.74	69.95	165.06	13 42 43	5135.8	21.94	257.94
16.49	1 12 48	2230.12	14.21	78.40	69.94	165.06	1 49 58	1630.1	21.93	76.60
163.51	12 7 7	5735.84	14.22	259.74	69.95	165.06	13 42 43	5135.8	21.94	257.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 3.5807 TRA -.1577 TC3  .0029 BAU  .0157    SGT 1814.5 SGR 3970.5 SG3  113.6     ST  1789.5 SR  2418.5 SS  1172.2
RDE-4.4213 RRA-1.6530 RC3 -.0084 FAU .00356    RRT -.4030 RRF  .9827 RTF -.5625    CRT -.8894 CRS -.9924 CST  .9388
FDE-1.8361 FRA -.4711 FC3 -.0234 BSP  13639    SGB 4365.5 R23  .0941 R13  .9949    LSA 3157.3 MSA  676.0 SSA    1.6
BDE 5.6894 BRA 1.6605 BC3  .0089 FSP   -361    SG1 4050.6 SG2 1627.8 THA 102.48    EL1 2931.9 EL2  674.7 ALF 125.51
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 423.202

```
RL  151.48 LAL    .00 LOL 322.72 VL  26.940 GAL   -.46 AZL 106.90 HCA 191.46 SMA 129.30 ECC .17179 INC16.8978 V1  29.412
RP  107.53 LAP   3.31 LOP 153.70 VP  37.973 GAP   2.00 AZP  73.42 TAL 182.24 TAP  13.70 RCA 107.08 APO 151.51 V2  35.240
RC  94.056 GL  -65.09 GP   80.30 ZAL  89.31 ZAP  96.73 ETS  28.53 ZAE  99.74 ETE 123.29 ZAC 166.47 ETC 189.53 CLP-134.14
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PLANETOCENTRIC CONIC

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C3  74.532 VHL  8.633 DLA -75.54 RAL 169.20 RAD 6569.4 VEL 13.996 PTH   2.55 VHP 10.503 DPA  61.94 RAP 257.51 ECC 2.2266
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.48	1 34 44	2108.31	22.22	76.61	73.14	164.35	2 9 52	1508.3	29.90	74.55
163.52	12 29 6	5613.99	22.22	257.94	73.16	164.35	14 2 40	5014.0	29.90	255.88
16.48	1 34 44	2108.31	22.22	76.61	73.14	164.35	2 9 52	1508.3	29.90	74.55
163.52	12 29 6	5613.99	22.22	257.94	73.16	164.35	14 2 40	5014.0	29.90	255.88
16.48	1 34 44	2108.31	22.22	76.61	73.14	164.35	2 9 52	1508.3	29.90	74.55
163.52	12 29 6	5613.99	22.22	257.94	73.16	164.35	14 2 40	5014.0	29.90	255.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE-2.0395 TRA -.8911 TC3 -.2325 BAU  .3053    SGT 2756.7 SGR 3511.9 SG3  160.2     ST  1528.7 SR  2906.2 SS  1316.6
RDE 4.2813 RRA  .7659 RC3  .1994 FAU .01482    RRT -.9093 RRF -.9955 RTF  .9379    CRT -.9633 CRS  .9995 CST -.9716
FDE-2.1211 FRA -.4403 FC3 -.1721 BSP  14089    SGB 4464.6 R23  .0814 R13 -.9953    LSA 3518.8 MSA  366.5 SSA    2.5
BDE 4.7422 BRA 1.1750 BC3  .3064 FSP   -515    SG1 4368.3 SG2  922.5 THA 127.47    EL1 3263.3 EL2  365.3 ALF 117.24
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 429.369

```
RL  151.48 LAL    .00 LOL 322.72 VL  26.927 GAL   -.33 AZL 103.39 HCA 194.61 SMA 129.21 ECC .17248 INC13.3886 V1  29.412
RP  107.55 LAP   3.35 LOP 156.95 VP  37.958 GAP   2.36 AZP  77.03 TAL 181.58 TAP  16.19 RCA 106.92 APO 151.50 V2  35.235
RC  96.339 GL  -62.69 GP   74.10 ZAL  88.63 ZAP  99.93 ETS  28.26 ZAE 105.15 ETE 123.33 ZAC 164.63 ETC 211.19 CLP-129.00
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PLANETOCENTRIC CONIC

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C3  49.242 VHL  7.017 DLA -75.01 RAL 178.73 RAD 6568.8 VEL 13.062 PTH   2.38 VHP  8.476 DPA  56.66 RAP 250.19 ECC 1.8104
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.08	2 13 57	2006.68	28.71	74.34	80.28	162.85	2 47 24	1406.7	36.33	71.84
162.92	13 5 55	5514.60	28.72	256.27	80.31	162.85	14 37 50	4914.6	36.33	253.77
17.08	2 13 57	2006.68	28.71	74.34	80.28	162.85	2 47 24	1406.7	36.33	71.84
162.92	13 5 55	5514.60	28.72	256.27	80.31	162.85	14 37 50	4914.6	36.33	253.77
17.08	2 13 57	2006.68	28.71	74.34	80.28	162.85	2 47 24	1406.7	36.33	71.84
162.92	13 5 55	5514.60	28.72	256.27	80.31	162.85	14 37 50	4914.6	36.33	253.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE-2.3744 TRA -.6682 TC3 -.5097 BAU  .4398    SGT 2953.0 SGR 3424.5 SG3  216.1     ST  2039.5 SR  3038.3 SS  1568.4
RDE 3.6784 RRA  .4845 RC3  .4318 FAU .02515    RRT -.9377 RRF -.9965 RTF  .9537    CRT -.9866 CRS  .9999 CST -.9890
FDE-2.5863 FRA -.3763 FC3 -.4422 BSP  14260    SGB 4521.9 R23  .0944 R13 -.9936    LSA 3971.3 MSA  281.8 SSA    3.2
BDE 4.3782 BRA  .8253 BC3  .6680 FSP   -693    SG1 4452.5 SG2  789.0 THA 130.50    EL1 3648.8 EL2  277.2 ALF 123.74
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 435.552

```
RL  151.48 LAL    .00 LOL 322.72 VL  26.912 GAL   -.19 AZL 101.11 HCA 197.79 SMA 129.11 ECC .17333 INC11.1077 V1  29.412
RP  107.57 LAP   3.37 LOP 160.20 VP  37.942 GAP   2.73 AZP  79.41 TAL 180.91 TAP  18.70 RCA 106.73 APO 151.49 V2  35.229
RC  98.624 GL  -59.85 GP   68.32 ZAL  87.78 ZAP 103.54 ETS  30.09 ZAE 109.64 ETE 126.10 ZAC 161.02 ETC 225.94 CLP-129.31
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PLANETOCENTRIC CONIC

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C3  35.949 VHL  5.996 DLA -73.99 RAL 188.99 RAD 6568.4 VEL 12.543 PTH   2.27 VHP  7.237 DPA  51.69 RAP 244.89 ECC 1.5916
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.26	2 57 16	1925.08	33.67	71.50	87.96	160.65	3 29 21	1325.1	41.17	68.41
161.74	13 44 27	5437.72	33.67	254.61	87.98	160.65	15 15 5	4837.7	41.17	251.51
18.26	2 57 16	1925.08	33.67	71.50	87.96	160.65	3 29 21	1325.1	41.17	68.41
161.74	13 44 27	5437.72	33.67	254.61	87.98	160.65	15 15 5	4837.7	41.17	251.51
18.26	2 57 16	1925.08	33.67	71.50	87.96	160.65	3 29 21	1325.1	41.17	68.41
161.74	13 44 27	5437.72	33.67	254.61	87.98	160.65	15 15 5	4837.7	41.17	251.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE-2.5968 TRA -.4997 TC3 -.8570 BAU  .5150    SGT 3195.6 SGR 3258.4 SG3  276.4     ST  2535.5 SR  3041.1 SS  1811.3
RDE 3.1691 RRA  .2663 RC3  .6434 FAU .03504    RRT -.9513 RRF -.9963 RTF  .9622    CRT -.9934 CRS 1.0000 CST -.9942
FDE-3.0165 FRA -.2738 FC3 -.8438 BSP  14374    SGB 4563.9 R23  .1064 R13 -.9917    LSA 4347.7 MSA  233.8 SSA    4.1
BDE 4.0971 BRA  .5662 BC3 1.0716 FSP   -881    SG1 4508.0 SG2  712.4 THA 134.41    EL1 3953.0 EL2  224.4 ALF 129.79
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 441.734
RL 151.48 LAL .00 LOL 322.72 VL 26.896 GAL -.04 AZL 99.50 HCA 200.99 SMA 129.00 ECC .17432 INC 9.5022 V1 29.412
RP 107.59 LAP 3.39 LOP 163.45 VP 37.924 GAP 3.10 AZP 81.12 TAL 180.21 TAP 21.20 RCA 106.51 APO 151.48 V2 35.222
RC 100.910 GL -56.86 GP 62.91 ZAL 86.74 ZAP 107.41 ETS 31.99 ZAE 113.40 ETE 129.53 ZAC 156.81 ETC 234.94 CLP-131.07
PLANETOCENTRIC CONIC
C3 28.121 VHL 5.303 DLA -72.56 RAL 198.58 RAD 6568.1 VEL 12.227 PTH 2.20 VHP 6.438 DPA 46.93 RAP 240.83 ECC 1.4628

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.90	3 38 54	1859.75	37.29	68.10	94.72	157.87	4 9 54	1259.8	44.63	64.29
160.10	14 19 18	5379.56	37.30	252.88	94.74	157.87	15 48 58	4779.6	44.64	249.07
19.90	3 38 54	1859.75	37.29	68.10	94.72	157.87	4 9 54	1259.8	44.63	64.29
160.10	14 19 18	5379.56	37.30	252.88	94.74	157.87	15 48 58	4779.6	44.64	249.07
19.90	3 38 54	1859.75	37.29	68.10	94.72	157.87	4 9 54	1259.8	44.63	64.29
160.10	14 19 18	5379.56	37.30	252.88	94.74	157.87	15 48 58	4779.6	44.64	249.07

DIFFERENTIAL CORRECTIONS
TOE-2.7046 TRA -.3615 TC3-1.2717 BAU .5725
RDE 2.6786 RRA .1237 RC3 .8379 FAU .04500
FOE-3.3044 FRA -.1579 FC3-1.3852 BSP 14866
BDE 3.8065 BRA .3821 BC3 1.5229 FSP -1100

MID-COURSE EXECUTION ACCURACY
SGT 3472.3 SGR 3060.1 SG3 337.2
RRT -.9634 RRF -.9958 RTF .9709
SGB 4628.3 R23 .1094 R13 -.9907
SG1 4586.5 SG2 620.8 THA 138.75

ORBIT DETERMINATION ACCURACY
ST 2948.6 SR 2897.3 SS 1988.4
CRT -.9962 CRS 1.0000 CST -.9964
LSA 4583.0 MSA 195.0 SSA 5.0
EL1 4129.9 EL2 179.5 ALF 135.50

LAUNCH DATE AUG 16 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 447.906
RL 151.48 LAL .00 LOL 322.72 VL 26.877 GAL .11 AZL 98.31 HCA 204.20 SMA 128.87 ECC .17545 INC 8.3060 V1 29.412
RP 107.61 LAP 3.39 LOP 166.70 VP 37.904 GAP 3.47 AZP 82.41 TAL 179.47 TAP 23.66 RCA 106.26 APO 151.48 V2 35.215
RC 103.196 GL -53.82 GP 57.86 ZAL 85.53 ZAP 111.41 ETS 33.63 ZAE 116.53 ETE 133.19 ZAC 152.51 ETC 240.66 CLP-133.32
PLANETOCENTRIC CONIC
C3 23.139 VHL 4.810 DLA -70.83 RAL 207.07 RAD 6567.9 VEL 12.022 PTH 2.15 VHP 5.911 DPA 42.38 RAP 237.68 ECC 1.3808

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.90	4 16 59	1806.79	39.83	64.26	100.21	154.69	4 47 6	1206.8	46.97	59.68
158.10	14 49 0	5336.28	39.84	251.10	100.23	154.69	16 17 57	4736.3	46.97	246.51
21.90	4 16 59	1806.79	39.83	64.26	100.21	154.69	4 47 6	1206.8	46.97	59.68
158.10	14 49 0	5336.28	39.84	251.10	100.23	154.69	16 17 57	4736.3	46.97	246.51
21.90	4 16 59	1806.79	39.83	64.26	100.21	154.69	4 47 6	1206.8	46.97	59.68
158.10	14 49 0	5336.28	39.84	251.10	100.23	154.69	16 17 57	4736.3	46.97	246.51

DIFFERENTIAL CORRECTIONS
TOE-2.7195 TRA -.2044 TC3-1.6944 BAU .5986
RDE 2.2267 RRA -.0164 RC3 .9346 FAU .05168
FOE-3.4218 FRA .0397 FC3-1.9337 BSP 14595
BDE 3.5149 BRA .2050 BC3 1.9351 FSP -1225

MID-COURSE EXECUTION ACCURACY
SGT 3701.4 SGR 2801.2 SG3 387.3
RRT -.9657 RRF -.9948 RTF .9721
SGB 4641.8 R23 .1229 R13 -.9882
SG1 4604.9 SG2 584.3 THA 143.15

ORBIT DETERMINATION ACCURACY
ST 3247.3 SR 2652.5 SS 2081.6
CRT -.9972 CRS 1.0000 CST -.9969
LSA 4677.7 MSA 179.8 SSA 6.1
EL1 4190.0 EL2 155.0 ALF 140.77

LAUNCH DATE AUG 16 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 454.065
RL 151.48 LAL .00 LOL 322.72 VL 26.858 GAL .28 AZL 97.38 HCA 207.41 SMA 128.74 ECC .17672 INC 7.3756 V1 29.412
RP 107.64 LAP 3.39 LOP 169.94 VP 37.883 GAP 3.84 AZP 83.44 TAL 178.69 TAP 26.10 RCA 105.99 APO 151.49 V2 35.207
RC 105.482 GL -50.80 GP 53.16 ZAL 84.14 ZAP 115.42 ETS 34.95 ZAE 119.07 ETE 136.90 ZAC 148.36 ETC 244.49 CLP-135.72
PLANETOCENTRIC CONIC
C3 19.795 VHL 4.449 DLA -68.91 RAL 214.49 RAD 6567.8 VEL 11.882 PTH 2.11 VHP 5.562 DPA 38.04 RAP 235.24 ECC 1.3258

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.13	4 51 21	1763.14	41.51	60.14	104.52	151.28	5 20 44	1163.1	48.39	54.78
155.87	15 13 48	5304.75	41.51	249.33	104.54	151.28	16 42 12	4704.8	48.40	243.96
24.13	4 51 21	1763.14	41.51	60.14	104.52	151.28	5 20 44	1163.1	48.39	54.78
155.87	15 13 48	5304.75	41.51	249.33	104.54	151.28	16 42 12	4704.8	48.40	243.96
24.13	4 51 21	1763.14	41.51	60.14	104.52	151.28	5 20 44	1163.1	48.39	54.78
155.87	15 13 48	5304.75	41.51	249.33	104.54	151.28	16 42 12	4704.8	48.40	243.96

DIFFERENTIAL CORRECTIONS
TOE-2.6738 TRA -.0669 TC3-2.1602 BAU .6319
RDE 1.8379 RRA -.0996 RC3 1.0178 FAU .05827
FOE-3.3940 FRA .2214 FC3-2.5487 BSP 14872
BDE 3.2446 BRA .1200 BC3 2.3880 FSP -1375

MID-COURSE EXECUTION ACCURACY
SGT 3950.8 SGR 2559.2 SG3 430.9
RRT -.9698 RRF -.9935 RTF .9754
SGB 4707.3 R23 .1245 R13 -.9869
SG1 4677.6 SG2 527.2 THA 147.40

ORBIT DETERMINATION ACCURACY
ST 3444.6 SR 2369.4 SS 2103.7
CRT -.9978 CRS .9999 CST -.9972
LSA 4677.4 MSA 164.1 SSA 7.1
EL1 4178.8 EL2 129.2 ALF 145.50

LAUNCH DATE AUG 16 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 460.208
RL 151.48 LAL .00 LOL 322.72 VL 26.836 GAL .46 AZL 96.63 HCA 210.63 SMA 128.60 ECC .17813 INC 6.6276 V1 29.412
RP 107.66 LAP 3.37 LOP 173.18 VP 37.860 GAP 4.20 AZP 84.29 TAL 177.87 TAP 28.50 RCA 105.69 APO 151.51 V2 35.198
RC 107.765 GL -47.82 GP 48.83 ZAL 82.61 ZAP 119.35 ETS 35.97 ZAE 121.07 ETE 140.56 ZAC 144.47 ETC 247.19 CLP-138.12
PLANETOCENTRIC CONIC
C3 17.467 VHL 4.179 DLA -66.86 RAL 220.98 RAD 6567.7 VEL 11.783 PTH 2.08 VHP 5.338 DPA 33.95 RAP 233.38 ECC 1.2875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.52	5 22 31	1726.48	42.48	55.89	107.93	147.80	5 51 17	1126.5	49.08	49.81
153.48	15 34 26	5282.68	42.49	247.65	107.95	147.79	17 2 28	4682.7	49.09	241.57
26.52	5 22 31	1726.48	42.48	55.89	107.93	147.80	5 51 17	1126.5	49.08	49.81
153.48	15 34 26	5282.68	42.49	247.65	107.95	147.79	17 2 28	4682.7	49.09	241.57
26.52	5 22 31	1726.48	42.48	55.89	107.93	147.80	5 51 17	1126.5	49.08	49.81
153.48	15 34 26	5282.68	42.49	247.65	107.95	147.79	17 2 28	4682.7	49.09	241.57

DIFFERENTIAL CORRECTIONS
TOE-2.5860 TRA .0707 TC3-2.6225 BAU .6592
RDE 1.5079 RRA -.1604 RC3 1.0452 FAU .06272
FOE-3.2389 FRA .4109 FC3-3.1090 BSP 15102
BDE 2.9935 BRA .1753 BC3 2.8231 FSP -1482

MID-COURSE EXECUTION ACCURACY
SGT 4175.5 SGR 2313.0 SG3 461.4
RRT -.9714 RRF -.9918 RTF .9772
SGB 4773.4 R23 .1247 R13 -.9856
SG1 4748.9 SG2 482.6 THA 151.39

ORBIT DETERMINATION ACCURACY
ST 3546.6 SR 2074.3 SS 2057.7
CRT -.9982 CRS .9999 CST -.9971
LSA 4592.5 MSA 154.8 SSA 8.2
EL1 4107.3 EL2 108.2 ALF 149.70

LAUNCH DATE AUG 16 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 466.333

RL	151.48	LAL	.00	LOL	322.72	VL	26.814	GAL	.65	AZL	96.01	HCA	213.85	SMA	128.45	ECC	.17968	INC	6.0095	V1	29.412
RP	107.69	LAP	3.34	LOP	176.42	VP	37.835	GAP	4.57	AZP	85.00	TAL	177.02	TAP	30.87	RCA	105.37	APO	151.53	V2	35.189
RC	110.046	GL	-44.91	GP	44.87	ZAL	80.93	ZAP	123.13	ETS	36.73	ZAE	122.60	ETE	144.06	ZAC	140.89	ETC	249.16	CLP	-140.46

PLANETOCENTRIC CONIC

C3	15.810	VHL	3.976	DLA	-64.73	RAL	226.72	RAD	6567.6	VEL	11.713	PTH	2.06	VHP	5.203	DPA	30.11	RAP	232.02	ECC	1.2602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.01	5 51 7	1695.06	42.88	51.63	110.70	144.36	6 19 22	1095.1	49.18	44.92
150.99	15 51 40	5268.42	42.89	246.17	110.72	144.36	17 19 28	4668.4	49.19	239.46
29.01	5 51 7	1695.06	42.88	51.63	110.70	144.36	6 19 22	1095.1	49.18	44.92
150.99	15 51 40	5268.42	42.89	246.17	110.72	144.36	17 19 28	4668.4	49.19	239.46
29.01	5 51 7	1695.06	42.88	51.63	110.70	144.36	6 19 22	1095.1	49.18	44.92
150.99	15 51 40	5268.42	42.89	246.17	110.72	144.36	17 19 28	4668.4	49.19	239.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-2.4774	TRA	.2120	TC3	-3.0715	BAU	.6850	SGT 4384.3 SGR 2087.8 SG3 481.6	ST 3577.1	SR 1801.9	SS 1969.8
RDE	1.2420	RRA	-.2051	RC3	1.0342	FAU	.06549	RRT -.9716 RRF -.9894 RTF .9782	CRT -.9984	CRS .9997	CST -.9969
FDE	-3.0107	FRA	.6007	FC3	-3.5862	BSP	15351	SGB 4856.0 R23 .1224 R13 -.9844	LSA 4460.9	MSA 149.8	SSA 9.2
BDE	2.7713	BRA	.2950	BC3	3.2409	FSP	-1554	SG1 4835.3 SG2 448.2 THA 154.94	EL1 4004.3	EL2 89.9	ALF 153.29

LAUNCH DATE AUG 16 1970 FLIGHT TIME 168.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 472.439

RL	151.48	LAL	.00	LOL	322.72	VL	26.790	GAL	.86	AZL	95.49	HCA	217.07	SMA	128.29	ECC	.18137	INC	5.4875	V1	29.412
RP	107.72	LAP	3.30	LOP	179.66	VP	37.809	GAP	4.93	AZP	85.62	TAL	176.13	TAP	33.20	RCA	105.02	APO	151.56	V2	35.179
RC	112.324	GL	-42.06	GP	41.28	ZAL	79.11	ZAP	126.72	ETS	37.30	ZAE	123.72	ETE	147.35	ZAC	137.65	ETC	250.65	CLP	-142.71

PLANETOCENTRIC CONIC

C3	14.622	VHL	3.824	DLA	-62.55	RAL	231.87	RAD	6567.6	VEL	11.662	PTH	2.05	VHP	5.136	DPA	26.54	RAP	231.09	ECC	1.2406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.58	6 17 42	1667.67	42.83	47.45	113.07	141.06	6 45 29	1067.7	48.82	40.23
148.42	16 6 10	5260.74	42.84	244.93	113.09	141.05	17 33 51	4660.7	48.83	237.71
31.58	6 17 42	1667.67	42.83	47.45	113.07	141.06	6 45 29	1067.7	48.82	40.23
148.42	16 6 10	5260.74	42.84	244.93	113.09	141.05	17 33 51	4660.7	48.83	237.71
31.58	6 17 42	1667.67	42.83	47.45	113.07	141.06	6 45 29	1067.7	48.82	40.23
148.42	16 6 10	5260.74	42.84	244.93	113.09	141.05	17 33 51	4660.7	48.83	237.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-2.3523	TRA	.3577	TC3	-3.4845	BAU	.7080	SGT 4569.0 SGR 1878.5 SG3 490.4	ST 3542.7	SR 1554.8	SS 1845.1
RDE	1.0260	RRA	-.2373	RC3	.9874	FAU	.06644	RRT -.9703 RRF -.9863 RTF .9785	CRT -.9987	CRS .9994	CST -.9963
FDE	-2.7275	FRA	.7824	FC3	-3.9334	BSP	15567	SGB 4940.1 R23 .1184 R13 -.9832	LSA 4283.7	MSA 148.2	SSA 10.3
BDE	2.5663	BRA	.4292	BC3	3.6217	FSP	-1587	SG1 4922.0 SG2 422.1 THA 158.08	EL1 3868.2	EL2 73.2	ALF 156.32

LAUNCH DATE AUG 16 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 478.524

RL	151.48	LAL	.00	LOL	322.72	VL	26.766	GAL	1.07	AZL	95.04	HCA	220.29	SMA	128.13	ECC	.18321	INC	5.0380	V1	29.412
RP	107.75	LAP	3.26	LOP	182.90	VP	37.782	GAP	5.29	AZP	86.15	TAL	175.21	TAP	35.50	RCA	104.65	APO	151.60	V2	35.169
RC	114.599	GL	-39.28	GP	38.04	ZAL	77.19	ZAP	130.09	ETS	37.72	ZAE	124.51	ETE	150.38	ZAC	134.74	ETC	251.81	CLP	-144.85

PLANETOCENTRIC CONIC

C3	13.777	VHL	3.712	DLA	-60.35	RAL	236.54	RAD	6567.5	VEL	11.626	PTH	2.04	VHP	5.119	DPA	23.23	RAP	230.53	ECC	1.2267

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.19	6 42 45	1643.26	42.41	43.40	115.20	137.93	7 10 8	1043.3	48.08	35.80
145.81	16 18 24	5258.90	42.42	244.01	115.22	137.93	17 46 2	4658.9	48.09	236.40
34.19	6 42 45	1643.26	42.41	43.40	115.20	137.93	7 10 8	1043.3	48.08	35.80
145.81	16 18 24	5258.90	42.42	244.01	115.22	137.93	17 46 2	4658.9	48.09	236.40
34.19	6 42 45	1643.26	42.41	43.40	115.20	137.93	7 10 8	1043.3	48.08	35.80
145.81	16 18 24	5258.90	42.42	244.01	115.22	137.93	17 46 2	4658.9	48.09	236.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-2.2234	TRA	.5040	TC3	-3.8675	BAU	.7325	SGT 4742.9 SGR 1694.3 SG3 491.4	ST 3465.4	SR 1344.5	SS 1705.0
RDE	.8567	RRA	-.2582	RC3	.9263	FAU	.06642	RRT -.9681 RRF -.9821 RTF .9788	CRT -.9990	CRS .9987	CST -.9955
FDE	-2.4304	FRA	.9437	FC3	-4.1735	BSP	15886	SGB 5036.4 R23 .1107 R13 -.9822	LSA 4086.8	MSA 148.4	SSA 11.4
BDE	2.3827	BRA	.5662	BC3	3.9769	FSP	-1604	SG1 5020.5 SG2 400.8 THA 160.79	EL1 3716.7	EL2 56.6	ALF 158.81

LAUNCH DATE AUG 16 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 484.589

RL	151.48	LAL	.00	LOL	322.72	VL	26.740	GAL	1.30	AZL	94.64	HCA	223.51	SMA	127.96	ECC	.18521	INC	4.6448	V1	29.412
RP	107.79	LAP	3.20	LOP	186.14	VP	37.754	GAP	5.65	AZP	86.63	TAL	174.25	TAP	37.76	RCA	104.26	APO	151.66	V2	35.158
RC	116.871	GL	-36.58	GP	35.13	ZAL	75.17	ZAP	133.24	ETS	38.04	ZAE	125.02	ETE	153.13	ZAC	132.16	ETC	252.75	CLP	-146.90

PLANETOCENTRIC CONIC

C3	13.196	VHL	3.633	DLA	-58.14	RAL	240.82	RAD	6567.5	VEL	11.601	PTH	2.03	VHP	5.141	DPA	20.18	RAP	230.29	ECC	1.2172

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.84	7 6 36	1621.10	41.69	39.52	117.21	135.03	7 33 37	1021.1	47.06	31.64
143.16	16 28 41	5262.29	41.70	243.42	117.23	135.02	17 56 23	4662.3	47.07	235.53
36.84	7 6 36	1621.10	41.69	39.52	117.21	135.03	7 33 37	1021.1	47.06	31.64
143.16	16 28 41	5262.29	41.70	243.42	117.23	135.02	17 56 23	4662.3	47.07	235.53
36.84	7 6 36	1621.10	41.69	39.52	117.21	135.03	7 33 37	1021.1	47.06	31.64
143.16	16 28 41	5262.29	41.70	243.42	117.23	135.02	17 56 23	4662.3	47.07	235.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-2.0893	TRA	.6570	TC3	-4.1963	BAU	.7553	SGT 4899.8 SGR 1531.9 SG3 485.5	ST 3348.8	SR 1165.8	SS 1553.5
RDE	.7225	RRA	-.2733	RC3	.8493	FAU	.06522	RRT -.9646 RRF -.9768 RTF .9786	CRT -.9993	CRS .9974	CST -.9943
FDE	-2.1278	FRA	1.0919	FC3	-4.2790	BSP	16176	SGB 5133.7 R23 .1021 R13 -.9812	LSA 3868.3	MSA 151.6	SSA 12.4
BDE	2.2107	BRA	.7115	BC3	4.2814	FSP	-1594	SG1 5119.1 SG2 386.7 THA 163.12	EL1 3545.7	EL2 40.5	ALF 160.81

LAUNCH DATE AUG 16 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 490.631

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RL  151.48 LAL    .00 LOL 322.72 VL  26.714 GAL   1.55 AZL  94.30 HCA 226.73 SMA 127.78 ECC .18736 INC 4.2957 V1  29.412
RP  107.82 LAP   3.13 LOP 189.37 VP  37.725 GAP   6.01 AZP  87.05 TAL 173.26 TAP  39.99 RCA 103.84 APO 151.72 V2  35.147
RC 119.138 GL  -33.95 GP   32.52 ZAL  73.07 ZAP 136.18 ETS  38.30 ZAE 125.32 ETE 155.60 ZAC 129.87 ETC 253.52 CLP-148.83
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PLANETOCENTRIC CONIC

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C3  12.826 VHL  3.581 DLA -55.94 RAL 244.78 RAD 6567.5 VEL 11.585 PTH   2.03 VHP  5.196 DPA  17.36 RAP 230.32 ECC 1.2111
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.51	7 29 32	1600.61	40.72	35.82	119.17	132.36	7 56 13	1000.6	45.82	27.75
140.49	16 37 17	5270.50	40.74	243.19	119.19	132.34	18 5 7	4670.5	45.83	235.12
39.51	7 29 32	1600.61	40.72	35.82	119.17	132.36	7 56 13	1000.6	45.82	27.75
140.49	16 37 17	5270.50	40.74	243.19	119.19	132.34	18 5 7	4670.5	45.83	235.12
39.51	7 29 32	1600.61	40.72	35.82	119.17	132.36	7 56 13	1000.6	45.82	27.75
140.49	16 37 17	5270.50	40.74	243.19	119.19	132.34	18 5 7	4670.5	45.83	235.12

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9547 TRA  .8151 TC3-4.4700 BAU  .7776   SGT 5045.0 SGR 1391.7 SG3  475.0      ST  3205.7 SR  1018.8 SS  1402.7
RDE  .6183 RRA -.2837 RC3  .7666 FAU .06329   RRT -.9598 RRF -.9701 RTF  .9783      CRT -.9997 CRS  .9948 CST -.9925
FDE-1.8391 FRA 1.2227 FC3-4.2718 BSP  16490   SGB 5233.4 R23  .0921 R13 -.9802      LSA 3641.1 MSA  156.9 SSA   13.4
BDE 2.0501 BRA  .8630 BC3 4.5353 FSP  -1569   SG1 5219.8 SG2  377.8 THA 165.09     EL1 3363.6 EL2   24.6 ALF 162.37
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 496.650

```
RL  151.48 LAL    .00 LOL 322.72 VL  26.686 GAL   1.80 AZL  93.98 HCA 229.94 SMA 127.60 ECC .18968 INC 3.9819 V1  29.412
RP  107.86 LAP   3.05 LOP 192.60 VP  37.695 GAP   6.37 AZP  87.43 TAL 172.25 TAP  42.19 RCA 103.40 APO 151.81 V2  35.136
RC 121.402 GL  -31.41 GP   30.19 ZAL  70.91 ZAP 138.90 ETS  38.54 ZAE 125.46 ETE 157.79 ZAC 127.86 ETC 254.18 CLP-150.68
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PLANETOCENTRIC CONIC

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C3  12.632 VHL  3.554 DLA -53.76 RAL 248.45 RAD 6567.5 VEL 11.577 PTH   2.02 VHP  5.276 DPA  14.76 RAP 230.60 ECC 1.2079
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.19	7 51 47	1581.23	39.57	32.30	121.14	129.91	8 18 8	981.2	44.40	24.12
137.81	16 44 19	5283.35	39.58	243.34	121.16	129.90	18 12 23	4683.3	44.41	235.16
42.19	7 51 47	1581.23	39.57	32.30	121.14	129.91	8 18 8	981.2	44.40	24.12
137.81	16 44 19	5283.35	39.58	243.34	121.16	129.90	18 12 23	4683.3	44.41	235.16
42.19	7 51 47	1581.23	39.57	32.30	121.14	129.91	8 18 8	981.2	44.40	24.12
137.81	16 44 19	5283.35	39.58	243.34	121.16	129.90	18 12 23	4683.3	44.41	235.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8255 TRA  .9721 TC3-4.7034 BAU  .8028   SGT 5183.0 SGR 1271.3 SG3  461.0      ST  3050.1 SR   901.2 SS  1261.1
RDE  .5394 RRA -.2884 RC3  .6910 FAU .06130   RRT -.9540 RRF -.9617 RTF  .9784      CRT -.9999 CRS  .9903 CST -.9903
FDE-1.5777 FRA 1.3264 FC3-4.2012 BSP  16968   SGB 5336.7 R23  .0785 R13 -.9798      LSA 3417.5 MSA  162.8 SSA   14.3
BDE 1.9036 BRA 1.0140 BC3 4.7539 FSP  -1553   SG1 5323.8 SG2  370.9 THA 166.76     EL1 3180.4 EL2   14.3 ALF 163.54
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 502.646

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RL  151.48 LAL    .00 LOL 322.72 VL  26.658 GAL   2.08 AZL  93.70 HCA 233.16 SMA 127.42 ECC .19217 INC 3.6967 V1  29.412
RP  107.89 LAP   2.96 LOP 195.83 VP  37.664 GAP   6.74 AZP  87.78 TAL 171.20 TAP  44.36 RCA 102.93 APO 151.91 V2  35.124
RC 123.660 GL  -28.95 GP   28.11 ZAL  68.71 ZAP 141.43 ETS  38.78 ZAE 125.48 ETE 159.73 ZAC 126.10 ETC 254.76 CLP-152.43
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PLANETOCENTRIC CONIC

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C3  12.592 VHL  3.548 DLA -51.59 RAL 251.88 RAD 6567.5 VEL 11.575 PTH   2.02 VHP  5.377 DPA  12.36 RAP 231.10 ECC 1.2072
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.88	8 13 32	1562.55	38.27	28.93	123.15	127.70	8 39 34	962.6	42.85	20.71
135.12	16 49 56	5300.67	38.28	243.87	123.16	127.68	18 18 17	4700.7	42.86	235.64
44.88	8 13 32	1562.55	38.27	28.93	123.15	127.70	8 39 34	962.6	42.85	20.71
135.12	16 49 56	5300.67	38.28	243.87	123.16	127.68	18 18 17	4700.7	42.86	235.64
44.88	8 13 32	1562.55	38.27	28.93	123.15	127.70	8 39 34	962.6	42.85	20.71
135.12	16 49 56	5300.67	38.28	243.87	123.16	127.68	18 18 17	4700.7	42.86	235.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.6865 TRA 1.1470 TC3-4.8389 BAU  .8209   SGT 5300.6 SGR 1166.8 SG3  444.4      ST  2868.0 SR   801.2 SS  1120.3
RDE  .4752 RRA -.2952 RC3  .6043 FAU .05811   RRT -.9458 RRF -.9516 RTF  .9775      CRT -.9995 CRS  .9818 CST -.9865
FDE-1.3228 FRA 1.4318 FC3-3.9956 BSP  17164   SGB 5427.5 R23  .0692 R13 -.9786      LSA 3176.8 MSA  174.8 SSA   15.1
BDE 1.7521 BRA 1.1844 BC3 4.8765 FSP  -1493   SG1 5414.8 SG2  370.8 THA 168.18     EL1 2977.7 EL2   25.1 ALF 164.40
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 508.617

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RL  151.48 LAL    .00 LOL 322.72 VL  26.630 GAL   2.37 AZL  93.43 HCA 236.37 SMA 127.23 ECC .19485 INC 3.4347 V1  29.412
RP  107.93 LAP   2.86 LOP 199.05 VP  37.633 GAP   7.10 AZP  88.10 TAL 170.13 TAP  46.51 RCA 102.44 APO 152.03 V2  35.112
RC 125.912 GL  -26.58 GP   26.25 ZAL  66.48 ZAP 143.78 ETS  39.05 ZAE 125.42 ETE 161.43 ZAC 124.56 ETC 255.28 CLP-154.10
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PLANETOCENTRIC CONIC

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C3  12.691 VHL  3.563 DLA -49.47 RAL 255.09 RAD 6567.5 VEL 11.579 PTH   2.02 VHP  5.497 DPA  10.15 RAP 231.79 ECC 1.2089
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.58	8 34 55	1544.17	36.85	25.71	125.22	125.69	9 0 39	944.2	41.22	17.49
132.42	16 54 11	5322.43	36.86	244.77	125.23	125.68	18 22 53	4722.4	41.23	236.55
47.58	8 34 55	1544.17	36.85	25.71	125.22	125.69	9 0 39	944.2	41.22	17.49
132.42	16 54 11	5322.43	36.86	244.77	125.23	125.68	18 22 53	4722.4	41.23	236.55
47.58	8 34 55	1544.17	36.85	25.71	125.22	125.69	9 0 39	944.2	41.22	17.49
132.42	16 54 11	5322.43	36.86	244.77	125.23	125.68	18 22 53	4722.4	41.23	236.55

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.5514 TRA 1.3255 TC3-4.9232 BAU  .8401   SGT 5412.0 SGR 1078.5 SG3  426.7      ST  2684.2 SR   721.9 SS   995.1
RDE  .4269 RRA -.2998 RC3  .5275 FAU .05499   RRT -.9363 RRF -.9397 RTF  .9769      CRT -.9978 CRS  .9674 CST -.9814
FDE-1.0969 FRA 1.5190 FC3-3.7513 BSP  17451   SGB 5518.4 R23  .0589 R13 -.9777      LSA 2946.2 MSA  189.0 SSA   15.7
BDE 1.6090 BRA 1.3589 BC3 4.9514 FSP  -1440   SG1 5505.8 SG2  372.2 THA 169.38     EL1 2779.2 EL2   46.3 ALF 164.97
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LAUNCH DATE AUG 16 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 514.562

RL	151.48	LAL	.00	LOL	322.72	VL	26.600	GAL	2.67	AZL	93.19	HCA	239.59	SMA	127.05	ECC	.19772	INC	3.1917	V1	29.412
RP	107.97	LAP	2.75	LOP	202.27	VP	37.600	GAP	7.48	AZP	88.38	TAL	169.04	TAP	48.63	RCA	101.93	APO	152.16	V2	35.099
RC	128.158	GL	-24.30	GP	24.59	ZAL	64.25	ZAP	145.96	ETS	39.36	ZAE	125.29	ETE	162.92	ZAC	123.21	ETC	255.76	CLP	-155.69

PLANETOCENTRIC CONIC

C3	12.923	VHL	3.595	DLA	-47.38	RAL	258.11	RAD	6567.5	VEL	11.589	PTH	2.03	VHP	5.632	DPA	8.09	RAP	232.64	ECC	1.2127

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.28	8 56 4	1525.77	35.35	22.61	127.34	123.88	9 21 30	925.8	39.51	14.41
129.72	16 57 6	5348.58	35.37	246.06	127.35	123.87	18 26 14	4748.6	39.52	237.86
50.28	8 56 4	1525.77	35.35	22.61	127.34	123.88	9 21 30	925.8	39.51	14.41
129.72	16 57 6	5348.58	35.37	246.06	127.35	123.87	18 26 14	4748.6	39.52	237.86
50.28	8 56 4	1525.77	35.35	22.61	127.34	123.88	9 21 30	925.8	39.51	14.41
129.72	16 57 6	5348.58	35.37	246.06	127.35	123.87	18 26 14	4748.6	39.52	237.86

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4178	TRA	1.5108	TC3	-4.9481	BAU	.8585	SGT	5514.4	SGR	1003.5	SG3	408.3	ST	2501.3	SR	658.6	SS	885.6
RDE	.3906	RRA	-.3037	RC3	.4576	FAU	.05177	RRT	-.9252	RRF	-.9261	RTF	.9762	CRT	-.9937	CRS	.9439	CST	-.9746
FDE	-.8962	FRA	1.5936	FC3	-3.4682	BSP	17739	SGB	5605.0	R23	.0493	R13	-.9769	LSA	2726.1	MSA	206.2	SSA	16.1
BDE	1.4707	BRA	1.5410	BC3	4.9692	FSP	-1384	SG1	5592.4	SG2	375.5	THA	170.40	EL1	2585.5	EL2	71.7	ALF	165.33

LAUNCH DATE AUG 16 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 520.480

RL	151.48	LAL	.00	LOL	322.72	VL	26.571	GAL	2.99	AZL	92.96	HCA	242.80	SMA	126.85	ECC	.20081	INC	2.9643	V1	29.412
RP	108.01	LAP	2.64	LOP	205.49	VP	37.567	GAP	7.85	AZP	88.64	TAL	167.92	TAP	50.72	RCA	101.38	APO	152.33	V2	35.086
RC	130.397	GL	-22.12	GP	23.10	ZAL	62.03	ZAP	148.00	ETS	39.74	ZAE	125.12	ETE	164.23	ZAC	122.03	ETC	256.22	CLP	-157.21

PLANETOCENTRIC CONIC

C3	13.281	VHL	3.644	DLA	-45.35	RAL	260.94	RAD	6567.5	VEL	11.605	PTH	2.03	VHP	5.782	DPA	6.18	RAP	233.64	ECC	1.2186

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.97	9 17 8	1506.91	33.80	19.60	129.53	122.25	9 42 15	906.9	37.77	11.45
127.03	16 58 40	5379.26	33.81	247.73	129.54	122.24	18 28 19	4779.3	37.78	239.58
52.97	9 17 8	1506.91	33.80	19.60	129.53	122.25	9 42 15	906.9	37.77	11.45
127.03	16 58 40	5379.26	33.81	247.73	129.54	122.24	18 28 19	4779.3	37.78	239.58
52.97	9 17 8	1506.91	33.80	19.60	129.53	122.25	9 42 15	906.9	37.77	11.45
127.03	16 58 40	5379.26	33.81	247.73	129.54	122.24	18 28 19	4779.3	37.78	239.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2853	TRA	1.7040	TC3	-4.9173	BAU	.8759	SGT	5608.8	SGR	940.0	SG3	389.7	ST	2324.3	SR	608.0	SS	792.8
RDE	.3637	RRA	-.3077	RC3	.3952	FAU	.04853	RRT	-.9126	RRF	-.9109	RTF	.9756	CRT	-.9853	CRS	.9080	CST	-.9657
FDE	-.7182	FRA	1.6581	FC3	-3.1631	BSP	18025	SGB	5687.0	R23	.0404	R13	-.9761	LSA	2519.7	MSA	226.7	SSA	16.4
BDE	1.3357	BRA	1.7316	BC3	4.9332	FSP	-1329	SG1	5674.3	SG2	380.0	THA	171.27	EL1	2400.4	EL2	100.4	ALF	165.52

LAUNCH DATE AUG 16 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 526.369

RL	151.48	LAL	.00	LOL	322.72	VL	26.540	GAL	3.33	AZL	92.75	HCA	246.01	SMA	126.66	ECC	.20411	INC	2.7499	V1	29.412
RP	108.05	LAP	2.51	LOP	208.71	VP	37.534	GAP	8.23	AZP	88.88	TAL	166.79	TAP	52.79	RCA	100.81	APO	152.51	V2	35.074
RC	132.627	GL	-20.03	GP	21.76	ZAL	59.83	ZAP	149.89	ETS	40.20	ZAE	124.93	ETE	165.38	ZAC	121.01	ETC	256.66	CLP	-158.67

PLANETOCENTRIC CONIC

C3	13.768	VHL	3.711	DLA	-43.37	RAL	263.62	RAD	6567.5	VEL	11.626	PTH	2.04	VHP	5.946	DPA	4.41	RAP	234.78	ECC	1.2266

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.67	9 38 14	1487.28	32.20	16.65	131.79	120.78	10 3 1	887.3	36.02	8.56
124.33	16 58 54	5414.58	32.21	249.78	131.79	120.77	18 29 8	4814.6	36.02	241.69
55.67	9 38 14	1487.28	32.20	16.65	131.79	120.78	10 3 1	887.3	36.02	8.56
124.33	16 58 54	5414.58	32.21	249.78	131.79	120.77	18 29 8	4814.6	36.02	241.69
55.67	9 38 14	1487.28	32.20	16.65	131.79	120.78	10 3 1	887.3	36.02	8.56
124.33	16 58 54	5414.58	32.21	249.78	131.79	120.77	18 29 8	4814.6	36.02	241.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1540	TRA	1.9065	TC3	-4.8349	BAU	.8922	SGT	5696.5	SGR	886.8	SG3	371.6	ST	2159.4	SR	567.8	SS	717.8
RDE	.3444	RRA	-.3122	RC3	.3403	FAU	.04531	RRT	-.8986	RRF	-.8946	RTF	.9750	CRT	-.9706	CRS	.8565	CST	-.9551
FDE	-.5622	FRA	1.7154	FC3	-2.8489	BSP	18300	SGB	5765.1	R23	.0328	R13	-.9753	LSA	2331.9	MSA	250.4	SSA	16.5
BDE	1.2043	BRA	1.9319	BC3	4.8469	FSP	-1274	SG1	5752.2	SG2	385.3	THA	172.00	EL1	2228.9	EL2	132.4	ALF	165.63

LAUNCH DATE AUG 16 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 532.225

RL	151.48	LAL	.00	LOL	322.72	VL	26.510	GAL	3.69	AZL	92.55	HCA	249.22	SMA	126.46	ECC	.20766	INC	2.5461	V1	29.412
RP	108.09	LAP	2.38	LOP	211.92	VP	37.500	GAP	8.62	AZP	89.10	TAL	165.63	TAP	54.85	RCA	100.20	APO	152.73	V2	35.061
RC	134.850	GL	-18.05	GP	20.56	ZAL	57.67	ZAP	151.67	ETS	40.75	ZAE	124.72	ETE	166.38	ZAC	120.11	ETC	257.09	CLP	-160.07

PLANETOCENTRIC CONIC

C3	14.385	VHL	3.793	DLA	-41.45	RAL	266.14	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	6.122	DPA	2.76	RAP	236.03	ECC	1.2367

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.36	9 59 29	1466.46	30.59	13.72	134.10	119.46	10 23 55	866.5	34.26	5.71
121.64	16 57 44	5454.71	30.61	252.22	134.11	119.45	18 28 39	4854.7	34.27	244.20
58.36	9 59 29	1466.46	30.59	13.72	134.10	119.46	10 23 55	866.5	34.26	5.71
121.64	16 57 44	5454.71	30.61	252.22	134.11	119.45	18 28 39	4854.7	34.27	244.20
58.36	9 59 29	1466.46	30.59	13.72	134.10	119.46	10 23 55	866.5	34.26	5.71
121.64	16 57 44	5454.71	30.61	252.22	134.11	119.45	18 28 39	4854.7	34.27	244.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0454	TRA	2.0947	TC3	-4.7712	BAU	.9195	SGT	5780.7	SGR	841.6	SG3	353.1	ST	2027.3	SR	540.6	SS	663.1
RDE	.3352	RRA	-.3132	RC3	.3048	FAU	.04324	RRT	-.8841	RRF	-.8772	RTF	.9756	CRT	-.9491	CRS	.8003	CST	-.9479
FDE	-.4476	FRA	1.7432	FC3	-2.6025	BSP	19107	SGB	5841.7	R23	.0228	R13	-.9758	LSA	2183.7	MSA	269.9	SSA	16.3
BDE	1.0978	BRA	2.1179	BC3	4.7809	FSP	-1266	SG1	5828.6	SG2	390.0	THA	172.63	EL1	2091.6	EL2	165.1	ALF	165.71

LAUNCH DATE AUG 16 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 538.053

RL	151.48	LAL	.00	LOL	322.72	VL	26.479	GAL	4.07	AZL	92.35	HCA	252.42	SMA	126.27	ECC	.21147	INC	2.3509
RP	108.13	LAP	2.24	LOP	215.13	VP	37.466	GAP	9.02	AZP	89.29	TAL	164.46	TAP	56.88	RCA	99.57	APO	152.97
RC	137.063	GL	-16.17	GP	19.48	ZAL	55.55	ZAP	153.33	ETS	41.41	ZAE	124.50	ETE	167.26	ZAC	119.33	ETC	257.52

V1	29.412	V2	35.047	CLP	-161.41														

PLANETOCENTRIC CONIC

C3	15.141	VHL	3.891	DLA	-39.60	RAL	268.52	RAD	6567.6	VEL	11.684	PTH	2.06	VHP	6.310	DPA	1.21	RAP	237.39
ECC	1.2492																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.07	10 21 7	1443.89	28.98	10.77	136.48	118.27	10 45 11	843.9	32.51	2.83
118.93	16 55 5	5500.08	28.99	255.06	136.49	118.25	18 26 45	4900.1	32.52	247.12
61.07	10 21 7	1443.89	28.98	10.77	136.48	118.27	10 45 11	843.9	32.51	2.83
118.93	16 55 5	5500.08	28.99	255.06	136.49	118.25	18 26 45	4900.1	32.52	247.12
61.07	10 21 7	1443.89	28.98	10.77	136.48	118.27	10 45 11	843.9	32.51	2.83
118.93	16 55 5	5500.08	28.99	255.06	136.49	118.25	18 26 45	4900.1	32.52	247.12

DIFFERENTIAL CORRECTIONS

TDE	-.8984	TRA	2.3325	TC3	-4.5584	BAU	.9241
RDE	.3231	RRA	-.3221	RC3	.2537	FAU	.03932
FDE	-.3092	FRA	1.8039	FC3	-2.2481	BSP	18945
BDE	.9548	BRA	2.3546	BC3	4.5654	FSP	-1175

MID-COURSE EXECUTION ACCURACY

SGT	5848.6	SGR	802.7	SG3	336.3		
RRT	-.8678	RRF	-.8591	RTF	.9741		
SGB	5903.4	R23	.0199	R13	-.9743		
SG1	5890.1	SG2	396.1	THA	173.18		

ORBIT DETERMINATION ACCURACY

ST	1884.1	SR	510.4	SS	616.8		
CRT	-.9120	CRS	.7065	CST	-.9341		
LSA	2024.6	MSA	302.9	SSA	16.3		
EL1	1941.4	EL2	203.2	ALF	165.97		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 543.845

RL	151.48	LAL	.00	LOL	322.72	VL	26.448	GAL	4.47	AZL	92.16	HCA	255.62	SMA	126.07	ECC	.21555	INC	2.1626
RP	108.17	LAP	2.09	LOP	218.34	VP	37.432	GAP	9.43	AZP	89.46	TAL	163.28	TAP	58.90	RCA	98.90	APO	153.24
RC	139.266	GL	-14.38	GP	18.51	ZAL	53.49	ZAP	154.88	ETS	42.19	ZAE	124.28	ETE	168.03	ZAC	118.65	ETC	257.95

V1	29.412	V2	35.034	CLP	-162.71		

PLANETOCENTRIC CONIC

C3	16.042	VHL	4.005	DLA	-37.83	RAL	270.76	RAD	6567.6	VEL	11.723	PTH	2.07	VHP	6.511	DPA	-.23	RAP	238.85
ECC	1.2640																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.80	10 43 17	1418.95	27.38	7.74	138.91	117.19	11 6 56	818.9	30.79	359.87
116.20	16 50 49	5551.14	27.39	258.35	138.91	117.18	18 23 20	4951.1	30.80	250.48
63.80	10 43 17	1418.95	27.38	7.74	138.91	117.19	11 6 56	818.9	30.79	359.87
116.20	16 50 49	5551.14	27.39	258.35	138.91	117.18	18 23 20	4951.1	30.80	250.48
63.80	10 43 17	1418.95	27.38	7.74	138.91	117.19	11 6 56	818.9	30.79	359.87
116.20	16 50 49	5551.14	27.39	258.35	138.91	117.18	18 23 20	4951.1	30.80	250.48

DIFFERENTIAL CORRECTIONS

TDE	-.7627	TRA	2.5691	TC3	-4.3483	BAU	.9337
RDE	.3172	RRA	-.3297	RC3	.2155	FAU	.03609
FDE	-.1978	FRA	1.8484	FC3	-1.9476	BSP	19054
BDE	.8260	BRA	2.5902	BC3	4.3536	FSP	-1112

MID-COURSE EXECUTION ACCURACY

SGT	5913.7	SGR	769.6	SG3	320.0		
RRT	-.8514	RRF	-.8407	RTF	.9732		
SGB	5963.5	R23	.0159	R13	-.9734		
SG1	5950.0	SG2	401.2	THA	173.65		

ORBIT DETERMINATION ACCURACY

ST	1774.7	SR	487.9	SS	587.5		
CRT	-.8612	CRS	.6055	CST	-.9255		
LSA	1903.1	MSA	332.7	SSA	16.2		
EL1	1824.7	EL2	241.2	ALF	166.44		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 549.599

RL	151.48	LAL	.00	LOL	322.72	VL	26.417	GAL	4.89	AZL	91.98	HCA	258.82	SMA	125.87	ECC	.21994	INC	1.9798
RP	108.21	LAP	1.94	LOP	221.54	VP	37.397	GAP	9.85	AZP	89.62	TAL	162.08	TAP	60.90	RCA	98.19	APO	153.56
RC	141.459	GL	-12.70	GP	17.63	ZAL	51.49	ZAP	156.35	ETS	43.11	ZAE	124.06	ETE	168.71	ZAC	118.05	ETC	258.38

V1	29.412	V2	35.021	CLP	-163.97														

PLANETOCENTRIC CONIC

C3	17.101	VHL	4.135	DLA	-36.12	RAL	272.88	RAD	6567.7	VEL	11.768	PTH	2.08	VHP	6.724	DPA	-1.58	RAP	240.40
ECC	1.2814																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.57	11 6 16	1390.86	25.80	4.58	141.39	116.21	11 29 27	790.9	29.10	356.78
113.43	16 44 45	5608.51	25.81	262.11	141.39	116.20	18 18 14	5008.5	29.11	254.31
66.57	11 6 16	1390.86	25.80	4.58	141.39	116.21	11 29 27	790.9	29.10	356.78
113.43	16 44 45	5608.51	25.81	262.11	141.39	116.20	18 18 14	5008.5	29.11	254.31
66.57	11 6 16	1390.86	25.80	4.58	141.39	116.21	11 29 27	790.9	29.10	356.78
113.43	16 44 45	5608.51	25.81	262.11	141.39	116.20	18 18 14	5008.5	29.11	254.31

DIFFERENTIAL CORRECTIONS

TDE	-.6309	TRA	2.8124	TC3	-4.1245	BAU	.9439
RDE	.3151	RRA	-.3375	RC3	.1845	FAU	.03315
FDE	-.1036	FRA	1.8855	FC3	-1.6783	BSP	19242
BDE	.7052	BRA	2.8326	BC3	4.1286	FSP	-1059

MID-COURSE EXECUTION ACCURACY

SGT	5972.6	SGR	741.0	SG3	304.3		
RRT	-.8349	RRF	-.8225	RTF	.9726		
SGB	6018.4	R23	.0122	R13	-.9728		
SG1	6004.7	SG2	405.7	THA	174.06		

ORBIT DETERMINATION ACCURACY

ST	1693.8	SR	469.9	SS	570.3		
CRT	-.7958	CRS	.5015	CST	-.9225		
LSA	1812.6	MSA	359.3	SSA	15.9		
EL1	1735.7	EL2	277.7	ALF	167.22		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 196.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 555.309

RL	151.48	LAL	.00	LOL	322.72	VL	26.385	GAL	5.34	AZL	91.80	HCA	262.02	SMA	125.67	ECC	.22466	INC	1.8011
RP	108.25	LAP	1.78	LOP	224.74	VP	37.363	GAP	10.28	AZP	89.75	TAL	160.87	TAP	62.90	RCA	97.44	APO	153.91
RC	143.643	GL	-11.12	GP	16.83	ZAL	49.57	ZAP	157.72	ETS	44.19	ZAE	123.84	ETE	169.31	ZAC	117.53	ETC	258.82

V1	29.412	V2	35.008	CLP	-165.19		

PLANETOCENTRIC CONIC

C3	18.331	VHL	4.282	DLA	-34.49	RAL	274.88	RAD	6567.7	VEL	11.820	PTH	2.09	VHP	6.951	DPA	-2.84	RAP	242.02
ECC	1.3017																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.43	11 30 25	1358.40	24.25	1.18	143.90	115.32	11 53 3	758.4	27.45	353.45
110.57	16 36 33	5673.26	24.26	266.41	143.91	115.31	18 11 6	5073.3	27.46	258.68
69.43	11 30 25	1358.40	24.25	1.18	143.90	115.32	11 53 3	758.4	27.45	353.45
110.57	16 36 33	5673.26	24.26	266.41	143.91	115.31	18 11 6	5073.3	27.46	258.68
69.43	11 30 25	1358.40	24.25	1.18	143.90	115.32	11 53 3	758.4	27.45	353.45
110.57	16 36 33	5673.26	24.26	266.41	143.91	115.31	18 11 6	5073.3	27.46	258.68

DIFFERENTIAL CORRECTIONS

TDE	-.5204	TRA	3.0452	TC3	-3.9321	BAU	.9645
RDE	.3187	RRA	-.3433	RC3	.1652	FAU	.03118
FDE	-.0381	FRA	1.9035	FC3	-1.4726	BSP	19948
BDE	.6103	BRA	3.0645	BC3	3.9355	FSP	-1044

MID-COURSE EXECUTION ACCURACY

SGT	6022.4	SGR	716.0	SG3	288.4		
RRT	-.8186	RRF	-.8046	RTF	.9730		
SGB	6064.9	R23	.0076	R13	-.9731		
SG1	6051.0	SG2	409.3	THA	174.42		

ORBIT DETERMINATION ACCURACY

ST	1641.8	SR	458.1	SS	558.2		
CRT	-.7253	CRS	.4157	CST	-.9271		
LSA	1753.2	MSA	378.0	SSA	15.5		
EL1	1676.3	EL2	308.9	ALF	168.15		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 560.979

RL	151.48	LAL	.00	LOL	322.72	VL	26.353	GAL	5.81	AZL	91.63	HCA	265.22	SMA	125.47	ECC	.22973	INC	1.6254
RP	108.29	LAP	1.62	LOP	227.94	VP	37.328	GAP	10.73	AZP	89.86	TAL	159.66	TAP	64.88	RCA	96.65	APO	154.30
RC	145.816	GL	-9.63	GP	16.11	ZAL	47.71	ZAP	159.02	ETS	45.44	ZAE	123.62	ETE	169.84	ZAC	117.06	ETC	259.27

V1	29.412	V2	34.995	CLP	-166.38														

PLANETOCENTRIC CONIC

C3	19.753	VHL	4.444	DLA	-32.94	RAL	276.77	RAD	6567.8	VEL	11.880	PTH	2.11	VHP	7.191	DPA	-4.01	RAP	243.71
ECC	1.3251																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.42	11 56 23	1319.58	22.73	357.40	146.47	114.51	12 18 22	719.6	25.84	349.73
107.58	16 25 40	5747.32	22.74	271.40	146.48	114.50	18 1 28	5147.3	25.85	263.72
72.42	11 56 23	1319.58	22.73	357.40	146.47	114.51	12 18 22	719.6	25.84	349.73
107.58	16 25 40	5747.32	22.74	271.40	146.48	114.50	18 1 28	5147.3	25.85	263.72
110.00	15 31 1	627.48	16.68	303.16	143.14	120.28	15 41 29	27.5	20.58	296.20
110.00	17 50 12	5487.41	29.07	254.09	149.27	108.83	19 21 40	4887.4	31.36	245.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3665	TRA	3.3334	TC3	-3.6340	BAU	.9603	SGT	6072.7	SGR	693.8	SG3	275.3	ST	1610.1	SR	441.8	SS	560.4
RDE	.3182	RRA	-.3556	RC3	.1360	FAU	.02771	RRT	-.8026	RRF	-.7874	RTF	.9718	CRT	-.6269	CRS	.3021	CST	-.9316
FDE	.0512	FRA	1.9508	FC3	-1.2147	BSP	19608	SGB	6112.2	R23	.0064	R13	-.9718	LSA	1715.2	MSA	399.6	SSA	15.4
BDE	.4854	BRA	3.3524	BC3	3.6365	FSP	-961	SG1	6098.2	SG2	412.1	THA	174.74	EL1	1634.8	EL2	339.0	ALF	169.80

LAUNCH DATE AUG 16 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 566.597

RL	151.48	LAL	.00	LOL	322.72	VL	26.322	GAL	6.31	AZL	91.45	HCA	268.41	SMA	125.28	ECC	.23520	INC	1.4514
RP	108.33	LAP	1.45	LOP	231.13	VP	37.293	GAP	11.20	AZP	89.96	TAL	158.44	TAP	66.85	RCA	95.81	APO	154.74
RC	147.979	GL	-8.24	GP	15.45	ZAL	45.94	ZAP	160.24	ETS	46.88	ZAE	123.41	ETE	170.31	ZAC	116.66	ETC	259.72

V1	29.412	V2	34.982	CLP	-167.54														

PLANETOCENTRIC CONIC

C3	21.387	VHL	4.625	DLA	-31.46	RAL	278.55	RAD	6567.9	VEL	11.948	PTH	2.13	VHP	7.447	DPA	-5.12	RAP	245.47
ECC	1.3520																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.68	12 25 14	1270.86	21.25	352.97	149.07	113.76	12 46 24	670.9	24.28	345.35
104.32	16 11 3	5834.05	21.26	277.30	149.07	113.75	17 48 18	5234.0	24.29	269.68
75.68	12 25 14	1270.86	21.25	352.97	149.07	113.76	12 46 24	670.9	24.28	345.35
104.32	16 11 3	5834.05	21.26	277.30	149.07	113.75	17 48 18	5234.0	24.29	269.68
110.00	15 5 10	751.48	12.30	310.09	144.11	122.15	15 17 41	151.5	16.46	303.45
110.00	18 30 18	5401.42	30.81	247.99	152.87	105.60	20 0 19	4801.4	32.64	239.25

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2329	TRA	3.6127	TC3	-3.3767	BAU	.9660	SGT	6113.3	SGR	673.6	SG3	261.8	ST	1603.2	SR	430.2	SS	563.0
RDE	.3225	RRA	-.3659	RC3	.1169	FAU	.02518	RRT	-.7872	RRF	-.7709	RTF	.9715	CRT	-.5315	CRS	.2146	CST	-.9409
FDE	.1149	FRA	1.9805	FC3	-1.0194	BSP	19785	SGB	6150.3	R23	.0043	R13	-.9715	LSA	1703.9	MSA	410.8	SSA	15.1
BDE	.3978	BRA	3.6312	BC3	3.3787	FSP	-917	SG1	6136.4	SG2	413.8	THA	175.02	EL1	1620.3	EL2	360.5	ALF	171.46

LAUNCH DATE AUG 16 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 572.161

RL	151.48	LAL	.00	LOL	322.72	VL	26.290	GAL	6.84	AZL	91.28	HCA	271.60	SMA	125.08	ECC	.24110	INC	1.2781
RP	108.37	LAP	1.28	LOP	234.33	VP	37.259	GAP	11.68	AZP	90.04	TAL	157.22	TAP	68.83	RCA	94.32	APO	155.24
RC	150.132	GL	-6.93	GP	14.86	ZAL	44.24	ZAP	161.39	ETS	48.54	ZAE	123.20	ETE	170.73	ZAC	116.29	ETC	260.19

V1	29.412	V2	34.969	CLP	-168.67														

PLANETOCENTRIC CONIC

C3	23.258	VHL	4.823	DLA	-30.06	RAL	280.24	RAD	6567.9	VEL	12.026	PTH	2.15	VHP	7.718	DPA	-6.14	RAP	247.28
ECC	1.3828																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.46	12 59 22	1204.37	19.82	347.32	151.70	113.08	13 19 27	604.4	22.77	339.76
100.54	15 50 21	653.16	19.83	306.77	151.71	113.06	16 1 14	53.2	22.79	299.20
79.46	12 59 22	1204.37	19.82	347.32	151.70	113.08	13 19 27	604.4	22.77	339.76
100.54	15 50 21	653.16	19.83	306.77	151.71	113.06	16 1 14	53.2	22.79	299.20
110.00	14 48 35	848.32	8.74	315.33	145.60	123.18	15 2 43	248.3	13.05	308.88
110.00	19 0 18	5345.25	31.76	243.89	156.06	103.35	20 29 24	4745.2	33.27	234.99

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0980	TRA	3.9060	TC3	-3.1176	BAU	.9699	SGT	6148.5	SGR	654.9	SG3	249.2	ST	1615.2	SR	419.6	SS	568.4
RDE	.3281	RRA	-.3768	RC3	.1005	FAU	.02278	RRT	-.7724	RRF	-.7554	RTF	.9713	CRT	-.4357	CRS	.1377	CST	-.9511
FDE	.1711	FRA	2.0091	FC3	-.8478	BSP	19950	SGB	6183.2	R23	.0026	R13	-.9714	LSA	1713.2	MSA	415.9	SSA	14.8
BDE	.3424	BRA	3.9241	BC3	3.1192	FSP	-874	SG1	6169.3	SG2	414.5	THA	175.27	EL1	1626.1	EL2	375.1	ALF	173.18

LAUNCH DATE AUG 16 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 577.663

RL	151.48	LAL	.00	LOL	322.72	VL	26.258	GAL	7.41	AZL	91.10	HCA	274.79	SMA	124.88	ECC	.24747	INC	1.1043
RP	108.41	LAP	1.10	LOP	237.52	VP	37.224	GAP	12.19	AZP	90.09	TAL	156.01	TAP	70.80	RCA	93.98	APO	155.79
RC	152.275	GL	-5.72	GP	14.31	ZAL	42.63	ZAP	162.48	ETS	50.45	ZAE	122.99	ETE	171.10	ZAC	115.97	ETC	260.66

V1	29.412	V2	34.956	CLP	-169.79														

PLANETOCENTRIC CONIC

C3	25.398	VHL	5.040	DLA	-28.73	RAL	281.83	RAD	6568.0	VEL	12.115	PTH	2.17	VHP	8.007	DPA	-7.10	RAP	249.15
ECC	1.4180																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.92	13 48 46	1087.74	18.43	338.09	154.36	112.44	14 6 53	487.7	21.32	330.57
95.08	15 13 38	812.99	18.45	317.97	154.37	112.43	15 27 11	213.0	21.33	310.44
100.00	14 42 41	912.69	12.55	322.47	151.53	117.35	14 57 54	312.7	16.12	315.49
100.00	17 2 23	5751.31	24.54	272.45	156.75	107.63	18 38 15	5151.3	26.72	264.33
110.00	14 36 28	932.27	5.58	319.78	147.37	123.78	14 52 0	332.3	9.98	313.46
110.00	19 25 6	5304.50	32.36	240.87	159.08	101.65	20 53 31	4704.5	33.63	231.86

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0379	TRA	4.2134	TC3	-2.8614	BAU	.9720	SGT	6177.5	SGR	637.3	SG3	237.1	ST	1641.7	SR	409.7	SS	575.0
RDE	.3350	RRA	-.3883	RC3	.0864	FAU	.02051	RRT	-.7583	RRF	-.7407	RTF	.9713	CRT	-.3440	CRS	.0714	CST	-.9608
FDE	.2203	FRA	2.0368	FC3	-.6990	BSP	20132	SGB	6210.3	R23	.0013	R13	-.9714	LSA	1738.0	MSA	415.7	SSA	14.4
BDE	.3371	BRA	4.2312	BC3	2.8628	FSP	-835	SG1	6196.5	SG2	414.2	THA	175.51	EL1	1648.1	EL2	383.2	ALF	174.81

LAUNCH DATE AUG 16 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 583.096

RL	151.48	LAL	.00	LOL	322.72	VL	26.226	GAL	8.01	AZL	90.93	HCA	277.98	SMA	124.69	ECC	.25436	INC	.9291
RP	108.45	LAP	.92	LOP	240.70	VP	37.190	GAP	12.73	AZP	90.13	TAL	154.79	TAP	72.77	RCA	92.97	APO	156.40
RC	154.408	GL	-4.58	GP	13.82	ZAL	41.10	ZAP	163.49	ETS	52.63	ZAE	122.79	ETE	171.43	ZAC	115.67	ETC	261.15

V1	29.412	V2	34.943	CLP	-170.89														

PLANETOCENTRIC CONIC

C3	27.844	VHL	5.277	DLA	-27.47	RAL	283.32	RAD	6568.1	VEL	12.216	PTH	2.19	VHP	8.315	DPA	-7.99	RAP	251.05
ECC	1.4582																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 36 35	1170.59	12.07	341.19	154.76	115.81	13 56 6	570.6	15.45	334.14
90.00	15 37 45	775.75	22.27	316.74	159.04	107.95	15 50 41	175.7	24.52	308.79
100.00	14 17 52	1037.20	8.56	329.56	152.92	118.75	14 35 9	437.2	12.33	322.80
100.00	17 39 9	5672.41	26.06	267.08	160.27	105.19	19 13 42	5072.4	27.89	258.76
110.00	14 27 3	1008.33	2.69	323.77	149.32	124.09	14 43 51	408.3	7.15	317.52
110.00	19 46 27	5274.04	32.76	238.58	162.01	100.35	21 14 21	4674.0	33.84	229.51

DIFFERENTIAL CORRECTIONS

TDE	.1756	TRA	4.5361	TC3	-2.6103	BAU	.9721
RDE	.3427	RRA	-.4003	RC3	.0741	FAU	.01836
FDE	.2641	FRA	2.0643	FC3	-.5707	BSP	20319
BDE	.3851	BRA	4.5538	BC3	2.6114	FSP	-799

MID-COURSE EXECUTION ACCURACY

SGT	6200.4	SGR	620.2	SG3	225.8		
RRT	-.7449	RRF	-.7270	RTF	.9715		
SGB	6231.4	R23	.0002	R13	-.9715		
SG1	6217.7	SG2	412.7	THA	175.72		

ORBIT DETERMINATION ACCURACY

ST	1678.4	SR	400.1	SS	582.3		
CRT	-.2591	CRS	.0146	CST	-.9692		
LSA	1773.9	MSA	411.3	SSA	14.1		
EL1	1681.8	EL2	385.7	ALF	176.27		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 588.451

RL	151.48	LAL	.00	LOL	322.72	VL	26.195	GAL	8.65	AZL	90.75	HCA	281.16	SMA	124.49	ECC	.26184	INC	.7512
RP	108.49	LAP	.74	LOP	243.89	VP	37.156	GAP	13.30	AZP	90.15	TAL	153.59	TAP	74.75	RCA	91.90	APO	157.09
RC	156.530	GL	-3.52	GP	13.37	ZAL	39.65	ZAP	164.44	ETS	55.13	ZAE	122.58	ETE	171.73	ZAC	115.40	ETC	261.64

V1	29.412	V2	34.931	CLP	-171.97														

PLANETOCENTRIC CONIC

C3	30.639	VHL	5.535	DLA	-26.29	RAL	284.73	RAD	6568.2	VEL	12.329	PTH	2.22	VHP	8.644	DPA	-8.82	RAP	253.00
ECC	1.5042																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 8 51	1305.46	7.96	348.96	156.14	117.26	13 30 36	705.5	11.55	342.13
90.00	16 16 44	688.75	23.98	310.94	162.64	105.53	16 28 13	88.8	25.88	302.79
100.00	14 1 24	1135.72	5.29	335.05	154.69	119.46	14 20 20	535.7	9.18	328.41
100.00	18 6 52	5621.77	26.91	263.56	163.48	103.52	19 40 33	5021.8	28.51	255.12
110.00	14 19 29	1078.97	-.01	327.46	151.40	124.18	14 37 28	479.0	4.48	321.25
110.00	20 5 16	5251.28	33.03	236.86	164.91	99.37	21 32 47	4651.3	33.97	227.74

DIFFERENTIAL CORRECTIONS

TDE	.3153	TRA	4.8755	TC3	-2.3666	BAU	.9698
RDE	.3514	RRA	-.4126	RC3	.0634	FAU	.01632
FDE	.3027	FRA	2.0918	FC3	-.4611	BSP	20521
BDE	.4721	BRA	4.8929	BC3	2.3675	FSP	-766

MID-COURSE EXECUTION ACCURACY

SGT	6217.2	SGR	603.4	SG3	215.0		
RRT	-.7321	RRF	-.7142	RTF	.9718		
SGB	6246.4	R23	-.0005	R13	-.9718		
SG1	6232.9	SG2	410.0	THA	175.92		

ORBIT DETERMINATION ACCURACY

ST	1721.7	SR	390.8	SS	589.6		
CRT	-.1825	CRS	-.0337	CST	-.9762		
LSA	1816.9	MSA	403.9	SSA	13.7		
EL1	1723.2	EL2	383.9	ALF	177.50		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 593.717

RL	151.48	LAL	.00	LOL	322.72	VL	26.163	GAL	9.34	AZL	90.57	HCA	284.34	SMA	124.30	ECC	.26995	INC	.5694
RP	108.53	LAP	.55	LOP	247.07	VP	37.123	GAP	13.90	AZP	90.14	TAL	152.40	TAP	76.74	RCA	90.75	APO	157.86
RC	158.641	GL	-2.53	GP	12.95	ZAL	38.28	ZAP	165.33	ETS	57.97	ZAE	122.36	ETE	172.00	ZAC	115.16	ETC	262.15

V1	29.412	V2	34.919	CLP	-173.05														

PLANETOCENTRIC CONIC

C3	33.838	VHL	5.817	DLA	-25.17	RAL	286.06	RAD	6568.3	VEL	12.458	PTH	2.25	VHP	8.997	DPA	-9.58	RAP	254.98
ECC	1.5569																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 51 9	1408.44	4.71	354.78	157.96	117.95	13 14 38	808.4	8.41	348.06
90.00	16 45 0	635.77	24.90	307.33	165.90	103.94	16 55 36	35.8	26.57	299.06
100.00	13 49 5	1221.42	2.41	339.77	156.68	119.80	14 9 26	621.4	6.35	333.21
100.00	18 29 46	5586.06	27.46	261.05	166.56	102.31	20 2 52	4986.1	28.88	252.53
110.00	14 13 15	1145.57	-2.55	330.94	153.59	124.10	14 32 21	545.6	1.94	324.73
110.00	20 22 4	5234.68	33.20	235.59	167.79	98.64	21 49 19	4634.7	34.04	226.45

DIFFERENTIAL CORRECTIONS

TDE	.4583	TRA	5.2340	TC3	-2.1310	BAU	.9644
RDE	.3606	RRA	-.4251	RC3	.0538	FAU	.01436
FDE	.3377	FRA	2.1207	FC3	-.3674	BSP	20719
BDE	.5831	BRA	5.2512	BC3	2.1317	FSP	-734

MID-COURSE EXECUTION ACCURACY

SGT	6228.5	SGR	586.6	SG3	204.8		
RRT	-.7198	RRF	-.7021	RTF	.9722		
SGB	6256.0	R23	-.0010	R13	-.9723		
SG1	6242.8	SG2	406.3	THA	176.10		

ORBIT DETERMINATION ACCURACY

ST	1768.9	SR	381.3	SS	597.1		
CRT	-.1141	CRS	-.0751	CST	-.9818		
LSA	1864.3	MSA	394.3	SSA	13.4		
EL1	1769.5	EL2	378.7	ALF	178.52		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 598.882

RL	151.48	LAL	.00	LOL	322.72	VL	26.132	GAL	10.07	AZL	90.38	HCA	287.52	SMA	124.11	ECC	.27879	INC	.3826
RP	108.56	LAP	.37	LOP	250.25	VP	37.090	GAP	14.54	AZP	90.12	TAL	151.23	TAP	78.75	RCA	89.51	APO	158.71
RC	160.740	GL	-1.61	GP	12.57	ZAL	37.00	ZAP	166.14	ETS	61.20	ZAE	122.14	ETE	172.25	ZAC	114.93	ETC	262.66

V1	29.412	V2	34.907	CLP	-174.12														

PLANETOCENTRIC CONIC

C3	37.504	VHL	6.124	DLA	-24.11	RAL	287.30	RAD	6568.5	VEL	12.604	PTH	2.29	VHP	9.376	DPA	-10.28	RAP	256.98
ECC	1.6172																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 38 2	1496.89	1.87	359.73	159.99	118.26	13 2 59	896.9	5.63	353.07
90.00	17 8 3	5887.32	25.47	282.72	169.00	102.81	18 46 10	5287.3	26.98	274.37
100.00	13 39 18	1299.10	-.23	344.03	158.82	119.89	14 0 57	699.1	3.75	337.51
100.00	18 49 28	5560.34	27.82	259.22	169.56	101.41	20 22 8	4960.3	29.11	250.66
110.00	14 8 2	1209.00	-4.97	334.26	155.87	123.86	14 28 11	609.0	-.49	328.04
110.00	20 37 13	5223.20	33.32	234.72	170.66	98.13	22 4 16	4623.2	34.08	225.56

DIFFERENTIAL CORRECTIONS

TDE	.6052	TRA	5.6133	TC3	-1.9049	BAU	.9554
RDE	.3704	RRA	-.4377	RC3	.0451	FAU	.01248
FDE	.3695	FRA	2.1511	FC3	-.2880	BSP	20911
BDE	.7095	BRA	5.6303	BC3	1.9054	FSP	-704

MID-COURSE EXECUTION ACCURACY

SGT	6234.4	SGR	569.6	SG3	195.2		
RRT	-.7080	RRF	-.6907	RTF	.9729		
SGB	6260.4	R23	-.0014	R13	-.9729		
SG1	6247.5	SG2	401.4	THA	176.28		

ORBIT DETERMINATION ACCURACY

ST	1817.9	SR	371.7	SS	604.7		
CRT	-.0536	CRS	-.1108	CST	-.9862		
LSA	1913.5	MSA	383.2	SSA	13.0		
EL1	1818.0	EL2	371.2	ALF	179.34		

LAUNCH DATE AUG 16 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 603.928

RL	151.48	LAL	.00	LOL	322.72	VL	26.101	GAL	10.86	AZL	90.19	HCA	290.70	SMA	123.92	ECC	.28842	INC	.1891
RP	108.60	LAP	.18	LOP	253.42	VP	37.057	GAP	15.22	AZP	90.07	TAL	150.08	TAP	80.78	RCA	88.18	APO	159.67
RC	162.826	GL	-.75	GP	12.23	ZAL	35.79	ZAP	166.87	ETS	64.87	ZAE	121.91	ETE	172.47	ZAC	114.71	ETC	263.17

PLANETOCENTRIC CONIC

C3	41.715	VHL	6.459	DLA	-23.12	RAL	288.46	RAD	6568.6	VEL	12.770	PTH	2.32	VHP	9.785	DPA	-10.92	RAP	259.00

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 27 39	1576.50	-.70	4.17	162.16	118.31	12 53 56	976.5	3.09	357.54
90.00	17 27 42	5861.46	25.85	280.92	172.02	101.98	19 5 24	5261.5	27.24	272.53
100.00	13 31 17	1371.14	-2.67	347.99	161.06	119.78	13 54 8	771.1	1.32	341.47
100.00	19 6 46	5542.06	28.06	257.92	172.52	100.76	20 39 8	4942.1	29.25	249.32
110.00	14 3 35	1269.85	-7.27	337.47	158.22	123.49	14 24 45	669.9	-2.81	331.22
110.00	20 50 57	5216.11	33.38	234.17	173.53	97.82	22 17 53	4616.1	34.10	225.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7577	TRA	6.0168	TC3	-1.6879	BAU	.9416	SGT	6235.9	SGR	552.1	SG3	186.2	ST	1867.4	SR	361.8	SS	612.6
RDE	.3805	RRA	-.4502	RC3	.0373	FAU	.01064	RRT	-.6966	RRF	-.6799	RTF	.9737	CRT	-.0000	CRS	-.1420	CST	-.9896
FDE	.3993	FRA	2.1844	FC3	-.2208	BSP	21074	SGB	6260.2	R23	-.0015	R13	-.9737	LSA	1963.6	MSA	371.1	SSA	12.7
BDE	.8479	BRA	6.0336	BC3	1.6883	FSP	-675	SG1	6247.7	SG2	395.4	THA	176.46	EL1	1867.4	EL2	361.8	ALF	180.00

LAUNCH DATE AUG 16 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 608.836

RL	151.48	LAL	.00	LOL	322.72	VL	26.070	GAL	11.71	AZL	89.99	HCA	293.87	SMA	123.74	ECC	.29896	INC	.0000
RP	108.63	LAP	-.01	LOP	256.60	VP	37.025	GAP	15.96	AZP	90.00	TAL	148.96	TAP	82.84	RCA	86.75	APO	160.73
RC	164.900	GL	.05	GP	11.91	ZAL	34.67	ZAP	167.53	ETS	69.00	ZAE	121.66	ETE	172.68	ZAC	114.51	ETC	263.69

PLANETOCENTRIC CONIC

C3	46.566	VHL	6.824	DLA	-22.18	RAL	289.55	RAD	6568.7	VEL	12.959	PTH	2.36	VHP	10.228	DPA	-11.51	RAP	261.04

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 19 8	1649.95	-3.07	8.27	164.43	118.16	12 46 38	1049.9	.72	1.64
90.00	17 44 53	5843.37	26.10	279.65	174.99	101.39	19 22 16	5243.4	27.41	271.23
100.00	13 24 32	1438.87	-4.95	351.72	163.39	119.52	13 48 31	838.9	-.98	345.18
100.00	19 22 10	5529.68	28.21	257.03	175.44	100.32	20 54 19	4929.7	29.35	248.41
110.00	13 59 44	1328.50	-9.45	340.60	160.63	123.00	14 21 53	728.5	-5.04	334.29
110.00	21 3 27	5212.82	33.41	233.92	176.40	97.67	22 30 19	4612.8	34.11	224.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9174	TRA	6.4473	TC3	-1.4807	BAU	.9220	SGT	6233.2	SGR	534.0	SG3	177.8	ST	1916.4	SR	351.5	SS	621.2
RDE	.3909	RRA	-.4624	RC3	.0300	FAU	.00881	RRT	-.6852	RRF	-.6693	RTF	.9746	CRT	.0477	CRS	-.1697	CST	-.9922
FDE	.4279	FRA	2.2210	FC3	-.1639	BSP	21184	SGB	6256.0	R23	-.0016	R13	-.9746	LSA	2013.4	MSA	358.3	SSA	12.3
BDE	.9972	BRA	6.4639	BC3	1.4810	FSP	-645	SG1	6243.9	SG2	388.3	THA	176.63	EL1	1916.5	EL2	351.1	ALF	.52

LAUNCH DATE AUG 16 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 613.583

RL	151.48	LAL	.00	LOL	322.72	VL	26.040	GAL	12.62	AZL	89.78	HCA	297.05	SMA	123.56	ECC	.31051	INC	.2233
RP	108.66	LAP	-.20	LOP	259.77	VP	36.994	GAP	16.75	AZP	89.90	TAL	147.88	TAP	84.93	RCA	85.19	APO	161.92
RC	166.961	GL	.79	GP	11.62	ZAL	33.64	ZAP	168.09	ETS	73.63	ZAE	121.39	ETE	172.88	ZAC	114.31	ETC	264.22

PLANETOCENTRIC CONIC

C3	52.173	VHL	7.223	DLA	-21.30	RAL	290.55	RAD	6568.9	VEL	13.173	PTH	2.41	VHP	10.709	DPA	-12.03	RAP	263.09

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 11 57	1718.72	-5.27	12.13	166.77	117.86	12 40 35	1118.7	-1.50	5.48
90.00	18 0 5	5831.34	26.26	278.81	177.90	101.00	19 37 16	5231.3	27.51	270.36
100.00	13 18 44	1503.15	-7.09	355.29	165.77	119.11	13 43 48	903.1	-3.16	348.71
100.00	19 35 58	5522.15	28.30	256.49	178.33	100.05	21 8 0	4922.2	29.40	247.85
110.00	13 56 22	1385.20	-11.54	343.67	163.09	122.40	14 19 27	785.2	-7.18	337.28
110.00	21 14 50	5212.86	33.41	233.92	179.26	97.67	22 41 43	4612.9	34.11	224.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0859	TRA	6.9094	TC3	-1.2827	BAU	.8949	SGT	6227.6	SGR	515.2	SG3	169.9	ST	1964.6	SR	340.7	SS	630.7
RDE	.4015	RRA	-.4740	RC3	.0234	FAU	.00698	RRT	-.6739	RRF	-.6590	RTF	.9758	CRT	.0906	CRS	-.1947	CST	-.9943
FDE	.4559	FRA	2.2621	FC3	-.1158	BSP	21224	SGB	6248.8	R23	-.0015	R13	-.9758	LSA	2062.7	MSA	344.8	SSA	11.9
BDE	1.1578	BRA	6.9256	BC3	1.2870	FSP	-615	SG1	6237.3	SG2	380.1	THA	176.80	EL1	1964.9	EL2	339.3	ALF	.93

LAUNCH DATE AUG 16 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 618.138

RL	151.48	LAL	.00	LOL	322.72	VL	26.010	GAL	13.62	AZL	89.55	HCA	300.22	SMA	123.38	ECC	.32321	INC	.4472
RP	108.69	LAP	-.39	LOP	262.94	VP	36.964	GAP	17.62	AZP	89.77	TAL	146.85	TAP	87.07	RCA	83.50	APO	163.26
RC	169.007	GL	1.48	GP	11.35	ZAL	32.69	ZAP	168.55	ETS	78.77	ZAE	121.11	ETE	173.06	ZAC	114.11	ETC	264.74

PLANETOCENTRIC CONIC

C3	58.680	VHL	7.660	DLA	-20.48	RAL	291.48	RAD	6569.1	VEL	13.418	PTH	2.45	VHP	11.234	DPA	-12.51	RAP	265.13

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 5 45	1783.72	-7.32	15.80	169.16	117.43	12 35 29	1183.7	-3.59	9.11
90.00	18 13 39	5824.25	26.35	278.31	180.77	100.76	19 50 43	5224.2	27.57	269.85
100.00	13 13 42	1564.48	-9.11	358.73	168.20	118.59	13 39 46	964.5	-5.22	352.10
100.00	19 48 24	5518.72	28.34	256.24	181.18	99.92	21 20 22	4918.7	29.42	247.60
110.00	13 53 23	1440.12	-13.53	346.68	165.59	121.70	14 17 23	840.1	-9.24	340.21
110.00	21 25 12	5215.85	33.39	234.15	182.10	97.81	22 52 8	4615.9	34.10	224.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2648	TRA	7.4062	TC3	-1.0950	BAU	.8591	SGT	6219.2	SGR	495.6	SG3	162.6	ST	2011.1	SR	329.6	SS	641.5
RDE	.4124	RRA	-.4848	RC3	.0173	FAU	.00511	RRT	-.6623	RRF	-.6485	RTF	.9771	CRT	.1294	CRS	-.2178	CST	-.9958
FDE	.4840	FRA	2.3084	FC3	-.0755	BSP	21167	SGB	6238.9	R23	-.0013	R13	-.9771	LSA	2110.7	MSA	330.9	SSA	11.6
BDE	1.3303	BRA	7.4221	BC3	1.0951	FSP	-584	SG1	6227.9	SG2	370.8	THA	176.97	EL1	2011.6	EL2	326.7	ALF	1.25

LAUNCH DATE AUG 17 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 26 1970

HELIOCENTRIC CONIC DISTANCE 153.281

RL	151.46	LAL	.00	LOL	323.68	VL	21.280	GAL	4.45	AZL	93.17	HCA	59.32	SMA	102.11	ECC	.48797	INC	3.1722	V1	29.418
RP	108.44	LAP	-2.73	LOP	22.97	VP	33.884	GAP	-29.01	AZP	91.62	TAL	175.30	TAP	234.62	RCA	52.28	APO	151.94	V2	34.948
RC	45.530	GL	-7.89	GP	-6.29	ZAL	76.61	ZAP	19.36	ETS	158.94	ZAE	166.25	ETE	170.27	ZAC	91.91	ETC	257.27	CLP	18.35

PLANETOCENTRIC CONIC

C3	73.073	VHL	8.548	DLA	-29.30	RAL	243.90	RAD	6569.4	VEL	13.944	PTH	2.54	VHP	17.178	DPA	-19.24	RAP	217.15	ECC	2.2026

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.16	10 51 19	1421.45	11.15	359.13	133.31	117.27	11 15 0	821.5	14.72	352.20
97.84	13 0 37	1003.57	11.17	328.47	133.32	117.26	13 17 21	403.6	14.74	321.54
100.00	12 27 9	1110.90	6.12	333.67	130.57	119.32	12 45 40	510.9	9.98	327.01
100.00	14 7 28	789.36	16.29	315.22	135.92	115.42	14 20 38	189.4	19.58	307.97
110.00	12 8 44	1168.90	-3.44	332.16	124.68	124.03	12 28 13	568.9	1.05	325.95
110.00	16 42 23	5592.16	26.56	261.20	140.80	112.35	18 15 35	4992.2	29.35	253.12

DIFFERENTIAL CORRECTIONS

TOE	.1977	TRA	-1.0188	TC3	-.0701	BAU	.0694
RDE	-.6628	RRA	-.0272	RC3	.0112	FAU	.01630
FDE	-.1444	FRA	.4793	FC3	-.1931	BSP	2073
BDE	.6917	BRA	1.0192	BC3	.0710	FSP	-92

MID-COURSE EXECUTION ACCURACY

SGT	803.1	SGR	445.2	SG3	43.5		
RRT	-.1253	RRF	.1293	RTF	-.6464		
SGB	918.3	R23	-.0136	R13	.6481		
SG1	805.9	SG2	440.1	THA	174.33		

ORBIT DETERMINATION ACCURACY

ST	269.7	SR	444.3	SS	218.5
CRT	-.4789	CRS	-.6467	CST	.9757
LSA	501.5	MSA	257.4	SSA	14.1
EL1	468.8	EL2	224.4	ALF	111.32

LAUNCH DATE AUG 17 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 159.706

RL	151.46	LAL	.00	LOL	323.68	VL	21.768	GAL	4.22	AZL	92.94	HCA	62.51	SMA	103.79	ECC	.46388	INC	2.9439	V1	29.418
RP	108.40	LAP	-2.61	LOP	26.16	VP	34.205	GAP	-27.53	AZP	91.36	TAL	175.10	TAP	237.60	RCA	55.64	APO	151.93	V2	34.961
RC	44.337	GL	-7.96	GP	-6.55	ZAL	76.14	ZAP	17.94	ETS	156.40	ZAE	168.35	ETE	170.92	ZAC	91.93	ETC	257.44	CLP	16.74

PLANETOCENTRIC CONIC

C3	64.804	VHL	8.050	DLA	-29.44	RAL	244.42	RAD	6569.2	VEL	13.644	PTH	2.49	VHP	16.377	DPA	-20.05	RAP	218.61	ECC	2.0665

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.58	10 48 49	1407.62	12.09	358.60	132.09	117.05	11 12 17	807.6	15.63	351.63
98.42	13 7 16	960.42	12.11	325.77	132.10	117.05	13 23 16	360.4	15.64	318.80
100.00	12 35 53	1060.93	7.78	330.89	129.77	118.95	12 53 34	460.9	11.58	324.16
100.00	14 2 53	782.35	16.49	314.80	134.32	115.29	14 15 55	182.3	19.76	307.53
110.00	12 12 51	1133.48	-2.09	330.30	123.71	124.13	12 31 45	533.5	2.40	324.10
110.00	16 42 24	5570.60	27.11	259.76	139.28	111.66	18 15 15	4970.6	29.80	251.61

DIFFERENTIAL CORRECTIONS

TOE	.1957	TRA	-1.0052	TC3	-.0640	BAU	.0560
RDE	-.6313	RRA	-.0170	RC3	.0092	FAU	.01684
FDE	-.1467	FRA	.4949	FC3	-.2250	BSP	2213
BDE	.6609	BRA	1.0054	BC3	.0647	FSP	-103

MID-COURSE EXECUTION ACCURACY

SGT	839.7	SGR	449.8	SG3	47.8		
RRT	-.1396	RRF	.1445	RTF	-.6668		
SGB	952.5	R23	-.0154	R13	.6686		
SG1	842.9	SG2	443.7	THA	174.08		

ORBIT DETERMINATION ACCURACY

ST	283.1	SR	449.3	SS	227.0
CRT	-.4840	CRS	-.6437	CST	.9778
LSA	512.4	MSA	266.2	SSA	14.4
EL1	477.1	EL2	233.4	ALF	112.67

LAUNCH DATE AUG 17 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 166.186

RL	151.46	LAL	.00	LOL	323.68	VL	22.220	GAL	3.97	AZL	92.73	HCA	65.69	SMA	105.43	ECC	.44098	INC	2.7282	V1	29.418
RP	108.36	LAP	-2.49	LOP	29.35	VP	34.508	GAP	-26.12	AZP	91.12	TAL	174.94	TAP	240.64	RCA	58.94	APO	151.92	V2	34.974
RC	43.276	GL	-8.00	GP	-6.83	ZAL	75.76	ZAP	16.57	ETS	153.37	ZAE	170.62	ETE	172.14	ZAC	91.91	ETC	257.63	CLP	15.13

PLANETOCENTRIC CONIC

C3	57.507	VHL	7.583	DLA	-29.54	RAL	244.83	RAD	6569.0	VEL	13.374	PTH	2.44	VHP	15.608	DPA	-20.88	RAP	220.08	ECC	1.9464

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.20	10 47 32	1388.08	13.02	357.64	130.73	116.75	11 10 40	788.1	16.51	350.61
98.80	13 11 52	921.97	13.04	323.41	130.73	116.75	13 27 14	322.0	16.53	316.38
100.00	12 42 43	1015.27	9.27	328.32	128.72	118.54	12 59 39	415.3	13.02	321.53
100.00	13 59 22	770.02	16.85	314.06	132.65	115.06	14 12 12	170.0	20.09	306.76
110.00	12 15 55	1099.73	-.80	328.54	122.58	124.17	12 34 15	499.7	3.69	322.34
110.00	16 42 39	5546.35	27.71	258.13	137.61	110.87	18 15 6	4946.4	30.29	249.89

DIFFERENTIAL CORRECTIONS

TOE	.1876	TRA	-.9985	TC3	-.0598	BAU	.0462
RDE	-.6004	RRA	-.0073	RC3	.0064	FAU	.01740
FDE	-.1481	FRA	.5118	FC3	-.2619	BSP	2188
BDE	.6290	BRA	.9985	BC3	.0601	FSP	-113

MID-COURSE EXECUTION ACCURACY

SGT	883.3	SGR	453.8	SG3	52.4		
RRT	-.1489	RRF	.1602	RTF	-.6818		
SGB	993.1	R23	-.0240	R13	.6840		
SG1	886.8	SG2	447.0	THA	174.13		

ORBIT DETERMINATION ACCURACY

ST	296.3	SR	453.6	SS	235.3
CRT	-.4748	CRS	-.6380	CST	.9773
LSA	521.4	MSA	277.2	SSA	14.7
EL1	483.4	EL2	244.7	ALF	113.62

LAUNCH DATE AUG 17 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 172.714

RL	151.46	LAL	.00	LOL	323.68	VL	22.639	GAL	3.70	AZL	92.52	HCA	68.89	SMA	107.03	ECC	.41925	INC	2.5230	V1	29.418
RP	108.32	LAP	-2.35	LOP	32.55	VP	34.793	GAP	-24.78	AZP	90.91	TAL	174.84	TAP	243.73	RCA	62.16	APO	151.90	V2	34.987
RC	42.355	GL	-8.00	GP	-7.14	ZAL	75.49	ZAP	15.26	ETS	149.72	ZAE	173.03	ETE	174.62	ZAC	91.86	ETC	257.83	CLP	13.52

PLANETOCENTRIC CONIC

C3	51.062	VHL	7.146	DLA	-29.59	RAL	245.14	RAD	6568.9	VEL	13.131	PTH	2.40	VHP	14.871	DPA	-21.72	RAP	221.55	ECC	1.8403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.03	10 47 24	1363.09	13.94	356.26	129.21	116.37	11 10 7	763.1	17.37	349.17
98.97	13 14 28	888.24	13.95	321.38	129.21	116.36	13 29 16	288.2	17.38	314.29
100.00	12 46 43	977.03	10.51	326.16	127.40	118.15	13 3 0	377.0	14.19	319.30
100.00	13 57 50	749.53	17.44	312.82	130.94	114.67	14 10 20	149.5	20.62	305.47
110.00	12 17 50	1068.07	.41	326.89	121.28	124.18	12 35 38	468.1	4.89	320.67
110.00	16 43 12	5519.30	28.35	256.29	135.79	109.95	18 15 11	4919.3	30.80	247.94

DIFFERENTIAL CORRECTIONS

TOE	.1911	TRA	-.9804	TC3	-.0448	BAU	.0306
RDE	-.5705	RRA	.0015	RC3	.0022	FAU	.01809
FDE	-.1511	FRA	.5275	FC3	-.3067	BSP	2432
BDE	.6017	BRA	.9804	BC3	.0449	FSP	-128

MID-COURSE EXECUTION ACCURACY

SGT	919.2	SGR	457.5	SG3	57.5		
RRT	-.1702	RRF	.1798	RTF	-.7029		
SGB	1026.7	R23	-.0230	R13	.7052		
SG1	923.5	SG2	448.7	THA	173.66		

ORBIT DETERMINATION ACCURACY

ST	311.5	SR	457.5	SS	244.3
CRT	-.4926	CRS	-.6381	CST	.9812
LSA	534.3	MSA	283.3	SSA	14.9
EL1	493.0	EL2	251.6	ALF	115.68

LAUNCH DATE AUG 17 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 179.285

RL	151.46	LAL	.00	LOL	323.68	VL	23.027	GAL	3.43	AZL	92.33	HCA	72.08	SMA	108.58	ECC	.39869	INC	2.3262
RP	108.27	LAP	-2.21	LOP	35.75	VP	35.060	GAP	-23.50	AZP	90.72	TAL	174.80	TAP	246.88	RCA	65.29	APO	151.87
RC	41.583	GL	-7.96	GP	-7.49	ZAL	75.32	ZAP	14.04	ETS	145.32	ZAE	175.55	ETE	180.66	ZAC	91.77	ETC	258.03

PLANETOCENTRIC CONIC

C3	45.371	VHL	6.736	DLA	-29.58	RAL	245.34	RAD	6568.7	VEL	12.913	PTH	2.35	VHP	14.164	DPA	-22.59	RAP	223.02

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.06	10 48 28	1332.69	14.82	354.46	127.54	115.90	11 10 40	732.7	18.19	347.30
98.94	13 15 0	859.54	14.84	319.70	127.55	115.89	13 29 20	259.5	18.20	312.55
100.00	12 46 59	949.18	11.40	324.57	125.76	117.82	13 2 48	349.2	15.03	317.66
100.00	13 59 10	718.28	18.31	310.91	129.24	114.05	14 11 8	118.3	21.41	303.48
110.00	12 18 31	1038.95	1.52	325.37	119.81	124.15	12 35 50	438.9	5.99	319.14
110.00	16 44 8	5489.32	29.03	254.22	133.83	108.89	18 15 37	4889.3	31.33	245.77

DIFFERENTIAL CORRECTIONS

TDE	.1928	TRA	-.9644	TC3	-.0270	BAU	.0165
RDE	-.5415	RRA	.0099	RC3	-.0036	FAU	.01884
FDE	-.1539	FRA	.5438	FC3	-.3595	BSP	2616
BDE	.5748	BRA	.9644	BC3	.0273	FSP	-144

MID-COURSE EXECUTION ACCURACY

SGT	958.1	SGR	460.7	SG3	63.2		
RRT	-.1914	RRF	.2012	RTF	-.7217		
SG8	1063.1	R23	-.0244	R13	.7241		
SG1	963.3	SG2	449.8	THA	173.27		

ORBIT DETERMINATION ACCURACY

ST	327.1	SR	460.6	SS	253.2
CRT	-.5069	CRS	-.6376	CST	.9843
LSA	547.1	MSA	289.4	SSA	15.2
EL1	502.3	EL2	258.6	ALF	117.72

LAUNCH DATE AUG 17 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 185.896

RL	151.46	LAL	.00	LOL	323.68	VL	23.387	GAL	3.16	AZL	92.14	HCA	75.28	SMA	110.08	ECC	.37928	INC	2.1363
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.310	GAP	-22.27	AZP	90.54	TAL	174.80	TAP	250.08	RCA	68.33	APO	151.84
RC	40.971	GL	-7.88	GP	-7.86	ZAL	75.25	ZAP	12.93	ETS	139.99	ZAE	177.96	ETE	204.07	ZAC	91.64	ETC	258.24

PLANETOCENTRIC CONIC

C3	40.347	VHL	6.352	DLA	-29.51	RAL	245.43	RAD	6568.6	VEL	12.717	PTH	2.31	VHP	13.486	DPA	-23.47	RAP	224.49

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.32	10 50 52	1296.58	15.66	352.19	125.73	115.34	11 12 29	696.6	18.94	344.97
98.68	13 13 19	836.52	15.67	318.41	125.74	115.33	13 27 16	236.5	18.96	311.19
100.00	12 43 20	932.54	11.93	323.61	123.82	117.61	12 58 52	332.5	15.53	316.68
100.00	14 3 33	675.79	19.47	308.29	127.53	113.14	14 14 49	75.8	22.44	300.75
110.00	12 17 51	1012.83	2.52	324.01	118.17	124.10	12 34 44	412.8	6.98	317.76
110.00	16 45 31	5456.30	29.74	251.91	131.73	107.69	18 16 27	4856.3	31.86	243.34

DIFFERENTIAL CORRECTIONS

TDE	.1941	TRA	-.9488	TC3	-.0049	BAU	.0066
RDE	-.5134	RRA	.0178	RC3	-.0113	FAU	.01967
FDE	-.1567	FRA	.5608	FC3	-.4221	BSP	2788
BDE	.5489	BRA	.9490	BC3	.0123	FSP	-161

MID-COURSE EXECUTION ACCURACY

SGT	998.9	SGR	463.7	SG3	69.4		
RRT	-.2141	RRF	.2252	RTF	-.7390		
SG8	1101.3	R23	-.0272	R13	.7417		
SG1	1005.1	SG2	450.2	THA	172.89		

ORBIT DETERMINATION ACCURACY

ST	343.1	SR	463.2	SS	262.2
CRT	-.5205	CRS	-.6372	CST	.9869
LSA	560.2	MSA	294.9	SSA	15.5
EL1	511.8	EL2	265.1	ALF	119.83

LAUNCH DATE AUG 17 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 192.540

RL	151.46	LAL	.00	LOL	323.68	VL	23.720	GAL	2.88	AZL	91.95	HCA	78.47	SMA	111.53	ECC	.36100	INC	1.9518
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.545	GAP	-21.10	AZP	90.39	TAL	174.87	TAP	253.35	RCA	71.27	APO	151.80
RC	40.525	GL	-7.74	GP	-8.28	ZAL	75.29	ZAP	11.97	ETS	133.56	ZAE	178.13	ETE	295.52	ZAC	91.46	ETC	258.46

PLANETOCENTRIC CONIC

C3	35.914	VHL	5.993	DLA	-29.37	RAL	245.42	RAD	6568.4	VEL	12.541	PTH	2.27	VHP	12.835	DPA	-24.39	RAP	225.95

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.87	10 55 7	1253.31	16.43	349.37	123.79	114.69	11 16 0	653.3	19.62	342.07
98.13	13 8 56	820.96	16.44	317.64	123.80	114.68	13 22 37	221.0	19.64	310.34
100.00	12 36 19	925.50	12.15	323.21	121.63	117.52	12 51 44	325.5	15.74	316.26
100.00	14 10 25	624.00	20.82	305.04	125.79	111.94	14 20 49	24.0	23.62	297.35
110.00	12 15 46	990.18	3.38	322.83	116.37	124.04	12 32 17	390.2	7.83	316.56
110.00	16 47 27	5420.13	30.46	249.34	129.49	106.33	18 17 47	4820.1	32.39	240.65

DIFFERENTIAL CORRECTIONS

TDE	.1954	TRA	-.9329	TC3	.0231	BAU	.0152
RDE	-.4864	RRA	.0254	RC3	-.0215	FAU	.02059
FDE	-.1592	FRA	.5784	FC3	-.4964	BSP	2955
BDE	.5241	BRA	.9332	BC3	.0316	FSP	-180

MID-COURSE EXECUTION ACCURACY

SGT	1040.7	SGR	466.5	SG3	76.3		
RRT	-.2391	RRF	.2518	RTF	-.7555		
SG8	1140.5	R23	-.0306	R13	.7584		
SG1	1048.0	SG2	449.8	THA	172.49		

ORBIT DETERMINATION ACCURACY

ST	359.4	SR	465.1	SS	271.0
CRT	-.5351	CRS	-.6367	CST	.9894
LSA	573.6	MSA	299.3	SSA	15.8
EL1	521.7	EL2	270.6	ALF	122.01

LAUNCH DATE AUG 17 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 199.214

RL	151.46	LAL	.00	LOL	323.68	VL	24.028	GAL	2.61	AZL	91.77	HCA	81.68	SMA	112.93	ECC	.34384	INC	1.7712
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.764	GAP	-19.97	AZP	90.26	TAL	174.99	TAP	256.67	RCA	74.10	APO	151.76
RC	40.252	GL	-7.54	GP	-8.74	ZAL	75.42	ZAP	11.20	ETS	125.94	ZAE	175.61	ETE	323.38	ZAC	91.23	ETC	258.69

PLANETOCENTRIC CONIC

C3	32.004	VHL	5.657	DLA	-29.14	RAL	245.29	RAD	6568.3	VEL	12.385	PTH	2.24	VHP	12.210	DPA	-25.33	RAP	227.39

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.80	11 1 58	1200.60	17.12	345.80	121.72	113.95	11 21 59	600.6	20.22	338.43
97.20	13 1 4	815.52	17.14	317.56	121.73	113.94	13 14 39	215.5	20.23	310.19
100.00	12 26 42	925.83	12.14	323.23	119.24	117.53	12 42 8	325.8	15.73	316.28
100.00	14 19 1	5853.55	22.26	279.20	123.95	110.48	15 56 34	5253.6	24.85	271.35
110.00	12 12 13	971.43	4.10	321.84	114.42	123.97	12 28 25	371.4	8.53	315.56
110.00	16 49 59	5380.72	31.18	246.49	127.12	104.78	18 19 40	4780.7	32.89	237.69

DIFFERENTIAL CORRECTIONS

TDE	.1968	TRA	-.9167	TC3	.0572	BAU	.0286
RDE	-.4603	RRA	.0327	RC3	-.0347	FAU	.02161
FDE	-.1615	FRA	.5969	FC3	-.5846	BSP	3122
BDE	.5006	BRA	.9173	BC3	.0669	FSP	-202

MID-COURSE EXECUTION ACCURACY

SGT	1083.5	SGR	469.4	SG3	83.9		
RRT	-.2669	RRF	.2818	RTF	-.7709		
SG8	1180.8	R23	-.0346	R13	.7741		
SG1	1092.2	SG2	448.7	THA	172.05		

ORBIT DETERMINATION ACCURACY

ST	376.1	SR	466.3	SS	279.6
CRT	-.5505	CRS	-.6361	CST	.9917
LSA	587.5	MSA	302.7	SSA	16.1
EL1	532.2	EL2	275.1	ALF	124.25

LAUNCH DATE AUG 17 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 205.912

RL	151.46	LAL	.00	LOL	323.68	VL	24.312	GAL	2.34	AZL	91.59	HCA	84.88	SMA	114.27	ECC	.32775	INC	1.5935	V1	29.418
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.968	GAP	-18.89	AZP	90.14	TAL	175.18	TAP	260.06	RCA	76.82	APO	151.72	V2	35.053
RC	40.156	GL	-7.26	GP	-9.25	ZAL	75.67	ZAP	10.68	ETS	117.16	ZAE	172.78	ETE	329.93	ZAC	90.94	ETC	258.92	CLP	5.37

PLANETOCENTRIC CONIC

C3	28.558	VHL	5.344	DLA	-28.83	RAL	245.06	RAD	6568.1	VEL	12.245	PTH	2.20	VHP	11.611	DPA	-26.30	RAP	228.82	ECC	1.4700		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.34	11 13 26	1132.10	17.72	341.03	119.54	113.12	11 32 18	532.1	20.70	333.59
95.66	12 47 44	826.88	17.74	318.67	119.55	113.11	13 1 31	226.9	20.72	311.22
100.00	12 15 7	931.91	11.95	323.58	116.71	117.61	12 30 39	331.9	15.55	316.64
100.00	14 28 45	5790.33	23.71	275.06	121.99	108.76	16 5 15	5190.3	26.05	267.04
110.00	12 7 8	956.99	4.65	321.09	112.33	123.90	12 23 5	357.0	9.07	314.79
110.00	16 53 12	5338.02	31.88	243.36	124.62	103.05	18 22 10	4738.0	33.34	234.44

DIFFERENTIAL CORRECTIONS

TDE	.1978	TRA	-.9003	TC3	.0991	BAU	.0427
RDE	-.4353	RRA	.0398	RC3	-.0517	FAU	.02274
FDE	-.1632	FRA	.6163	FC3	-.6894	BSP	3291
BDE	.4781	BRA	.9012	BC3	.1118	FSP	-226

MID-COURSE EXECUTION ACCURACY

SGT	1127.0	SGR	472.4	SG3	92.3		
RRT	-.2976	RRF	.3150	RTF	-.7855		
SGB	1222.0	R23	-.0394	R13	.7891		
SG1	1137.4	SG2	446.9	THA	171.58		

ORBIT DETERMINATION ACCURACY

ST	392.7	SR	466.9	SS	287.8
CRT	-.5661	CRS	-.6346	CST	.9938
LSA	601.4	MSA	305.1	SSA	16.4
EL1	542.9	EL2	278.5	ALF	126.46

LAUNCH DATE AUG 17 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 212.630

RL	151.46	LAL	.00	LOL	323.68	VL	24.575	GAL	2.08	AZL	91.42	HCA	88.09	SMA	115.54	ECC	.31272	INC	1.4174	V1	29.418		
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.159	GAP	-17.85	AZP	90.05	TAL	175.41	TAP	263.50	RCA	79.41	APO	151.68	V2	35.066		
RC	40.238	GL	-6.91	GP	-9.81	ZAL	76.02	ZAP	10.47	ETS	107.50	ZAE	169.90	ETE	332.36	ZAC	90.59	ETC	259.15	CLP	3.69		

PLANETOCENTRIC CONIC

C3	25.524	VHL	5.052	DLA	-28.42	RAL	244.72	RAD	6568.0	VEL	12.120	PTH	2.17	VHP	11.037	DPA	-27.31	RAP	230.22	ECC	1.4201		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.49	11 38 6	1020.13	18.21	333.03	117.25	112.20	11 55 6	420.1	21.07	325.51
92.51	12 20 24	883.05	18.22	323.01	117.26	112.19	12 35 7	283.1	21.08	315.49
100.00	12 1 54	942.83	11.60	324.20	114.07	117.74	12 17 37	342.8	15.22	317.29
100.00	14 39 16	5723.62	25.10	270.59	119.88	106.79	16 14 40	5123.6	27.16	262.39
110.00	12 0 31	947.20	5.02	320.57	110.11	123.86	12 16 18	347.2	9.43	314.26
110.00	16 57 9	5292.02	32.53	239.93	121.98	101.12	18 25 21	4692.0	33.72	230.90

DIFFERENTIAL CORRECTIONS

TDE	.1986	TRA	-.8837	TC3	.1491	BAU	.0567
RDE	-.4113	RRA	.0469	RC3	-.0732	FAU	.02400
FDE	-.1644	FRA	.6368	FC3	-.8141	BSP	3461
BDE	.4567	BRA	.8849	BC3	.1661	FSP	-252

MID-COURSE EXECUTION ACCURACY

SGT	1171.3	SGR	476.1	SG3	101.7		
RRT	-.3318	RRF	.3523	RTF	-.7990		
SGB	1264.3	R23	-.0450	R13	.8030		
SG1	1183.7	SG2	444.4	THA	171.05		

ORBIT DETERMINATION ACCURACY

ST	409.4	SR	466.8	SS	295.5
CRT	-.5822	CRS	-.6324	CST	.9955
LSA	615.3	MSA	306.4	SSA	16.7
EL1	553.9	EL2	280.5	ALF	128.64

LAUNCH DATE AUG 17 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 219.365

RL	151.46	LAL	.00	LOL	323.68	VL	24.817	GAL	1.82	AZL	91.24	HCA	91.30	SMA	116.76	ECC	.29870	INC	1.2419	V1	29.418		
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.337	GAP	-16.86	AZP	89.97	TAL	175.71	TAP	267.00	RCA	81.88	APO	151.64	V2	35.079		
RC	40.497	GL	-6.46	GP	-10.44	ZAL	76.47	ZAP	10.62	ETS	97.53	ZAE	167.03	ETE	333.31	ZAC	90.16	ETC	259.39	CLP	1.97		

PLANETOCENTRIC CONIC

C3	22.858	VHL	4.781	DLA	-27.90	RAL	244.29	RAD	6567.9	VEL	12.010	PTH	2.14	VHP	10.487	DPA	-28.36	RAP	231.60	ECC	1.3762		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 37	1063.94	15.14	334.86	113.38	114.22	11 32 21	463.9	18.29	327.60
90.00	12 40 24	785.12	22.07	317.36	116.22	108.20	12 53 30	185.1	24.36	309.43
100.00	11 47 20	958.20	11.11	325.08	111.36	117.93	12 3 18	358.2	14.76	318.19
100.00	14 50 23	5654.14	26.38	265.82	117.61	104.60	16 24 37	5054.1	28.12	257.45
110.00	11 52 22	942.39	5.20	320.32	107.79	123.83	12 8 4	342.4	9.61	314.00
110.00	17 1 51	5242.72	33.12	236.21	119.23	98.99	18 29 13	4642.7	34.01	227.08

DIFFERENTIAL CORRECTIONS

TDE	.1981	TRA	-.8671	TC3	.2083	BAU	.0707
RDE	-.3882	RRA	.0540	RC3	-.1004	FAU	.02540
FDE	-.1643	FRA	.6587	FC3	-.9621	BSP	3619
BDE	.4359	BRA	.8688	BC3	.2313	FSP	-282

MID-COURSE EXECUTION ACCURACY

SGT	1215.9	SGR	480.7	SG3	112.1		
RRT	-.3690	RRF	.3934	RTF	-.8116		
SGB	1307.5	R23	-.0521	R13	.8162		
SG1	1230.7	SG2	441.4	THA	170.46		

ORBIT DETERMINATION ACCURACY

ST	425.2	SR	465.8	SS	302.3
CRT	-.5970	CRS	-.6279	CST	.9968
LSA	628.1	MSA	307.2	SSA	17.1
EL1	564.4	EL2	281.6	ALF	130.66

LAUNCH DATE AUG 17 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 226.111

RL	151.46	LAL	.00	LOL	323.68	VL	25.040	GAL	1.58	AZL	91.07	HCA	94.51	SMA	117.91	ECC	.28567	INC	1.0657	V1	29.418		
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.502	GAP	-15.90	AZP	89.92	TAL	176.05	TAP	270.56	RCA	84.23	APO	151.60	V2	35.092		
RC	40.930	GL	-5.90	GP	-11.13	ZAL	77.03	ZAP	11.13	ETS	87.89	ZAE	164.22	ETE	333.54	ZAC	89.65	ETC	259.63	CLP	.23		

PLANETOCENTRIC CONIC

C3	20.517	VHL	4.530	DLA	-27.25	RAL	243.76	RAD	6567.8	VEL	11.912	PTH	2.12	VHP	9.960	DPA	-29.46	RAP	232.93	ECC	1.3377		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 47 10	1121.22	13.51	338.28	110.16	115.12	11 5 51	521.2	16.79	331.14
90.00	13 3 41	675.71	24.21	310.06	114.30	105.15	13 14 57	75.7	26.06	301.87
100.00	11 31 32	977.90	10.48	326.20	108.60	118.15	11 47 49	377.9	14.17	319.35
100.00	15 2 1	5582.30	27.51	260.78	115.19	102.18	16 35 3	4982.3	28.91	252.26
110.00	11 42 42	942.82	5.19	320.34	105.39	123.83	11 58 25	342.8	9.59	314.03
110.00	17 7 20	5190.15	33.61	232.18	116.36	96.66	18 33 50	4590.2	34.16	222.98

DIFFERENTIAL CORRECTIONS

TDE	.1988	TRA	-.8490	TC3	.2791	BAU	.0850
RDE	-.3661	RRA	.0614	RC3	-.1343	FAU	.02695
FDE	-.1625	FRA	.6823	FC3	-1.1370	BSP	3817
BDE	.4166	BRA	.8512	BC3	.3097	FSP	-315

MID-COURSE EXECUTION ACCURACY

SGT	1259.5	SGR	486.7	SG3	123.6		
RRT	-.4122	RRF	.4385	RTF	-.8242		
SGB	1350.3	R23	-.0573	R13	.8293		
SG1	1277.6	SG2	437.2	THA	169.74		

ORBIT DETERMINATION ACCURACY

ST	441.2	SR	463.9	SS	307.9
CRT	-.6156	CRS	-.6202	CST	.9976
LSA	640.7	MSA	306.2	SSA	17.5
EL1	575.6	EL2	280.2	ALF	132.67

LAUNCH DATE AUG 17 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 232.866

RL	151.46	LAL	.00	LOL	323.68	VL	25.246	GAL	1.34	AZL	90.89	HCA	97.72	SMA	119.01	ECC	.27359	INC	.8878
RP	107.95	LAP	-.88	LOP	61.41	VP	36.655	GAP	-14.98	AZP	89.88	TAL	176.45	TAP	274.17	RCA	86.45	APO	151.56
RC	41.530	GL	-5.22	GP	-11.91	ZAL	77.68	ZAP	12.01	ETS	79.16	ZAE	161.51	ETE	333.34	ZAC	89.05	ETC	259.86

PLANETOCENTRIC CONIC

C3	18.466	VHL	4.297	DLA	-26.46	RAL	243.16	RAD	6567.7	VEL	11.826	PTH	2.09	VHP	9.458	DPA	-30.61	RAP	234.21

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 23 11	1168.10	12.14	341.04	107.10	115.78	10 42 39	568.1	15.51	333.99
90.00	13 22 52	5867.00	25.77	281.30	112.04	102.16	15 0 39	5267.0	27.19	272.92
100.00	11 14 37	1002.00	9.70	327.57	105.83	118.41	11 31 19	402.0	13.43	320.76
100.00	15 14 7	5508.34	28.46	255.49	112.62	99.55	16 45 56	4908.3	29.49	246.84
110.00	11 31 35	948.73	4.96	320.65	102.94	123.86	11 47 24	348.7	9.37	314.34
110.00	17 13 38	5134.37	33.96	227.86	113.39	94.13	18 39 13	4534.4	34.16	218.62

DIFFERENTIAL CORRECTIONS

TDE	.1941	TRA	-.8336	TC3	.3549	BAU	.0978
RDE	-.3448	RRA	.0692	RC3	-.1763	FAU	.02864
FDE	-.1581	FRA	.7083	FC3	-1.3427	BSP	3930
BDE	.3956	BRA	.8364	BC3	.3962	FSP	-351

MID-COURSE EXECUTION ACCURACY

SGT	1304.3	SGR	494.8	SG3	136.3		
RRT	-.4541	RRF	.4873	RTF	-.8340		
SGB	1395.0	R23	-.0689	R13	.8400		
SG1	1325.9	SG2	433.7	THA	169.04		

ORBIT DETERMINATION ACCURACY

ST	453.6	SR	460.7	SS	312.0
CRT	-.6244	CRS	-.6072	CST	.9973
LSA	648.7	MSA	306.9	SSA	18.0
EL1	582.7	EL2	280.1	ALF	134.28

LAUNCH DATE AUG 17 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 239.625

RL	151.46	LAL	.00	LOL	323.68	VL	25.434	GAL	1.11	AZL	90.71	HCA	100.94	SMA	120.04	ECC	.26242	INC	.7072
RP	107.91	LAP	-.69	LOP	64.62	VP	36.797	GAP	-14.09	AZP	89.87	TAL	176.89	TAP	277.83	RCA	88.54	APO	151.53
RC	42.291	GL	-4.41	GP	-12.78	ZAL	78.43	ZAP	13.21	ETS	71.64	ZAE	158.91	ETE	332.81	ZAC	88.35	ETC	260.09

PLANETOCENTRIC CONIC

C3	16.675	VHL	4.084	DLA	-25.52	RAL	242.49	RAD	6567.7	VEL	11.750	PTH	2.07	VHP	8.978	DPA	-31.83	RAP	235.43

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 0 12	1213.07	10.80	343.66	104.15	116.34	10 20 26	613.1	14.25	336.68
90.00	13 40 31	5774.71	26.93	274.80	109.57	99.10	15 16 45	5174.7	27.91	266.27
100.00	10 56 42	1030.66	8.77	329.19	103.08	118.69	11 13 53	430.7	12.54	322.42
100.00	15 26 42	5432.35	29.19	249.96	109.93	96.73	16 57 15	4832.3	29.82	241.21
110.00	11 19 7	960.34	4.52	321.26	100.48	123.92	11 35 7	360.3	8.94	314.96
110.00	17 20 47	5075.43	34.16	223.27	110.34	91.42	18 45 22	4475.4	33.98	214.03

DIFFERENTIAL CORRECTIONS

TDE	.1876	TRA	-.8198	TC3	.4386	BAU	.1102
RDE	-.3240	RRA	.0778	RC3	-.2278	FAU	.03050
FDE	-.1502	FRA	.7379	FC3	-1.5833	BSP	4010
BDE	.3744	BRA	.8235	BC3	.4943	FSP	-389

MID-COURSE EXECUTION ACCURACY

SGT	1349.9	SGR	505.9	SG3	150.5		
RRT	-.4987	RRF	.5394	RTF	-.8427		
SGB	1441.6	R23	-.0825	R13	.8499		
SG1	1375.9	SG2	430.2	THA	168.25		

ORBIT DETERMINATION ACCURACY

ST	464.4	SR	456.1	SS	314.5
CRT	-.6309	CRS	-.5869	CST	.9959
LSA	653.9	MSA	307.7	SSA	18.6
EL1	587.8	EL2	279.6	ALF	135.82

LAUNCH DATE AUG 17 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 246.385

RL	151.46	LAL	.00	LOL	323.68	VL	25.607	GAL	.89	AZL	90.52	HCA	104.15	SMA	121.00	ECC	.25212	INC	.5223
RP	107.88	LAP	-.51	LOP	67.84	VP	36.928	GAP	-13.23	AZP	89.87	TAL	177.37	TAP	281.53	RCA	90.50	APO	151.51
RC	43.202	GL	-3.44	GP	-13.75	ZAL	79.27	ZAP	14.71	ETS	65.35	ZAE	156.44	ETE	332.03	ZAC	87.53	ETC	260.31

PLANETOCENTRIC CONIC

C3	15.115	VHL	3.888	DLA	-24.41	RAL	241.77	RAD	6567.6	VEL	11.683	PTH	2.05	VHP	8.521	DPA	-33.13	RAP	236.58

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 37 26	1259.14	9.39	346.32	101.29	116.84	9 58 25	659.1	12.92	339.41
90.00	13 57 31	5684.06	27.74	268.29	106.95	95.93	15 32 15	5084.1	28.27	259.66
100.00	10 37 51	1064.10	7.67	331.06	100.37	118.98	10 55 35	464.1	11.48	324.34
100.00	15 39 47	5354.33	29.68	244.21	107.13	93.74	17 9 2	4754.3	29.88	235.42
110.00	11 5 21	977.83	3.85	322.18	98.02	123.99	11 21 39	377.8	8.29	315.90
110.00	17 28 46	5013.36	34.16	218.42	107.24	88.55	18 52 20	4413.4	33.58	209.23

DIFFERENTIAL CORRECTIONS

TDE	.1884	TRA	-.7952	TC3	.5569	BAU	.1271
RDE	-.3043	RRA	.0864	RC3	-.2927	FAU	.03272
FDE	-.1415	FRA	.7651	FC3	-1.8740	BSP	4366
BDE	.3579	BRA	.7999	BC3	.6291	FSP	-443

MID-COURSE EXECUTION ACCURACY

SGT	1386.0	SGR	522.0	SG3	166.2		
RRT	-.5570	RRF	.5958	RTF	-.8562		
SGB	1481.0	R23	-.0840	R13	.8640		
SG1	1419.2	SG2	423.4	THA	166.97		

ORBIT DETERMINATION ACCURACY

ST	475.7	SR	450.5	SS	315.3
CRT	-.6569	CRS	-.5672	CST	.9910
LSA	660.9	MSA	302.7	SSA	19.0
EL1	596.6	EL2	270.8	ALF	137.37

LAUNCH DATE AUG 17 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 253.143

RL	151.46	LAL	.00	LOL	323.68	VL	25.766	GAL	.68	AZL	90.33	HCA	107.37	SMA	121.91	ECC	.24266	INC	.3320
RP	107.84	LAP	-.32	LOP	71.06	VP	37.050	GAP	-12.41	AZP	89.90	TAL	177.89	TAP	285.26	RCA	92.33	APO	151.49
RC	44.254	GL	-2.31	GP	-14.83	ZAL	80.18	ZAP	16.47	ETS	60.21	ZAE	154.12	ETE	331.01	ZAC	86.58	ETC	260.52

PLANETOCENTRIC CONIC

C3	13.761	VHL	3.710	DLA	-23.12	RAL	241.01	RAD	6567.5	VEL	11.625	PTH	2.04	VHP	8.088	DPA	-34.52	RAP	237.64

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 33	1307.90	7.88	349.10	98.54	117.29	9 36 21	707.9	11.48	342.27
90.00	14 14 21	5593.75	28.20	261.72	104.23	92.67	15 47 35	4993.7	28.27	253.06
100.00	10 18 10	1102.59	6.40	333.21	97.74	119.26	10 36 32	502.6	10.25	326.54
100.00	15 53 26	5274.29	29.89	238.27	104.28	90.62	17 21 20	4674.3	29.65	229.48
110.00	10 50 26	1001.40	2.96	323.41	95.61	124.07	11 7 8	401.4	7.41	317.15
110.00	17 37 39	4948.24	33.93	213.35	104.12	85.55	19 0 7	4348.2	32.94	204.25

DIFFERENTIAL CORRECTIONS

TDE	.1805	TRA	-.7777	TC3	.6698	BAU	.1408
RDE	-.2844	RRA	.0966	RC3	-.3705	FAU	.03505
FDE	-.1255	FRA	.7988	FC3	-2.2053	BSP	4516
BDE	.3369	BRA	.7836	BC3	.7655	FSP	-493

MID-COURSE EXECUTION ACCURACY

SGT	1424.9	SGR	543.0	SG3	183.6		
RRT	-.6086	RRF	.6522	RTF	-.8651		
SGB	1524.9	R23	-.0955	R13	.8743		
SG1	1466.2	SG2	418.7	THA	165.76		

ORBIT DETERMINATION ACCURACY

ST	481.1	SR	442.1	SS	314.1
CRT	-.6660	CRS	-.5293	CST	.9827
LSA	658.6	MSA	302.2	SSA	19.6
EL1	596.8	EL2	265.8	ALF	138.62

LAUNCH DATE AUG 17 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 259.897

RL	151.46	LAL	.00	LOL	323.68	VL	25.910	GAL	.48	AZL	90.14	HCA	110.60	SMA	122.75	ECC	.23399	INC	.1344	VI	29.418
RP	107.81	LAP	-.13	LOP	74.28	VP	37.161	GAP	-11.61	AZP	89.95	TAL	178.43	TAP	289.03	RCA	94.03	APO	151.47	V2	35.152
RC	45.436	GL	-.99	GP	-16.06	ZAL	81.17	ZAP	18.47	ETS	56.04	ZAE	151.93	ETE	329.76	ZAC	85.48	ETC	260.72	CLP	-9.26

PLANETOCENTRIC CONIC

C3	12.594	VHL	3.549	DLA	-21.63	RAL	240.24	RAD	6567.5	VEL	11.575	PTH	2.02	VHP	7.678	DPA	-36.02	RAP	238.60	ECC	1.2073

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 51 26	1360.39	6.23	352.08	95.94	117.68	9 14 6	760.4	9.89	345.31
90.00	14 31 19	5502.92	28.31	255.08	101.46	89.34	16 3 2	4902.9	27.92	246.44
100.00	9 57 44	1146.43	4.93	335.64	95.23	119.52	10 16 50	546.4	8.83	329.02
100.00	16 7 42	5192.12	29.79	232.17	101.41	87.41	17 34 14	4592.1	29.11	223.43
110.00	10 34 29	1031.24	1.82	324.97	93.29	124.14	10 51 40	431.2	6.29	318.73
110.00	17 47 27	4880.07	33.44	208.09	101.03	82.48	19 8 47	4280.1	32.04	199.14

DIFFERENTIAL CORRECTIONS

TDE	.1704	TRA	-.7607	TC3	.7940	BAU	.1549	SGT	1462.5	SGR	571.3	SG3	202.8	ST	482.8	SR	430.6	SS	311.3
RDE	-.2644	RRA	.1082	RC3	-.4650	FAU	.03766	RRT	-.6602	RRF	.7082	RTF	-.8736	CRT	-.6731	CRS	-.4741	CST	.9673
FDE	-.1026	FRA	.8360	FC3	-2.5885	BSP	4716	SG8	1570.1	R23	-.1076	R13	.8844	LSA	650.7	MSA	302.8	SSA	20.3
BDE	.3145	BRA	.7684	BC3	.9201	FSP	-553	SG1	1514.5	SG2	414.3	THA	164.34	EL1	592.7	EL2	259.4	ALF	139.83

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 17 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 266.644

RL	151.46	LAL	.00	LOL	323.68	VL	26.042	GAL	.29	AZL	89.93	HCA	113.82	SMA	123.53	ECC	.22608	INC	.0692	VI	29.418
RP	107.77	LAP	.06	LOP	77.50	VP	37.264	GAP	-10.85	AZP	90.03	TAL	179.00	TAP	292.82	RCA	95.61	APO	151.46	V2	35.163
RC	46.738	GL	.54	GP	-17.44	ZAL	82.21	ZAP	20.71	ETS	52.67	ZAE	149.88	ETE	328.27	ZAC	84.22	ETC	260.90	CLP	-11.36

PLANETOCENTRIC CONIC

C3	11.596	VHL	3.405	DLA	-19.93	RAL	239.48	RAD	6567.4	VEL	11.532	PTH	2.01	VHP	7.292	DPA	-37.64	RAP	239.43	ECC	1.1908

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 28 1	1417.42	4.42	355.29	93.52	118.00	8 51 38	817.4	8.13	348.57
90.00	14 48 38	5411.02	28.05	248.37	98.71	85.99	16 18 49	4811.0	27.20	239.81
100.00	9 36 38	1195.94	3.27	338.37	92.88	119.73	9 56 34	595.9	7.20	331.79
100.00	16 22 42	5107.72	29.37	225.93	98.58	84.15	17 47 49	4507.7	28.25	217.31
110.00	10 17 36	1067.56	.43	326.87	91.11	124.18	10 35 24	467.6	4.91	320.65
110.00	17 58 13	4808.87	32.68	202.68	98.02	79.36	19 18 22	4208.9	30.86	193.92

DIFFERENTIAL CORRECTIONS

TDE	.1518	TRA	-.7500	TC3	.8940	BAU	.1646	SGT	1496.0	SGR	606.4	SG3	223.3	ST	477.3	SR	414.1	SS	309.6
RDE	-.2429	RRA	.1226	RC3	-.5733	FAU	.04015	RRT	-.7020	RRF	.7597	RTF	-.8778	CRT	-.6635	CRS	-.3850	CST	.9427
FDE	-.0675	FRA	.8831	FC3	-2.9973	BSP	4730	SG8	1614.2	R23	-.1292	R13	.8913	LSA	631.9	MSA	308.8	SSA	21.1
BDE	.2864	BRA	.7600	BC3	1.0620	FSP	-606	SG1	1560.2	SG2	414.1	THA	162.87	EL1	577.7	EL2	256.0	ALF	141.06

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 17 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 273.381

RL	151.46	LAL	.00	LOL	323.68	VL	26.163	GAL	.12	AZL	89.71	HCA	117.05	SMA	124.26	ECC	.21888	INC	.2868	VI	29.418
RP	107.74	LAP	.26	LOP	80.73	VP	37.358	GAP	-10.10	AZP	90.13	TAL	179.57	TAP	296.62	RCA	97.06	APO	151.46	V2	35.174
RC	48.150	GL	2.29	GP	-18.99	ZAL	83.29	ZAP	23.18	ETS	49.94	ZAE	147.95	ETE	326.53	ZAC	82.77	ETC	261.05	CLP	-13.55

PLANETOCENTRIC CONIC

C3	10.750	VHL	3.279	DLA	-17.99	RAL	238.74	RAD	6567.4	VEL	11.495	PTH	2.00	VHP	6.931	DPA	-39.40	RAP	240.10	ECC	1.1769

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 4 14	1479.68	2.42	358.77	91.30	118.22	8 28 54	879.7	6.18	352.10
90.00	15 6 31	5317.52	27.42	241.61	96.03	82.66	16 35 8	4717.5	26.12	233.18
100.00	9 14 57	1251.52	1.39	341.42	90.73	119.86	9 35 48	651.5	5.35	334.88
100.00	16 38 29	5020.90	28.60	219.59	95.84	80.90	18 2 10	4420.9	27.04	211.14
110.00	9 59 55	1110.62	-1.22	329.11	89.10	124.16	10 18 26	510.6	3.27	322.90
110.00	18 10 0	4734.58	31.61	197.15	95.13	76.25	19 28 55	4134.6	29.39	188.64

DIFFERENTIAL CORRECTIONS

TDE	.1338	TRA	-.7288	TC3	1.0435	BAU	.1815	SGT	1521.8	SGR	654.6	SG3	246.8	ST	465.3	SR	391.3	SS	308.8
RDE	-.2195	RRA	.1376	RC3	-.7111	FAU	.04345	RRT	-.7502	RRF	.8090	RTF	-.8868	CRT	-.6617	CRS	-.2597	CST	.8922
FDE	-.0190	FRA	.9253	FC3	-3.4993	BSP	4863	SG8	1656.6	R23	-.1379	R13	.9026	LSA	604.4	MSA	315.0	SSA	21.7
BDE	.2571	BRA	.7416	BC3	1.2628	FSP	-668	SG1	1605.0	SG2	410.4	THA	160.81	EL1	556.2	EL2	245.4	ALF	142.37

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 17 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 280.108

RL	151.46	LAL	.00	LOL	323.68	VL	26.271	GAL	-.04	AZL	89.48	HCA	120.27	SMA	124.93	ECC	.21236	INC	.5164	VI	29.418
RP	107.71	LAP	.45	LOP	83.96	VP	37.443	GAP	-9.39	AZP	90.26	TAL	180.16	TAP	300.43	RCA	98.40	APO	151.46	V2	35.184
RC	49.661	GL	4.29	GP	-20.75	ZAL	84.40	ZAP	25.89	ETS	47.70	ZAE	146.10	ETE	324.52	ZAC	81.10	ETC	261.17	CLP	-15.85

PLANETOCENTRIC CONIC

C3	10.046	VHL	3.169	DLA	-15.82	RAL	238.05	RAD	6567.4	VEL	11.464	PTH	1.99	VHP	6.595	DPA	-41.33	RAP	240.60	ECC	1.1653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 8	1547.80	.23	2.57	89.35	118.32	8 5 56	947.8	4.01	355.93
90.00	15 25 8	5222.06	26.41	234.80	93.50	79.39	16 52 11	4622.1	24.68	226.56
100.00	8 52 44	1313.57	-.72	344.83	88.82	119.88	9 14 37	713.6	3.26	338.30
100.00	16 55 14	4931.52	27.47	213.19	93.26	77.72	18 17 26	4331.5	25.50	204.95
110.00	9 41 32	1160.68	-3.13	331.72	87.32	124.06	10 0 53	560.7	1.36	325.52
110.00	18 22 55	4657.18	30.22	191.54	92.45	73.20	19 40 32	4057.2	27.62	183.31

DIFFERENTIAL CORRECTIONS

TDE	.1278	TRA	-.6970	TC3	1.1789	BAU	.1968	SGT	1525.3	SGR	716.5	SG3	269.3	ST	456.3	SR	369.6	SS	308.1
RDE	-.1988	RRA	.1504	RC3	-.8705	FAU	.04682	RRT	-.7917	RRF	.8520	RTF	-.8910	CRT	-.6919	CRS	-.1749	CST	.8274
FDE	.0179	FRA	.9478	FC3	-4.0349	BSP	5215	SG8	1685.2	R23	-.1501	R13	.9105	LSA	584.3	MSA	312.8	SSA	22.5
BDE	.2363	BRA	.7130	BC3	1.4654	FSP	-769	SG1	1635.0	SG2	408.4	THA	158.17	EL1	542.6	EL2	224.4	ALF	143.53

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 17 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 286.819

RL	151.46	LAL	.00	LOL	323.68	VL	26.370	GAL	-.19	AZL	89.24	HCA	123.50	SMA	125.54	ECC	.20647	INC	.7618	V1	29.418
RP	107.68	LAP	.64	LOP	87.19	VP	37.521	GAP	-8.70	AZP	90.42	TAL	180.73	TAP	304.23	RCA	99.62	APO	151.46	V2	35.193
RC	51.263	GL	6.54	GP	-22.73	ZAL	85.52	ZAP	28.85	ETS	45.86	ZAE	144.32	ETE	322.22	ZAC	79.19	ETC	261.26	CLP	-18.27

PLANETOCENTRIC CONIC

C3 9.474 VHL 3.078 DLA -13.38 RAL 237.44 RAD 6567.3 VEL 11.440 PTH 1.98 VHP 6.288 DPA -43.44 RAP 240.87 ECC 1.1559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 15 41	1622.47	-2.18	6.74	87.69	118.24	7 42 43	1022.5	1.61	.11
90.00	15 44 44	5124.22	25.00	227.99	91.18	76.25	17 10 8	4524.2	22.87	219.97
100.00	8 30 2	1382.59	-3.06	348.62	87.21	119.75	8 53 4	782.6	.93	342.09
100.00	17 13 4	4839.33	25.97	206.75	90.91	74.65	18 33 44	4239.3	23.61	198.75
110.00	9 22 33	1218.08	-5.31	334.74	85.81	123.82	9 42 51	618.1	-.83	328.51
110.00	18 37 2	4576.60	28.50	185.90	90.00	70.27	19 53 19	3976.6	25.54	177.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1038	TRA	-.6929	TC3	1.2916	BAU	.2109	SGT 1558.0	SGR 796.6	SG3 297.5	ST 442.9	SR 333.9	SS 336.8
RDE	-.1705	RRA	.1774	RC3	-1.0511	FAU	.05014	RRT -.8265	RRF .8891	RTF -.8981	CRT -.6919	CRS -.0370	CST .7422
FDE	.0915	FRA	1.0280	FC3	-4.5822	BSP	5394	SGB 1749.9	R23 -.1613	R13 .9212	LSA 558.9	MSA 329.0	SSA 22.6
BDE	.1996	BRA	.7152	BC3	1.6653	FSP	-848	SG1 1701.0	SG2 410.8	THA 155.57	EL1 514.3	EL2 207.6	ALF 146.24

LAUNCH DATE AUG 17 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 293.515

RL	151.46	LAL	.00	LOL	323.68	VL	26.458	GAL	-.33	AZL	88.97	HCA	126.73	SMA	126.10	ECC	.20118	INC	1.0261	V1	29.418
RP	107.65	LAP	.82	LOP	90.42	VP	37.592	GAP	-8.03	AZP	90.61	TAL	181.30	TAP	308.03	RCA	100.73	APO	151.47	V2	35.202
RC	52.948	GL	9.07	GP	-24.96	ZAL	86.62	ZAP	32.07	ETS	44.29	ZAE	142.54	ETE	319.61	ZAC	77.02	ETC	261.29	CLP	-20.81

PLANETOCENTRIC CONIC

C3 9.029 VHL 3.005 DLA -10.67 RAL 236.93 RAD 6567.3 VEL 11.420 PTH 1.98 VHP 6.010 DPA -45.77 RAP 240.87 ECC 1.1486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
^90.00	6 50 50	1704.40	-4.81	11.32	86.39	117.94	7 19 14	1104.4	-1.04	4.68
90.00	16 5 31	5023.61	23.20	221.17	89.16	73.29	17 29 15	4423.6	20.69	213.39
100.00	8 6 51	1459.15	-5.63	352.84	85.94	119.41	8 31 10	859.2	-1.67	346.29
100.00	17 32 11	4744.10	24.09	200.30	88.85	71.75	18 51 15	4144.1	21.37	192.56
110.00	9 3 1	1283.27	-7.77	338.18	84.63	123.39	9 24 24	683.3	-3.32	331.92
110.00	18 52 31	4492.75	26.44	180.25	87.88	67.50	20 7 23	3892.7	23.15	172.63

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.0769	TRA	-.6773	TC3	1.3734	BAU	.2244	SGT 1558.9	SGR 889.9	SG3 323.9	ST 421.4	SR 287.9	SS 379.8
RDE	-.1370	RRA	.2042	RC3	-1.2525	FAU	.05337	RRT -.8508	RRF .9175	RTF -.9012	CRT -.7065	CRS .0683	CST .6520
FDE	.1844	FRA	1.0902	FC3	-5.1169	BSP	5579	SGB 1795.0	R23 -.1728	R13 .9298	LSA 534.9	MSA 343.7	SSA 22.6
BDE	.1571	BRA	.7074	BC3	1.8588	FSP	-935	SG1 1745.7	SG2 417.5	THA 152.38	EL1 477.7	EL2 179.8	ALF 149.45

LAUNCH DATE AUG 17 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 300.195

RL	151.46	LAL	.00	LOL	323.68	VL	26.538	GAL	-.45	AZL	88.69	HCA	129.96	SMA	126.60	ECC	.19644	INC	1.3139	V1	29.418
RP	107.63	LAP	1.01	LOP	93.65	VP	37.656	GAP	-7.38	AZP	90.84	TAL	181.84	TAP	311.80	RCA	101.73	APO	151.47	V2	35.210
RC	54.707	GL	11.90	GP	-27.49	ZAL	87.67	ZAP	35.55	ETS	42.92	ZAE	140.72	ETE	316.68	ZAC	74.55	ETC	261.27	CLP	-23.50

PLANETOCENTRIC CONIC

C3 8.711 VHL 2.951 DLA -7.69 RAL 236.55 RAD 6567.3 VEL 11.406 PTH 1.97 VHP 5.766 DPA -48.33 RAP 240.53 ECC 1.1434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 25 31	1794.45	-7.66	16.41	85.51	117.34	6 55 25	1194.5	-3.93	9.71
90.00	16 27 46	4919.82	21.01	214.35	87.48	70.56	17 49 46	4319.8	18.16	206.83
100.00	7 43 9	1543.97	-8.44	357.57	85.09	118.78	8 8 53	944.0	-4.53	350.96
100.00	17 52 48	4645.53	21.84	193.85	87.15	69.06	19 10 14	4045.5	18.79	186.37
110.00	8 42 57	1356.74	-10.50	342.12	83.85	122.72	9 5 34	756.7	-6.11	335.78
110.00	19 9 30	4405.52	24.04	174.61	86.14	64.93	20 22 55	3805.5	20.46	167.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.0500	TRA	-.6655	TC3	1.4395	BAU	.2403	SGT 1559.2	SGR 1007.3	SG3 351.7	ST 403.8	SR 236.4	SS 446.9
RDE	-.0973	RRA	.2380	RC3	-1.4785	FAU	.05667	RRT -.8708	RRF .9403	RTF -.9042	CRT -.7720	CRS .0468	CST .5914
FDE	.2950	FRA	1.1627	FC3	-5.6319	BSP	5758	SGB 1856.3	R23 -.1789	R13 .9393	LSA 546.0	MSA 346.5	SSA 21.8
BDE	.1094	BRA	.7068	BC3	2.0635	FSP	-1022	SG1 1806.4	SG2 427.4	THA 148.69	EL1 447.9	EL2 135.5	ALF 153.00

LAUNCH DATE AUG 17 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 306.856

RL	151.46	LAL	.00	LOL	323.68	VL	26.609	GAL	-.56	AZL	88.37	HCA	133.19	SMA	127.06	ECC	.19222	INC	1.6304	V1	29.418
RP	107.60	LAP	1.19	LOP	96.89	VP	37.713	GAP	-6.75	AZP	91.12	TAL	182.36	TAP	315.55	RCA	102.64	APO	151.49	V2	35.218
RC	56.533	GL	15.03	GP	-30.32	ZAL	88.67	ZAP	39.32	ETS	41.66	ZAE	138.79	ETE	313.43	ZAC	71.76	ETC	261.18	CLP	-26.34

PLANETOCENTRIC CONIC

C3 8.523 VHL 2.919 DLA -4.42 RAL 236.31 RAD 6567.3 VEL 11.398 PTH 1.97 VHP 5.558 DPA -51.14 RAP 239.77 ECC 1.1403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 59 34	1893.64	-10.71	22.10	85.11	116.37	6 31 8	1293.6	-7.08	15.30
90.00	16 51 48	4812.36	18.42	207.53	86.24	68.11	18 12 0	4212.4	15.29	200.25
100.00	7 18 50	1637.93	-11.47	2.90	84.71	117.79	7 46 8	1037.9	-7.66	356.18
100.00	18 15 13	4543.30	19.21	187.39	85.89	66.65	19 30 56	3943.3	15.89	180.18
110.00	8 22 20	1439.17	-13.49	346.63	83.53	121.71	8 46 19	839.2	-9.20	340.16
110.00	19 28 13	4314.82	21.31	168.99	84.83	62.62	20 40 8	3714.8	17.47	161.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.0203	TRA	-.6487	TC3	1.4589	BAU	.2568	SGT 1535.6	SGR 1145.6	SG3 377.4	ST 386.0	SR 190.5	SS 537.5
RDE	-.0473	RRA	.2772	RC3	-1.7179	FAU	.05961	RRT -.8839	RRF .9571	RTF -.9052	CRT -.9133	CRS -.2054	CST .5728
FDE	.4304	FRA	1.2307	FC3	-6.0553	BSP	5955	SGB 1915.8	R23 -.1792	R13 .9487	LSA 604.3	MSA 329.6	SSA 20.3
BDE	.0514	BRA	.7055	BC3	2.2538	FSP	-1106	SG1 1864.3	SG2 441.3	THA 144.29	EL1 424.6	EL2 70.5	ALF 155.00

LAUNCH DATE AUG 17 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 313.498

RL	151.46	LAL	.00	LOL	323.68	VL	26.672	GAL	-.66	AZL	88.02	HCA	136.42	SMA	127.47	ECC	.18848	INC	1.9824	V1	29.418
RP	107.58	LAP	1.37	LOP	100.12	VP	37.764	GAP	-6.14	AZP	91.44	TAL	182.84	TAP	319.26	RCA	103.45	APO	151.50	V2	35.225
RC	58.419	GL	18.48	GP	-33.49	ZAL	89.57	ZAP	43.37	ETS	40.42	ZAE	136.67	ETE	309.89	ZAC	68.62	ETC	260.99	CLP	-29.36

PLANETOCENTRIC CONIC

C3	8.477	VHL	2.911	DLA	-.86	RAL	236.24	RAD	6567.3	VEL	11.396	PTH	1.97	VHP	5.392	DPA	-54.22	RAP	238.46	ECC	1.1395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 32 47	2003.24	-13.94	28.52	85.28	114.90	6 6 10	1403.2	-10.47	21.57
90.00	17 18 2	4700.69	15.45	200.68	85.50	65.97	18 36 23	4100.7	12.07	193.63
100.00	6 53 43	1742.15	-14.70	8.95	84.90	116.32	7 22 45	1142.1	-11.05	2.06
100.00	18 39 47	4437.02	16.22	180.92	85.13	64.54	19 53 44	3837.0	12.66	173.94
110.00	8 1 3	1531.40	-16.73	351.82	83.77	120.25	8 26 34	931.4	-12.58	345.16
110.00	19 48 57	4220.53	18.25	163.38	84.02	60.58	20 59 17	3620.5	14.20	156.61

DIFFERENTIAL CORRECTIONS

TDE	-.0081	TRA	-.6358	TC3	1.4317	BAU	.2754
RDE	.0151	RRA	.3273	RC3	-1.9606	FAU	.06199
FDE	.5857	FRA	1.3078	FC3	-6.3313	BSP	6192
BDE	.0171	BRA	.7151	BC3	2.4277	FSP	-1184

MID-COURSE EXECUTION ACCURACY

SGT	1503.7	SGR	1311.2	SG3	401.0		
RRT	-.8918	RRF	.9696	RTF	-.9044		
SGB	1995.1	R23	-.1732	R13	.9580		
SG1	1941.5	SG2	459.4	THA	139.38		

ORBIT DETERMINATION ACCURACY

ST	376.6	SR	198.5	SS	648.3		
CRT	-.9883	CRS	-.6778	CST	.5935		
LSA	712.5	MSA	305.9	SSA	18.2		
EL1	424.8	EL2	26.8	ALF	152.36		

LAUNCH DATE AUG 17 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 320.119

RL	151.46	LAL	.00	LOL	323.68	VL	26.728	GAL	-.74	AZL	87.62	HCA	139.65	SMA	127.84	ECC	.18519	INC	2.3790	V1	29.418
RP	107.56	LAP	1.54	LOP	103.36	VP	37.810	GAP	-5.56	AZP	91.81	TAL	183.28	TAP	322.93	RCA	104.16	APO	151.51	V2	35.232
RC	60.358	GL	22.24	GP	-37.01	ZAL	90.36	ZAP	47.70	ETS	39.10	ZAE	134.30	ETE	306.07	ZAC	65.11	ETC	260.69	CLP	-32.56

PLANETOCENTRIC CONIC

C3	8.592	VHL	2.931	DLA	2.98	RAL	236.36	RAD	6567.3	VEL	11.401	PTH	1.97	VHP	5.274	DPA	-57.55	RAP	236.45	ECC	1.1414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 4 45	2124.97	-17.30	35.89	86.12	112.77	5 40 10	1525.0	-14.06	28.70
90.00	17 47 2	4584.10	12.10	193.75	85.35	64.20	19 3 26	3984.1	8.53	186.89
100.00	6 27 29	1858.11	-18.08	15.90	85.76	114.22	6 58 27	1258.1	-14.66	8.78
100.00	19 6 59	4326.19	12.86	174.40	84.96	62.78	20 19 5	3726.2	9.12	167.62
110.00	7 38 55	1634.53	-20.16	357.85	84.68	118.21	8 6 10	1034.5	-16.23	350.93
110.00	20 12 2	4122.54	14.89	157.78	83.80	58.87	21 20 44	3522.5	10.65	151.23

DIFFERENTIAL CORRECTIONS

TDE	-.0351	TRA	-.6201	TC3	1.3550	BAU	.2961
RDE	.0949	RRA	.3880	RC3	-2.1931	FAU	.06359
FDE	.7618	FRA	1.3796	FC3	-6.4073	BSP	6477
BDE	.1012	BRA	.7315	BC3	2.5779	FSP	-1249

MID-COURSE EXECUTION ACCURACY

SGT	1452.2	SGR	1504.7	SG3	419.9		
RRT	-.8950	RRF	.9786	RTF	-.9016		
SGB	2091.2	R23	-.1594	R13	.9673		
SG1	2035.6	SG2	478.7	THA	133.86		

ORBIT DETERMINATION ACCURACY

ST	371.3	SR	296.3	SS	774.1		
CRT	-.8779	CRS	-.9240	CST	.6337		
LSA	862.9	MSA	283.2	SSA	15.7		
EL1	461.1	EL2	114.2	ALF	142.26		

LAUNCH DATE AUG 17 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 326.718

RL	151.46	LAL	.00	LOL	323.68	VL	26.777	GAL	-.82	AZL	87.17	HCA	142.89	SMA	128.16	ECC	.18231	INC	2.8322	V1	29.418
RP	107.54	LAP	1.71	LOP	106.60	VP	37.850	GAP	-4.99	AZP	92.26	TAL	183.66	TAP	326.55	RCA	104.80	APO	151.52	V2	35.238
RC	62.346	GL	26.31	GP	-40.89	ZAL	91.01	ZAP	52.27	ETS	37.62	ZAE	131.59	ETE	302.05	ZAC	61.24	ETC	260.25	CLP	-35.96

PLANETOCENTRIC CONIC

C3	8.906	VHL	2.984	DLA	7.10	RAL	236.69	RAD	6567.3	VEL	11.415	PTH	1.98	VHP	5.214	DPA	-61.12	RAP	233.46	ECC	1.1466

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 34 53	2261.19	-20.67	44.46	87.77	109.79	5 12 34	1661.2	-17.79	36.97
90.00	18 19 32	4461.54	8.38	186.68	85.91	62.85	19 33 53	3861.5	4.67	179.96
100.00	5 59 37	1987.88	-21.50	24.02	87.44	111.28	6 32 45	1387.9	-18.42	16.58
100.00	19 37 29	4210.09	9.16	167.77	85.49	61.42	20 47 39	3610.1	5.28	161.14
110.00	7 15 37	1750.01	-23.71	4.93	86.41	115.38	7 44 47	1150.0	-20.09	357.65
110.00	20 37 57	4020.72	11.23	152.16	84.25	57.50	21 44 58	3420.7	6.86	145.79

DIFFERENTIAL CORRECTIONS

TDE	-.0575	TRA	-.6021	TC3	1.2114	BAU	.3181
RDE	.1975	RRA	.4625	RC3	-2.3812	FAU	.06371
FDE	.9522	FRA	1.4433	FC3	-6.1931	BSP	6837
BDE	.2057	BRA	.7592	BC3	2.6716	FSP	-1293

MID-COURSE EXECUTION ACCURACY

SGT	1375.4	SGR	1721.7	SG3	430.3		
RRT	-.8917	RRF	.9849	RTF	-.8945		
SGB	2203.7	R23	-.1402	R13	.9755		
SG1	2146.3	SG2	499.3	THA	127.88		

ORBIT DETERMINATION ACCURACY

ST	367.1	SR	466.5	SS	907.3		
CRT	-.7976	CRS	-.9821	CST	.6722		
LSA	1051.3	MSA	265.0	SSA	13.2		
EL1	564.8	EL2	182.9	ALF	126.57		

LAUNCH DATE AUG 17 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 333.294

RL	151.46	LAL	.00	LOL	323.68	VL	26.819	GAL	-.87	AZL	86.64	HCA	146.12	SMA	128.44	ECC	.17981	INC	3.3587	V1	29.418
RP	107.53	LAP	1.87	LOP	109.85	VP	37.885	GAP	-4.43	AZP	92.79	TAL	183.99	TAP	330.11	RCA	105.35	APO	151.54	V2	35.243
RC	64.375	GL	30.69	GP	-45.11	ZAL	91.51	ZAP	57.03	ETS	35.88	ZAE	128.50	ETE	297.86	ZAC	57.01	ETC	259.61	CLP	-39.55

PLANETOCENTRIC CONIC

C3	9.476	VHL	3.078	DLA	11.47	RAL	237.25	RAD	6567.3	VEL	11.440	PTH	1.98	VHP	5.223	DPA	-64.86	RAP	229.11	ECC	1.1559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 2 9	2415.52	-23.88	54.63	90.38	105.68	4 42 24	1815.5	-21.50	46.76
90.00	18 56 43	4331.25	4.26	179.31	87.32	61.98	20 8 54	3731.3	.48	172.67
100.00	5 29 17	2134.49	-24.80	33.66	90.08	107.24	6 4 52	1534.5	-22.21	25.82
100.00	20 12 15	4087.51	5.11	160.93	86.86	60.51	21 20 23	3487.5	1.14	154.39
110.00	6 50 39	1879.91	-27.23	13.37	89.13	111.51	7 21 58	1279.9	-24.07	5.64
110.00	21 7 23	3914.86	7.30	146.48	85.51	56.51	22 12 38	3314.9	2.85	140.22

DIFFERENTIAL CORRECTIONS

TDE	-.0714	TRA	-.5814	TC3	1.0234	BAU	.3433
RDE	.3289	RRA	.5548	RC3	-2.5088	FAU	.06240
FDE	1.1456	FRA	1.4945	FC3	-5.7007	BSP	7235
BDE	.3366	BRA	.8036	BC3	2.7095	FSP	-1302

MID-COURSE EXECUTION ACCURACY

SGT	1278.3	SGR	1967.5	SG3	431.3		
RRT	-.8819	RRF	.9894	RTF	-.8821		
SGB	2346.2	R23	-.1166	R13	.9827		
SG1	2288.3	SG2	518.0	THA	121.62		

ORBIT DETERMINATION ACCURACY

ST	357.4	SR	690.6	SS	1037.1		
CRT	-.7573	CRS	-.9951	CST	.6906		
LSA	1271.5	MSA	252.0	SSA	10.8		
EL1	747.1	EL2	215.8	ALF	113.48		

LAUNCH DATE AUG 17 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 339.846

RL 151.46 LAL .00 LOL 323.68 VL 26.855 GAL -.92 AZL 86.02 HCA 149.34 SMA 128.68 ECC .17766 INC 3.9819 V1 29.418
RP 107.51 LAP 2.03 LOP 113.09 VP 37.915 GAP -3.90 AZP 93.43 TAL 184.27 TAP 333.61 RCA 105.82 APO 151.55 V2 35.247
RC 66.441 GL 35.33 GP -49.66 ZAL 91.83 ZAP 61.91 ETS 33.77 ZAE 124.99 ETE 293.58 ZAC 52.45 ETC 258.73 CLP -43.34

PLANETOCENTRIC CONIC

C3 10.398 VHL 3.225 DLA 16.06 RAL 238.05 RAD 6567.4 VEL 11.480 PTH 2.00 VHP 5.316 DPA -68.67 RAP 222.72 ECC 1.1711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 24 45	2594.06	-26.60	66.98	94.11	100.07	4 7 59	1994.1	-24.94	58.71
90.00	19 40 32	4189.62	-.30	171.40	89.80	61.68	20 50 21	3589.6	-4.08	164.76
100.00	4 55 2	2302.88	-27.69	45.33	93.87	101.75	5 33 25	1702.9	-25.79	37.05
100.00	20 52 55	3956.02	.67	153.69	89.27	60.11	21 58 51	3356.0	-3.32	147.17
110.00	6 23 8	2027.26	-30.49	23.60	93.07	106.26	6 56 55	1427.3	-27.96	15.32
110.00	21 41 19	3804.41	3.12	140.66	87.74	55.94	22 44 43	3204.4	-1.37	134.46

DIFFERENTIAL CORRECTIONS
TDE -.0711 TRA -.5544 TC3 .7907 BAU .3692
RDE .4976 RRA .6679 RC3-2.5354 FAU .05907
FDE 1.3283 FRA 1.5228 FC3-4.9186 BSP 7723
BDE .5027 BRA .8680 BC3 2.6558 FSP -1275

MID-COURSE EXECUTION ACCURACY
SGT 1151.9 SGR 2231.7 SG3 419.4
RRT -.8603 RRF .9925 RTF -.8589
SGB 2511.4 R23 -.0912 R13 .9883
SG1 2454.0 SG2 534.1 THA 115.22

ORBIT DETERMINATION ACCURACY
ST 332.9 SR 959.9 SS 1152.4
CRT -.7088 CRS -.9985 CST .6702
LSA 1517.0 MSA 242.5 SSA 8.7
EL1 990.2 EL2 227.6 ALF 104.60

LAUNCH DATE AUG 17 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 346.373

RL 151.46 LAL .00 LOL 323.68 VL 26.886 GAL -.95 AZL 85.26 HCA 152.57 SMA 128.89 ECC .17583 INC 4.7363 V1 29.418
RP 107.50 LAP 2.18 LOP 116.33 VP 37.940 GAP -3.38 AZP 94.21 TAL 184.47 TAP 337.04 RCA 106.23 APO 151.55 V2 35.251
RC 68.539 GL 40.19 GP -54.47 ZAL 91.98 ZAP 66.79 ETS 31.20 ZAE 121.05 ETE 289.25 ZAC 47.62 ETC 257.52 CLP -47.29

PLANETOCENTRIC CONIC

C3 11.833 VHL 3.440 DLA 20.82 RAL 239.11 RAD 6567.5 VEL 11.542 PTH 2.01 VHP 5.518 DPA -72.33 RAP 213.19 ECC 1.1947

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 38 45	2809.51	-28.22	82.52	99.01	92.46	3 25 35	2209.5	-27.58	73.91
90.00	20 35 1	4027.38	-5.51	162.32	93.71	62.18	21 42 9	3427.4	-9.19	155.58
100.00	4 13 57	2502.52	-29.60	59.84	98.92	94.36	4 55 40	1902.5	-28.68	51.16
100.00	21 42 30	3809.61	-4.29	145.65	93.04	60.39	22 46 0	3209.6	-8.20	139.05
110.00	5 51 36	2197.04	-33.06	36.16	98.44	99.25	6 28 13	1597.0	-31.43	27.31
110.00	22 21 21	3687.85	-1.34	134.58	91.20	55.84	23 22 49	3087.8	-5.81	128.35

DIFFERENTIAL CORRECTIONS
TDE -.0470 TRA -.5190 TC3 .5388 BAU .3952
RDE .7113 RRA .8083 RC3-2.4396 FAU .05377
FDE 1.4797 FRA 1.5247 FC3-3.9338 BSP 8297
BDE .7128 BRA .9606 BC3 2.4984 FSP -1208

MID-COURSE EXECUTION ACCURACY
SGT 999.4 SGR 2509.1 SG3 393.9
RRT -.8164 RRF .9946 RTF -.8141
SGB 2700.8 R23 -.0664 R13 .9924
SG1 2644.7 SG2 547.6 THA 108.85

ORBIT DETERMINATION ACCURACY
ST 288.5 SR 1262.1 SS 1238.1
CRT -.5857 CRS -.9995 CST .5607
LSA 1775.6 MSA 236.8 SSA 7.0
EL1 1273.7 EL2 231.7 ALF 97.89

LAUNCH DATE AUG 17 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 352.872

RL 151.46 LAL .00 LOL 323.68 VL 26.912 GAL -.97 AZL 84.33 HCA 155.79 SMA 129.06 ECC .17430 INC 5.6745 V1 29.418
RP 107.49 LAP 2.32 LOP 119.58 VP 37.961 GAP -2.87 AZP 95.18 TAL 184.61 TAP 340.41 RCA 106.57 APO 151.56 V2 35.254
RC 70.666 GL 45.19 GP -59.52 ZAL 91.96 ZAP 71.53 ETS 28.06 ZAE 116.70 ETE 284.87 ZAC 42.56 ETC 255.86 CLP -51.35

PLANETOCENTRIC CONIC

C3 14.064 VHL 3.750 DLA 25.68 RAL 240.45 RAD 6567.6 VEL 11.638 PTH 2.04 VHP 5.859 DPA -75.49 RAP 198.81 ECC 1.2315

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 31 16	3102.88	-27.22	103.86	104.66	81.86	2 22 59	2502.9	-28.06	95.29
90.00	21 53 12	3808.30	-12.26	149.77	99.84	64.27	22 56 40	3208.3	-15.62	142.71
100.00	3 18 9	2758.30	-29.41	78.80	104.96	84.41	4 4 7	2158.3	-29.88	70.03
100.00	22 49 0	3628.12	-10.28	135.51	98.81	61.78	23 49 28	3028.1	-13.98	128.67
110.00	5 13 2	2398.83	-34.18	51.77	105.23	90.09	5 53 1	1798.8	-33.79	42.55
110.00	23 10 36	3560.35	-6.19	127.90	96.33	56.31	24 9 56	2960.3	-10.57	121.55

DIFFERENTIAL CORRECTIONS
TDE .0149 TRA -.4678 TC3 .2983 BAU .4201
RDE .9803 RRA .9810 RC3-2.2143 FAU .04674
FDE 1.5820 FRA 1.4914 FC3-2.8770 BSP 8921
BDE .9804 BRA 1.0868 BC3 2.2343 FSP -1099

MID-COURSE EXECUTION ACCURACY
SGT 824.3 SGR 2787.0 SG3 355.1
RRT -.7210 RRF .9960 RTF -.7181
SGB 2906.3 R23 -.0433 R13 .9951
SG1 2852.2 SG2 558.1 THA 102.53

ORBIT DETERMINATION ACCURACY
ST 239.1 SR 1579.5 SS 1282.9
CRT -.2251 CRS -.9998 CST .2079
LSA 2035.4 MSA 233.9 SSA 5.6
EL1 1580.4 EL2 232.8 ALF 91.99

LAUNCH DATE AUG 17 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 359.340

RL 151.46 LAL .00 LOL 323.68 VL 26.932 GAL -.98 AZL 83.12 HCA 159.01 SMA 129.20 ECC .17304 INC 6.8811 V1 29.418
RP 107.48 LAP 2.46 LOP 122.83 VP 37.978 GAP -2.39 AZP 96.43 TAL 184.68 TAP 343.69 RCA 106.85 APO 151.56 V2 35.256
RC 72.818 GL 50.24 GP -64.76 ZAL 91.79 ZAP 76.00 ETS 24.27 ZAE 111.95 ETE 280.42 ZAC 37.31 ETC 253.53 CLP -55.42

PLANETOCENTRIC CONIC

C3 17.615 VHL 4.197 DLA 30.52 RAL 242.07 RAD 6567.7 VEL 11.790 PTH 2.08 VHP 6.395 DPA -77.55 RAP 177.90 ECC 1.2899

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.11	22 11 20	3813.58	-21.86	154.58	109.21	68.15	23 14 54	3213.6	-24.63	146.82
101.89	1 26 1	3199.50	-21.84	109.32	109.21	68.14	2 19 20	2599.5	-24.62	101.57
78.11	22 11 20	3813.58	-21.86	154.58	109.21	68.15	23 14 54	3213.6	-24.63	146.82
101.89	1 26 1	3199.50	-21.84	109.32	109.21	68.14	2 19 20	2599.5	-24.62	101.57
110.00	4 19 1	2658.47	-32.39	71.76	112.76	78.43	5 3 19	2058.5	-33.65	62.75
110.00	0 21 27	3402.61	-12.04	119.43	103.99	57.76	1 18 9	2802.6	-16.21	112.81

DIFFERENTIAL CORRECTIONS
TDE .1351 TRA -.3938 TC3 .0898 BAU .4381
RDE 1.3215 RRA 1.2003 RC3-1.8581 FAU .03814
FDE 1.6270 FRA 1.4278 FC3-1.8745 BSP 9599
BDE 1.3284 BRA 1.2633 BC3 1.8602 FSP -959

MID-COURSE EXECUTION ACCURACY
SGT 655.0 SGR 3050.5 SG3 305.8
RRT -.4863 RRF .9970 RTF -.4834
SGB 3120.0 R23 -.0217 R13 .9968
SG1 3067.7 SG2 569.1 THA 96.18

ORBIT DETERMINATION ACCURACY
ST 262.8 SR 1892.7 SS 1283.4
CRT .4539 CRS -.9999 CST -.4627
LSA 2290.0 MSA 233.7 SSA 4.4
EL1 1896.6 EL2 233.7 ALF 86.34

LAUNCH DATE AUG 17 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 365.776

```
RL  151.46 LAL    .00 LOL 323.68 VL  26.949 GAL  -.97 AZL  81.50 HCA 162.21 SMA 129.31 ECC .17203 INC 8.5005 V1  29.418
RP  107.48 LAP   2.59 LOP 126.08 VP  37.990 GAP -1.92 AZP  98.10 TAL 184.67 TAP 346.88 RCA 107.07 APO 151.56 V2  35.258
RC  74.992 GL   55.18 GP  -70.20 ZAL  91.50 ZAP 80.02 ETS  19.70 ZAE 106.82 ETE 275.77 ZAC  31.92 ETC 250.13 CLP -59.25
```

PLANETOCENTRIC CONIC

```
C3  23.536 VHL  4.851 DLA  35.21 RAL 243.95 RAD 6568.0 VEL 12.038 PTH   2.15 VHP  7.213 DPA -77.79 RAP 152.24 ECC 1.3873
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.14	21 13 51	4084.30	-22.89	175.85	117.21	62.49	22 21 55	3484.3	-26.39	168.35
111.86	2 38 30	3067.07	-22.88	99.69	117.20	62.48	3 29 37	2467.1	-26.38	92.19
68.14	21 13 51	4084.30	-22.89	175.85	117.21	62.49	22 21 55	3484.3	-26.39	168.35
111.86	2 38 30	3067.07	-22.88	99.69	117.20	62.48	3 29 37	2467.1	-26.38	92.19
68.14	21 13 51	4084.30	-22.89	175.85	117.21	62.49	22 21 55	3484.3	-26.39	168.35
111.86	2 38 30	3067.07	-22.88	99.69	117.20	62.48	3 29 37	2467.1	-26.38	92.19

DIFFERENTIAL CORRECTIONS

```
TDE  .3503 TRA -.2838 TC3 -.0694 BAU  .4358
RDE 1.7699 RRA 1.5029 RC3-1.3831 FAU .02808
FDE 1.6242 FRA 1.3536 FC3-1.0328 BSP   9810
BDE 1.8043 BRA 1.5294 BC3 1.3849 FSP   -759
```

MID-COURSE EXECUTION ACCURACY

```
SGT  586.5 SGR 3299.9 SG3  252.1
RRT  .0331 RRF  .9976 RTF  .0342
SGB 3351.6 R23 -.0001 R13  .9976
SG1 3300.0 SG2  586.1 THA  89.65
```

ORBIT DETERMINATION ACCURACY

```
ST   431.6 SR  2189.9 SS  1250.3
CRT  .8301 CRS-1.0000 CST -.8331
LSA 2547.3 MSA  237.8 SSA    3.6
EL1 2219.4 EL2  237.5 ALF  80.60
```

LAUNCH DATE AUG 17 1970 FLIGHT TIME 136.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 372.166

```
RL  151.46 LAL    .00 LOL 323.68 VL  26.961 GAL  -.94 AZL  79.20 HCA 165.39 SMA 129.40 ECC .17125 INC10.8018 V1  29.418
RP  107.48 LAP   2.71 LOP 129.33 VP  38.000 GAP -1.46 AZP 100.46 TAL 184.57 TAP 349.96 RCA 107.24 APO 151.55 V2  35.259
RC  77.186 GL   59.82 GP  -75.91 ZAL  91.13 ZAP 83.48 ETS  14.03 ZAE 101.24 ETE 270.57 ZAC  26.33 ETC 244.75 CLP -62.22
```

PLANETOCENTRIC CONIC

```
C3  34.159 VHL  5.845 DLA  39.54 RAL 246.02 RAD 6568.3 VEL 12.471 PTH   2.26 VHP  8.482 DPA -75.95 RAP 128.24 ECC 1.5622
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.16	20 46 2	4282.82	-22.04	191.46	126.67	56.30	21 57 25	3682.8	-26.31	184.45
118.84	3 22 49	3054.18	-22.02	98.10	126.66	56.29	4 13 43	2454.2	-26.29	91.10
61.16	20 46 2	4282.82	-22.04	191.46	126.67	56.30	21 57 25	3682.8	-26.31	184.45
118.84	3 22 49	3054.18	-22.02	98.10	126.66	56.29	4 13 43	2454.2	-26.29	91.10
61.16	20 46 2	4282.82	-22.04	191.46	126.67	56.30	21 57 25	3682.8	-26.31	184.45
118.84	3 22 49	3054.18	-22.02	98.10	126.66	56.29	4 13 43	2454.2	-26.29	91.10

DIFFERENTIAL CORRECTIONS

```
TDE  .7674 TRA -.0769 TC3 -.1317 BAU  .4233
RDE 2.3055 RRA 1.8789 RC3 -.9176 FAU .01907
FDE 1.5458 FRA 1.2400 FC3 -.4834 BSP  10658
BDE 2.4298 BRA 1.8804 BC3  .9270 FSP   -610
```

MID-COURSE EXECUTION ACCURACY

```
SGT  774.1 SGR 3458.8 SG3  195.1
RRT  .6095 RRF  .9980 RTF  .6138
SGB 3544.4 R23  .0176 R13  .9979
SG1 3491.9 SG2  607.8 THA  81.99
```

ORBIT DETERMINATION ACCURACY

```
ST   752.9 SR  2371.2 SS  1163.4
CRT  .9407 CRS-1.0000 CST -.9423
LSA 2735.4 MSA  246.0 SSA    2.9
EL1 2475.8 EL2  244.6 ALF  73.20
```

LAUNCH DATE AUG 17 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 378.496

```
RL  151.46 LAL    .00 LOL 323.68 VL  26.969 GAL  -.90 AZL  75.66 HCA 168.54 SMA 129.45 ECC .17067 INC14.3430 V1  29.418
RP  107.48 LAP   2.82 LOP 132.57 VP  38.006 GAP -1.03 AZP 104.07 TAL 184.37 TAP 352.92 RCA 107.36 APO 151.55 V2  35.259
RC  79.396 GL   63.77 GP  -82.09 ZAL  90.73 ZAP 86.25 ETS   5.75 ZAE  95.01 ETE 263.20 ZAC  20.46 ETC 234.35 CLP -61.60
```

PLANETOCENTRIC CONIC

```
C3  55.461 VHL  7.447 DLA  43.18 RAL 248.11 RAD 6569.0 VEL 13.297 PTH   2.43 VHP 10.548 DPA -72.31 RAP 109.56 ECC 1.9128
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.93	20 31 38	4467.37	-18.63	204.69	137.07	50.31	21 46 5	3867.4	-23.62	198.40
124.07	3 53 53	3112.92	-18.62	100.46	137.05	50.31	4 45 46	2512.9	-23.60	94.16
55.93	20 31 38	4467.37	-18.63	204.69	137.07	50.31	21 46 5	3867.4	-23.62	198.40
124.07	3 53 53	3112.92	-18.62	100.46	137.05	50.31	4 45 46	2512.9	-23.60	94.16
55.93	20 31 38	4467.37	-18.63	204.69	137.07	50.31	21 46 5	3867.4	-23.62	198.40
124.07	3 53 53	3112.92	-18.62	100.46	137.05	50.31	4 45 46	2512.9	-23.60	94.16

DIFFERENTIAL CORRECTIONS

```
TDE 1.6868 TRA  .3917 TC3 -.1297 BAU  .3572
RDE 2.9037 RRA 2.4061 RC3 -.4640 FAU .01017
FDE 1.4522 FRA 1.1417 FC3 -.1588 BSP  11344
BDE 3.3581 BRA 2.4377 BC3  .4818 FSP   -459
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1375.6 SGR 3451.5 SG3  143.4
RRT  .8597 RRF  .9980 RTF  .8730
SGB 3715.5 R23  .0349 R13  .9978
SG1 3655.8 SG2  663.3 THA  70.41
```

ORBIT DETERMINATION ACCURACY

```
ST  1303.7 SR  2360.3 SS  1070.1
CRT  .9729 CRS -.9999 CST -.9764
LSA 2888.6 MSA  267.8 SSA    2.4
EL1 2683.4 EL2  265.1 ALF  61.44
```

LAUNCH DATE AUG 17 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 384.722

```
RL  151.46 LAL    .00 LOL 323.68 VL  26.974 GAL  -.83 AZL  69.52 HCA 171.62 SMA 129.48 ECC .17028 INC20.4774 V1  29.418
RP  107.48 LAP   2.92 LOP 135.83 VP  38.008 GAP  -.63 AZP 110.28 TAL 184.03 TAP 355.65 RCA 107.44 APO 151.53 V2  35.258
RC  81.621 GL   66.26 GP  -88.23 ZAL  90.34 ZAP 88.23 ETS 324.83 ZAE  87.53 ETE 223.49 ZAC  14.16 ETC 183.56 CLP   2.66
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PLANETOCENTRIC CONIC

```
C3 106.247 VHL 10.308 DLA  45.41 RAL 249.74 RAD 6570.0 VEL 15.086 PTH   2.71 VHP 14.246 DPA -66.85 RAP  95.03 ECC 2.7486
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.89	20 26 19	4648.12	-12.47	215.37	147.16	45.97	21 43 47	4048.1	-17.95	209.75
127.11	4 12 11	3231.39	-12.45	105.47	147.15	45.97	5 6 3	2631.4	-17.94	99.85
52.89	20 26 19	4648.12	-12.47	215.37	147.16	45.97	21 43 47	4048.1	-17.95	209.75
127.11	4 12 11	3231.39	-12.45	105.47	147.15	45.97	5 6 3	2631.4	-17.94	99.85
52.89	20 26 19	4648.12	-12.47	215.37	147.16	45.97	21 43 47	4048.1	-17.95	209.75
127.11	4 12 11	3231.39	-12.45	105.47	147.15	45.97	5 6 3	2631.4	-17.94	99.85

DIFFERENTIAL CORRECTIONS

```
TDE 4.8993 TRA 3.0422 TC3 -.0881 BAU  .1526
RDE -.0732 RRA 1.5813 RC3 -.0615 FAU .00113
FDE 1.4123 FRA 1.1073 FC3 -.0092 BSP  11858
BDE 4.8999 BRA 3.4287 BC3  .1074 FSP   -330
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3640.4 SGR 1259.2 SG3  101.7
RRT  .6388 RRF  .7208 RTF  .9927
SGB 3852.0 R23  .0530 R13  .9976
SG1 3734.4 SG2  944.3 THA  13.33
```

ORBIT DETERMINATION ACCURACY

```
ST  2817.6 SR   377.9 SS  1019.1
CRT  .1508 CRS -.2137 CST -.9980
LSA 2996.2 MSA  378.0 SSA    1.8
EL1 2818.2 EL2  373.5 ALF   1.18
```

LAUNCH DATE AUG 17 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 390.705

RL	151.46	LAL	.00	LOL	323.68	VL	26.975	GAL	-.70	AZL	56.74	HCA	174.49	SMA	129.49	ECC	.17003	INC	33.2582	V1	29.418
RP	107.48	LAP	3.02	LOP	139.08	VP	38.008	GAP	-.30	AZP	123.14	TAL	183.43	TAP	357.92	RCA	107.47	APO	151.51	V2	35.256
RC	83.861	GL	65.12	GP	-79.49	ZAL	90.01	ZAP	89.39	ETS	195.20	ZAE	76.92	ETE	95.05	ZAC	9.39	ETC	9.22	CLP	86.67

PLANETOCENTRIC CONIC

C3	265.883	VHL	16.306	DLA	44.22	RAL	249.65	RAD	6571.5	VEL	19.677	PTH	3.12	VHP	22.004	DPA	-58.00	RAP	82.36	ECC	5.3758

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.49	20 32 5	4788.03	-4.90	220.78	154.61	45.99	21 51 53	4188.0	-10.42	215.36
125.51	4 5 42	3403.33	-4.88	113.82	154.59	45.99	5 2 25	2803.3	-10.41	108.40
54.49	20 32 5	4788.03	-4.90	220.78	154.61	45.99	21 51 53	4188.0	-10.42	215.36
125.51	4 5 42	3403.33	-4.88	113.82	154.59	45.99	5 2 25	2803.3	-10.41	108.40
54.49	20 32 5	4788.03	-4.90	220.78	154.61	45.99	21 51 53	4188.0	-10.42	215.36
125.51	4 5 42	3403.33	-4.88	113.82	154.59	45.99	5 2 25	2803.3	-10.41	108.40

DIFFERENTIAL CORRECTIONS

TDE	-.8178	TRA	.9259	TC3	-.0203	BAU	.5423
RDE	-7.8191	RRA	-5.4408	RC3	-.1512	FAU	-.01224
FDE	1.5908	FRA	1.2742	FC3	.0399	BSP	12063
BDE	7.8618	BRA	5.5190	BC3	.1526	FSP	-239

MID-COURSE EXECUTION ACCURACY

SGT	541.4	SGR	3861.2	SG3	73.3		
RRT	-.1860	RRF	-.9973	RTF	.2490		
SGB	3898.9	R23	-.0610	R13	-.9975		
SG1	3862.5	SG2	531.7	THA	91.52		

ORBIT DETERMINATION ACCURACY

ST	318.0	SR	2861.7	SS	1120.9
CRT	.7478	CRS	.9992	CST	.7206
LSA	3082.3	MSA	215.9	SSA	1.6
EL1	2871.6	EL2	210.4	ALF	85.22

LAUNCH DATE AUG 17 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 395.831

RL	151.46	LAL	.00	LOL	323.68	VL	26.973	GAL	-.41	AZL	23.63	HCA	176.62	SMA	129.48	ECC	.16986	INC	66.3739	V1	29.418
RP	107.49	LAP	3.10	LOP	142.33	VP	38.004	GAP	-.20	AZP	156.34	TAL	181.99	TAP	358.61	RCA	107.49	APO	151.47	V2	35.254
RC	86.111	GL	53.02	GP	-59.34	ZAL	69.75	ZAP	89.75	ETS	185.87	ZAE	56.80	ETE	85.79	ZAC	22.27	ETC	298.60	CLP	89.51

PLANETOCENTRIC CONIC

C3	956.870	VHL	30.933	DLA	32.62	RAL	245.25	RAD	6572.9	VEL	32.835	PTH	3.49	VHP	40.883	DPA	-39.42	RAP	69.94	ECC	16.7477

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.09	21 49 10	4619.29	.14	203.04	155.49	57.38	23 6 10	4019.3	-4.16	196.71
106.91	2 13 31	3786.45	.16	141.22	155.47	57.38	3 16 38	3186.5	-4.15	134.89
73.09	21 49 10	4619.29	.14	203.04	155.49	57.38	23 6 10	4019.3	-4.16	196.71
106.91	2 13 31	3786.45	.16	141.22	155.47	57.38	3 16 38	3186.5	-4.15	134.89
110.00	3 50 52	3486.44	-8.96	123.97	161.37	56.87	4 48 59	2886.4	-13.26	117.51
110.00	1 14 56	3967.30	9.26	149.27	149.59	56.95	2 21 3	3367.3	4.84	142.97

DIFFERENTIAL CORRECTIONS

TDE	-4.6289	TRA	-.3264	TC3	-.0807	BAU	3.2540
RD	-11.6294	RRA	-9.9771	RC3	-.2412	FAU	-.05527
FDE	2.2570	FRA	2.0904	FC3	.0500	BSP	11087
BDE	12.5168	BRA	9.9825	BC3	.2544	FSP	-196

MID-COURSE EXECUTION ACCURACY

SGT	994.6	SGR	3417.8	SG3	60.0		
RRT	.8087	RRF	-.9994	RTF	-.7906		
SGB	3559.6	R23	-.0690	R13	-.9974		
SG1	3513.8	SG2	569.1	THA	76.39		

ORBIT DETERMINATION ACCURACY

ST	857.8	SR	2252.8	SS	1555.3
CRT	.9634	CRS	.9998	CST	.9572
LSA	2859.7	MSA	227.5	SSA	1.3
EL1	2400.9	EL2	215.8	ALF	69.68

LAUNCH DATE AUG 17 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 406.408

RL	151.46	LAL	.00	LOL	323.68	VL	26.969	GAL	-1.13	AZL	149.20	HCA	183.69	SMA	129.45	ECC	.17111	INC	59.2025	V1	29.418
RP	107.50	LAP	3.17	LOP	145.58	VP	37.998	GAP	1.34	AZP	30.85	TAL	185.49	TAP	9.19	RCA	107.30	APO	151.60	V2	35.251
RC	88.372	GL	-56.02	GP	64.86	ZAL	90.42	ZAP	91.34	ETS	184.45	ZAE	67.96	ETE	281.33	ZAC	143.44	ETC	289.15	CLP	93.14

PLANETOCENTRIC CONIC

C3	780.156	VHL	27.931	DLA	-69.75	RAL	193.25	RAD	6572.8	VEL	30.024	PTH	3.45	VHP	35.565	DPA	74.07	RAP	352.74	ECC	13.8394

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.15	3 20 35	2424.22	.41	77.71	103.08	159.75	4 0 59	1824.2	7.91	75.34
156.85	13 47 15	672.31	.42	287.96	103.10	159.75	13 58 27	72.3	7.92	285.59
23.15	3 20 35	2424.22	.41	77.71	103.08	159.75	4 0 59	1824.2	7.91	75.34
156.85	13 47 15	672.31	.42	287.96	103.10	159.75	13 58 27	72.3	7.92	285.59
23.15	3 20 35	2424.22	.41	77.71	103.08	159.75	4 0 59	1824.2	7.91	75.34
156.85	13 47 15	672.31	.42	287.96	103.10	159.75	13 58 27	72.3	7.92	285.59

DIFFERENTIAL CORRECTIONS

TDE	6.0439	TRA	1.5823	TC3	-.1155	BAU	2.7872
RD	-14.7282	RRA	-1.4503	RC3	.2410	FAU	-.04421
FDE	-3.2836	FRA	-.3288	FC3	.0491	BSP	12075
BDE	15.9200	BRA	2.1464	BC3	.2672	FSP	-209

MID-COURSE EXECUTION ACCURACY

SGT	1683.1	SGR	3417.4	SG3	65.0		
RRT	-.9423	RRF	.9995	RTF	-.9428		
SGB	3809.4	R23	-.0611	R13	.9976		
SG1	3775.2	SG2	509.9	THA	115.39		

ORBIT DETERMINATION ACCURACY

ST	1271.5	SR	3032.5	SS	2077.7
CRT	-.9905	CRS	-1.0000	CST	.9907
LSA	3886.1	MSA	164.9	SSA	2.0
EL1	3284.3	EL2	161.5	ALF	112.61

LAUNCH DATE AUG 17 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 411.785

RL	151.46	LAL	.00	LOL	323.68	VL	26.961	GAL	-.87	AZL	122.24	HCA	186.08	SMA	129.40	ECC	.17110	INC	32.2358	V1	29.418
RP	107.51	LAP	3.24	LOP	148.83	VP	37.990	GAP	1.50	AZP	57.91	TAL	184.21	TAP	10.29	RCA	107.26	APO	151.54	V2	35.247
RC	90.641	GL	-65.30	GP	81.67	ZAL	90.29	ZAP	92.66	ETS	183.89	ZAE	85.03	ETE	279.19	ZAC	158.95	ETC	301.34	CLP	108.72

PLANETOCENTRIC CONIC

C3	250.514	VHL	15.828	DLA	-75.08	RAL	167.59	RAD	6571.5	VEL	19.283	PTH	3.10	VHP	19.805	DPA	73.17	RAP	287.71	ECC	5.1228

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.01	1 25 27	2333.99	7.30	79.49	75.62	164.95	2 4 21	1734.0	15.02	77.77
162.99	12 17 44	5841.62	7.30	261.35	75.65	164.95	13 55 5	5241.6	15.02	259.62
17.01	1 25 27	2333.99	7.30	79.49	75.62	164.95	2 4 21	1734.0	15.02	77.77
162.99	12 17 44	5841.62	7.30	261.35	75.65	164.95	13 55 5	5241.6	15.02	259.62
17.01	1 25 27	2333.99	7.30	79.49	75.62	164.95	2 4 21	1734.0	15.02	77.77
162.99	12 17 44	5841.62	7.30	261.35	75.65	164.95	13 55 5	5241.6	15.02	259.62

DIFFERENTIAL CORRECTIONS

TDE	2.8552	TRA	1.0934	TC3	-.0629	BAU	.5515
RDE	-7.5111	RRA	-1.8487	RC3	.1522	FAU	-.00830
FDE	-1.9911	FRA	-.4747	FC3	.0287	BSP	13138
BDE	8.0355	BRA	2.1478	BC3	.1647	FSP	-269

MID-COURSE EXECUTION ACCURACY

SGT	1862.9	SGR	3791.9	SG3	85.2		
RRT	-.9769	RRF	.9993	RTF	-.9734		
SGB	4224.8	R23	-.0541	R13	.9979		
SG1	4209.5	SG2	358.8	THA	115.84		

ORBIT DETERMINATION ACCURACY

ST	1131.8	SR	2828.6	SS	1280.1
CRT	-.9902	CRS	-1.0000	CST	.9890
LSA	3301.2	MSA	150.7	SSA	1.7
EL1	3043.1	EL2	147.2	ALF	111.67

LAUNCH DATE AUG 17 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 417.752

RL	151.46	LAL	.00	LOL	323.68	VL	26.952	GAL	-.71	AZL	111.49	HCA	189.01	SMA	129.33	ECC	.17147	INC	21.4869
RP	107.53	LAP	3.29	LOP	152.08	VP	37.979	GAP	1.81	AZP	68.75	TAL	183.42	TAP	12.44	RCA	107.16	APO	151.51
RC	92.917	GL	-66.27	GP	84.97	ZAL	90.02	ZAP	94.82	ETS	68.28	ZAE	94.29	ETE	162.84	ZAC	165.15	ETC	207.18

V1	29.418	V2	35.243	CLP	-163.28														

PLANETOCENTRIC CONIC

C3	116.271	VHL	10.783	DLA	-75.65	RAL	164.33	RAD	6570.2	VEL	15.415	PTH	2.75	VHP	13.286	DPA	66.68	RAP	265.87
ECC	2.9135																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.35	1 11 7	2205.69	15.85	78.15	70.15	165.07	1 47 53	1605.7	23.56	76.33
163.65	12 6 1	5710.89	15.85	259.35	70.17	165.07	13 41 11	5110.9	23.57	257.53
16.35	1 11 7	2205.69	15.85	78.15	70.15	165.07	1 47 53	1605.7	23.56	76.33
163.65	12 6 1	5710.89	15.85	259.35	70.17	165.07	13 41 11	5110.9	23.57	257.53
16.35	1 11 7	2205.69	15.85	78.15	70.15	165.07	1 47 53	1605.7	23.56	76.33
163.65	12 6 1	5710.89	15.85	259.35	70.17	165.07	13 41 11	5110.9	23.57	257.53

DIFFERENTIAL CORRECTIONS

TDE	-2.1110	TRA	-1.5366	TC3	-.0640	BAU	.0997
RDE	4.8737	RRA	.2800	RC3	-.0037	FAU	.00614
FDE	-1.8207	FRA	-.4660	FC3	-.0457	BSP	13781
BDE	5.3112	BRA	1.5620	BC3	.0642	FSP	-386

MID-COURSE EXECUTION ACCURACY

SGT	3482.5	SGR	2658.3	SG3	120.5		
RRT	-.5272	RRF	-.8376	RTF	.9041		
SGB	4381.1	R23	.1318	R13	-.9902		
SG1	3885.3	SG2	2024.7	THA	148.70		

ORBIT DETERMINATION ACCURACY

ST	1494.9	SR	2595.9	SS	1162.6
CRT	-.7944	CRS	.9734	CST	-.9124
LSA	3106.0	MSA	823.3	SSA	2.1
EL1	2881.8	EL2	817.9	ALF	116.93

LAUNCH DATE AUG 17 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 423.870

RL	151.46	LAL	.00	LOL	323.68	VL	26.940	GAL	-.57	AZL	106.09	HCA	192.11	SMA	129.25	ECC	.17205	INC	16.0872
RP	107.54	LAP	3.33	LOP	155.33	VP	37.966	GAP	2.16	AZP	74.25	TAL	182.74	TAP	14.85	RCA	107.01	APO	151.49
RC	95.197	GL	-64.67	GP	78.95	ZAL	89.58	ZAP	97.63	ETS	29.99	ZAE	100.80	ETE	124.41	ZAC	166.17	ETC	195.15

V1	29.418	V2	35.238	CLP	-133.84														

PLANETOCENTRIC CONIC

C3	68.201	VHL	8.258	DLA	-75.49	RAL	170.95	RAD	6569.3	VEL	13.768	PTH	2.52	VHP	10.066	DPA	60.92	RAP	255.51
ECC	2.1224																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.53	1 37 52	2087.33	23.58	76.24	74.45	164.14	2 12 39	1487.3	31.25	74.11
163.47	12 32 4	5593.17	23.59	257.62	74.47	164.14	14 5 17	4993.2	31.26	255.48
16.53	1 37 52	2087.33	23.58	76.24	74.45	164.14	2 12 39	1487.3	31.25	74.11
163.47	12 32 4	5593.17	23.59	257.62	74.47	164.14	14 5 17	4993.2	31.26	255.48
16.53	1 37 52	2087.33	23.58	76.24	74.45	164.14	2 12 39	1487.3	31.25	74.11
163.47	12 32 4	5593.17	23.59	257.62	74.47	164.14	14 5 17	4993.2	31.26	255.48

DIFFERENTIAL CORRECTIONS

TDE	-2.2430	TRA	-.8708	TC3	-.2915	BAU	.3441
RDE	3.9860	RRA	.6861	RC3	.2397	FAU	.01693
FDE	-2.1497	FRA	-.4296	FC3	-.2149	BSP	14054
BDE	4.5738	BRA	1.1086	BC3	.3774	FSP	-539

MID-COURSE EXECUTION ACCURACY

SGT	2910.4	SGR	3378.6	SG3	167.7		
RRT	-.9231	RRF	-.9953	RTF	.9493		
SGB	4459.3	R23	.0868	R13	-.9947		
SG1	4374.7	SG2	864.3	THA	130.39		

ORBIT DETERMINATION ACCURACY

ST	1716.2	SR	2823.6	SS	1333.8
CRT	-.9732	CRS	.9995	CST	-.9800
LSA	3546.9	MSA	341.0	SSA	2.7
EL1	3286.8	EL2	338.9	ALF	120.97

LAUNCH DATE AUG 17 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 430.035

RL	151.46	LAL	.00	LOL	323.68	VL	26.926	GAL	-.43	AZL	102.88	HCA	195.26	SMA	129.16	ECC	.17279	INC	12.8778
RP	107.56	LAP	3.36	LOP	158.58	VP	37.950	GAP	2.53	AZP	77.56	TAL	182.07	TAP	17.33	RCA	106.84	APO	151.48
RC	97.481	GL	-62.15	GP	72.85	ZAL	88.94	ZAP	100.96	ETS	29.93	ZAE	105.99	ETE	124.82	ZAC	163.89	ETC	215.06

V1	29.418	V2	35.232	CLP	-130.14														

PLANETOCENTRIC CONIC

C3	46.062	VHL	6.787	DLA	-74.84	RAL	180.74	RAD	6568.7	VEL	12.939	PTH	2.36	VHP	8.233	DPA	55.67	RAP	248.80
ECC	1.7581																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.28	2 18 27	1989.58	29.77	73.83	81.81	162.46	2 51 36	1389.6	37.37	71.22
162.72	13 9 36	5498.28	29.78	255.96	81.83	162.46	14 41 15	4898.3	37.38	253.35
17.28	2 18 27	1989.58	29.77	73.83	81.81	162.46	2 51 36	1389.6	37.37	71.22
162.72	13 9 36	5498.28	29.78	255.96	81.83	162.46	14 41 15	4898.3	37.38	253.35
17.28	2 18 27	1989.58	29.77	73.83	81.81	162.46	2 51 36	1389.6	37.37	71.22
162.72	13 9 36	5498.28	29.78	255.96	81.83	162.46	14 41 15	4898.3	37.38	253.35

DIFFERENTIAL CORRECTIONS

TDE	-2.4836	TRA	-.6532	TC3	-.5882	BAU	.4632
RDE	3.4590	RRA	.4307	RC3	.4689	FAU	.02710
FDE	-2.6052	FRA	-.3602	FC3	-.5093	BSP	14193
BDE	4.2583	BRA	.7824	BC3	.7522	FSP	-714

MID-COURSE EXECUTION ACCURACY

SGT	3078.7	SGR	3296.4	SG3	223.1		
RRT	-.9422	RRF	-.9962	RTF	.9579		
SGB	4510.3	R23	.1007	R13	-.9928		
SG1	4445.0	SG2	764.8	THA	132.93		

ORBIT DETERMINATION ACCURACY

ST	2190.1	SR	2949.8	SS	1584.0
CRT	-.9886	CRS	.9999	CST	-.9908
LSA	3991.7	MSA	271.2	SSA	3.4
EL1	3664.4	EL2	265.5	ALF	126.50

LAUNCH DATE AUG 17 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 436.212

RL	151.46	LAL	.00	LOL	323.68	VL	26.910	GAL	-.29	AZL	100.75	HCA	198.44	SMA	129.05	ECC	.17368	INC	10.7519
RP	107.58	LAP	3.38	LOP	161.83	VP	37.933	GAP	2.90	AZP	79.79	TAL	181.37	TAP	19.81	RCA	106.64	APO	151.46
RC	99.767	GL	-59.26	GP	67.15	ZAL	88.10	ZAP	104.66	ETS	31.55	ZAE	110.31	ETE	127.53	ZAC	160.13	ETC	228.23

V1	29.418	V2	35.226	CLP	-130.66														

PLANETOCENTRIC CONIC

C3	34.112	VHL	5.841	DLA	-73.71	RAL	190.90	RAD	6568.3	VEL	12.469	PTH	2.26	VHP	7.096	DPA	50.70	RAP	243.89
ECC	1.5614																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.58	3 1 37	1911.18	34.46	70.85	89.32	160.11	3 33 28	1311.2	41.93	67.62
161.42	13 47 31	5425.13	34.47	254.28	89.35	160.11	15 17 56	4825.1	41.94	251.05
18.58	3 1 37	1911.18	34.46	70.85	89.32	160.11	3 33 28	1311.2	41.93	67.62
161.42	13 47 31	5425.13	34.47	254.28	89.35	160.11	15 17 56	4825.1	41.94	251.05
18.58	3 1 37	1911.18	34.46	70.85	89.32	160.11	3 33 28	1311.2	41.93	67.62
161.42	13 47 31	5425.13	34.47	254.28	89.35	160.11	15 17 56	4825.1	41.94	251.05

DIFFERENTIAL CORRECTIONS

TDE	-2.6596	TRA	-.4880	TC3	-.9559	BAU	.5343
RDE	2.9823	RRA	.2345	RC3	.6774	FAU	.03692
FDE	-3.0052	FRA	-.2565	FC3	-.9371	BSP	14414
BDE	3.9959	BRA	.5414	BC3	1.1716	FSP	-904

MID-COURSE EXECUTION ACCURACY

SGT	3311.8	SGR	3139.7	SG3	282.5		
RRT	-.9537	RRF	-.9960	RTF	.9645		
SGB	4563.6	R23	.1120	R13	-.9909		
SG1	4510.6	SG2	693.4	THA	136.60		

ORBIT DETERMINATION ACCURACY

ST	2659.1	SR	2936.0	SS	1815.1
CRT	-.9940	CRS	1.0000	CST	-.9947
LSA	4351.3	MSA	227.6	SSA	4.3
EL1	3955.2	EL2	216.7	ALF	132.15

LAUNCH DATE AUG 17 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 442.386
RL 151.46 LAL .00 LOL 323.68 VL 26.892 GAL -.14 AZL 99.24 HCA 201.64 SMA 128.93 ECC .17471 INC 9.2355 V1 29.418
RP 107.60 LAP 3.39 LOP 165.07 VP 37.914 GAP 3.26 AZP 81.41 TAL 180.64 TAP 22.28 RCA 106.41 APO 151.46 V2 35.218
RC 102.053 GL -56.24 GP 61.81 ZAL 87.08 ZAP 108.58 ETS 33.25 ZAE 113.94 ETE 130.87 ZAC 155.90 ETC 236.36 CLP-132.43
PLANETOCENTRIC CONIC
C3 26.948 VHL 5.191 DLA -72.21 RAL 200.29 RAD 6568.1 VEL 12.179 PTH 2.19 VHP 6.358 DPA 45.95 RAP 240.12 ECC 1.4435

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.31	3 42 41	1848.19	37.87	67.33	95.83	157.23	4 13 29	1248.2	45.17	63.36
159.69	14 21 21	5369.92	37.88	252.52	95.85	157.22	15 50 51	4769.9	45.18	248.56
20.31	3 42 41	1848.19	37.87	67.33	95.83	157.23	4 13 29	1248.2	45.17	63.36
159.69	14 21 21	5369.92	37.88	252.52	95.85	157.22	15 50 51	4769.9	45.18	248.56
20.31	3 42 41	1848.19	37.87	67.33	95.83	157.23	4 13 29	1248.2	45.17	63.36
159.69	14 21 21	5369.92	37.88	252.52	95.85	157.22	15 50 51	4769.9	45.18	248.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.7358 TRA -.3417 TC3-1.3718 BAU .5795 SGT 3559.5 SGR 2934.5 SG3 339.6 ST 3042.5 SR 2784.6 SS 1978.0
RDE 2.5212 RRA .0910 RC3 .8397 FAU .04562 RRT -.9621 RRF -.9954 RTF .9701 CRT -.9962 CRS 1.0000 CST -.9964
FDE-3.2597 FRA -.1217 FC3-1.4655 BSP 14637 SGB 4613.2 R23 .1188 R13 -.9893 LSA 4570.0 MSA 195.9 SSA 5.2
BDE 3.7204 BRA .3536 BC3 1.6084 FSP -1091 SG1 4571.0 SG2 622.9 THA 140.71 EL1 4120.6 EL2 178.1 ALF 137.54

LAUNCH DATE AUG 17 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 448.550
RL 151.46 LAL .00 LOL 323.68 VL 26.873 GAL .03 AZL 98.09 HCA 204.85 SMA 128.80 ECC .17588 INC 8.0946 V1 29.418
RP 107.63 LAP 3.39 LOP 168.32 VP 37.893 GAP 3.63 AZP 82.65 TAL 179.88 TAP 24.73 RCA 106.15 APO 151.46 V2 35.211
RC 104.339 GL -53.20 GP 56.83 ZAL 85.87 ZAP 112.60 ETS 34.70 ZAE 116.93 ETE 134.43 ZAC 151.65 ETC 241.60 CLP-134.62
PLANETOCENTRIC CONIC
C3 22.334 VHL 4.726 DLA -70.43 RAL 208.59 RAD 6567.9 VEL 11.988 PTH 2.14 VHP 5.870 DPA 41.40 RAP 237.20 ECC 1.3676

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.36	4 20 6	1796.97	40.24	63.40	101.07	153.97	4 50 3	1197.0	47.32	58.64
157.64	14 50 8	5328.88	40.25	250.72	101.09	153.97	16 18 57	4728.9	47.33	245.97
22.36	4 20 6	1796.97	40.24	63.40	101.07	153.97	4 50 3	1197.0	47.32	58.64
157.64	14 50 8	5328.88	40.25	250.72	101.09	153.97	16 18 57	4728.9	47.33	245.97
22.36	4 20 6	1796.97	40.24	63.40	101.07	153.97	4 50 3	1197.0	47.32	58.64
157.64	14 50 8	5328.88	40.25	250.72	101.09	153.97	16 18 57	4728.9	47.33	245.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.6978 TRA -.1844 TC3-1.8181 BAU .6120 SGT 3754.6 SGR 2641.1 SG3 381.6 ST 3277.4 SR 2481.6 SS 2010.5
RDE 2.0464 RRA -.0390 RC3 .9464 FAU .05268 RRT -.9639 RRF -.9942 RTF .9701 CRT -.9969 CRS 1.0000 CST -.9966
FDE-3.2686 FRA .0786 FC3-2.0420 BSP 14192 SGB 4590.5 R23 .1357 R13 -.9859 LSA 4572.5 MSA 183.2 SSA 6.2
BDE 3.3862 BRA .1885 BC3 2.0496 FSP -1177 SG1 4553.7 SG2 580.1 THA 145.22 EL1 4108.0 EL2 155.0 ALF 142.89

LAUNCH DATE AUG 17 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 454.700
RL 151.46 LAL .00 LOL 323.68 VL 26.852 GAL .20 AZL 97.20 HCA 208.07 SMA 128.66 ECC .17718 INC 7.2007 V1 29.418
RP 107.65 LAP 3.38 LOP 171.56 VP 37.870 GAP 3.99 AZP 83.64 TAL 179.07 TAP 27.14 RCA 105.87 APO 151.46 V2 35.202
RC 106.624 GL -50.17 GP 52.21 ZAL 84.48 ZAP 116.59 ETS 35.87 ZAE 119.36 ETE 138.05 ZAC 147.56 ETC 245.15 CLP-136.94
PLANETOCENTRIC CONIC
C3 19.210 VHL 4.383 DLA -68.47 RAL 215.85 RAD 6567.8 VEL 11.857 PTH 2.10 VHP 5.548 DPA 37.09 RAP 234.95 ECC 1.3161

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.64	4 53 58	1754.53	41.78	59.21	105.20	150.52	5 23 13	1154.5	48.60	53.69
155.36	15 14 10	5299.15	41.78	248.95	105.21	150.52	16 42 29	4699.1	48.61	243.42
24.64	4 53 58	1754.53	41.78	59.21	105.20	150.52	5 23 13	1154.5	48.60	53.69
155.36	15 14 10	5299.15	41.78	248.95	105.21	150.52	16 42 29	4699.1	48.61	243.42
24.64	4 53 58	1754.53	41.78	59.21	105.20	150.52	5 23 13	1154.5	48.60	53.69
155.36	15 14 10	5299.15	41.78	248.95	105.21	150.52	16 42 29	4699.1	48.61	243.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.6647 TRA -.0562 TC3-2.2937 BAU .6448 SGT 4027.0 SGR 2454.6 SG3 428.1 ST 3484.5 SR 2258.2 SS 2061.5
RDE 1.7252 RRA -.1042 RC3 1.0210 FAU .05883 RRT -.9693 RRF -.9930 RTF .9752 CRT -.9978 CRS .9999 CST -.9971
FDE-3.2836 FRA .2378 FC3-2.6514 BSP 14857 SGB 4716.2 R23 .1290 R13 -.9859 LSA 4632.9 MSA 164.0 SSA 7.3
BDE 3.1744 BRA .1184 BC3 2.5106 FSP -1362 SG1 4687.6 SG2 518.5 THA 149.00 EL1 4150.3 EL2 126.6 ALF 147.08

LAUNCH DATE AUG 17 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 460.834
RL 151.46 LAL .00 LOL 323.68 VL 26.830 GAL .38 AZL 96.48 HCA 211.28 SMA 128.52 ECC .17862 INC 6.4774 V1 29.418
RP 107.68 LAP 3.36 LOP 174.80 VP 37.847 GAP 4.36 AZP 84.46 TAL 178.23 TAP 29.52 RCA 105.56 APO 151.47 V2 35.193
RC 108.906 GL -47.19 GP 47.97 ZAL 82.92 ZAP 120.48 ETS 36.76 ZAE 121.27 ETE 141.60 ZAC 143.75 ETC 247.67 CLP-139.25
PLANETOCENTRIC CONIC
C3 17.023 VHL 4.126 DLA -66.39 RAL 222.23 RAD 6567.7 VEL 11.765 PTH 2.08 VHP 5.343 DPA 33.03 RAP 233.27 ECC 1.2802

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.06	5 24 47	1718.74	42.63	54.93	108.49	147.02	5 53 26	1118.7	49.17	48.69
152.94	15 34 14	5278.53	42.64	247.29	108.50	147.01	17 2 13	4678.5	49.17	241.05
27.06	5 24 47	1718.74	42.63	54.93	108.49	147.02	5 53 26	1118.7	49.17	48.69
152.94	15 34 14	5278.53	42.64	247.29	108.50	147.01	17 2 13	4678.5	49.17	241.05
27.06	5 24 47	1718.74	42.63	54.93	108.49	147.02	5 53 26	1118.7	49.17	48.69
152.94	15 34 14	5278.53	42.64	247.29	108.50	147.01	17 2 13	4678.5	49.17	241.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.5690 TRA .0824 TC3-2.7596 BAU .6712 SGT 4242.0 SGR 2222.0 SG3 456.2 ST 3569.3 SR 1978.8 SS 2010.7
RDE 1.4197 RRA -.1616 RC3 1.0401 FAU .06279 RRT -.9705 RRF -.9911 RTF .9767 CRT -.9981 CRS .9999 CST -.9970
FDE-3.1199 FRA .4244 FC3-3.1934 BSP 15154 SGB 4788.7 R23 .1284 R13 -.9846 LSA 4546.8 MSA 155.5 SSA 8.4
BDE 2.9352 BRA .1814 BC3 2.9491 FSP -1468 SG1 4764.9 SG2 476.8 THA 152.76 EL1 4079.7 EL2 106.1 ALF 151.02

LAUNCH DATE AUG 17 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 466.949

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RL  151.46 LAL    .00 LOL 323.68 VL  26.807 GAL    .58 AZL  95.88 HCA 214.50 SMA 128.36 ECC .18020 INC 5.8771 V1  29.418
RP  107.71 LAP   3.32 LOP 178.04 VP  37.821 GAP   4.72 AZP  85.15 TAL 177.36 TAP  31.86 RCA 105.23 APO 151.49 V2  35.184
RC 111.186 GL  -44.27 GP   44.09 ZAL  81.22 ZAP 124.21 ETS  37.43 ZAE 122.72 ETE 145.00 ZAC 140.26 ETC 249.53 CLP-141.51
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PLANETOCENTRIC CONIC

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C3  15.463 VHL  3.932 DLA -64.24 RAL 227.89 RAD 6567.6 VEL 11.698 PTH   2.06 VHP  5.222 DPA  29.23 RAP 232.07 ECC 1.2545
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.58	5 53 12	1687.92	42.95	50.65	111.20	143.58	6 21 20	1087.9	49.17	43.80
150.42	15 51 4	5265.52	42.95	245.83	111.21	143.57	17 18 49	4665.5	49.18	238.99
29.58	5 53 12	1687.92	42.95	50.65	111.20	143.58	6 21 20	1087.9	49.17	43.80
150.42	15 51 4	5265.52	42.95	245.83	111.21	143.57	17 18 49	4665.5	49.18	238.99
29.58	5 53 12	1687.92	42.95	50.65	111.20	143.58	6 21 20	1087.9	49.17	43.80
150.42	15 51 4	5265.52	42.95	245.83	111.21	143.57	17 18 49	4665.5	49.18	238.99

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4535 TRA  .2218 TC3-3.2122 BAU  .6970   SGT 4440.2 SGR 2004.4 SG3  473.3     ST  3582.6 SR  1718.3 SS  1916.1
RDE 1.1709 RRA -.2017 RC3 1.0245 FAU .06521   RRT -.9706 RRF -.9885 RTF  .9778     CRT -.9984 CRS  .9997 CST -.9967
FDE-2.8840 FRA  .6043 FC3-3.6508 BSP  15409   SGB 4871.6 R23  .1243 R13 -.9836    LSA 4408.7 MSA  150.0 SSA    9.4
BDE 2.7186 BRA  .2998 BC3 3.3716 FSP  -1532   SG1 4851.5 SG2  441.9 THA 156.13    EL1 3972.4 EL2   87.5 ALF 154.40
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LAUNCH DATE AUG 17 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 473.046

```
RL  151.46 LAL    .00 LOL 323.68 VL  26.782 GAL    .79 AZL  95.37 HCA 217.72 SMA 128.20 ECC .18192 INC 5.3678 V1  29.418
RP  107.74 LAP   3.28 LOP 181.28 VP  37.795 GAP   5.07 AZP  85.75 TAL 176.44 TAP  34.16 RCA 104.88 APO 151.52 V2  35.174
RC 113.462 GL  -41.41 GP   40.58 ZAL  79.39 ZAP 127.73 ETS  37.92 ZAE 123.77 ETE 148.17 ZAC 137.10 ETC 250.95 CLP-143.69
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PLANETOCENTRIC CONIC

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C3  14.344 VHL  3.787 DLA -62.05 RAL 233.00 RAD 6567.6 VEL 11.650 PTH   2.05 VHP  5.165 DPA  25.71 RAP 231.27 ECC 1.2361
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.17	6 19 42	1660.92	42.81	46.46	113.54	140.28	6 47 22	1060.9	48.72	39.13
147.83	16 5 16	5258.96	42.82	244.64	113.55	140.28	17 32 55	4659.0	48.73	237.31
32.17	6 19 42	1660.92	42.81	46.46	113.54	140.28	6 47 22	1060.9	48.72	39.13
147.83	16 5 16	5258.96	42.82	244.64	113.55	140.28	17 32 55	4659.0	48.73	237.31
32.17	6 19 42	1660.92	42.81	46.46	113.54	140.28	6 47 22	1060.9	48.72	39.13
147.83	16 5 16	5258.96	42.82	244.64	113.55	140.28	17 32 55	4659.0	48.73	237.31

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3221 TRA  .3695 TC3-3.6229 BAU  .7194   SGT 4614.6 SGR 1804.7 SG3  480.2     ST  3532.1 SR  1482.4 SS  1786.5
RDE  .9683 RRA -.2334 RC3  .9733 FAU .06579   RRT -.9688 RRF -.9850 RTF  .9778     CRT -.9986 CRS  .9993 CST -.9960
FDE-2.5977 FRA  .7835 FC3-3.9710 BSP  15611   SGB 4954.9 R23  .1206 R13 -.9822    LSA 4224.1 MSA  149.5 SSA   10.5
BDE 2.5159 BRA  .4371 BC3 3.7514 FSP  -1557   SG1 4937.2 SG2  418.2 THA 159.09    EL1 3830.0 EL2   71.4 ALF 157.25
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LAUNCH DATE AUG 17 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 479.121

```
RL  151.46 LAL    .00 LOL 323.68 VL  26.757 GAL   1.01 AZL  94.93 HCA 220.94 SMA 128.03 ECC .18379 INC 4.9278 V1  29.418
RP  107.77 LAP   3.23 LOP 184.52 VP  37.767 GAP   5.43 AZP  86.27 TAL 175.50 TAP  36.44 RCA 104.50 APO 151.56 V2  35.164
RC 115.736 GL  -38.63 GP   37.42 ZAL  77.43 ZAP 131.04 ETS  38.29 ZAE 124.51 ETE 151.10 ZAC 134.28 ETC 252.06 CLP-145.76
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PLANETOCENTRIC CONIC

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C3  13.550 VHL  3.681 DLA -59.83 RAL 237.64 RAD 6567.5 VEL 11.616 PTH   2.04 VHP  5.156 DPA  22.45 RAP 230.83 ECC 1.2230
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.81	6 44 44	1636.75	42.32	42.41	115.67	137.18	7 12 0	1036.8	47.92	34.71
145.19	16 17 15	5258.14	42.33	243.77	115.68	137.17	17 44 53	4658.1	47.93	236.07
34.81	6 44 44	1636.75	42.32	42.41	115.67	137.18	7 12 0	1036.8	47.92	34.71
145.19	16 17 15	5258.14	42.33	243.77	115.68	137.17	17 44 53	4658.1	47.93	236.07
34.81	6 44 44	1636.75	42.32	42.41	115.67	137.18	7 12 0	1036.8	47.92	34.71
145.19	16 17 15	5258.14	42.33	243.77	115.68	137.17	17 44 53	4658.1	47.93	236.07

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1907 TRA  .5161 TC3-4.0033 BAU  .7438   SGT 4782.0 SGR 1630.7 SG3  480.0     ST  3444.5 SR  1284.9 SS  1646.8
RDE  .8115 RRA -.2530 RC3  .9112 FAU .06557   RRT -.9664 RRF -.9805 RTF  .9781     CRT -.9990 CRS  .9985 CST -.9952
FDE-2.3074 FRA  .9385 FC3-4.1894 BSP  15946   SGB 5052.4 R23  .1118 R13 -.9813    LSA 4025.5 MSA  149.6 SSA   11.6
BDE 2.3362 BRA  .5747 BC3 4.1057 FSP  -1571   SG1 5036.7 SG2  397.9 THA 161.64    EL1 3675.9 EL2   54.6 ALF 159.56
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LAUNCH DATE AUG 17 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 485.176

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RL  151.46 LAL    .00 LOL 323.68 VL  26.731 GAL   1.25 AZL  94.54 HCA 224.16 SMA 127.86 ECC .18581 INC 4.5417 V1  29.418
RP  107.80 LAP   3.16 LOP 187.75 VP  37.738 GAP   5.79 AZP  86.74 TAL 174.52 TAP  38.68 RCA 104.10 APO 151.61 V2  35.153
RC 118.005 GL  -35.92 GP   34.59 ZAL  75.38 ZAP 134.12 ETS  38.57 ZAE 124.99 ETE 153.74 ZAC 131.77 ETC 252.97 CLP-147.74
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PLANETOCENTRIC CONIC

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C3  13.009 VHL  3.607 DLA -57.61 RAL 241.90 RAD 6567.5 VEL 11.593 PTH   2.03 VHP  5.184 DPA  19.44 RAP 230.69 ECC 1.2141
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.48	7 8 39	1614.68	41.54	38.53	117.69	134.30	7 35 34	1014.7	46.84	30.57
142.52	16 27 19	5262.55	41.55	243.25	117.70	134.29	17 55 2	4662.6	46.84	235.30
37.48	7 8 39	1614.68	41.54	38.53	117.69	134.30	7 35 34	1014.7	46.84	30.57
142.52	16 27 19	5262.55	41.55	243.25	117.70	134.29	17 55 2	4662.6	46.84	235.30
37.48	7 8 39	1614.68	41.54	38.53	117.69	134.30	7 35 34	1014.7	46.84	30.57
142.52	16 27 19	5262.55	41.55	243.25	117.70	134.29	17 55 2	4662.6	46.84	235.30

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0542 TRA  .6693 TC3-4.3286 BAU  .7667   SGT 4933.3 SGR 1477.3 SG3  473.4     ST  3318.3 SR  1116.9 SS  1496.7
RDE  .6869 RRA -.2675 RC3  .8348 FAU .06427   RRT -.9626 RRF -.9748 RTF  .9779     CRT -.9993 CRS  .9969 CST -.9938
FDE-2.0136 FRA 1.0810 FC3-4.2772 BSP  16235   SGB 5149.7 R23  .1023 R13 -.9803    LSA 3804.7 MSA  152.9 SSA   12.7
BDE 2.1660 BRA  .7208 BC3 4.4083 FSP  -1557   SG1 5135.3 SG2  384.6 THA 163.83    EL1 3501.1 EL2   38.4 ALF 161.41
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LAUNCH DATE AUG 17 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 491.208

RL	151.46	LAL	.00	LOL	323.68	VL	26.703	GAL	1.50	AZL	94.20	HCA	227.38	SMA	127.68	ECC	.18800	INC	4.1980	V1	29.418
RP	107.84	LAP	3.09	LOP	190.98	VP	37.708	GAP	6.15	AZP	87.15	TAL	173.51	TAP	40.89	RCA	103.67	APO	151.68	V2	35.141
RC	120.271	GL	-33.29	GP	32.05	ZAL	73.25	ZAP	136.99	ETS	38.81	ZAE	125.27	ETE	156.11	ZAC	129.56	ETC	253.72	CLP	-149.63

PLANETOCENTRIC CONIC

C3	12.672	VHL	3.560	DLA	-55.39	RAL	245.84	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	5.243	DPA	16.66	RAP	230.82	ECC	1.2085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.18	7 31 43	1594.12	40.52	34.83	119.68	131.66	7 58 17	994.1	45.54	26.71
139.82	16 35 42	5271.82	40.53	243.10	119.69	131.65	18 3 34	4671.8	45.55	234.98
40.18	7 31 43	1594.12	40.52	34.83	119.68	131.66	7 58 17	994.1	45.54	26.71
139.82	16 35 42	5271.82	40.53	243.10	119.69	131.65	18 3 34	4671.8	45.55	234.98
40.18	7 31 43	1594.12	40.52	34.83	119.68	131.66	7 58 17	994.1	45.54	26.71
139.82	16 35 42	5271.82	40.53	243.10	119.69	131.65	18 3 34	4671.8	45.55	234.98

DIFFERENTIAL CORRECTIONS

TDE	-1.9170	TRA	.8282	TC3	-4.5954	BAU	.7889
RDE	.5897	RRA	-.2777	RC3	.7533	FAU	.06228
FDE	-1.7329	FRA	1.2072	FC3	-4.2547	BSP	16550
BDE	2.0056	BRA	.8736	BC3	4.6568	FSP	-1532

MID-COURSE EXECUTION ACCURACY

SGT	5072.8	SGR	1344.6	SG3	462.5		
RRT	-.9574	RRF	-.9675	RTF	.9775		
SGB	5247.9	R23	.0916	R13	-.9794		
SG1	5234.4	SG2	376.2	THA	165.68		

ORBIT DETERMINATION ACCURACY

ST	3166.2	SR	978.2	SS	1347.0
CRT	-.9997	CRS	.9940	CST	-.9918
LSA	3573.7	MSA	158.6	SSA	13.7
EL1	3313.8	EL2	22.7	ALF	162.84

LAUNCH DATE AUG 17 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 497.218

RL	151.46	LAL	.00	LOL	323.68	VL	26.676	GAL	1.76	AZL	93.89	HCA	230.59	SMA	127.49	ECC	.19035	INC	3.8883	V1	29.418
RP	107.87	LAP	3.00	LOP	194.21	VP	37.678	GAP	6.51	AZP	87.53	TAL	172.47	TAP	43.07	RCA	103.23	APO	151.76	V2	35.130
RC	122.531	GL	-30.75	GP	29.78	ZAL	71.06	ZAP	139.66	ETS	39.03	ZAE	125.40	ETE	158.22	ZAC	127.62	ETC	254.37	CLP	-151.42

PLANETOCENTRIC CONIC

C3	12.506	VHL	3.536	DLA	-53.19	RAL	249.51	RAD	6567.5	VEL	11.571	PTH	2.02	VHP	5.327	DPA	14.11	RAP	231.18	ECC	1.2058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.89	7 54 7	1574.61	39.32	31.30	121.69	129.24	8 20 21	974.6	44.07	23.09
137.11	16 42 34	5285.71	39.33	243.33	121.70	129.23	18 10 39	4685.7	44.08	235.12
42.89	7 54 7	1574.61	39.32	31.30	121.69	129.24	8 20 21	974.6	44.07	23.09
137.11	16 42 34	5285.71	39.33	243.33	121.70	129.23	18 10 39	4685.7	44.08	235.12
42.89	7 54 7	1574.61	39.32	31.30	121.69	129.24	8 20 21	974.6	44.07	23.09
137.11	16 42 34	5285.71	39.33	243.33	121.70	129.23	18 10 39	4685.7	44.08	235.12

DIFFERENTIAL CORRECTIONS

TDE	-1.7851	TRA	.9876	TC3	-4.8159	BAU	.8131
RDE	.5163	RRA	-.2833	RC3	.6771	FAU	.06014
FDE	-1.4800	FRA	1.3100	FC3	-4.1629	BSP	17000
BDE	1.8583	BRA	1.0274	BC3	4.8633	FSP	-1512

MID-COURSE EXECUTION ACCURACY

SGT	5205.6	SGR	1231.2	SG3	448.7		
RRT	-.9512	RRF	-.9587	RTF	.9775		
SGB	5349.2	R23	.0784	R13	-.9788		
SG1	5336.4	SG2	370.7	THA	167.26		

ORBIT DETERMINATION ACCURACY

ST	3002.8	SR	867.6	SS	1207.8
CRT	-.9998	CRS	.9888	CST	-.9892
LSA	3346.8	MSA	165.3	SSA	14.6
EL1	3125.6	EL2	14.7	ALF	163.89

LAUNCH DATE AUG 17 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 503.204

RL	151.46	LAL	.00	LOL	323.68	VL	26.647	GAL	2.04	AZL	93.61	HCA	233.81	SMA	127.31	ECC	.19287	INC	3.6062	V1	29.418
RP	107.91	LAP	2.91	LOP	197.44	VP	37.646	GAP	6.87	AZP	87.87	TAL	171.41	TAP	45.22	RCA	102.75	APO	151.86	V2	35.118
RC	124.786	GL	-28.29	GP	27.75	ZAL	68.83	ZAP	142.13	ETS	39.27	ZAE	125.42	ETE	160.08	ZAC	125.91	ETC	254.94	CLP	-153.12

PLANETOCENTRIC CONIC

C3	12.492	VHL	3.534	DLA	-51.02	RAL	252.93	RAD	6567.5	VEL	11.571	PTH	2.02	VHP	5.431	DPA	11.75	RAP	231.75	ECC	1.2056

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.61	8 16 4	1555.66	37.98	27.93	123.74	127.05	8 41 59	955.7	42.49	19.68
134.39	16 47 58	5304.16	37.99	243.95	123.75	127.04	18 16 22	4704.2	42.50	235.70
45.61	8 16 4	1555.66	37.98	27.93	123.74	127.05	8 41 59	955.7	42.49	19.68
134.39	16 47 58	5304.16	37.99	243.95	123.75	127.04	18 16 22	4704.2	42.50	235.70
45.61	8 16 4	1555.66	37.98	27.93	123.74	127.05	8 41 59	955.7	42.49	19.68
134.39	16 47 58	5304.16	37.99	243.95	123.75	127.04	18 16 22	4704.2	42.50	235.70

DIFFERENTIAL CORRECTIONS

TDE	-1.6448	TRA	1.1630	TC3	-4.9424	BAU	.8313
RDE	.4568	RRA	-.2902	RC3	.5930	FAU	.05701
FDE	-1.2356	FRA	1.4118	FC3	-3.9512	BSP	17204
BDE	1.7070	BRA	1.1986	BC3	4.9779	FSP	-1454

MID-COURSE EXECUTION ACCURACY

SGT	5319.5	SGR	1132.9	SG3	432.4		
RRT	-.9426	RRF	-.9480	RTF	.9767		
SGB	5438.8	R23	.0685	R13	-.9777		
SG1	5426.1	SG2	370.9	THA	168.60		

ORBIT DETERMINATION ACCURACY

ST	2815.8	SR	773.9	SS	1071.1
CRT	-.9993	CRS	.9789	CST	-.9850
LSA	3105.3	MSA	177.7	SSA	15.3
EL1	2920.1	EL2	27.9	ALF	164.64

LAUNCH DATE AUG 17 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 509.165

RL	151.46	LAL	.00	LOL	323.68	VL	26.618	GAL	2.33	AZL	93.35	HCA	237.02	SMA	127.12	ECC	.19558	INC	3.3466	V1	29.418
RP	107.95	LAP	2.81	LOP	200.66	VP	37.614	GAP	7.24	AZP	88.18	TAL	170.32	TAP	47.34	RCA	102.26	APO	151.98	V2	35.105
RC	127.036	GL	-25.92	GP	25.94	ZAL	66.58	ZAP	144.42	ETS	39.54	ZAE	125.36	ETE	161.72	ZAC	124.42	ETC	255.46	CLP	-154.75

PLANETOCENTRIC CONIC

C3	12.615	VHL	3.552	DLA	-48.88	RAL	256.15	RAD	6567.5	VEL	11.576	PTH	2.02	VHP	5.553	DPA	9.56	RAP	232.51	ECC	1.2076

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.33	8 37 41	1536.88	36.53	24.69	125.85	125.08	9 3 18	936.9	40.82	16.45
131.67	16 51 58	5327.14	36.54	244.96	125.86	125.06	18 20 45	4727.1	40.83	236.71
48.33	8 37 41	1536.88	36.53	24.69	125.85	125.08	9 3 18	936.9	40.82	16.45
131.67	16 51 58	5327.14	36.54	244.96	125.86	125.06	18 20 45	4727.1	40.83	236.71
48.33	8 37 41	1536.88	36.53	24.69	125.85	125.08	9 3 18	936.9	40.82	16.45
131.67	16 51 58	5327.14	36.54	244.96	125.86	125.06	18 20 45	4727.1	40.83	236.71

DIFFERENTIAL CORRECTIONS

TDE	-1.5085	TRA	1.3422	TC3	-5.0158	BAU	.8504
RDE	.4123	RRA	-.2951	RC3	.5181	FAU	.05393
FDE	-1.0197	FRA	1.4964	FC3	-3.7009	BSP	17496
BDE	1.5638	BRA	1.3743	BC3	5.0425	FSP	-1403

MID-COURSE EXECUTION ACCURACY

SGT	5427.3	SGR	1049.7	SG3	415.2		
RRT	-.9326	RRF	-.9355	RTF	.9760		
SGB	5527.9	R23	.0580	R13	-.9768		
SG1	5515.3	SG2	372.7	THA	169.73		

ORBIT DETERMINATION ACCURACY

ST	2628.4	SR	699.7	SS	950.5
CRT	-.9972	CRS	.9624	CST	-.9792
LSA	2874.8	MSA	192.3	SSA	15.9
EL1	2719.5	EL2	50.1	ALF	165.13

LAUNCH DATE AUG 17 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 515.100

RL	151.46	LAL	.00	LOL	323.68	VL	26.588	GAL	2.64	AZL	93.11	HCA	240.23	SMA	126.93	ECC	.19849	INC	3.1053
RP	107.99	LAP	2.70	LOP	203.88	VP	37.581	GAP	7.61	AZP	88.46	TAL	169.21	TAP	49.44	RCA	101.73	APO	152.12
RC	129.278	GL	-23.65	GP	24.31	ZAL	64.32	ZAP	146.56	ETS	39.86	ZAE	125.24	ETE	163.15	ZAC	123.11	ETC	255.94

V1	29.418	V2	35.093	CLP	-156.30														

PLANETOCENTRIC CONIC

C3	12.869	VHL	3.587	DLA	-46.78	RAL	259.16	RAD	6567.5	VEL	11.587	PTH	2.03	VHP	5.691	DPA	7.54	RAP	233.42

ECC	1.2118	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		51.06	8 59 6	1517.95	35.00	21.57	128.02	123.29	9 24 24	918.0	39.09	13.37							
		128.94	16 54 37	5354.60	35.01	246.35	128.03	123.28	18 23 52	4754.6	39.10	238.14							
		51.06	8 59 6	1517.95	35.00	21.57	128.02	123.29	9 24 24	918.0	39.09	13.37							
		128.94	16 54 37	5354.60	35.01	246.35	128.03	123.28	18 23 52	4754.6	39.10	238.14							
		51.06	8 59 6	1517.95	35.00	21.57	128.02	123.29	9 24 24	918.0	39.09	13.37							
		128.94	16 54 37	5354.60	35.01	246.35	128.03	123.28	18 23 52	4754.6	39.10	238.14							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3735	TRA	1.5292	TC3	-5.0285	BAU	.8686	SGT	5527.3	SGR	979.4	SG3	397.4	ST	2443.2	SR	640.6	SS	846.0
RDE	.3789	RRA	-.2997	RC3	.4501	FAU	.05076	RRT	-.9211	RRF	-.9214	RTF	.9754	CRT	-.9924	CRS	.9357	CST	-.9715
FDE	-.8279	FRA	1.5699	FC3	-3.4148	BSP	17779	SGB	5613.4	R23	.0482	R13	-.9760	LSA	2655.3	MSA	210.3	SSA	16.3
BDE	1.4248	BRA	1.5583	BC3	5.0486	FSP	-1350	SG1	5600.8	SG2	376.3	THA	170.69	EL1	2524.6	EL2	76.5	ALF	165.40

LAUNCH DATE AUG 17 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 521.008

RL	151.46	LAL	.00	LOL	323.68	VL	26.558	GAL	2.97	AZL	92.88	HCA	243.44	SMA	126.73	ECC	.20161	INC	2.8792
RP	108.03	LAP	2.58	LOP	207.10	VP	37.548	GAP	7.98	AZP	88.71	TAL	168.07	TAP	51.52	RCA	101.18	APO	152.28
RC	131.513	GL	-21.47	GP	22.86	ZAL	62.07	ZAP	148.54	ETS	40.25	ZAE	125.08	ETE	164.41	ZAC	121.97	ETC	256.40

V1	29.418	V2	35.080	CLP	-157.78														

PLANETOCENTRIC CONIC

C3	13.250	VHL	3.640	DLA	-44.74	RAL	262.00	RAD	6567.5	VEL	11.603	PTH	2.03	VHP	5.842	DPA	5.66	RAP	234.48

ECC	1.2181	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		53.79	9 20 29	1498.43	33.41	18.53	130.25	121.69	9 45 27	898.4	37.32	10.38							
		126.21	16 55 53	5386.73	33.43	248.13	130.26	121.68	18 25 40	4786.7	37.34	239.98							
		53.79	9 20 29	1498.43	33.41	18.53	130.25	121.69	9 45 27	898.4	37.32	10.38							
		126.21	16 55 53	5386.73	33.43	248.13	130.26	121.68	18 25 40	4786.7	37.34	239.98							
		53.79	9 20 29	1498.43	33.41	18.53	130.25	121.69	9 45 27	898.4	37.32	10.38							
		126.21	16 55 53	5386.73	33.43	248.13	130.26	121.68	18 25 40	4786.7	37.34	239.98							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2397	TRA	1.7240	TC3	-4.9847	BAU	.8857	SGT	5618.9	SGR	919.7	SG3	379.6	ST	2265.6	SR	593.1	SS	758.2
RDE	.3542	RRA	-.3043	RC3	.3891	FAU	.04755	RRT	-.9080	RRF	-.9058	RTF	.9748	CRT	-.9828	CRS	.8950	CST	-.9616
FDE	-.6576	FRA	1.6341	FC3	-3.1069	BSP	18061	SGB	5693.7	R23	.0397	R13	-.9752	LSA	2450.7	MSA	231.9	SSA	16.6
BDE	1.2893	BRA	1.7506	BC3	4.9999	FSP	-1295	SG1	5680.9	SG2	381.1	THA	171.51	EL1	2339.6	EL2	106.2	ALF	165.54

LAUNCH DATE AUG 17 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 526.887

RL	151.46	LAL	.00	LOL	323.68	VL	26.527	GAL	3.32	AZL	92.67	HCA	246.65	SMA	126.53	ECC	.20495	INC	2.6656
RP	108.07	LAP	2.45	LOP	210.31	VP	37.514	GAP	8.36	AZP	88.94	TAL	166.92	TAP	53.57	RCA	100.60	APO	152.47
RC	133.740	GL	-19.39	GP	21.56	ZAL	59.85	ZAP	150.40	ETS	40.73	ZAE	124.90	ETE	165.52	ZAC	120.98	ETC	256.85

V1	29.418	V2	35.067	CLP	-159.21														

PLANETOCENTRIC CONIC

C3	13.760	VHL	3.709	DLA	-42.76	RAL	264.67	RAD	6567.5	VEL	11.625	PTH	2.04	VHP	6.007	DPA	3.92	RAP	235.66

ECC	1.2265	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		56.51	9 41 57	1477.92	31.80	15.53	132.55	120.24	10 6 34	877.9	35.55	7.45							
		123.49	16 55 45	5423.68	31.81	250.31	132.56	120.23	18 26 9	4823.7	35.56	242.22							
		56.51	9 41 57	1477.92	31.80	15.53	132.55	120.24	10 6 34	877.9	35.55	7.45							
		123.49	16 55 45	5423.68	31.81	250.31	132.56	120.23	18 26 9	4823.7	35.56	242.22							
		56.51	9 41 57	1477.92	31.80	15.53	132.55	120.24	10 6 34	877.9	35.55	7.45							
		123.49	16 55 45	5423.68	31.81	250.31	132.56	120.23	18 26 9	4823.7	35.56	242.22							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.1065	TRA	1.9274	TC3	-4.8902	BAU	.9017	SGT	5703.0	SGR	869.1	SG3	361.9	ST	2100.7	SR	555.2	SS	687.9
RDE	.3365	RRA	-.3092	RC3	.3357	FAU	.04439	RRT	-.8937	RRF	-.8889	RTF	.9742	CRT	-.9659	CRS	.8375	CST	-.9499
FDE	-.5078	FRA	1.6898	FC3	-2.7930	BSP	18327	SGB	5768.8	R23	.0319	R13	-.9745	LSA	2264.5	MSA	256.5	SSA	16.6
BDE	1.1566	BRA	1.9521	BC3	4.9017	FSP	-1241	SG1	5755.9	SG2	386.4	THA	172.21	EL1	2168.3	EL2	139.3	ALF	165.62

LAUNCH DATE AUG 17 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 532.732

RL	151.46	LAL	.00	LOL	323.68	VL	26.496	GAL	3.68	AZL	92.46	HCA	249.86	SMA	126.34	ECC	.20854	INC	2.4622
RP	108.11	LAP	2.31	LOP	213.53	VP	37.480	GAP	8.75	AZP	89.15	TAL	165.75	TAP	55.61	RCA	99.99	APO	152.68
RC	135.957	GL	-17.42	GP	20.39	ZAL	57.67	ZAP	152.13	ETS	41.31	ZAE	124.70	ETE	166.49	ZAC	120.11	ETC	257.29

V1	29.418	V2	35.054	CLP	-160.58														

PLANETOCENTRIC CONIC

C3	14.402	VHL	3.795	DLA	-40.84	RAL	267.19	RAD	6567.6	VEL	11.653	PTH	2.05	VHP	6.185	DPA	2.29	RAP	236.96

ECC	1.2370	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		59.25	10 3 39	1455.94	30.17	12.54	134.91	118.94	10 27 55	855.9	33.78	4.53							
		120.75	16 54 8	5465.73	30.18	252.89	134.91	118.93	18 25 13	4865.7	33.78	244.88							
		59.25	10 3 39	1455.94	30.17	12.54	134.91	118.94	10 27 55	855.9	33.78	4.53							
		120.75	16 54 8	5465.73	30.18	252.89	134.91	118.93	18 25 13	4865.7	33.78	244.88							
		59.25	10 3 39	1455.94	30.17	12.54	134.91	118.94	10 27 55	855.9	33.78	4.53							
		120.75	16 54 8	5465.73	30.18	252.89	134.91	118.93	18 25 13	4865.7	33.78	244.88							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.9938	TRA	2.1202	TC3	-4.8060	BAU	.9271	SGT	5784.5	SGR	826.7	SG3	344.1	ST	1968.4	SR	529.4	SS	637.3
RDE	.3281	RRA	-.3114	RC3	.2997	FAU	.04224	RRT	-.8789	RRF	-.8713	RTF	.9747	CRT	-.9412	CRS	.7740	CST	-.9419
FDE	-.3960	FRA	1.7210	FC3	-2.5389	BSP	19065	SGB	5843.2	R23	.0224	R13	-.9749	LSA	2117.5	MSA	277.7	SSA	16.5
BDE	1.0466	BRA	2.1430	BC3	4.8154	FSP	-1229	SG1	5830.1	SG2	391.3	THA	172.81	EL1	2031.0	EL2	173.3	ALF	165.69

LAUNCH DATE AUG 17 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 538.549

RL	151.46	LAL	.00	LOL	323.68	VL	26.465	GAL	4.07	AZL	92.27	HCA	253.06	SMA	126.14	ECC	.21239	INC	2.2672	V1	29.418
RP	108.15	LAP	2.17	LOP	216.73	VP	37.446	GAP	9.15	AZP	89.34	TAL	164.56	TAP	57.63	RCA	99.35	APO	152.93	V2	35.041
RC	138.166	GL	-15.55	GP	19.33	ZAL	55.54	ZAP	153.76	ETS	41.99	ZAE	124.49	ETE	167.34	ZAC	119.35	ETC	257.72	CLP	-161.90

PLANETOCENTRIC CONIC

C3	15.183	VHL	3.897	DLA	-38.99	RAL	269.57	RAD	6567.6	VEL	11.686	PTH	2.06	VHP	6.375	DPA	.77	RAP	238.36	ECC	1.2499

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.00	10 25 46	1432.03	28.55	9.51	137.33	117.77	10 49 38	832.0	32.02	1.58
118.00	16 50 59	5513.19	28.56	255.90	137.33	117.75	18 22 53	4913.2	32.03	247.97
62.00	10 25 46	1432.03	28.55	9.51	137.33	117.77	10 49 38	832.0	32.02	1.58
118.00	16 50 59	5513.19	28.56	255.90	137.33	117.75	18 22 53	4913.2	32.03	247.97
62.00	10 25 46	1432.03	28.55	9.51	137.33	117.77	10 49 38	832.0	32.02	1.58
118.00	16 50 59	5513.19	28.56	255.90	137.33	117.75	18 22 53	4913.2	32.03	247.97

DIFFERENTIAL CORRECTIONS

TDE	-.8467	TRA	2.3581	TC3	-4.5868	BAU	.9324
RDE	.3175	RRA	-.3206	RC3	.2507	FAU	.03847
FDE	-.2645	FRA	1.7799	FC3	-2.1933	BSP	18939
BDE	.9043	BRA	2.3798	BC3	4.5936	FSP	-1145

MID-COURSE EXECUTION ACCURACY

SGT	5850.5	SGR	789.9	SG3	328.0		
RRT	-.8623	RRF	-.8529	RTF	.9732		
SGB	5903.6	R23	.0193	R13	-.9734		
SG1	5890.2	SG2	397.2	THA	173.33		

ORBIT DETERMINATION ACCURACY

ST	1831.0	SR	501.1	SS	596.8
CRT	-.8996	CRS	.6734	CST	-.9281
LSA	1965.4	MSA	311.1	SSA	16.4
EL1	1886.4	EL2	212.4	ALF	165.99

LAUNCH DATE AUG 17 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 544.330

RL	151.46	LAL	.00	LOL	323.68	VL	26.433	GAL	4.47	AZL	92.08	HCA	256.26	SMA	125.94	ECC	.21653	INC	2.0788	V1	29.418
RP	108.19	LAP	2.02	LOP	219.94	VP	37.411	GAP	9.56	AZP	89.51	TAL	163.36	TAP	59.63	RCA	98.67	APO	153.21	V2	35.028
RC	140.364	GL	-13.78	GP	18.38	ZAL	53.46	ZAP	155.28	ETS	42.81	ZAE	124.28	ETE	168.09	ZAC	118.69	ETC	258.16	CLP	-163.18

PLANETOCENTRIC CONIC

C3	16.112	VHL	4.014	DLA	-37.21	RAL	271.81	RAD	6567.6	VEL	11.726	PTH	2.07	VHP	6.577	DPA	-.64	RAP	239.86	ECC	1.2652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.78	10 48 33	1405.37	26.94	6.38	139.79	116.71	11 11 59	805.4	30.29	358.52
115.22	16 46 6	5566.70	26.95	259.37	139.80	116.69	18 18 53	4966.7	30.30	251.51
64.78	10 48 33	1405.37	26.94	6.38	139.79	116.71	11 11 59	805.4	30.29	358.52
115.22	16 46 6	5566.70	26.95	259.37	139.80	116.69	18 18 53	4966.7	30.30	251.51
64.78	10 48 33	1405.37	26.94	6.38	139.79	116.71	11 11 59	805.4	30.29	358.52
115.22	16 46 6	5566.70	26.95	259.37	139.80	116.69	18 18 53	4966.7	30.30	251.51

DIFFERENTIAL CORRECTIONS

TDE	-.7097	TRA	2.5963	TC3	-4.3675	BAU	.9419
RDE	.3125	RRA	-.3286	RC3	.2136	FAU	.03532
FDE	-.1580	FRA	1.8243	FC3	-1.8977	BSP	19048
BDE	.7755	BRA	2.6170	BC3	4.3727	FSP	-1084

MID-COURSE EXECUTION ACCURACY

SGT	5913.8	SGR	758.5	SG3	312.3		
RRT	-.8458	RRF	-.8345	RTF	.9724		
SGB	5962.2	R23	.0153	R13	-.9726		
SG1	5948.6	SG2	402.3	THA	173.78		

ORBIT DETERMINATION ACCURACY

ST	1728.0	SR	479.8	SS	572.5
CRT	-.8432	CRS	.5672	CST	-.9205
LSA	1851.4	MSA	341.0	SSA	16.3
EL1	1775.8	EL2	251.1	ALF	166.55

LAUNCH DATE AUG 17 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 550.072

RL	151.46	LAL	.00	LOL	323.68	VL	26.402	GAL	4.90	AZL	91.90	HCA	259.46	SMA	125.74	ECC	.22097	INC	1.8957	V1	29.418
RP	108.23	LAP	1.86	LOP	223.14	VP	37.376	GAP	9.98	AZP	89.65	TAL	162.15	TAP	61.62	RCA	97.95	APO	153.52	V2	35.014
RC	142.552	GL	-12.11	GP	17.52	ZAL	51.46	ZAP	156.71	ETS	43.77	ZAE	124.07	ETE	168.75	ZAC	118.10	ETC	258.60	CLP	-164.41

PLANETOCENTRIC CONIC

C3	17.202	VHL	4.148	DLA	-35.51	RAL	273.93	RAD	6567.7	VEL	11.772	PTH	2.08	VHP	6.792	DPA	-1.97	RAP	241.44	ECC	1.2831

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.62	11 12 18	1375.00	25.35	3.07	142.31	115.74	11 35 13	775.0	28.59	355.28
112.38	16 39 15	5627.09	25.36	263.35	142.32	115.73	18 13 2	5027.1	28.61	255.56
67.62	11 12 18	1375.00	25.35	3.07	142.31	115.74	11 35 13	775.0	28.59	355.28
112.38	16 39 15	5627.09	25.36	263.35	142.32	115.73	18 13 2	5027.1	28.61	255.56
67.62	11 12 18	1375.00	25.35	3.07	142.31	115.74	11 35 13	775.0	28.59	355.28
112.38	16 39 15	5627.09	25.36	263.35	142.32	115.73	18 13 2	5027.1	28.61	255.56

DIFFERENTIAL CORRECTIONS

TDE	-.5765	TRA	2.8412	TC3	-4.1353	BAU	.9519
RDE	.3112	RRA	-.3369	RC3	.1834	FAU	.03246
FDE	-.0680	FRA	1.8617	FC3	-1.6335	BSP	19239
BDE	.6551	BRA	2.8611	BC3	4.1394	FSP	-1034

MID-COURSE EXECUTION ACCURACY

SGT	5970.7	SGR	731.3	SG3	297.1		
RRT	-.8293	RRF	-.8163	RTF	.9719		
SGB	6015.3	R23	.0117	R13	-.9720		
SG1	6001.5	SG2	406.6	THA	174.17		

ORBIT DETERMINATION ACCURACY

ST	1654.4	SR	462.8	SS	559.4
CRT	-.7717	CRS	.4603	CST	-.9193
LSA	1769.0	MSA	367.2	SSA	16.0
EL1	1693.7	EL2	287.6	ALF	167.45

LAUNCH DATE AUG 17 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 555.772

RL	151.46	LAL	.00	LOL	323.68	VL	26.370	GAL	5.36	AZL	91.72	HCA	262.66	SMA	125.54	ECC	.22574	INC	1.7164	V1	29.418
RP	108.27	LAP	1.70	LOP	226.34	VP	37.341	GAP	10.41	AZP	89.78	TAL	160.93	TAP	63.59	RCA	97.20	APO	153.88	V2	35.001
RC	144.730	GL	-10.54	GP	16.74	ZAL	49.52	ZAP	158.06	ETS	44.88	ZAE	123.86	ETE	169.33	ZAC	117.59	ETC	259.05	CLP	-165.61

PLANETOCENTRIC CONIC

C3	18.467	VHL	4.297	DLA	-33.88	RAL	275.93	RAD	6567.7	VEL	11.826	PTH	2.09	VHP	7.020	DPA	-3.21	RAP	243.09	ECC	1.3039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.56	11 37 28	1339.44	23.80	359.47	144.87	114.87	11 59 48	739.4	26.94	351.74
109.44	16 30 1	5695.68	23.81	267.94	144.88	114.85	18 4 57	5095.7	26.96	260.21
70.56	11 37 28	1339.44	23.80	359.47	144.87	114.87	11 59 48	739.4	26.94	351.74
109.44	16 30 1	5695.68	23.81	267.94	144.88	114.85	18 4 57	5095.7	26.96	260.21
110.00	15 59 9	5789.95	20.83	273.69	143.29	117.73	17 35 39	5189.9	24.38	266.34
110.00	17 7 31	5581.21	26.84	260.47	146.33	112.01	18 40 32	4981.2	29.58	252.35

DIFFERENTIAL CORRECTIONS

TDE	-.4470	TRA	3.0935	TC3	-3.8965	BAU	.9628
RDE	.3128	RRA	-.3454	RC3	.1590	FAU	.02988
FDE	.0079	FRA	1.8930	FC3	-1.4009	BSP	19523
BDE	.5456	BRA	3.1127	BC3	3.8998	FSP	-992

MID-COURSE EXECUTION ACCURACY

SGT	6021.2	SGR	707.4	SG3	282.5		
RRT	-.8130	RRF	-.7984	RTF	.9716		
SGB	6062.6	R23	.0083	R13	-.9717		
SG1	6048.7	SG2	410.0	THA	174.52		

ORBIT DETERMINATION ACCURACY

ST	1608.4	SR	449.1	SS	553.7
CRT	-.6882	CRS	.3599	CST	-.9241
LSA	1715.9	MSA	388.1	SSA	15.7
EL1	1639.0	EL2	319.7	ALF	168.69

LAUNCH DATE AUG 17 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 561.427

RL	151.46	LAL	.00	LOL	323.68	VL	26.338	GAL	5.84	AZL	91.54	HCA	265.85	SMA	125.34	ECC	.23088	INC	1.5399
RP	108.31	LAP	1.54	LOP	229.54	VP	37.306	GAP	10.86	AZP	89.89	TAL	159.71	TAP	65.56	RCA	96.40	APO	154.28
RC	146.899	GL	-9.08	GP	16.03	ZAL	47.67	ZAP	159.33	ETS	46.18	ZAE	123.66	ETE	169.84	ZAC	117.13	ETC	259.51

V1	29.418	V2	34.988	CLP	-166.78														

PLANETOCENTRIC CONIC

C3	19.927	VHL	4.464	DLA	-32.34	RAL	277.82	RAD	6567.8	VEL	11.887	PTH	2.11	VHP	7.262	DPA	-4.36	RAP	244.81

ECC	1.3279	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		73.69	12 4 53	1296.04	22.28	355.37	147.47	114.06	12 26 29	696.0	25.34	347.71			
		106.31	16 17 40	5775.01	22.29	273.30	147.47	114.05	17 53 55	5175.0	25.35	265.63			
		73.69	12 4 53	1296.04	22.28	355.37	147.47	114.06	12 26 29	696.0	25.34	347.71			
		106.31	16 17 40	5775.01	22.29	273.30	147.47	114.05	17 53 55	5175.0	25.35	265.63			
		110.00	15 16 11	677.17	14.95	305.97	143.43	121.10	15 27 28	77.2	18.97	299.15			
		110.00	18 5 32	5441.89	30.03	250.89	150.71	107.15	19 36 14	4841.9	32.08	242.27			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3086	TRA	3.3662	TC3	-3.6301	BAU	.9677	SGT	6067.1	SGR	686.0	SG3	269.1	ST	1587.4	SR	435.9	SS	555.5
RDE	.3152	RRA	-.3558	RC3	.1358	FAU	.02713	RRT	-.7971	RRF	-.7813	RTF	.9711	CRT	-.5916	CRS	.2609	CST	-.9322
FDE	.0807	FRA	1.9281	FC3	-1.1787	BSP	19598	SGB	6105.8	R23	.0060	R13	-.9712	LSA	1689.6	MSA	404.5	SSA	15.4
BDE	.4412	BRA	3.3850	BC3	3.6326	FSP	-939	SG1	6091.8	SG2	412.6	THA	174.83	EL1	1609.2	EL2	346.7	ALF	170.32

LAUNCH DATE AUG 17 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 567.031

RL	151.46	LAL	.00	LOL	323.68	VL	26.306	GAL	6.34	AZL	91.36	HCA	269.05	SMA	125.14	ECC	.23642	INC	1.3649
RP	108.35	LAP	1.36	LOP	232.73	VP	37.272	GAP	11.33	AZP	89.98	TAL	158.48	TAP	67.53	RCA	95.55	APO	154.72
RC	149.057	GL	-7.70	GP	15.39	ZAL	45.89	ZAP	160.53	ETS	47.68	ZAE	123.46	ETE	170.30	ZAC	116.73	ETC	259.97

V1	29.418	V2	34.975	CLP	-167.93														

PLANETOCENTRIC CONIC

C3	21.604	VHL	4.648	DLA	-30.87	RAL	279.60	RAD	6567.9	VEL	11.958	PTH	2.13	VHP	7.520	DPA	-5.44	RAP	246.60

ECC	1.3555	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		77.17	12 36 0	1240.08	20.81	350.44	150.10	113.33	12 56 40	640.1	23.78	342.83			
		102.83	16 0 45	5869.68	20.82	279.78	150.11	113.32	17 38 35	5269.7	23.80	272.16			
		77.17	12 36 0	1240.08	20.81	350.44	150.10	113.33	12 56 40	640.1	23.78	342.83			
		102.83	16 0 45	5869.68	20.82	279.78	150.11	113.32	17 38 35	5269.7	23.80	272.16			
		110.00	14 54 52	788.20	10.96	312.09	144.68	122.58	15 8 0	188.2	15.18	305.53			
		110.00	18 41 3	5369.56	31.37	245.68	154.10	104.34	20 10 33	4769.6	33.02	236.84			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.1732	TRA	3.6482	TC3	-3.3667	BAU	.9730	SGT	6106.5	SGR	666.3	SG3	256.1	ST	1589.0	SR	424.7	SS	560.3
RDE	.3198	RRA	-.3665	RC3	.1169	FAU	.02464	RRT	-.7817	RRF	-.7649	RTF	.9709	CRT	-.4929	CRS	.1758	CST	-.9427
FDE	.1419	FRA	1.9589	FC3	-.9874	BSP	19767	SGB	6142.8	R23	.0040	R13	-.9709	LSA	1687.5	MSA	413.6	SSA	15.1
BDE	.3637	BRA	3.6665	BC3	3.3687	FSP	-896	SG1	6128.8	SG2	414.2	THA	175.10	EL1	1603.5	EL2	366.2	ALF	172.08

LAUNCH DATE AUG 17 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 572.580

RL	151.46	LAL	.00	LOL	323.68	VL	26.274	GAL	6.88	AZL	91.19	HCA	272.24	SMA	124.94	ECC	.24240	INC	1.1903
RP	108.39	LAP	1.19	LOP	235.92	VP	37.237	GAP	11.82	AZP	90.05	TAL	157.25	TAP	69.48	RCA	94.65	APO	155.23
RC	151.205	GL	-6.42	GP	14.81	ZAL	44.19	ZAP	161.65	ETS	49.39	ZAE	123.26	ETE	170.71	ZAC	116.37	ETC	260.45

V1	29.418	V2	34.962	CLP	-169.05														

PLANETOCENTRIC CONIC

C3	23.524	VHL	4.850	DLA	-29.47	RAL	281.28	RAD	6568.0	VEL	12.038	PTH	2.15	VHP	7.793	DPA	-6.45	RAP	248.44

ECC	1.3871	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		81.47	13 14 58	1158.00	19.38	343.68	152.76	112.65	13 34 16	558.0	22.28	336.12			
		98.53	15 35 12	705.07	19.39	310.43	152.77	112.64	15 46 57	105.1	22.29	302.86			
		100.00	15 4 21	803.81	15.86	316.08	151.11	115.67	15 17 45	203.8	19.19	308.87			
		100.00	16 28 29	5822.54	22.99	277.18	154.26	109.65	18 5 31	5222.5	25.46	269.25			
		110.00	14 40 18	879.62	7.57	317.00	146.31	123.43	14 54 57	279.6	11.91	310.60			
		110.00	19 9 2	5319.49	32.15	241.98	157.21	102.28	20 37 41	4719.5	33.51	233.02			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.0363	TRA	3.9437	TC3	-3.1031	BAU	.9764	SGT	6140.0	SGR	648.3	SG3	243.8	ST	1608.5	SR	414.4	SS	567.0
RDE	.3258	RRA	-.3777	RC3	.1006	FAU	.02228	RRT	-.7669	RRF	-.7494	RTF	.9708	CRT	-.3954	CRS	.1015	CST	-.9535
FDE	.1959	FRA	1.9883	FC3	-.8200	BSP	19934	SGB	6174.1	R23	.0024	R13	-.9708	LSA	1704.9	MSA	416.6	SSA	14.8
BDE	.3278	BRA	3.9618	BC3	3.1047	FSP	-856	SG1	6160.1	SG2	414.7	THA	175.35	EL1	1617.3	EL2	378.6	ALF	173.84

LAUNCH DATE AUG 17 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 578.066

RL	151.46	LAL	.00	LOL	323.68	VL	26.242	GAL	7.46	AZL	91.02	HCA	275.42	SMA	124.74	ECC	.24886	INC	1.0152
RP	108.43	LAP	1.01	LOP	239.11	VP	37.202	GAP	12.33	AZP	90.10	TAL	156.02	TAP	71.44	RCA	93.70	APO	155.79
RC	153.343	GL	-5.22	GP	14.28	ZAL	42.58	ZAP	162.71	ETS	51.36	ZAE	123.05	ETE	171.07	ZAC	116.05	ETC	260.93

V1	29.418	V2	34.949	CLP	-170.15														

PLANETOCENTRIC CONIC

C3	25.719	VHL	5.071	DLA	-28.15	RAL	282.86	RAD	6568.0	VEL	12.128	PTH	2.17	VHP	8.084	DPA	-7.38	RAP	250.32

ECC	1.4233	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	14 4 37	1040.37	15.80	333.44	154.48	113.81	14 21 57	440.4	18.88	326.12			
		90.00	14 58 11	866.57	20.25	322.63	156.37	110.23	15 12 37	266.6	22.82	314.91			
		100.00	14 27 17	967.04	10.83	325.59	152.00	118.03	14 43 24	367.0	14.50	318.71			
		100.00	17 18 12	5703.17	25.49	269.19	158.24	106.16	18 53 15	5103.2	27.46	260.95			
		110.00	14 29 22	960.49	4.51	321.27	148.18	123.92	14 45 22	360.5	8.94	314.97			
		110.00	19 32 36	5282.49	32.66	239.22	160.20	100.72	21 0 39	4682.5	33.79	230.16			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1016	TRA	4.2533	TC3	-2.8436	BAU	.9782	SGT	6167.3	SGR	631.0	SG3	232.2	ST	1641.3	SR	404.8	SS	574.8
RDE	.3329	RRA	-.3894	RC3	.0865	FAU	.02005	RRT	-.7528	RRF	-.7349	RTF	.9708	CRT	-.3038	CRS	.0380	CST	-.9632
FDE	.2435	FRA	2.0168	FC3	-.6750	BSP	20114	SGB	6199.5	R23	.0011	R13	-.9708	LSA	1736.7	MSA	414.5	SSA	14.4
BDE	.3480	BRA	4.2711	BC3	2.8449	FSP	-818	SG1	6185.6	SG2	414.1	THA	175.58	EL1	1646.2	EL2	384.5	ALF	175.47

LAUNCH DATE AUG 17 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 583.482

RL 151.46 LAL .00 LOL 323.68 VL 26.210 GAL 8.07 AZL 90.84 HCA 278.61 SMA 124.55 ECC .25585 INC .8382 V1 29.418
RP 108.47 LAP .83 LOP 242.29 VP 37.168 GAP 12.87 AZP 90.13 TAL 154.88 TAP 73.41 RCA 92.68 APO 156.41 V2 34.937
RC 155.470 GL -4.10 GP 13.79 ZAL 41.05 ZAP 163.70 ETS 53.62 ZAE 122.85 ETE 171.39 ZAC 115.75 ETC 261.43 CLP-171.23

PLANETOCENTRIC CONIC

C3 28.229 VHL 5.313 DLA -26.91 RAL 284.35 RAD 6568.1 VEL 12.231 PTH 2.20 VHP 8.395 DPA -8.25 RAP 252.25 ECC 1.4646

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 18 57	1232.95	10.20	344.81	155.20	116.56	13 39 30	633.0	13.68	337.87
90.00	15 55 45	720.24	23.39	313.06	160.62	106.43	16 7 45	120.2	25.42	304.98
100.00	14 6 54	1078.09	7.21	331.84	153.61	119.09	14 24 52	478.1	11.04	325.14
100.00	17 50 30	5638.37	26.64	264.72	161.60	104.08	19 24 28	5038.4	28.32	256.32
110.00	14 20 46	1034.54	1.69	325.14	150.21	124.15	14 38 1	434.5	6.16	318.91
110.00	19 53 6	5254.69	32.99	237.11	163.12	99.52	21 20 41	4654.7	33.95	228.01

DIFFERENTIAL CORRECTIONS
TDE .2417 TRA 4.5790 TC3-2.5893 BAU .9776
RDE .3409 RRA -.4016 RC3 .0742 FAU .01793
FDE .2858 FRA 2.0454 FC3 -.5499 BSP 20301
BDE .4178 BRA 4.5966 BC3 2.5903 FSP -783

MID-COURSE EXECUTION ACCURACY
SGT 6188.7 SGR 614.1 SG3 221.2
RRT -.7394 RRF -.7212 RTF .9710
SG8 6219.1 R23 .0001 R13 -.9710
SG1 6205.4 SG2 412.4 THA 175.78

ORBIT DETERMINATION ACCURACY
ST 1683.5 SR 395.4 SS 582.9
CRT -.2200 CRS -.0161 CST -.9715
LSA 1778.6 MSA 408.7 SSA 14.1
EL1 1685.9 EL2 385.2 ALF 176.88

LAUNCH DATE AUG 17 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 588.818

RL 151.46 LAL .00 LOL 323.68 VL 26.178 GAL 8.72 AZL 90.66 HCA 281.79 SMA 124.35 ECC .26343 INC .6584 V1 29.418
RP 108.51 LAP .64 LOP 245.48 VP 37.134 GAP 13.44 AZP 90.13 TAL 153.59 TAP 75.38 RCA 91.59 APO 157.11 V2 34.925
RC 157.587 GL -3.06 GP 13.35 ZAL 39.60 ZAP 164.63 ETS 56.19 ZAE 122.65 ETE 171.69 ZAC 115.49 ETC 261.93 CLP-172.31

PLANETOCENTRIC CONIC

C3 31.099 VHL 5.577 DLA -25.73 RAL 285.76 RAD 6568.2 VEL 12.348 PTH 2.23 VHP 8.728 DPA -9.05 RAP 254.21 ECC 1.5118

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 56 54	1350.09	6.56	351.49	156.85	117.61	13 19 24	750.1	10.21	344.71
90.00	16 29 0	651.59	24.63	308.41	164.02	104.42	16 39 52	51.6	26.38	300.18
100.00	13 52 28	1170.66	4.12	336.98	155.52	119.63	14 11 59	570.7	8.03	330.38
100.00	18 16 7	5594.30	27.34	261.63	164.74	102.59	19 49 22	4994.3	28.80	253.13
110.00	14 13 48	1103.73	-.95	328.75	152.36	124.17	14 32 12	503.7	3.54	322.54
110.00	20 11 17	5233.99	33.21	235.54	166.02	98.61	21 38 31	4634.0	34.04	226.40

DIFFERENTIAL CORRECTIONS
TDE .3838 TRA 4.9214 TC3-2.3436 BAU .9747
RDE .3496 RRA -.4140 RC3 .0634 FAU .01593
FDE .3233 FRA 2.0740 FC3 -.4434 BSP 20498
BDE .5192 BRA 4.9388 BC3 2.3445 FSP -751

MID-COURSE EXECUTION ACCURACY
SGT 6204.1 SGR 597.5 SG3 210.7
RRT -.7266 RRF -.7084 RTF .9714
SG8 6232.8 R23 -.0006 R13 -.9714
SG1 6219.4 SG2 409.5 THA 175.98

ORBIT DETERMINATION ACCURACY
ST 1731.2 SR 386.2 SS 590.9
CRT -.1451 CRS -.0621 CST -.9782
LSA 1826.2 MSA 400.1 SSA 13.7
EL1 1732.1 EL2 381.9 ALF 178.05

LAUNCH DATE AUG 17 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 594.063

RL 151.46 LAL .00 LOL 323.68 VL 26.146 GAL 9.42 AZL 90.47 HCA 284.97 SMA 124.16 ECC .27167 INC .4746 V1 29.418
RP 108.54 LAP .46 LOP 248.66 VP 37.101 GAP 14.05 AZP 90.12 TAL 152.39 TAP 77.36 RCA 90.43 APO 157.89 V2 34.913
RC 159.692 GL -2.09 GP 12.94 ZAL 38.24 ZAP 165.49 ETS 59.11 ZAE 122.44 ETE 171.95 ZAC 115.24 ETC 262.44 CLP-173.38

PLANETOCENTRIC CONIC

C3 34.383 VHL 5.864 DLA -24.62 RAL 287.08 RAD 6568.4 VEL 12.480 PTH 2.26 VHP 9.085 DPA -9.79 RAP 256.21 ECC 1.5659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 41 35	1445.92	3.51	356.88	158.80	118.12	13 5 40	845.9	7.24	350.19
90.00	16 54 52	606.34	25.37	305.30	167.20	103.03	17 4 58	6.3	26.91	296.97
100.00	13 41 23	1252.86	1.34	341.50	157.60	119.87	14 2 16	652.9	5.31	334.95
100.00	18 37 45	5562.68	27.79	259.39	167.79	101.49	20 10 28	4962.7	29.09	250.83
110.00	14 8 2	1169.24	-3.46	332.17	154.61	124.03	14 27 31	569.2	1.03	325.97
110.00	20 27 35	5219.06	33.36	234.40	168.90	97.95	21 54 34	4619.1	34.09	225.24

DIFFERENTIAL CORRECTIONS
TDE .5292 TRA 5.2827 TC3-2.1074 BAU .9690
RDE .3591 RRA -.4265 RC3 .0538 FAU .01402
FDE .3572 FRA 2.1038 FC3 -.3529 BSP 20705
BDE .6395 BRA 5.2999 BC3 2.1081 FSP -721

MID-COURSE EXECUTION ACCURACY
SGT 6214.1 SGR 580.7 SG3 200.9
RRT -.7142 RRF -.6963 RTF .9719
SG8 6241.1 R23 -.0011 R13 -.9719
SG1 6228.0 SG2 405.5 THA 176.17

ORBIT DETERMINATION ACCURACY
ST 1781.7 SR 376.8 SS 598.9
CRT -.0789 CRS -.1014 CST -.9835
LSA 1877.0 MSA 389.7 SSA 13.4
EL1 1782.0 EL2 375.6 ALF 179.00

LAUNCH DATE AUG 17 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 599.204

RL 151.46 LAL .00 LOL 323.68 VL 26.115 GAL 10.16 AZL 90.29 HCA 288.15 SMA 123.97 ECC .28064 INC .2852 V1 29.418
RP 108.58 LAP .27 LOP 251.83 VP 37.068 GAP 14.69 AZP 90.09 TAL 151.21 TAP 79.36 RCA 89.18 APO 158.76 V2 34.901
RC 161.784 GL -1.19 GP 12.57 ZAL 36.96 ZAP 166.27 ETS 62.43 ZAE 122.22 ETE 172.20 ZAC 115.00 ETC 262.96 CLP-174.44

PLANETOCENTRIC CONIC

C3 38.148 VHL 6.176 DLA -23.57 RAL 288.32 RAD 6568.5 VEL 12.630 PTH 2.29 VHP 9.468 DPA -10.47 RAP 258.23 ECC 1.6278

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 29 50	1530.30	.79	1.60	160.92	118.31	12 55 20	930.3	4.57	354.95
90.00	17 16 29	5862.51	25.84	280.99	170.27	102.01	18 54 12	5262.5	27.23	272.60
100.00	13 32 27	1328.19	-1.21	345.63	159.81	119.87	13 54 35	728.2	2.77	339.11
100.00	18 56 33	5539.86	28.08	257.76	170.78	100.68	20 28 53	4939.9	29.27	249.16
110.00	14 3 11	1231.82	-5.83	335.46	156.94	123.74	14 23 43	631.8	-1.36	329.23
110.00	20 42 19	5209.00	33.45	233.63	171.78	97.50	22 9 8	4609.0	34.12	224.45

DIFFERENTIAL CORRECTIONS
TDE .6795 TRA 5.6661 TC3-1.8797 BAU .9589
RDE .3689 RRA -.4390 RC3 .0450 FAU .01215
FDE .3886 FRA 2.1357 FC3 -.2756 BSP 20884
BDE .7732 BRA 5.6831 BC3 1.8803 FSP -691

MID-COURSE EXECUTION ACCURACY
SGT 6219.0 SGR 563.6 SG3 191.6
RRT -.7023 RRF -.6849 RTF .9726
SG8 6244.5 R23 -.0014 R13 -.9726
SG1 6231.6 SG2 400.4 THA 176.34

ORBIT DETERMINATION ACCURACY
ST 1833.6 SR 367.3 SS 607.0
CRT -.0204 CRS -.1354 CST -.9876
LSA 1929.3 MSA 378.1 SSA 13.0
EL1 1833.6 EL2 367.2 ALF 179.76

LAUNCH DATE AUG 17 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 604.223
RL 151.46 LAL .00 LOL 323.68 VL 26.084 GAL 10.96 AZL 90.09 HCA 291.33 SMA 123.78 ECC .29043 INC .0885 V1 29.418
RP 108.61 LAP .08 LOP 255.01 VP 37.035 GAP 15.39 AZP 90.03 TAL 150.06 TAP 81.38 RCA 87.83 APO 159.73 V2 34.890
RC 163.865 GL -.35 GP 12.23 ZAL 35.76 ZAP 166.98 ETS 66.18 ZAE 121.99 ETE 172.42 ZAC 114.78 ETC 263.48 CLP-175.51
PLANETOCENTRIC CONIC
C3 42.476 VHL 6.517 DLA -22.59 RAL 289.47 RAD 6568.6 VEL 12.800 PTH 2.33 VHP 9.883 DPA -11.09 RAP 260.26 ECC 1.6991

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 20 23	1607.20	-1.69	5.88	163.16	118.27	12 47 11	1007.2	2.10	359.26
90.00	17 35 10	5839.87	26.15	279.41	173.28	101.28	19 12 30	5239.9	27.44	270.98
100.00	13 25 3	1398.50	-3.59	349.49	162.11	119.70	13 48 22	798.5	.39	342.97
100.00	19 13 11	5523.82	28.28	256.61	173.73	100.11	20 45 15	4923.8	29.39	247.98
110.00	13 59 2	1291.95	-8.09	338.65	159.34	123.32	14 20 34	692.0	-3.65	332.37
110.00	20 55 41	5203.13	33.50	233.18	174.66	97.24	22 22 25	4603.1	34.14	223.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE .8352 TRA 6.0735 TC3-1.6625 BAU .9443 SGT 6219.2 SGR 546.0 SG3 182.9 ST 1885.0 SR 357.4 SS 615.4
RDE .3792 RRA -.4514 RC3 .0370 FAU .01032 RRT -.6906 RRF -.6739 RTF .9734 CRT .0312 CRS -.1652 CST -.9907
FDE .4179 FRA 2.1702 FC3 -.2104 BSP 21041 SGB 6243.1 R23 -.0015 R13 -.9734 LSA 1981.4 MSA 365.6 SSA 12.6
BDE .9173 BRA 6.0902 BC3 1.6629 FSP -663 SG1 6230.6 SG2 394.2 THA 176.52 EL1 1885.1 EL2 357.2 ALF .35

LAUNCH DATE AUG 17 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 609.101
RL 151.46 LAL .00 LOL 323.68 VL 26.053 GAL 11.83 AZL 89.88 HCA 294.50 SMA 123.60 ECC .30114 INC .1145 V1 29.418
RP 108.65 LAP -.11 LOP 258.18 VP 37.003 GAP 16.13 AZP 89.95 TAL 148.94 TAP 83.44 RCA 86.38 APO 160.81 V2 34.880
RC 165.932 GL .43 GP 11.92 ZAL 34.64 ZAP 167.61 ETS 70.39 ZAE 121.74 ETE 172.63 ZAC 114.57 ETC 264.01 CLP-176.58
PLANETOCENTRIC CONIC
C3 47.465 VHL 6.889 DLA -21.67 RAL 290.55 RAD 6568.8 VEL 12.993 PTH 2.37 VHP 10.332 DPA -11.65 RAP 262.31 ECC 1.7812

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 12 35	1678.69	-3.99	9.88	165.49	118.06	12 40 32	1078.7	-.21	3.24
90.00	17 51 36	5824.21	26.35	278.30	176.23	100.76	19 28 40	5224.2	27.57	269.85
100.00	13 18 48	1464.89	-5.82	353.16	164.49	119.37	13 43 12	864.9	-1.86	346.61
100.00	19 28 3	5513.24	28.41	255.84	176.65	99.73	20 59 56	4913.2	29.46	247.20
110.00	13 55 27	1349.98	-10.25	341.76	161.79	122.79	14 17 57	750.0	-5.86	335.42
110.00	21 7 52	5200.92	33.52	233.01	177.53	97.14	22 34 33	4600.9	34.14	223.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE .9988 TRA 6.5090 TC3-1.4548 BAU .9234 SGT 6215.7 SGR 527.8 SG3 174.7 ST 1935.7 SR 347.2 SS 624.4
RDE .3897 RRA -.4633 RC3 .0297 FAU .00852 RRT -.6790 RRF -.6631 RTF .9745 CRT .0771 CRS -.1917 CST -.9931
FDE .4463 FRA 2.2083 FC3 -.1553 BSP 21142 SGB 6238.1 R23 -.0015 R13 -.9745 LSA 2033.0 MSA 352.5 SSA 12.3
BDE 1.0721 BRA 6.5254 BC3 1.4551 FSP -634 SG1 6226.1 SG2 386.9 THA 176.69 EL1 1935.9 EL2 346.1 ALF .82

LAUNCH DATE AUG 17 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 613.812
RL 151.46 LAL .00 LOL 323.68 VL 26.022 GAL 12.76 AZL 89.67 HCA 297.67 SMA 123.41 ECC .31289 INC .3305 V1 29.418
RP 108.68 LAP -.29 LOP 261.36 VP 36.972 GAP 16.94 AZP 89.85 TAL 147.86 TAP 85.53 RCA 84.80 APO 162.03 V2 34.869
RC 167.985 GL 1.15 GP 11.63 ZAL 33.61 ZAP 168.14 ETS 75.10 ZAE 121.48 ETE 172.82 ZAC 114.37 ETC 264.54 CLP-177.66
PLANETOCENTRIC CONIC
C3 53.235 VHL 7.296 DLA -20.80 RAL 291.55 RAD 6568.9 VEL 13.213 PTH 2.41 VHP 10.820 DPA -12.15 RAP 264.37 ECC 1.8761

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 5 53	1745.94	-6.13	13.66	167.89	117.70	12 34 59	1145.9	-2.38	7.00
90.00	18 6 14	5814.12	26.48	277.59	179.14	100.43	19 43 8	5214.1	27.65	269.12
100.00	13 13 24	1528.07	-7.92	356.68	166.92	118.92	13 38 52	928.1	-4.00	350.08
100.00	19 41 24	5507.22	28.47	255.41	179.54	99.51	21 13 11	4907.2	29.49	246.76
110.00	13 52 18	1406.13	-12.30	344.81	164.29	122.15	14 15 44	806.1	-7.97	338.40
110.00	21 18 59	5201.93	33.51	233.09	180.40	97.18	22 45 41	4601.9	34.14	223.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 1.1715 TRA 6.9762 TC3-1.2573 BAU .8950 SGT 6209.3 SGR 508.9 SG3 167.1 ST 1985.0 SR 336.5 SS 634.4
RDE .4005 RRA -.4746 RC3 .0230 FAU .00669 RRT -.6673 RRF -.6524 RTF .9757 CRT .1183 CRS -.2158 CST -.9949
FDE .4743 FRA 2.2510 FC3 -.1089 BSP 21169 SGB 6230.1 R23 -.0014 R13 -.9757 LSA 2083.5 MSA 339.0 SSA 11.9
BDE 1.2381 BRA 6.9923 BC3 1.2575 FSP -604 SG1 6218.6 SG2 378.5 THA 176.86 EL1 1985.4 EL2 334.0 ALF 1.18

LAUNCH DATE AUG 17 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 618.325
RL 151.46 LAL .00 LOL 323.68 VL 25.992 GAL 13.77 AZL 89.44 HCA 300.84 SMA 123.23 ECC .32581 INC .5586 V1 29.418
RP 108.71 LAP -.48 LOP 264.53 VP 36.942 GAP 17.81 AZP 89.71 TAL 146.82 TAP 87.66 RCA 83.08 APO 163.39 V2 34.859
RC 170.025 GL 1.82 GP 11.37 ZAL 32.67 ZAP 168.57 ETS 80.31 ZAE 121.19 ETE 173.00 ZAC 114.17 ETC 265.07 CLP-178.76
PLANETOCENTRIC CONIC
C3 59.938 VHL 7.742 DLA -19.99 RAL 292.47 RAD 6569.1 VEL 13.465 PTH 2.46 VHP 11.352 DPA -12.60 RAP 266.41 ECC 1.9864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 0 8	1809.69	-8.13	17.28	170.32	117.22	12 30 17	1209.7	-4.42	10.56
90.00	18 19 18	5808.63	26.54	277.20	182.01	100.24	19 56 7	5208.6	27.69	268.72
100.00	13 8 41	1588.47	-9.89	.08	169.39	118.35	13 35 9	988.5	-6.02	353.42
100.00	19 53 26	5505.09	28.50	255.26	182.39	99.43	21 25 12	4905.1	29.51	246.60
110.00	13 49 30	1460.53	-14.25	347.82	166.82	121.40	14 13 51	860.5	-9.99	341.31
110.00	21 29 6	5205.78	33.48	233.38	183.25	97.36	22 55 52	4605.8	34.13	224.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 1.3554 TRA 7.4792 TC3-1.0700 BAU .8575 SGT 6200.4 SGR 489.1 SG3 160.0 ST 2032.5 SR 325.4 SS 645.7
RDE .4115 RRA -.4849 RC3 .0169 FAU .00483 RRT -.6552 RRF -.6415 RTF .9770 CRT .1558 CRS -.2382 CST -.9963
FDE .5025 FRA 2.2990 FC3 -.0698 BSP 21102 SGB 6219.6 R23 -.0012 R13 -.9770 LSA 2132.6 MSA 325.1 SSA 11.5
BDE 1.4164 BRA 7.4949 BC3 1.0701 FSP -574 SG1 6208.7 SG2 369.0 THA 177.03 EL1 2033.1 EL2 321.3 ALF 1.47

LAUNCH DATE AUG 18 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 27 1970

HELIOCENTRIC CONIC DISTANCE 154.061

RL	151.43	LAL	.00	LOL	324.65	VL	21.439	GAL	4.02	AZL	93.09	HCA	59.95	SMA	102.62	ECC	.47956	INC	3.0855	V1	29.423
RP	108.42	LAP	-2.67	LOP	24.56	VP	33.986	GAP	-28.49	AZP	91.55	TAL	175.62	TAP	235.57	RCA	53.41	APO	151.83	V2	34.954
RC	44.918	GL	-7.92	GP	-6.45	ZAL	77.30	ZAP	18.93	ETS	157.95	ZAE	167.58	ETE	170.56	ZAC	91.94	ETC	257.39	CLP	17.84

PLANETOCENTRIC CONIC

C3	69.761	VHL	8.352	DLA	-29.37	RAL	244.18	RAD	6569.3	VEL	13.824	PTH	2.52	VHP	16.897	DPA	-19.78	RAP	218.16	ECC	2.1481		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.87	10 46 14	1417.87	11.52	359.06	132.93	117.20	11 9 52	817.9	15.07	352.11
98.13	13 0 6	985.32	11.54	327.32	132.94	117.19	13 16 32	385.3	15.09	320.37
100.00	12 27 29	1089.88	6.82	332.50	130.38	119.17	12 45 39	489.9	10.66	325.82
100.00	14 1 33	788.54	16.31	315.17	135.37	115.40	14 14 41	188.5	19.60	307.92
110.00	12 6 56	1154.62	-2.90	331.41	124.41	124.07	12 26 10	554.6	1.59	325.20
110.00	16 38 35	5584.61	26.76	260.70	140.30	112.11	18 11 40	4984.6	29.51	252.59

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1935	TRA	-.9957	TC3	-.0644	BAU	.0608	SGT	802.2	SGR	444.8	SG3	44.4	ST	270.0	SR	444.1	SS	216.2
RDE	-.6474	RRA	-.0236	RC3	.0099	FAU	.01650	RRT	-.1293	RRF	.1336	RTF	-.6477	CRT	-.4805	CRS	-.6457	CST	.9763
FDE	-.1414	FRA	.4717	FC3	-.2047	BSP	2073	SGB	917.2	R23	-.0141	R13	.6495	LSA	500.8	MSA	256.8	SSA	14.1
BDE	.6757	BRA	.9960	BC3	.0652	FSP	-94	SG1	805.1	SG2	439.4	THA	174.15	EL1	468.9	EL2	224.3	ALF	111.41

LAUNCH DATE AUG 18 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 160.506

RL	151.43	LAL	.00	LOL	324.65	VL	21.917	GAL	3.79	AZL	92.86	HCA	63.14	SMA	104.30	ECC	.45573	INC	2.8583	V1	29.423
RP	108.38	LAP	-2.55	LOP	27.76	VP	34.303	GAP	-27.03	AZP	91.29	TAL	175.45	TAP	238.59	RCA	56.76	APO	151.83	V2	34.967
RC	43.790	GL	-7.97	GP	-6.72	ZAL	76.88	ZAP	17.52	ETS	155.23	ZAE	169.76	ETE	171.46	ZAC	91.94	ETC	257.57	CLP	16.22

PLANETOCENTRIC CONIC

C3	61.814	VHL	7.862	DLA	-29.49	RAL	244.65	RAD	6569.2	VEL	13.534	PTH	2.47	VHP	16.103	DPA	-20.59	RAP	219.62	ECC	2.0173		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.40	10 44 23	1400.77	12.46	358.29	131.62	116.95	11 7 44	800.8	15.98	351.29
98.60	13 5 40	944.48	12.48	324.79	131.63	116.94	13 21 24	344.5	15.99	317.79
100.00	12 35 12	1041.99	8.40	329.82	129.44	118.79	12 52 34	442.0	12.18	323.07
100.00	13 57 31	778.50	16.60	314.57	133.72	115.22	14 10 30	178.5	19.86	307.29
110.00	12 10 29	1119.87	-1.57	329.59	123.34	124.15	12 29 9	519.9	2.92	323.39
110.00	16 38 44	5561.42	27.34	259.15	138.69	111.37	18 11 25	4961.4	29.99	250.96

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1876	TRA	-.9862	TC3	-.0597	BAU	.0497	SGT	842.1	SGR	449.3	SG3	48.7	ST	282.9	SR	449.0	SS	224.4
RDE	-.6162	RRA	-.0139	RC3	.0075	FAU	.01704	RRT	-.1399	RRF	.1486	RTF	-.6652	CRT	-.4765	CRS	-.6410	CST	.9767
FDE	-.1432	FRA	.4875	FC3	-.2386	BSP	2108	SGB	954.5	R23	-.0201	R13	.6673	LSA	510.4	MSA	267.0	SSA	14.5
BDE	.6441	BRA	.9863	BC3	.0602	FSP	-104	SG1	845.4	SG2	443.2	THA	174.11	EL1	476.1	EL2	234.6	ALF	112.44

LAUNCH DATE AUG 18 1970 FLIGHT TIME 74.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 167.002

RL	151.43	LAL	.00	LOL	324.65	VL	22.361	GAL	3.55	AZL	92.64	HCA	66.33	SMA	105.93	ECC	.43310	INC	2.6433	V1	29.423
RP	108.34	LAP	-2.42	LOP	30.95	VP	34.601	GAP	-25.63	AZP	91.06	TAL	175.33	TAP	241.66	RCA	60.05	APO	151.81	V2	34.980
RC	42.797	GL	-7.99	GP	-7.01	ZAL	76.57	ZAP	16.17	ETS	151.98	ZAE	172.09	ETE	173.24	ZAC	91.91	ETC	257.76	CLP	14.61

PLANETOCENTRIC CONIC

C3	54.807	VHL	7.403	DLA	-29.56	RAL	245.00	RAD	6569.0	VEL	13.273	PTH	2.43	VHP	15.342	DPA	-21.42	RAP	221.08	ECC	1.9020		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.13	10 43 44	1377.96	13.40	357.08	130.16	116.60	11 6 42	778.0	16.86	350.03
98.87	13 9 9	908.44	13.41	322.60	130.17	116.60	13 24 17	308.4	16.87	315.55
100.00	12 40 32	999.98	9.77	327.46	128.23	118.39	12 57 12	400.0	13.49	320.64
100.00	13 55 2	761.66	17.09	313.55	132.01	114.90	14 7 43	161.7	20.31	306.23
110.00	12 12 56	1086.99	-.31	327.88	122.10	124.18	12 31 3	487.0	4.17	321.67
110.00	16 39 7	5535.45	27.97	257.39	136.93	110.50	18 11 23	4935.5	30.50	249.11

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1894	TRA	-.9695	TC3	-.0475	BAU	.0349	SGT	877.8	SGR	453.5	SG3	53.5	ST	297.4	SR	453.4	SS	232.9
RDE	-.5858	RRA	-.0049	RC3	.0040	FAU	.01768	RRT	-.1586	RRF	.1665	RTF	-.6864	CRT	-.4904	CRS	-.6399	CST	.9801
FDE	-.1458	FRA	.5025	FC3	-.2793	BSP	2314	SGB	988.0	R23	-.0200	R13	.6886	LSA	522.4	MSA	274.2	SSA	14.7
BDE	.6157	BRA	.9695	BC3	.0476	FSP	-118	SG1	881.7	SG2	445.7	THA	173.70	EL1	485.1	EL2	242.3	ALF	114.24

LAUNCH DATE AUG 18 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 173.545

RL	151.43	LAL	.00	LOL	324.65	VL	22.772	GAL	3.30	AZL	92.44	HCA	69.52	SMA	107.52	ECC	.41167	INC	2.4384	V1	29.423
RP	108.29	LAP	-2.28	LOP	34.15	VP	34.881	GAP	-24.31	AZP	90.85	TAL	175.26	TAP	244.78	RCA	63.26	APO	151.79	V2	34.993
RC	41.950	GL	-7.97	GP	-7.34	ZAL	76.35	ZAP	14.89	ETS	148.06	ZAE	174.55	ETE	177.18	ZAC	91.84	ETC	257.96	CLP	12.99

PLANETOCENTRIC CONIC

C3	48.629	VHL	6.973	DLA	-29.58	RAL	245.25	RAD	6568.8	VEL	13.038	PTH	2.38	VHP	14.613	DPA	-22.27	RAP	222.55	ECC	1.8003		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.07	10 44 12	1349.90	14.30	355.47	128.54	116.17	11 6 42	749.9	17.70	348.35
98.93	13 10 39	877.08	14.32	320.74	128.55	116.16	13 25 16	277.1	17.72	313.62
100.00	12 42 32	967.00	10.83	325.58	126.73	118.03	12 58 39	367.0	14.50	318.71
100.00	13 54 59	735.22	17.84	311.95	130.28	114.39	14 7 15	135.2	20.98	304.56
110.00	12 14 10	1056.44	.85	326.29	120.69	124.17	12 31 46	456.4	5.33	320.06
110.00	16 39 51	5506.59	28.64	255.41	135.01	109.51	18 11 38	4906.6	31.03	247.02

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1905	TRA	-.9539	TC3	-.0323	BAU	.0210	SGT	915.8	SGR	457.2	SG3	58.8	ST	312.4	SR	457.1	SS	241.7
RDE	-.5564	RRA	.0036	RC3	-.0009	FAU	.01839	RRT	-.1780	RRF	.1864	RTF	-.7056	CRT	-.5029	CRS	-.6390	CST	.9830
FDE	-.1485	FRA	.5182	FC3	-.3274	BSP	2484	SGB	1023.6	R23	-.0216	R13	.7079	LSA	534.6	MSA	281.0	SSA	15.0
BDE	.5881	BRA	.9539	BC3	.0324	FSP	-132	SG1	920.6	SG2	447.5	THA	173.34	EL1	494.1	EL2	249.8	ALF	116.10

LAUNCH DATE AUG 18 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 180.131

RL	151.43	LAL	.00	LOL	324.65	VL	23.153	GAL	3.04	AZL	92.24	HCA	72.72	SMA	109.07	ECC	.39141	INC	2.2418
RP	108.25	LAP	-2.14	LOP	37.35	VP	35.144	GAP	-23.04	AZP	90.67	TAL	175.25	TAP	247.97	RCA	66.38	APO	151.76
RC	41.257	GL	-7.91	GP	-7.69	ZAL	76.24	ZAP	13.70	ETS	143.33	ZAE	177.05	ETE	189.18	ZAC	91.73	ETC	258.17

V1	29.423	V2	35.007	CLP	11.37														

PLANETOCENTRIC CONIC

C3	43.182	VHL	6.571	DLA	-29.54	RAL	245.38	RAD	6568.6	VEL	12.828	PTH	2.34	VHP	13.913	DPA	-23.14	RAP	224.01
ECC	1.7107																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.22	10 45 57	1316.21	15.17	353.41	126.78	115.65	11 7 53	716.2	18.50	346.22
98.78	13 9 58	851.14	15.18	319.25	126.79	115.64	13 24 9	251.1	18.51	312.07
100.00	12 40 39	944.98	11.53	324.33	124.90	117.77	12 56 24	345.0	15.16	317.41
100.00	13 57 57	697.60	18.88	309.64	128.56	113.61	14 9 35	97.6	21.91	302.16
110.00	12 14 6	1028.67	1.92	324.84	119.11	124.14	12 31 14	428.7	6.38	318.60
110.00	16 41 0	5474.71	29.35	253.20	132.95	108.37	18 12 15	4874.7	31.57	244.70

DIFFERENTIAL CORRECTIONS

TDE	.1911	TRA	-.9387	TC3	-.0129	BAU	.0086
RDE	-.5279	RRA	.0115	RC3	-.0075	FAU	.01917
FDE	-.1510	FRA	.5341	FC3	-.3843	BSP	2641
BDE	.5614	BRA	.9387	BC3	.0149	FSP	-148

MID-COURSE EXECUTION ACCURACY

SGT	955.5	SGR	460.5	SG3	64.6		
RRT	-.1986	RRF	.2084	RTF	-.7236		
SGB	1060.7	R23	-.0245	R13	.7262		
SG1	961.1	SG2	448.7	THA	173.00		

ORBIT DETERMINATION ACCURACY

ST	327.7	SR	460.3	SS	250.3		
CRT	-.5149	CRS	-.6383	CST	.9855		
LSA	546.9	MSA	287.3	SSA	15.3		
EL1	503.2	EL2	257.0	ALF	118.04		

LAUNCH DATE AUG 18 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 186.754

RL	151.43	LAL	.00	LOL	324.65	VL	23.506	GAL	2.78	AZL	92.05	HCA	75.91	SMA	110.56	ECC	.37232	INC	2.0517
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.391	GAP	-21.83	AZP	90.50	TAL	175.30	TAP	251.21	RCA	69.40	APO	151.73
RC	40.727	GL	-7.80	GP	-8.09	ZAL	76.24	ZAP	12.63	ETS	137.61	ZAE	178.69	ETE	257.49	ZAC	91.57	ETC	258.39

V1	29.423	V2	35.020	CLP	9.74		

PLANETOCENTRIC CONIC

C3	38.380	VHL	6.195	DLA	-29.43	RAL	245.41	RAD	6568.5	VEL	12.639	PTH	2.29	VHP	13.241	DPA	-24.03	RAP	225.47
ECC	1.6316																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.64	10 49 18	1276.03	15.98	350.83	124.88	115.04	11 10 34	676.0	19.22	343.58
98.36	13 6 49	831.81	16.00	318.22	124.88	115.03	13 20 40	231.8	19.24	310.97
100.00	12 35 7	933.35	11.90	323.66	122.80	117.62	12 50 40	333.3	15.51	316.72
100.00	14 3 41	649.72	20.16	306.66	126.81	112.55	14 14 31	49.7	23.04	299.05
110.00	12 12 38	1004.15	2.85	323.56	117.36	124.08	12 29 22	404.1	7.31	317.30
110.00	16 42 39	5439.72	30.07	250.73	130.75	107.07	18 13 18	4839.7	32.11	242.11

DIFFERENTIAL CORRECTIONS

TDE	.1921	TRA	-.9231	TC3	.0118	BAU	.0103
RDE	-.5003	RRA	.0191	RC3	-.0163	FAU	.02003
FDE	-.1535	FRA	.5508	FC3	-.4519	BSP	2804
BDE	.5359	BRA	.9233	BC3	.0201	FSP	-166

MID-COURSE EXECUTION ACCURACY

SGT	996.3	SGR	463.6	SG3	71.0		
RRT	-.2216	RRF	.2331	RTF	-.7408		
SGB	1098.9	R23	-.0277	R13	.7436		
SG1	1002.9	SG2	449.0	THA	172.63		

ORBIT DETERMINATION ACCURACY

ST	343.6	SR	462.7	SS	258.9		
CRT	-.5283	CRS	-.6374	CST	.9880		
LSA	559.7	MSA	292.6	SSA	15.5		
EL1	512.7	EL2	263.3	ALF	120.12		

LAUNCH DATE AUG 18 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 193.409

RL	151.43	LAL	.00	LOL	324.65	VL	23.832	GAL	2.51	AZL	91.87	HCA	79.11	SMA	112.00	ECC	.35436	INC	1.8668
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.621	GAP	-20.67	AZP	90.35	TAL	175.40	TAP	254.52	RCA	72.31	APO	151.69
RC	40.367	GL	-7.63	GP	-8.52	ZAL	76.34	ZAP	11.73	ETS	130.74	ZAE	176.76	ETE	317.93	ZAC	91.37	ETC	258.61

V1	29.423	V2	35.033	CLP	8.10		

PLANETOCENTRIC CONIC

C3	34.149	VHL	5.844	DLA	-29.24	RAL	245.32	RAD	6568.3	VEL	12.471	PTH	2.26	VHP	12.597	DPA	-24.95	RAP	226.92
ECC	1.5620																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.39	10 54 50	1227.60	16.72	347.61	122.84	114.34	11 15 18	627.6	19.87	340.28
97.61	13 0 34	821.22	16.74	317.80	122.85	114.33	13 14 15	221.2	19.88	310.46
100.00	12 26 38	930.04	12.01	323.47	120.47	117.58	12 42 8	330.0	15.61	316.53
100.00	14 11 27	5882.05	21.57	281.03	124.99	111.21	15 49 29	5282.1	24.26	273.27
110.00	12 9 43	983.33	3.65	322.47	115.45	124.01	12 26 6	383.3	8.09	316.19
110.00	16 44 51	5401.53	30.81	248.00	128.41	105.61	18 14 53	4801.5	32.64	239.26

DIFFERENTIAL CORRECTIONS

TDE	.1935	TRA	-.9071	TC3	.0429	BAU	.0233
RDE	-.4737	RRA	.0262	RC3	-.0279	FAU	.02100
FDE	-.1557	FRA	.5678	FC3	-.5324	BSP	2967
BDE	.5117	BRA	.9075	BC3	.0511	FSP	-185

MID-COURSE EXECUTION ACCURACY

SGT	1038.0	SGR	466.5	SG3	78.1		
RRT	-.2474	RRF	.2607	RTF	-.7570		
SGB	1138.0	R23	-.0314	R13	.7601		
SG1	1045.8	SG2	448.6	THA	172.21		

ORBIT DETERMINATION ACCURACY

ST	359.9	SR	464.5	SS	267.3		
CRT	-.5434	CRS	-.6367	CST	.9905		
LSA	573.0	MSA	296.8	SSA	15.9		
EL1	522.7	EL2	268.5	ALF	122.30		

LAUNCH DATE AUG 18 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 200.092

RL	151.43	LAL	.00	LOL	324.65	VL	24.133	GAL	2.25	AZL	91.69	HCA	82.32	SMA	113.39	ECC	.33752	INC	1.6856
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.837	GAP	-19.55	AZP	90.23	TAL	175.57	TAP	257.88	RCA	75.12	APO	151.66
RC	40.182	GL	-7.39	GP	-9.00	ZAL	76.55	ZAP	11.05	ETS	122.68	ZAE	173.99	ETE	328.58	ZAC	91.11	ETC	258.84

V1	29.423	V2	35.046	CLP	6.44		

PLANETOCENTRIC CONIC

C3	30.423	VHL	5.516	DLA	-28.97	RAL	245.12	RAD	6568.2	VEL	12.321	PTH	2.22	VHP	11.980	DPA	-25.89	RAP	228.36
ECC	1.5007																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.62	11 3 53	1166.86	17.38	343.43	120.68	113.55	11 23 19	566.9	20.41	336.03
96.38	12 49 56	823.79	17.39	318.29	120.68	113.54	13 3 39	223.8	20.43	310.88
100.00	12 15 55	933.15	11.91	323.65	117.97	117.62	12 31 28	333.1	15.51	316.71
100.00	14 20 34	5820.78	23.03	277.06	123.06	109.60	15 57 35	5220.8	25.49	269.13
110.00	12 5 16	966.63	4.28	321.59	113.39	123.95	12 21 23	366.6	8.71	315.30
110.00	16 47 42	5360.07	31.53	244.98	125.94	103.96	18 17 2	4760.1	33.12	236.12

DIFFERENTIAL CORRECTIONS

TDE	.1949	TRA	-.8911	TC3	.0807	BAU	.0371
RDE	-.4482	RRA	.0332	RC3	-.0428	FAU	.02207
FDE	-.1577	FRA	.5859	FC3	-.6279	BSP	3132
BDE	.4887	BRA	.8917	BC3	.0913	FSP	-208

MID-COURSE EXECUTION ACCURACY

SGT	1080.9	SGR	469.6	SG3	86.0		
RRT	-.2761	RRF	.2917	RTF	-.7723		
SGB	1178.5	R23	-.0358	R13	.7758		
SG1	1090.2	SG2	447.5	THA	171.76		

ORBIT DETERMINATION ACCURACY

ST	376.5	SR	465.7	SS	275.4		
CRT	-.5589	CRS	-.6355	CST	.9927		
LSA	586.7	MSA	300.0	SSA	16.2		
EL1	533.1	EL2	272.7	ALF	124.51		

LAUNCH DATE AUG 18 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 206.798

RL	151.43	LAL	.00	LOL	324.65	VL	24.411	GAL	1.99	AZL	91.51	HCA	85.52	SMA	114.71	ECC	.32176	INC	1.5071	VI	29.423
RP	108.09	LAP	-1.50	LOP	50.17	VP	36.037	GAP	-18.49	AZP	90.12	TAL	175.79	TAP	261.31	RCA	77.80	APO	151.62	V2	35.060
RC	40.174	GL	-7.07	GP	-9.53	ZAL	76.87	ZAP	10.64	ETS	113.54	ZAE	171.13	ETE	332.04	ZAC	90.80	ETC	259.07	CLP	4.77

PLANETOCENTRIC CONIC

C3	27.146	VHL	5.210	DLA	-28.60	RAL	244.81	RAD	6568.1	VEL	12.187	PTH	2.19	VHP	11.388	DPA	-26.88	RAP	229.77	ECC	1.4468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.78	11 20 22	1081.22	17.93	337.39	118.40	112.67	11 38 23	481.2	20.84	329.90
94.22	12 30 59	852.48	17.94	320.64	118.41	112.66	12 45 12	252.5	20.86	313.16
100.00	12 3 24	941.47	11.64	324.12	115.35	117.73	12 19 6	341.5	15.27	317.21
100.00	14 30 38	5755.50	24.45	272.73	120.98	107.75	16 6 33	5155.5	26.65	264.62
110.00	11 59 17	954.43	4.74	320.95	111.20	123.89	12 15 12	354.4	9.16	314.65
110.00	16 51 14	5315.31	32.21	241.67	123.33	102.11	18 19 50	4715.3	33.54	232.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1959	TRA	-.8741	TC3	.1268	BAU	.0512	SGT	1123.7	SGR	473.0	SG3	94.7	ST	392.8	SR	466.1	SS	283.0
RDE	-.4237	RRA	.0399	RC3	-.0618	FAU	.02325	RRT	-.3078	RRF	.3262	RTF	-.7867	CRT	-.5750	CRS	-.6336	CST	.9946
FDE	-.1591	FRA	.6044	FC3	-.7414	BSP	3296	SGB	1219.2	R23	-.0408	R13	.7906	LSA	600.1	MSA	302.1	SSA	16.5
BDE	.4667	BRA	.8750	BC3	.1411	FSP	-232	SG1	1134.8	SG2	445.6	THA	171.26	EL1	543.8	EL2	275.5	ALF	126.67

LAUNCH DATE AUG 18 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 213.523

RL	151.43	LAL	.00	LOL	324.65	VL	24.668	GAL	1.74	AZL	91.33	HCA	88.73	SMA	115.97	ECC	.30705	INC	1.3299	VI	29.423
RP	108.05	LAP	-1.33	LOP	53.38	VP	36.224	GAP	-17.46	AZP	90.03	TAL	176.07	TAP	264.80	RCA	80.36	APO	151.58	V2	35.073
RC	40.345	GL	-6.67	GP	-10.12	ZAL	77.29	ZAP	10.56	ETS	103.71	ZAE	168.25	ETE	333.42	ZAC	90.41	ETC	259.31	CLP	3.06

PLANETOCENTRIC CONIC

C3	24.266	VHL	4.926	DLA	-28.13	RAL	244.40	RAD	6568.0	VEL	12.068	PTH	2.16	VHP	10.821	DPA	-27.90	RAP	231.16	ECC	1.3994

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 25 35	1031.48	16.04	332.90	115.02	113.65	11 42 47	431.5	19.10	325.57
90.00	12 22 29	846.81	20.71	321.37	116.98	109.76	12 36 36	246.8	23.21	313.59
100.00	11 49 24	954.42	11.23	324.87	112.64	117.88	12 5 19	354.4	14.88	317.97
100.00	14 41 21	5687.15	25.79	268.10	118.75	105.66	16 16 8	5087.1	27.69	259.81
110.00	11 51 45	947.06	5.02	320.56	108.89	123.86	12 7 32	347.1	9.44	314.25
110.00	16 55 30	5267.27	32.84	238.07	120.59	100.06	18 23 17	4667.3	33.88	228.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1967	TRA	-.8566	TC3	.1821	BAU	.0653	SGT	1166.6	SGR	477.1	SG3	104.3	ST	408.9	SR	465.8	SS	289.9
RDE	-.4002	RRA	.0466	RC3	-.0859	FAU	.02457	RRT	-.3434	RRF	.3647	RTF	-.8003	CRT	-.5918	CRS	-.6304	CST	.9962
FDE	-.1596	FRA	.6241	FC3	-.8766	BSP	3463	SGB	1260.4	R23	-.0463	R13	.8047	LSA	613.3	MSA	303.0	SSA	16.9
BDE	.4459	BRA	.8579	BC3	.2013	FSP	-260	SG1	1180.0	SG2	443.0	THA	170.68	EL1	554.6	EL2	276.9	ALF	128.78

LAUNCH DATE AUG 18 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 220.262

RL	151.43	LAL	.00	LOL	324.65	VL	24.905	GAL	1.49	AZL	91.15	HCA	91.94	SMA	117.18	ECC	.29337	INC	1.1531	VI	29.423
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.398	GAP	-16.48	AZP	89.96	TAL	176.40	TAP	268.34	RCA	82.80	APO	151.55	V2	35.086
RC	40.692	GL	-6.17	GP	-10.77	ZAL	77.82	ZAP	10.85	ETS	93.80	ZAE	165.42	ETE	333.89	ZAC	89.95	ETC	259.55	CLP	1.33

PLANETOCENTRIC CONIC

C3	21.739	VHL	4.663	DLA	-27.54	RAL	243.89	RAD	6567.9	VEL	11.963	PTH	2.13	VHP	10.278	DPA	-28.96	RAP	232.51	ECC	1.3578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 53 53	1101.73	14.08	337.12	111.59	114.83	11 12 15	501.7	17.31	329.94
90.00	12 50 9	723.02	23.34	313.24	115.27	106.51	13 2 12	123.0	25.38	305.17
100.00	11 34 6	971.75	10.68	325.85	109.86	118.09	11 50 18	371.8	14.35	318.99
100.00	14 52 37	5616.28	27.00	263.18	116.35	103.34	16 26 13	5016.3	28.57	254.73
110.00	11 42 41	944.82	5.11	320.45	106.49	123.85	11 58 26	344.8	9.52	314.13
110.00	17 0 32	5215.97	33.38	234.16	117.73	97.81	18 27 28	4616.0	34.10	225.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1965	TRA	-.8406	TC3	.2466	BAU	.0792	SGT	1211.7	SGR	482.3	SG3	115.1	ST	424.9	SR	464.6	SS	295.8
RDE	-.3776	RRA	.0535	RC3	-.1161	FAU	.02604	RRT	-.3823	RRF	.4073	RTF	-.8130	CRT	-.6073	CRS	-.6240	CST	.9972
FDE	-.1587	FRA	.6458	FC3	-1.0370	BSP	3633	SGB	1304.2	R23	-.0533	R13	.8179	LSA	625.6	MSA	303.6	SSA	17.3
BDE	.4257	BRA	.8423	BC3	.2726	FSP	-290	SG1	1227.8	SG2	439.8	THA	170.06	EL1	565.1	EL2	277.5	ALF	130.81

LAUNCH DATE AUG 18 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 227.012

RL	151.43	LAL	.00	LOL	324.65	VL	25.123	GAL	1.25	AZL	90.98	HCA	95.15	SMA	118.31	ECC	.28066	INC	.9755	VI	29.423
RP	107.97	LAP	-.97	LOP	59.80	VP	36.560	GAP	-15.53	AZP	89.91	TAL	176.78	TAP	271.94	RCA	85.11	APO	151.52	V2	35.098
RC	41.209	GL	-5.55	GP	-11.50	ZAL	78.46	ZAP	11.50	ETS	84.47	ZAE	162.66	ETE	333.84	ZAC	89.40	ETC	259.78	CLP	-.44

PLANETOCENTRIC CONIC

C3	19.527	VHL	4.419	DLA	-26.82	RAL	243.30	RAD	6567.8	VEL	11.870	PTH	2.11	VHP	9.759	DPA	-30.07	RAP	233.82	ECC	1.3214

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 28 57	1150.72	12.66	340.02	108.44	115.54	10 48 8	550.7	15.99	332.93
90.00	13 10 21	622.66	25.11	306.43	113.10	103.54	13 20 44	22.7	26.73	298.13
100.00	11 17 38	993.46	9.98	327.09	107.06	118.32	11 34 12	393.5	13.69	320.26
100.00	15 4 21	5543.20	28.04	258.00	113.81	100.80	16 36 44	4943.2	29.25	249.40
110.00	11 32 8	947.95	4.99	320.61	104.02	123.86	11 47 56	347.9	9.40	314.30
110.00	17 6 21	5161.47	33.81	229.97	114.76	95.36	18 32 22	4561.5	34.18	220.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1949	TRA	-.8221	TC3	.3225	BAU	.0933	SGT	1253.6	SGR	489.1	SG3	126.9	ST	438.5	SR	462.3	SS	300.0
RDE	-.3559	RRA	.0606	RC3	-.1538	FAU	.02766	RRT	-.4248	RRF	.4535	RTF	-.8251	CRT	-.6221	CRS	-.6134	CST	.9974
FDE	-.1556	FRA	.6684	FC3	-1.2265	BSP	3805	SGB	1345.7	R23	-.0604	R13	.8307	LSA	635.4	MSA	303.2	SSA	17.8
BDE	.4058	BRA	.8243	BC3	.3573	FSP	-324	SG1	1273.1	SG2	436.0	THA	169.32	EL1	574.1	EL2	276.5	ALF	132.58

LAUNCH DATE AUG 18 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 233.769

RL	151.43	LAL	.00	LOL	324.65	VL	25.323	GAL	1.02	AZL	90.80	HCA	98.37	SMA	119.39	ECC	.26890	INC	.7958	V1	29.423
RP	107.93	LAP	-.79	LOP	63.01	VP	36.710	GAP	-14.62	AZP	89.88	TAL	177.22	TAP	275.58	RCA	87.29	APO	151.49	V2	35.111
RC	41.891	GL	-4.81	GP	-12.31	ZAL	79.19	ZAP	12.51	ETS	76.18	ZAE	160.01	ETE	333.44	ZAC	88.76	ETC	260.01	CLP	-2.26

PLANETOCENTRIC CONIC

C3 17.593 VHL 4.194 DLA -25.95 RAL 242.63 RAD 6567.7 VEL 11.789 PTH 2.08 VHP 9.263 DPA -31.25 RAP 235.07 ECC 1.2895

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 5 40	1195.46	11.33	342.64	105.41	116.13	10 25 35	595.5	14.75	335.63
90.00	13 28 18	5817.05	26.44	277.80	110.68	100.52	15 5 15	5217.1	27.63	269.33
100.00	11 0 7	1019.64	9.13	328.57	104.25	118.59	11 17 6	419.6	12.88	321.78
100.00	15 16 33	5468.10	28.88	252.57	111.13	98.07	16 47 41	4868.1	29.70	243.86
110.00	11 20 11	956.67	4.66	321.07	101.52	123.90	11 36 7	356.7	9.08	314.77
110.00	17 12 58	5103.84	34.09	225.49	111.70	92.72	18 38 2	4503.8	34.09	216.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1921	TRA	-.8055	TC3	.4084	BAU	.1070	SGT	1297.5	SGR	498.5	SG3	140.2	ST	451.4	SR	458.8	SS	303.1
RDE	-.3351	RRA	.0682	RC3	-.2004	FAU	.02947	RRT	-.4707	RRF	.5040	RTF	-.8361	CRT	-.6354	CRS	-.5983	CST	.9963
FDE	-.1503	FRA	.6937	FC3	-1.4501	BSP	3965	SGB	1390.0	R23	-.0694	R13	.8426	LSA	643.5	MSA	302.8	SSA	18.3
BDE	.3862	BRA	.8083	BC3	.4549	FSP	-363	SG1	1321.2	SG2	431.9	THA	168.50	EL1	582.0	EL2	274.8	ALF	134.27

LAUNCH DATE AUG 18 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 240.529

RL	151.43	LAL	.00	LOL	324.65	VL	25.507	GAL	.80	AZL	90.61	HCA	101.58	SMA	120.40	ECC	.25805	INC	.6132	V1	29.423
RP	107.89	LAP	-.60	LOP	66.23	VP	36.849	GAP	-13.74	AZP	89.88	TAL	177.69	TAP	279.28	RCA	89.33	APO	151.47	V2	35.123
RC	42.728	GL	-3.92	GP	-13.21	ZAL	80.02	ZAP	13.83	ETS	69.13	ZAE	157.49	ETE	332.77	ZAC	88.01	ETC	260.24	CLP	-4.12

PLANETOCENTRIC CONIC

C3 15.909 VHL 3.989 DLA -24.93 RAL 241.90 RAD 6567.6 VEL 11.717 PTH 2.06 VHP 8.791 DPA -32.50 RAP 236.26 ECC 1.2618

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 42 50	1240.27	9.97	345.23	102.46	116.64	10 3 30	640.3	13.47	338.30
90.00	13 45 19	5726.03	27.41	271.31	108.07	97.41	15 20 45	5126.0	28.15	262.73
100.00	10 41 37	1050.49	8.12	330.30	101.48	118.87	10 59 7	450.5	11.91	323.56
100.00	15 29 13	5391.05	29.49	246.93	108.33	95.15	16 59 4	4791.0	29.89	238.15
110.00	11 6 54	971.17	4.11	321.83	99.01	123.97	11 23 5	371.2	8.54	315.54
110.00	17 20 25	5043.14	34.18	220.75	108.58	89.92	18 44 28	4443.1	33.79	211.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1862	TRA	-.7890	TC3	.5007	BAU	.1197	SGT	1339.1	SGR	511.0	SG3	154.7	ST	460.7	SR	453.5	SS	303.8
RDE	-.3147	RRA	.0764	RC3	-.2573	FAU	.03143	RRT	-.5175	RRF	.5570	RTF	-.8451	CRT	-.6441	CRS	-.5739	CST	.9934
FDE	-.1408	FRA	.7211	FC3	-1.7101	BSP	4096	SGB	1433.3	R23	-.0815	R13	.8527	LSA	646.7	MSA	302.9	SSA	18.9
BDE	.3656	BRA	.7927	BC3	.5629	FSP	-405	SG1	1367.8	SG2	428.0	THA	167.60	EL1	586.2	EL2	272.7	ALF	135.70

LAUNCH DATE AUG 18 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 247.289

RL	151.43	LAL	.00	LOL	324.65	VL	25.675	GAL	.59	AZL	90.43	HCA	104.80	SMA	121.35	ECC	.24806	INC	.4261	V1	29.423
RP	107.86	LAP	-.41	LOP	69.45	VP	36.977	GAP	-12.89	AZP	89.89	TAL	178.21	TAP	283.01	RCA	91.25	APO	151.45	V2	35.135
RC	43.711	GL	-2.88	GP	-14.23	ZAL	80.93	ZAP	15.43	ETS	63.29	ZAE	155.10	ETE	331.87	ZAC	87.14	ETC	260.46	CLP	-6.05

PLANETOCENTRIC CONIC

C3 14.447 VHL 3.801 DLA -23.73 RAL 241.13 RAD 6567.6 VEL 11.655 PTH 2.05 VHP 8.342 DPA -33.83 RAP 237.37 ECC 1.2378

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 1	1287.16	8.53	347.92	99.63	117.10	9 41 28	687.2	12.10	341.06
90.00	14 1 57	5635.90	28.03	264.79	105.35	94.20	15 35 53	5035.9	28.32	256.14
100.00	10 22 15	1086.23	6.94	332.30	98.77	119.15	10 40 22	486.2	10.78	325.61
100.00	15 42 23	5312.06	29.83	241.08	105.46	92.10	17 10 56	4712.1	29.80	232.28
110.00	10 52 26	991.62	3.33	322.90	96.54	124.04	11 8 57	391.6	7.78	316.63
110.00	17 28 43	4979.43	34.07	215.78	105.42	86.98	18 51 42	4379.4	33.27	206.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1750	TRA	-.7753	TC3	.5963	BAU	.1313	SGT	1380.1	SGR	527.3	SG3	170.7	ST	465.2	SR	445.6	SS	301.9
RDE	-.2942	RRA	.0856	RC3	-.3263	FAU	.03354	RRT	-.5625	RRF	.6112	RTF	-.8520	CRT	-.6430	CRS	-.5318	CST	.9876
FDE	-.1244	FRA	.7525	FC3	-2.0102	BSP	4140	SGB	1477.4	R23	-.0984	R13	.8612	LSA	642.2	MSA	305.4	SSA	19.6
BDE	.3423	BRA	.7800	BC3	.6797	FSP	-447	SG1	1414.9	SG2	425.3	THA	166.64	EL1	584.0	EL2	271.8	ALF	136.92

LAUNCH DATE AUG 18 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 254.046

RL	151.43	LAL	.00	LOL	324.65	VL	25.829	GAL	.39	AZL	90.23	HCA	108.02	SMA	122.24	ECC	.23890	INC	.2329	V1	29.423
RP	107.82	LAP	-.22	LOP	72.67	VP	37.095	GAP	-12.08	AZP	89.93	TAL	178.76	TAP	286.78	RCA	93.03	APO	151.44	V2	35.146
RC	44.829	GL	-1.66	GP	-15.36	ZAL	81.92	ZAP	17.29	ETS	58.52	ZAE	152.86	ETE	330.74	ZAC	86.13	ETC	260.66	CLP	-8.03

PLANETOCENTRIC CONIC

C3 13.183 VHL 3.631 DLA -22.34 RAL 240.32 RAD 6567.5 VEL 11.600 PTH 2.03 VHP 7.917 DPA -35.25 RAP 238.39 ECC 1.2170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 56 58	1337.34	6.96	350.77	96.92	117.52	9 19 16	737.3	10.59	343.98
90.00	14 18 34	5545.61	28.30	258.20	102.55	90.91	15 51 0	4945.6	28.13	249.54
100.00	10 2 6	1127.14	5.58	334.57	96.16	119.41	10 20 53	527.1	9.46	327.93
100.00	15 56 8	5231.04	29.88	235.06	102.55	88.93	17 23 19	4631.0	29.41	226.29
110.00	10 36 51	1018.21	2.32	324.29	94.14	124.11	10 53 49	418.2	6.78	318.04
110.00	17 37 52	4912.74	33.71	210.60	102.27	83.94	18 59 45	4312.7	32.50	201.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1727	TRA	-.7524	TC3	.7318	BAU	.1480	SGT	1415.8	SGR	551.6	SG3	188.9	ST	472.0	SR	436.5	SS	300.3
RDE	-.2748	RRA	.0955	RC3	-.4123	FAU	.03610	RRT	-.6230	RRF	.6693	RTF	-.8652	CRT	-.6657	CRS	-.4904	CST	.9737
FDE	-.1080	FRA	.7842	FC3	-2.3705	BSP	4468	SGB	1519.4	R23	-.1005	R13	.8753	LSA	641.9	MSA	301.8	SSA	20.1
BDE	.3246	BRA	.7584	BC3	.8400	FSP	-505	SG1	1460.7	SG2	418.2	THA	165.11	EL1	587.2	EL2	261.9	ALF	138.36

LAUNCH DATE AUG 18 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 260.797

RL	151.43	LAL	.00	LOL	324.65	VL	25.969	GAL	.20	AZL	90.03	HCA	111.25	SMA	123.06	ECC	.23053	INC	.0288	V1	29.423
RP	107.79	LAP	-.03	LOP	75.89	VP	37.203	GAP	-11.29	AZP	89.99	TAL	179.33	TAP	290.58	RCA	94.69	APO	151.43	V2	35.158
RC	46.073	GL	-.25	GP	-16.64	ZAL	82.97	ZAP	19.39	ETS	54.66	ZAE	150.76	ETE	329.39	ZAC	84.97	ETC	260.85	CLP	-10.10

PLANETOCENTRIC CONIC

C3	12.098	VHL	3.478	DLA	-20.74	RAL	239.51	RAD	6567.5	VEL	11.554	PTH	2.02	VHP	7.515	DPA	-36.79	RAP	239.29	ECC	1.1991

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 33 40	1391.63	5.24	353.84	94.36	117.87	8 56 52	791.6	8.93	347.10
90.00	14 35 26	5454.61	28.22	251.55	99.74	87.58	16 6 20	4854.6	27.59	242.94
100.00	9 41 16	1173.49	4.02	337.13	93.69	119.65	10 0 49	573.5	7.94	330.54
100.00	16 10 31	5147.97	29.61	228.90	99.65	85.70	17 36 19	4548.0	28.70	220.21
110.00	10 20 19	1051.10	1.06	326.01	91.85	124.17	10 37 50	451.1	5.53	319.78
110.00	17 47 58	4843.14	33.08	205.27	99.17	80.84	19 8 41	4243.1	31.46	196.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1636	TRA	-.7362	TC3	.8549	BAU	.1614	SGT	1451.9	SGR	583.0	SG3	208.7	ST	473.6	SR	423.8	SS	297.9
RDE	-.2549	RRA	.1073	RC3	-.5143	FAU	.03877	RRT	-.6745	RRF	.7250	RTF	-.8727	CRT	-.6747	CRS	-.4253	CST	.9516
FDE	-.0831	FRA	.8215	FC3	-2.7741	BSP	4625	SGB	1564.6	R23	-.1137	R13	.8848	LSA	633.0	MSA	302.5	SSA	20.8
BDE	.3029	BRA	.7440	BC3	.9977	FSP	-565	SG1	1508.7	SG2	414.2	THA	163.57	EL1	582.4	EL2	254.4	ALF	139.69

LAUNCH DATE AUG 18 1970 FLIGHT TIME 104.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 267.539

RL	151.43	LAL	.00	LOL	324.65	VL	26.097	GAL	.02	AZL	89.82	HCA	114.47	SMA	123.83	ECC	.22290	INC	.1758	V1	29.423
RP	107.76	LAP	.16	LOP	79.12	VP	37.303	GAP	-10.53	AZP	90.07	TAL	179.92	TAP	294.39	RCA	96.22	APO	151.43	V2	35.168
RC	47.431	GL	1.38	GP	-18.09	ZAL	84.07	ZAP	21.73	ETS	51.52	ZAE	148.79	ETE	327.79	ZAC	83.64	ETC	261.02	CLP	-12.25

PLANETOCENTRIC CONIC

C3	11.175	VHL	3.343	DLA	-18.93	RAL	238.72	RAD	6567.4	VEL	11.514	PTH	2.01	VHP	7.138	DPA	-38.45	RAP	240.05	ECC	1.1839

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 4	1450.73	3.35	357.15	92.01	118.13	8 34 15	850.7	7.09	350.47
90.00	14 52 43	5362.38	27.77	244.84	96.98	84.24	16 22 6	4762.4	26.68	236.34
100.00	9 19 50	1225.61	2.26	340.00	91.41	119.81	9 40 15	625.6	6.22	333.44
100.00	16 25 39	5062.73	29.01	222.64	96.82	82.45	17 50 2	4462.7	27.66	214.09
110.00	10 2 57	1090.49	-.45	328.06	89.71	124.18	10 21 7	490.5	4.04	321.85
110.00	17 59 1	4770.61	32.16	199.81	96.18	77.74	19 18 31	4170.6	30.14	191.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1407	TRA	-.7232	TC3	.9028	BAU	.1632	SGT	1462.7	SGR	613.5	SG3	226.0	ST	461.5	SR	403.3	SS	297.0
RDE	-.2320	RRA	.1222	RC3	-.6153	FAU	.04029	RRT	-.7070	RRF	.7687	RTF	-.8731	CRT	-.6567	CRS	-.3002	CST	.9128
FDE	-.0383	FRA	.8701	FC3	-3.1212	BSP	4444	SGB	1586.1	R23	-.1373	R13	.8885	LSA	604.9	MSA	312.3	SSA	21.4
BDE	.2713	BRA	.7334	BC3	1.0925	FSP	-598	SG1	1531.0	SG2	414.5	THA	162.13	EL1	559.1	EL2	251.0	ALF	140.82

LAUNCH DATE AUG 18 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 274.274

RL	151.43	LAL	.00	LOL	324.65	VL	26.214	GAL	-.14	AZL	89.60	HCA	117.70	SMA	124.53	ECC	.21598	INC	.3965	V1	29.423
RP	107.72	LAP	.35	LOP	82.34	VP	37.394	GAP	-9.80	AZP	90.18	TAL	180.51	TAP	298.21	RCA	97.63	APO	151.43	V2	35.179
RC	48.893	GL	3.23	GP	-19.71	ZAL	85.20	ZAP	24.29	ETS	48.97	ZAE	146.93	ETE	325.94	ZAC	82.11	ETC	261.16	CLP	-14.50

PLANETOCENTRIC CONIC

C3	10.400	VHL	3.225	DLA	-16.89	RAL	237.97	RAD	6567.4	VEL	11.480	PTH	2.00	VHP	6.786	DPA	-40.27	RAP	240.65	ECC	1.1712

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 10	1515.24	1.28	.76	89.89	118.29	8 11 25	915.2	5.05	354.11
90.00	15 10 39	5268.53	26.95	238.10	94.34	80.96	16 38 27	4668.5	25.42	229.76
100.00	8 57 53	1283.85	.29	343.20	89.34	119.89	9 19 16	683.8	4.27	336.67
100.00	16 41 37	4975.16	28.06	216.30	94.12	79.25	18 4 32	4375.2	26.29	207.95
110.00	9 44 53	1136.61	-2.21	330.47	87.78	124.12	10 3 49	536.6	2.28	324.26
110.00	18 11 7	4695.17	30.93	194.27	93.36	74.67	19 29 22	4095.2	28.52	185.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1285	TRA	-.7023	TC3	1.1092	BAU	.1886	SGT	1504.8	SGR	675.9	SG3	253.8	ST	453.5	SR	381.7	SS	298.7
RDE	-.2104	RRA	.1361	RC3	-.7802	FAU	.04487	RRT	-.7620	RRF	.8238	RTF	-.8856	CRT	-.6664	CRS	-.1945	CST	.8566
FDE	.0023	FRA	.9054	FC3	-3.7352	BSP	5082	SGB	1649.7	R23	-.1449	R13	.9034	LSA	583.8	MSA	315.1	SSA	22.4
BDE	.2466	BRA	.7154	BC3	1.3561	FSP	-722	SG1	1597.3	SG2	412.4	THA	159.69	EL1	543.0	EL2	237.7	ALF	142.28

LAUNCH DATE AUG 18 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 280.994

RL	151.43	LAL	.00	LOL	324.65	VL	26.319	GAL	-.30	AZL	89.37	HCA	120.92	SMA	125.18	ECC	.20973	INC	.6305	V1	29.423
RP	107.69	LAP	.54	LOP	85.57	VP	37.477	GAP	-9.09	AZP	90.32	TAL	181.11	TAP	302.04	RCA	98.93	APO	151.43	V2	35.188
RC	50.451	GL	5.32	GP	-21.54	ZAL	86.35	ZAP	27.10	ETS	46.88	ZAE	145.15	ETE	323.81	ZAC	80.36	ETC	261.26	CLP	-16.85

PLANETOCENTRIC CONIC

C3	9.762	VHL	3.124	DLA	-14.60	RAL	237.29	RAD	6567.4	VEL	11.452	PTH	1.99	VHP	6.460	DPA	-42.25	RAP	241.05	ECC	1.1607

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 21 57	1585.80	-1.00	4.69	88.05	118.30	7 48 22	985.8	2.79	358.06
90.00	15 29 23	5172.66	25.74	231.34	91.88	77.78	16 55 36	4572.7	23.80	223.21
100.00	8 35 27	1348.62	-1.91	346.75	87.55	119.84	8 57 56	748.6	2.08	340.23
100.00	16 58 34	4885.07	26.75	209.93	91.62	76.14	18 19 59	4285.1	24.58	201.80
110.00	9 26 11	1189.73	-4.24	333.25	86.09	123.95	9 46 1	589.7	.25	327.03
110.00	18 24 19	4616.73	29.39	188.69	90.76	71.70	19 41 16	4016.7	26.61	180.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1116	TRA	-.6812	TC3	1.2380	BAU	.2034	SGT	1518.8	SGR	741.8	SG3	278.4	ST	438.6	SR	350.9	SS	311.5
RDE	-.1851	RRA	.1538	RC3	-.9470	FAU	.04818	RRT	-.8019	RRF	.8642	RTF	-.8921	CRT	-.6739	CRS	-.0490	CST	.7660
FDE	.0628	FRA	.9501	FC3	-4.2730	BSP	5241	SGB	1690.2	R23	-.1537	R13	.9134	LSA	553.6	MSA	324.9	SSA	22.8
BDE	.2161	BRA	.6983	BC3	1.5586	FSP	-795	SG1	1639.6	SG2	410.5	THA	157.09	EL1	516.8	EL2	220.0	ALF	144.23

LAUNCH DATE AUG 18 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 287.700

RL	151.43	LAL	.00	LOL	324.65	VL	26.414	GAL	-.44	AZL	89.12	HCA	124.15	SMA	125.77	ECC	.20409	INC	.8811	V1	29.423
RP	107.67	LAP	.73	LOP	88.80	VP	37.552	GAP	-8.40	AZP	90.49	TAL	181.70	TAP	305.85	RCA	100.11	APO	151.44	V2	35.198
RC	52.096	GL	7.67	GP	-23.61	ZAL	87.48	ZAP	30.16	ETS	45.12	ZAE	143.40	ETE	321.38	ZAC	78.36	ETC	261.33	CLP	-19.33

PLANETOCENTRIC CONIC

C3	9.252	VHL	3.042	DLA	-12.06	RAL	236.69	RAD	6567.3	VEL	11.430	PTH	1.98	VHP	6.163	DPA	-44.43	RAP	241.21	ECC	1.1523		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 57 25	1663.00	-3.49	9.00	86.53	118.12	7 25 8	1063.0	.30	2.37
90.00	15 49 9	5074.45	24.15	224.59	89.67	74.75	17 13 44	4474.5	21.83	216.69
100.00	8 12 36	1420.40	-4.33	350.70	86.07	119.61	8 36 17	820.4	-.36	344.17
100.00	17 16 39	4792.29	25.08	203.54	89.38	73.18	18 36 31	4192.3	22.54	195.67
110.00	9 6 58	1250.17	-6.52	336.43	84.71	123.63	9 27 48	650.2	-2.06	330.19
110.00	18 38 47	4535.29	27.52	183.09	88.45	68.87	19 54 22	3935.3	24.39	175.31

DIFFERENTIAL CORRECTIONS

TDE	.0876	TRA	-.6686	TC3	1.3387	BAU	.2172
RDE	-.1552	RRA	.1775	RC3	-1.1366	FAU	.05155
FDE	.1428	FRA	1.0108	FC3	-4.8235	BSP	5352
BDE	.1782	BRA	.6917	BC3	1.7562	FSP	-871

MID-COURSE EXECUTION ACCURACY

SGT	1532.6	SGR	824.8	SG3	305.1		
RRT	-.8318	RRF	.8980	RTF	-.8965		
SGB	1740.5	R23	-.1667	R13	.9226		
SG1	1690.2	SG2	415.1	THA	154.21		

ORBIT DETERMINATION ACCURACY

ST	420.8	SR	310.4	SS	345.6
CRT	-.6762	CRS	.0837	CST	.6717
LSA	525.5	MSA	340.9	SSA	23.1
EL1	483.5	EL2	199.0	ALF	147.28

LAUNCH DATE AUG 18 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 294.390

RL	151.43	LAL	.00	LOL	324.65	VL	26.499	GAL	-.56	AZL	88.85	HCA	127.38	SMA	126.32	ECC	.19904	INC	1.1517	V1	29.423		
RP	107.64	LAP	.92	LOP	92.04	VP	37.620	GAP	-7.74	AZP	90.70	TAL	182.27	TAP	309.66	RCA	101.17	APO	151.46	V2	35.206		
RC	53.818	GL	10.30	GP	-25.94	ZAL	88.58	ZAP	33.48	ETS	43.61	ZAE	141.66	ETE	318.64	ZAC	76.08	ETC	261.34	CLP	-21.95		

PLANETOCENTRIC CONIC

C3	8.868	VHL	2.978	DLA	-9.25	RAL	236.21	RAD	6567.3	VEL	11.413	PTH	1.98	VHP	5.897	DPA	-46.83	RAP	241.08	ECC	1.1459		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 32 31	1747.58	-6.18	13.76	85.40	117.69	7 1 39	1147.6	-2.43	7.09
90.00	16 10 12	4973.51	22.18	217.85	87.78	71.93	17 33 5	4373.5	19.51	210.20
100.00	7 49 20	1499.76	-6.98	355.10	84.96	119.14	8 14 20	899.8	-3.04	348.53
100.00	17 36 4	4696.56	23.04	197.16	87.47	70.41	18 54 20	4096.6	20.16	189.55
110.00	8 47 16	1318.34	-9.08	340.06	83.69	123.10	9 9 15	718.3	-4.66	333.76
110.00	18 54 37	4450.75	25.31	177.51	86.48	68.22	20 8 48	3850.7	21.88	170.03

DIFFERENTIAL CORRECTIONS

TDE	.0612	TRA	-.6540	TC3	1.4234	BAU	.2327
RDE	-.1194	RRA	.2052	RC3	-1.3514	FAU	.05504
FDE	.2427	FRA	1.0733	FC3	-5.3734	BSP	5526
BDE	.1342	BRA	.6854	BC3	1.9627	FSP	-957

MID-COURSE EXECUTION ACCURACY

SGT	1535.5	SGR	927.7	SG3	332.8		
RRT	-.8560	RRF	.9250	RTF	-.9004		
SGB	1794.0	R23	-.1749	R13	.9323		
SG1	1743.6	SG2	422.3	THA	150.77		

ORBIT DETERMINATION ACCURACY

ST	401.0	SR	260.3	SS	401.6
CRT	-.7050	CRS	.1444	CST	.5931
LSA	515.9	MSA	351.0	SSA	22.7
EL1	448.7	EL2	165.0	ALF	151.15

LAUNCH DATE AUG 18 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 301.062

RL	151.43	LAL	.00	LOL	324.65	VL	26.575	GAL	-.68	AZL	88.55	HCA	130.61	SMA	126.80	ECC	.19453	INC	1.4468	V1	29.423		
RP	107.61	LAP	1.10	LOP	95.27	VP	37.682	GAP	-7.10	AZP	90.94	TAL	182.82	TAP	313.43	RCA	102.14	APO	151.47	V2	35.214		
RC	55.612	GL	13.22	GP	-28.57	ZAL	89.63	ZAP	37.08	ETS	42.26	ZAE	139.84	ETE	315.58	ZAC	73.51	ETC	261.29	CLP	-24.71		

PLANETOCENTRIC CONIC

C3	8.609	VHL	2.934	DLA	-6.17	RAL	235.86	RAD	6567.3	VEL	11.402	PTH	1.97	VHP	5.665	DPA	-49.46	RAP	240.58	ECC	1.1417		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 7 10	1840.37	-9.08	19.03	84.70	116.94	6 37 50	1240.4	-5.40	12.29
90.00	16 32 47	4869.43	19.83	211.12	86.29	69.36	17 53 56	4269.4	16.84	203.72
100.00	7 25 34	1587.41	-9.85	.02	84.30	118.36	7 52 2	987.4	-5.99	353.37
100.00	17 57 3	4597.61	20.64	190.79	85.95	67.88	19 13 41	3997.6	17.46	183.44
110.00	8 27 6	1394.76	-11.89	344.19	83.08	122.29	8 50 21	794.8	-7.54	337.79
110.00	19 12 1	4363.03	22.79	171.94	84.91	63.80	20 24 44	3763.0	19.08	164.77

DIFFERENTIAL CORRECTIONS

TDE	.0333	TRA	-.6393	TC3	1.4631	BAU	.2479
RDE	-.0757	RRA	.2388	RC3	-1.5805	FAU	.05818
FDE	.3640	FRA	1.1399	FC3	-5.8504	BSP	5729
BDE	.0827	BRA	.6824	BC3	2.1538	FSP	-1046

MID-COURSE EXECUTION ACCURACY

SGT	1522.5	SGR	1049.8	SG3	359.4		
RRT	-.8728	RRF	.9456	RTF	-.9020		
SGB	1849.3	R23	-.1795	R13	.9416		
SG1	1797.7	SG2	434.0	THA	146.77		

ORBIT DETERMINATION ACCURACY

ST	383.1	SR	206.0	SS	481.3
CRT	-.8026	CRS	.0380	CST	.5559
LSA	551.7	MSA	340.7	SSA	21.7
EL1	420.3	EL2	112.0	ALF	154.74

LAUNCH DATE AUG 18 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 307.715

RL	151.43	LAL	.00	LOL	324.65	VL	26.643	GAL	-.78	AZL	88.23	HCA	133.85	SMA	127.24	ECC	.19052	INC	1.7721	V1	29.423		
RP	107.59	LAP	1.28	LOP	98.51	VP	37.737	GAP	-6.48	AZP	91.23	TAL	183.33	TAP	317.18	RCA	103.00	APO	151.49	V2	35.222		
RC	57.469	GL	16.43	GP	-31.50	ZAL	90.58	ZAP	40.95	ETS	40.98	ZAE	137.90	ETE	312.21	ZAC	70.60	ETC	261.16	CLP	-27.65		

PLANETOCENTRIC CONIC

C3	8.481	VHL	2.912	DLA	-2.83	RAL	235.67	RAD	6567.3	VEL	11.396	PTH	1.97	VHP	5.471	DPA	-52.35	RAP	239.61	ECC	1.1396		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 41 10	1942.41	-12.17	24.94	84.52	115.77	6 13 33	1342.4	-8.61	18.07
90.00	16 57 16	4761.73	17.11	204.39	85.24	67.09	18 16 37	4161.7	13.86	197.22
100.00	7 1 12	1684.27	-12.93	5.57	84.14	117.19	7 29 16	1084.3	-9.18	358.78
100.00	18 19 55	4495.11	17.88	184.43	84.89	65.64	19 34 50	3895.1	14.44	177.32
110.00	8 6 25	1480.10	-14.94	348.91	82.98	121.11	8 31 5	880.1	-10.71	342.37
110.00	19 31 12	4272.05	19.95	166.41	83.81	61.65	20 42 24	3672.0	16.01	159.51

DIFFERENTIAL CORRECTIONS

TDE	.0058	TRA	-.6250	TC3	1.4646	BAU	.2651
RDE	-.0219	RRA	.2802	RC3	-1.8225	FAU	.06103
FDE	.5051	FRA	1.2103	FC3	-6.2295	BSP	5929
BDE	.0227	BRA	.6849	BC3	2.3381	FSP	-1128

MID-COURSE EXECUTION ACCURACY

SGT	1497.8	SGR	1197.2	SG3	384.8		
RRT	-.8842	RRF	.9611	RTF	-.9022		
SGB	1917.4	R23	-.1776	R13	.9512		
SG1	1864.0	SG2	449.4	THA	142.17		

ORBIT DETERMINATION ACCURACY

ST	370.4	SR	174.0	SS	581.1
CRT	-.9689	CRS	-.3693	CST	.5613
LSA	635.8	MSA	317.0	SSA	19.9
EL1	407.4	EL2	39.1	ALF	155.28

LAUNCH DATE AUG 18 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 314.349

RL	151.43	LAL	.00	LOL	324.65	VL	26.704	GAL	-.87	AZL	87.87	HCA	137.08	SMA	127.64	ECC	.18698	INC	2.1349
RP	107.57	LAP	1.45	LOP	101.74	VP	37.785	GAP	-5.88	AZP	91.56	TAL	183.80	TAP	320.88	RCA	103.77	APO	151.50
RC	59.382	GL	19.95	GP	-34.78	ZAL	91.43	ZAP	45.10	ETS	39.69	ZAE	135.74	ETE	308.54	ZAC	67.35	ETC	260.94

V1	29.423	V2	35.229	CLP	-30.76														

PLANETOCENTRIC CONIC

C3	8.499	VHL	2.915	DLA	.79	RAL	235.66	RAD	6567.3	VEL	11.397	PTH	1.97	VHP	5.321	DPA	-55.49	RAP	238.05
ECC	1.1399																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 14 17	2055.06	-15.41	31.63	84.94	114.06	5 48 32	1455.1	-12.03	24.58
90.00	17 24 5	4649.86	14.02	197.63	84.74	65.14	18 41 35	4049.9	10.55	190.67
100.00	6 36 0	1791.49	-16.17	11.88	84.58	115.49	7 5 51	1191.5	-12.61	4.90
100.00	18 45 3	4388.66	14.78	178.05	84.36	63.72	19 58 12	3788.7	11.13	171.16
110.00	7 45 5	1575.22	-18.21	354.35	83.47	119.44	8 11 20	975.2	-14.15	347.59
110.00	19 52 27	4177.69	16.80	160.90	83.23	59.79	21 2 5	3577.7	12.66	154.24

DIFFERENTIAL CORRECTIONS

TDE	-.0216	TRA	-.6104	TC3	1.4152	BAU	.2842
RDE	.0467	RRA	.3310	RC3	-2.0625	FAU	.06322
FDE	.6698	FRA	1.2818	FC3	-6.4398	BSP	6198
BDE	.0514	BRA	.6943	BC3	2.5013	FSP	-1205

MID-COURSE EXECUTION ACCURACY

SGT	1456.7	SGR	1370.3	SG3	406.9		
RRT	-.8900	RRF	.9724	RTF	-.9004		
SGB	1999.9	R23	-.1686	R13	.9607		
SG1	1944.4	SG2	468.0	THA	136.97		

ORBIT DETERMINATION ACCURACY

ST	363.2	SR	218.7	SS	699.8
CRT	-.9446	CRS	-.8184	CST	.5979
LSA	764.2	MSA	291.8	SSA	17.5
EL1	419.4	EL2	62.2	ALF	149.64

LAUNCH DATE AUG 18 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 320.960

RL	151.43	LAL	.00	LOL	324.65	VL	26.757	GAL	-.95	AZL	87.46	HCA	140.31	SMA	127.99	ECC	.18388	INC	2.5447
RP	107.55	LAP	1.62	LOP	104.98	VP	37.829	GAP	-5.30	AZP	91.96	TAL	184.23	TAP	324.54	RCA	104.45	APO	151.52
RC	61.346	GL	23.77	GP	-38.40	ZAL	92.13	ZAP	49.52	ETS	38.28	ZAE	133.30	ETE	304.61	ZAC	63.74	ETC	260.58

V1	29.423	V2	35.235	CLP	-34.07														

PLANETOCENTRIC CONIC

C3	8.685	VHL	2.947	DLA	4.68	RAL	235.85	RAD	6567.3	VEL	11.405	PTH	1.97	VHP	5.222	DPA	-58.88	RAP	235.69
ECC	1.1429																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 46 3	2180.14	-18.72	39.31	86.07	111.64	5 22 23	1580.1	-15.61	32.01
90.00	17 53 51	4533.00	10.57	190.78	84.86	63.58	19 9 24	3933.0	6.94	183.99
100.00	6 9 35	1910.67	-19.52	19.15	85.73	113.10	6 41 26	1310.7	-16.22	-11.90
100.00	19 12 59	4277.70	11.34	171.61	84.46	62.16	20 24 17	3677.7	7.52	164.89
110.00	7 22 53	1681.29	-21.64	.67	84.66	117.13	7 50 54	1081.3	-17.83	353.61
110.00	20 16 11	4079.84	13.37	155.40	83.27	58.24	21 24 11	3479.8	9.08	148.93

DIFFERENTIAL CORRECTIONS

TDE	-.0470	TRA	-.5936	TC3	1.3092	BAU	.3053
RDE	.1349	RRA	.3930	RC3	-2.2803	FAU	.06437
FDE	.8543	FRA	1.3484	FC3	-6.4160	BSP	6493
BDE	.1428	BRA	.7119	BC3	2.6294	FSP	-1262

MID-COURSE EXECUTION ACCURACY

SGT	1394.5	SGR	1569.4	SG3	423.1		
RRT	-.8905	RRF	.9805	RTF	-.8956		
SGB	2099.4	R23	-.1523	R13	.9698		
SG1	2042.0	SG2	487.7	THA	131.21		

ORBIT DETERMINATION ACCURACY

ST	359.9	SR	351.1	SS	831.2
CRT	-.8291	CRS	-.9609	CST	.6461
LSA	933.1	MSA	270.0	SSA	15.0
EL1	480.9	EL2	146.9	ALF	135.86

LAUNCH DATE AUG 18 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 327.550

RL	151.43	LAL	.00	LOL	324.65	VL	26.803	GAL	-1.02	AZL	86.99	HCA	143.54	SMA	128.29	ECC	.18117	INC	3.0145
RP	107.53	LAP	1.79	LOP	108.22	VP	37.866	GAP	-4.74	AZP	92.43	TAL	184.60	TAP	328.14	RCA	105.05	APO	151.53
RC	63.355	GL	27.88	GP	-42.37	ZAL	92.67	ZAP	54.15	ETS	36.67	ZAE	130.52	ETE	300.49	ZAC	59.77	ETC	260.07

V1	29.423	V2	35.240	CLP	-37.57														

PLANETOCENTRIC CONIC

C3	9.081	VHL	3.013	DLA	8.82	RAL	236.26	RAD	6567.3	VEL	11.422	PTH	1.98	VHP	5.183	DPA	-62.48	RAP	232.25
ECC	1.1494																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 15 46	2320.28	-21.99	48.29	88.05	108.31	4 54 26	1720.3	-19.28	40.66
90.00	18 27 24	4409.93	6.76	183.74	85.72	62.44	19 40 54	3809.9	3.02	177.07
100.00	5 41 24	2044.07	-22.85	27.65	87.72	109.82	6 15 28	1444.1	-19.94	20.07
100.00	19 44 27	4161.38	7.56	165.03	85.29	60.99	20 53 48	3561.4	3.64	158.45
110.00	6 59 26	1799.86	-25.13	8.11	86.72	113.98	7 29 26	1199.9	-21.67	.66
110.00	20 42 54	3978.35	9.67	149.87	84.01	57.05	21 49 12	3378.3	5.26	143.55

DIFFERENTIAL CORRECTIONS

TDE	-.0650	TRA	-.5757	TC3	1.1500	BAU	.3290
RDE	.2466	RRA	.4705	RC3	-2.4536	FAU	.06419
FDE	1.0463	FRA	1.4096	FC3	-6.1193	BSP	6864
BDE	.2550	BRA	.7435	BC3	2.7097	FSP	-1296

MID-COURSE EXECUTION ACCURACY

SGT	1312.5	SGR	1796.1	SG3	431.3		
RRT	-.8847	RRF	.9862	RTF	-.8863		
SGB	2224.6	R23	-.1310	R13	.9779		
SG1	2165.9	SG2	507.4	THA	125.09		

ORBIT DETERMINATION ACCURACY

ST	355.1	SR	543.7	SS	963.7
CRT	-.7722	CRS	-.9902	CST	.6783
LSA	1133.7	MSA	254.7	SSA	12.5
EL1	618.3	EL2	198.4	ALF	120.20

LAUNCH DATE AUG 18 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 334.116

RL	151.43	LAL	.00	LOL	324.65	VL	26.843	GAL	-1.07	AZL	86.44	HCA	146.77	SMA	128.56	ECC	.17883	INC	3.5622
RP	107.52	LAP	1.95	LOP	111.47	VP	37.899	GAP	-4.19	AZP	92.98	TAL	184.91	TAP	331.68	RCA	105.57	APO	151.55
RC	65.403	GL	32.27	GP	-46.66	ZAL	93.04	ZAP	58.95	ETS	34.76	ZAE	127.35	ETE	296.22	ZAC	55.47	ETC	259.35

V1	29.423	V2	35.245	CLP	-41.28														

PLANETOCENTRIC CONIC

C3	9.752	VHL	3.123	DLA	13.20	RAL	236.91	RAD	6567.4	VEL	11.452	PTH	1.99	VHP	5.216	DPA	-66.21	RAP	227.25
ECC	1.1605																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 42 15	2479.62	-24.99	58.99	91.01	103.76	4 23 34	1879.6	-22.85	50.98
90.00	19 6 5	4278.47	2.57	176.36	87.49	61.79	20 17 24	3678.5	-1.22	169.73
100.00	5 10 28	2195.12	-25.96	37.79	90.73	105.36	5 47 3	1595.1	-23.60	29.79
100.00	20 20 33	4038.20	3.45	158.21	87.00	60.29	21 27 52	3438.2	-.53	151.68
110.00	6 34 10	1933.20	-28.51	16.99	89.83	109.71	7 6 23	1333.2	-25.56	9.06
110.00	21 13 20	3872.89	5.72	144.26	85.59	56.24	22 17 53	3272.9	1.25	138.03

DIFFERENTIAL CORRECTIONS

TDE	-.0730	TRA	-.5535	TC3	.9381	BAU	.3540
RDE	.3901	RRA	.5656	RC3	-2.5477	FAU	.06218
FDE	1.2383	FRA	1.4549	FC3	-5.5202	BSP	7296
BDE	.3969	BRA	.7914	BC3	2.7149	FSP	-1296

MID-COURSE EXECUTION ACCURACY

SGT	1203.8	SGR	2044.6	SG3	428.2		
RRT	-.8694	RRF	.9902	RTF	-.8688		
SGB	2372.7	R23	-.1064	R13	.9846		
SG1	2313.7	SG2	525.6	THA	118.73		

ORBIT DETERMINATION ACCURACY

ST	340.8	SR	785.4	SS	1089.9
CRT	-.7350	CRS	-.9972	CST	.6835
LSA	1364.3	MSA	243.5	SSA	10.2
EL1	827.6	EL2	219.3	ALF	109.08

LAUNCH DATE AUG 18 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 340.658

RL	151.43	LAL	.00	LOL	324.65	VL	26.877	GAL	-1.11	AZL	85.79	HCA	150.00	SMA	128.79	ECC	.17683	INC	4.2133
RP	107.51	LAP	2.11	LOP	114.71	VP	37.927	GAP	-3.66	AZP	93.65	TAL	185.16	TAP	335.16	RCA	106.01	APO	151.56
RC	67.486	GL	36.91	GP	-51.24	ZAL	93.22	ZAP	63.82	ETS	32.44	ZAE	123.75	ETE	291.87	ZAC	50.86	ETC	258.37

V1	29.423	V2	35.249	CLP	-45.19														

PLANETOCENTRIC CONIC

C3	10.808	VHL	3.288	DLA	17.76	RAL	237.81	RAD	6567.4	VEL	11.498	PTH	2.00	VHP	5.338	DPA	-69.92	RAP	219.94

ECC	1.1779	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	3 3 15	2665.58	-27.35	72.08	95.10	97.62	3 47 40	2065.6	-26.02	63.67									
90.00	19 52 17	4133.83	-2.10	168.29	90.39	61.75	21 1 11	3533.8	-5.86	161.63									
100.00	4 35 0	2369.68	-28.52	50.12	94.91	99.36	5 14 30	1769.7	-26.93	41.68									
100.00	21 3 12	3904.97	-1.07	150.89	89.82	60.12	22 8 17	3305.0	-5.03	144.35									
110.00	6 6 5	2084.73	-31.51	27.77	94.19	103.99	6 40 50	1484.7	-29.27	19.28									
110.00	21 48 37	3762.68	1.52	138.48	88.20	55.85	22 51 20	3162.7	-2.97	132.28									

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0632	TRA	-.5239	TC3	.6947	BAU	.3802	SGT	1067.6	SGR	2310.5	SG3	412.3	ST	308.3	SR	1067.0
RDE	.5726	RRA	.6821	RC3	-2.5378	FAU	.05826	RRT	-.8387	RRF	.9930	RTF	-.8367	CRT	-.6636	CRS	-.9991
FDE	1.4124	FRA	1.4766	FC3	-4.6663	BSP	7827	SGB	2545.2	R23	-.0809	R13	.9897	LSA	1615.1	MSA	235.7
BDE	.5760	BRA	.8600	BC3	2.6312	FSP	-1259	SG1	2487.2	SG2	540.1	THA	112.29	EL1	1087.3	EL2	226.3

CST	321.1	SR	1990.9	SS	1284.5												
CRT	.6898	CRS	-1.0000	CST	-.6955												
LSA	2379.7	MSA	231.1	SSA	4.3												
EL1	2003.3	EL2	231.1	ALF	83.57												

LAUNCH DATE AUG 18 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 347.173

RL	151.43	LAL	.00	LOL	324.65	VL	26.905	GAL	-1.13	AZL	84.99	HCA	153.22	SMA	128.98	ECC	.17514	INC	5.0054
RP	107.50	LAP	2.25	LOP	117.96	VP	37.950	GAP	-3.15	AZP	94.47	TAL	185.35	TAP	338.57	RCA	106.39	APO	151.57
RC	69.600	GL	41.73	GP	-56.07	ZAL	93.20	ZAP	68.64	ETS	29.62	ZAE	119.74	ETE	287.47	ZAC	46.01	ETC	257.02

V1	29.423	V2	35.253	CLP	-49.25														

PLANETOCENTRIC CONIC

C3	12.433	VHL	3.526	DLA	22.46	RAL	238.98	RAD	6567.5	VEL	11.568	PTH	2.02	VHP	5.575	DPA	-73.39	RAP	209.07

ECC	1.2046	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	2 13 31	2895.06	-28.31	88.77	100.28	89.33	3 1 46	2295.1	-28.10	80.11									
90.00	20 51 21	3962.75	-7.55	158.67	94.87	62.63	21 57 24	3362.7	-11.16	151.85									
100.00	3 51 18	2579.76	-29.86	65.57	100.27	91.36	4 34 18	1979.8	-29.36	56.80									
100.00	21 56 15	3753.28	-6.18	142.53	94.12	60.69	22 58 48	3153.3	-10.04	135.87									
110.00	5 33 25	2260.28	-33.64	41.00	99.97	96.44	6 11 5	1660.3	-32.39	31.99									
110.00	22 30 38	3645.52	-2.95	132.37	92.13	55.93	23 31 23	3045.5	-7.40	126.11									

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0246	TRA	-.4839	TC3	.4417	BAU	.4061	SGT	907.0	SGR	2584.9	SG3	383.0	ST	258.6	SR	1374.9
RDE	.8018	RRA	.8265	RC3	-2.4032	FAU	.05240	RRT	-.7748	RRF	.9949	RTF	-.7720	CRT	-.4610	CRS	-.9997
FDE	1.5486	FRA	1.4714	FC3	-3.6484	BSP	8409	SGB	2739.5	R23	-.0565	R13	.9933	LSA	1874.5	MSA	231.4
BDE	.8022	BRA	.9578	BC3	2.4434	FSP	-1179	SG1	2683.2	SG2	552.4	THA	105.90	EL1	1380.2	EL2	228.6

CST	321.1	SR	1374.9	SS	1268.9												
CRT	.4396	CRS	-.9997	CST	.4396												
LSA	1874.5	MSA	231.4	SSA	6.6												
EL1	1380.2	EL2	228.6	ALF	95.09												

LAUNCH DATE AUG 18 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 353.661

RL	151.43	LAL	.00	LOL	324.65	VL	26.929	GAL	-1.14	AZL	84.00	HCA	156.44	SMA	129.14	ECC	.17373	INC	5.9966
RP	107.49	LAP	2.39	LOP	121.20	VP	37.969	GAP	-2.65	AZP	95.50	TAL	185.46	TAP	341.90	RCA	106.70	APO	151.57
RC	71.740	GL	46.67	GP	-61.11	ZAL	93.01	ZAP	73.27	ETS	26.20	ZAE	115.33	ETE	283.00	ZAC	40.95	ETC	255.17

V1	29.423	V2	35.255	CLP	-53.43														

PLANETOCENTRIC CONIC

C3	14.951	VHL	3.867	DLA	27.23	RAL	240.43	RAD	6567.6	VEL	11.676	PTH	2.05	VHP	5.961	DPA	-76.19	RAP	192.91

ECC	1.2461	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	0 49 9	3244.08	-25.46	113.82	105.64	77.17	1 43 13	2644.1	-26.98	105.48									
90.00	22 27 17	3694.24	-15.52	142.99	102.11	66.02	23 28 52	3094.2	-18.64	135.69									
100.00	2 47 13	2863.49	-28.47	86.48	106.30	80.48	3 34 56	2263.5	-29.49	77.82									
100.00	23 11 55	3550.06	-12.76	131.04	100.74	62.74	24 11 5	2950.1	-16.31	124.05									
110.00	4 52 21	2471.92	-34.04	57.48	107.04	86.72	5 33 32	1871.9	-34.12	48.23									
110.00	23 23 16	3514.40	-7.92	125.46	97.87	56.64	24 21 51	2914.4	-12.25	119.05									

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0582	TRA	-.4266	TC3	.2057	BAU	.4287	SGT	733.5	SGR	2853.7	SG3	341.1	ST	230.1	SR	1692.0
RDE	1.0897	RRA	1.0060	RC3	-2.1350	FAU	.04476	RRT	-.6282	RRF	.9962	RTF	-.6249	CRT	.0816	CRS	-.9999
FDE	1.6329	FRA	1.4345	FC3	-2.5920	BSP	9028	SGB	2946.4	R23	-.0339	R13	.9956	LSA	2133.8	MSA	229.6
BDE	1.0913	BRA	1.0927	BC3	2.1449	FSP	-1059	SG1	2892.1	SG2	563.1	THA	99.54	EL1	1692.1	EL2	229.3

CST	321.1	SR	1692.0	SS	1300.1												
CRT	-.0954	CRS	-.9999	CST	-.0954												
LSA	2133.8	MSA	229.6	SSA	5.3												
EL1	1692.1	EL2	229.3	ALF	89.35												

LAUNCH DATE AUG 18 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 360.117

RL	151.43	LAL	.00	LOL	324.65	VL	26.947	GAL	-1.14	AZL	82.78	HCA	159.66	SMA	129.26	ECC	.17259	INC	7.2812
RP	107.48	LAP	2.53	LOP	124.45	VP	37.985	GAP	-2.17	AZP	96.83	TAL	185.49	TAP	345.15	RCA	106.95	APO	151.57
RC	73.903	GL	51.62	GP	-66.32	ZAL	92.67	ZAP	77.57	ETS	22.07	ZAE	110.54	ETE	278.42	ZAC	35.74	ETC	252.57

V1	29.423	V2	35.257	CLP	-57.58														

PLANETOCENTRIC CONIC

C3	18.973	VHL	4.356	DLA	31.94	RAL	242.17	RAD	6567.8	VEL	11.847	PTH	2.10	VHP	6.556	DPA	-77.71	RAP	170.57

ECC	1.3122	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
74.56	21 42 44	3909.87	-22.35	162.06	110.92	66.57	22 47 54	3309.9	-25.33	154.36									
105.44	1 47 31	3137.95	-22.34	104.90	110.91	66.56	2 39 49	2538.0	-25.32	97.20									
74.56	21 42 44	3909.87	-22.35	162.06	110.92	66.57	22 47 54	3309.9	-25.33	154.36									
105.44	1 47 31	3137.95	-22.34	104.90	110.91	66.56	2 39 49	2538.0	-25.32	97.20									
110.00	3 49 53	2759.04	-30.78	79.16	114.26	74.33	4 35 52	2159.0	-32.62	70.42									
110.00	0 43 28	3336.78	-14.40	115.80	106.58	58.66	1 39 5	2736.8	-18.45	109.02									

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2122	TRA	-.3413	TC3	.0168	BAU	.4452	SGT	598.3	SGR	3102.9	SG3	290.2	ST	321.1	SR	1990.9
RDE	1.4489	RRA	1.2339	RC3	-1.7552	FAU	.03599	RRT	-.2704	RRF	.9971	RTF	-.2665	CRT	.6898	CRS	-1.0000
FDE	1.6544	FRA	1.3686	FC3	-1.6424	BSP	9667	SGB	3160.1	R23	-.0132	R13	.9970	LSA	2379.7	MSA	231.1
BDE	1.4643	BRA	1.2802	BC3	1.7552	FSP	-908	SG1	3107.3	SG2	575.2	THA	93.09	EL1	2003.3	EL2	231.1

CST	321.1	SR	1990.9	SS	1284.5												
CRT	.6898	CRS	-1.0000	CST	-.6955												
LSA	2379.7	MSA	231.1	SSA	4.3												
EL1	2003.3	EL2	231.1	ALF	83.57												

LAUNCH DATE AUG 18 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 366.538

RL	151.43	LAL	.00	LOL	324.65	VL	26.962	GAL	-1.13	AZL	80.98	HCA	162.86	SMA	129.36	ECC	.17168	INC	9.0232	V1	29.423
RP	107.48	LAP	2.65	LOP	127.70	VP	37.996	GAP	-1.71	AZP	98.63	TAL	185.45	TAP	348.30	RCA	107.15	APO	151.57	V2	35.258
RC	76.087	GL	56.43	GP	-71.74	ZAL	92.21	ZAP	81.38	ETS	17.09	ZAE	105.37	ETE	273.55	ZAC	30.37	ETC	248.73	CLP	-61.45

PLANETOCENTRIC CONIC

C3	25.743	VHL	5.074	DLA	36.47	RAL	244.16	RAD	6568.0	VEL	12.129	PTH	2.17	VHP	7.461	DPA	-77.33	RAP	145.38	ECC	1.4237

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.00	20 58 53	4141.77	-22.92	180.45	119.28	60.82	22 7 55	3541.8	-26.62	173.05
114.00	2 47 16	3053.67	-22.90	98.64	119.27	60.81	3 38 10	2453.7	-26.61	91.25
66.00	20 58 53	4141.77	-22.92	180.45	119.28	60.82	22 7 55	3541.8	-26.62	173.05
114.00	2 47 16	3053.67	-22.90	98.64	119.27	60.81	3 38 10	2453.7	-26.61	91.25
66.00	20 58 53	4141.77	-22.92	180.45	119.28	60.82	22 7 55	3541.8	-26.62	173.05
114.00	2 47 16	3053.67	-22.90	98.64	119.27	60.81	3 38 10	2453.7	-26.61	91.25

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4831	TRA	-.2094	TC3	-.1177	BAU	.4384	SGT	631.2	SGR	3327.5	SG3	236.2	ST	552.7	SR	2261.8	SS	1238.6
RDE	1.9175	RRA	1.5483	RC3	-1.2684	FAU	.02590	RRT	.3313	RRF	.9977	RTF	.3340	CRT	.8991	CRS	-1.0000	CST	-.9013
FDE	1.6315	FRA	1.2938	FC3	-.8711	BSP	9913	SGB	3386.9	R23	.0078	R13	.9976	LSA	2626.6	MSA	237.0	SSA	3.5
BDE	1.9774	BRA	1.5624	BC3	1.2739	FSP	-714	SG1	3334.3	SG2	594.3	THA	86.29	EL1	2316.3	EL2	236.2	ALF	77.48

LAUNCH DATE AUG 18 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 372.911

RL	151.43	LAL	.00	LOL	324.65	VL	26.972	GAL	-1.09	AZL	78.47	HCA	166.03	SMA	129.43	ECC	.17099	INC	11.5328	V1	29.423
RP	107.48	LAP	2.77	LOP	130.95	VP	38.003	GAP	-1.26	AZP	101.20	TAL	185.31	TAP	351.35	RCA	107.30	APO	151.56	V2	35.259
RC	78.289	GL	60.87	GP	-77.45	ZAL	91.67	ZAP	84.60	ETS	10.72	ZAE	99.73	ETE	267.80	ZAC	24.80	ETC	242.41	CLP	-64.31

PLANETOCENTRIC CONIC

C3	38.093	VHL	6.172	DLA	40.58	RAL	246.33	RAD	6568.5	VEL	12.628	PTH	2.29	VHP	8.868	DPA	-75.01	RAP	123.32	ECC	1.6269

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.63	20 36 20	4330.13	-21.47	195.04	129.01	54.70	21 48 30	3730.1	-25.93	188.21
120.37	3 27 8	3061.96	-21.45	98.34	129.00	54.69	4 18 10	2462.0	-25.92	91.50
59.63	20 36 20	4330.13	-21.47	195.04	129.01	54.70	21 48 30	3730.1	-25.93	188.21
120.37	3 27 8	3061.96	-21.45	98.34	129.00	54.69	4 18 10	2462.0	-25.92	91.50
59.63	20 36 20	4330.13	-21.47	195.04	129.01	54.70	21 48 30	3730.1	-25.93	188.21
120.37	3 27 8	3061.96	-21.45	98.34	129.00	54.69	4 18 10	2462.0	-25.92	91.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0088	TRA	.0455	TC3	-.1574	BAU	.4175	SGT	958.0	SGR	3441.1	SG3	180.7	ST	936.6	SR	2393.9	SS	1145.6
RDE	2.4618	RRA	1.9416	RC3	-.8046	FAU	.01699	RRT	.7477	RRF	.9980	RTF	.7548	CRT	.9599	CRS	-1.0000	CST	-.9617
FDE	1.5408	FRA	1.1865	FC3	-.3862	BSP	10722	SGB	3572.0	R23	.0250	R13	.9977	LSA	2803.4	MSA	247.7	SSA	2.9
BDE	2.6605	BRA	1.9422	BC3	.8198	FSP	-566	SG1	3517.4	SG2	622.4	THA	77.85	EL1	2558.8	EL2	245.7	ALF	69.22

LAUNCH DATE AUG 18 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 379.217

RL	151.43	LAL	.00	LOL	324.65	VL	26.978	GAL	-1.04	AZL	74.53	HCA	169.17	SMA	129.47	ECC	.17049	INC	15.4723	V1	29.423
RP	107.48	LAP	2.87	LOP	134.20	VP	38.008	GAP	-.84	AZP	105.21	TAL	185.07	TAP	354.24	RCA	107.40	APO	151.55	V2	35.258
RC	80.507	GL	64.52	GP	-83.73	ZAL	91.12	ZAP	87.09	ETS	.11	ZAE	93.36	ETE	258.23	ZAC	18.89	ETC	228.86	CLP	-62.27

PLANETOCENTRIC CONIC

C3	63.536	VHL	7.971	DLA	43.89	RAL	248.47	RAD	6569.2	VEL	13.597	PTH	2.49	VHP	11.190	DPA	-71.03	RAP	106.25	ECC	2.0456

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.94	20 25 13	4510.98	-17.42	207.52	139.45	49.05	21 40 24	3911.0	-22.55	201.40
125.06	3 55 18	3135.59	-17.40	101.41	139.44	49.04	4 47 34	2535.6	-22.53	95.29
54.94	20 25 13	4510.98	-17.42	207.52	139.45	49.05	21 40 24	3911.0	-22.55	201.40
125.06	3 55 18	3135.59	-17.40	101.41	139.44	49.04	4 47 34	2535.6	-22.53	95.29
54.94	20 25 13	4510.98	-17.42	207.52	139.45	49.05	21 40 24	3911.0	-22.55	201.40
125.06	3 55 18	3135.59	-17.40	101.41	139.44	49.04	4 47 34	2535.6	-22.53	95.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.2592	TRA	.6982	TC3	-.1372	BAU	.3318	SGT	1780.5	SGR	3284.5	SG3	131.8	ST	1637.3	SR	2225.8	SS	1056.2
RDE	2.9216	RRA	2.4634	RC3	-.3657	FAU	.00823	RRT	.8976	RRF	.9969	RTF	.9191	CRT	.9781	CRS	-.9995	CST	-.9840
FDE	1.4487	FRA	1.1033	FC3	-.1122	BSP	11371	SGB	3736.1	R23	.0420	R13	.9975	LSA	2945.0	MSA	279.0	SSA	2.4
BDE	3.6932	BRA	2.5604	BC3	.3906	FSP	-422	SG1	3669.4	SG2	702.5	THA	62.98	EL1	2749.3	EL2	275.9	ALF	53.84

LAUNCH DATE AUG 18 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 385.403

RL	151.43	LAL	.00	LOL	324.65	VL	26.981	GAL	-.96	AZL	67.49	HCA	172.22	SMA	129.49	ECC	.17016	INC	22.5073	V1	29.423
RP	107.48	LAP	2.97	LOP	137.45	VP	38.009	GAP	-.45	AZP	112.32	TAL	184.67	TAP	356.89	RCA	107.46	APO	151.53	V2	35.257
RC	82.739	GL	66.45	GP	-87.71	ZAL	90.59	ZAP	88.79	ETS	260.12	ZAE	85.51	ETE	159.49	ZAC	12.54	ETC	115.48	CLP	58.23

PLANETOCENTRIC CONIC

C3	126.900	VHL	11.265	DLA	45.55	RAL	250.00	RAD	6570.3	VEL	15.755	PTH	2.80	VHP	15.450	DPA	-65.12	RAP	92.59	ECC	3.0885

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.70	20 22 46	4685.81	-10.79	217.20	149.25	45.47	21 40 51	4085.8	-16.34	211.68
127.30	4 10 2	3265.48	-10.77	106.96	149.23	45.47	5 4 27	2665.5	-16.32	101.45
52.70	20 22 46	4685.81	-10.79	217.20	149.25	45.47	21 40 51	4085.8	-16.34	211.68
127.30	4 10 2	3265.48	-10.77	106.96	149.23	45.47	5 4 27	2665.5	-16.32	101.45
52.70	20 22 46	4685.81	-10.79	217.20	149.25	45.47	21 40 51	4085.8	-16.34	211.68
127.30	4 10 2	3265.48	-10.77	106.96	149.23	45.47	5 4 27	2665.5	-16.32	101.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	4.0852	TRA	3.4798	TC3	-.0365	BAU	.0695	SGT	3272.9	SGR	2049.1	SG3	93.6	ST	2211.8	SR	1858.2	SS	1026.4
RDE	-3.6143	RRA	-1.2449	RC3	.0185	FAU	-.00105	RRT	-.9108	RRF	-.9305	RTF	.9978	CRT	-.9794	CRS	.9855	CST	-.9995
FDE	1.4363	FRA	1.1007	FC3	.0072	BSP	11799	SGB	3861.4	R23	-.0624	R13	-.9973	LSA	3051.7	MSA	293.0	SSA	1.6
BDE	5.4546	BRA	3.6957	BC3	.0409	FSP	-302	SG1	3791.7	SG2	730.1	THA	149.03	EL1	2874.3	EL2	288.8	ALF	140.07

LAUNCH DATE AUG 18 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 391.283

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RL  151.43 LAL    .00 LOL 324.65 VL  26.981 GAL   -.81 AZL  52.15 HCA 175.01 SMA 129.49 ECC .16995 INC37.8467 V1  29.423
RP  107.49 LAP   3.06 LOP 140.70 VP  38.007 GAP   -.15 AZP 127.74 TAL 183.95 TAP 358.96 RCA 107.49 APO 151.50 V2  35.255
RC  84.985 GL   63.88 GP  -76.41 ZAL  90.14 ZAP  89.68 ETS 192.86 ZAE  73.74 ETE  93.37 ZAC   9.58 ETC 349.41 CLP  88.62
PLANETOCENTRIC CONIC
C3 339.888 VHL 18.436 DLA  42.96 RAL 249.46 RAD 6571.9 VEL 21.475 PTH   3.21 VHP 24.721 DPA -55.05 RAP  80.26 ECC 6.5937
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.24	20 34 21	4798.87	-3.43	220.36	155.78	47.15	21 54 20	4198.9	-8.84	214.85
123.76	3 54 5	3451.17	-3.41	116.73	155.77	47.15	4 51 36	2851.2	-8.83	111.22
56.24	20 34 21	4798.87	-3.43	220.36	155.78	47.15	21 54 20	4198.9	-8.84	214.85
123.76	3 54 5	3451.17	-3.41	116.73	155.77	47.15	4 51 36	2851.2	-8.83	111.22
56.24	20 34 21	4798.87	-3.43	220.36	155.78	47.15	21 54 20	4198.9	-8.84	214.85
123.76	3 54 5	3451.17	-3.41	116.73	155.77	47.15	4 51 36	2851.2	-8.83	111.22

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.4687 TRA  .7062 TC3 -.0324 BAU  .8505   SGT  559.0 SGR 3824.3 SG3   68.8     ST   465.2 SR  2829.8 SS  1186.4
RDE-8.7522 RRA-6.1249 RC3 -.1843 FAU-.01695   RRT  .2539 RRF -.9978 RTF -.1976     CRT  .8898 CRS  .9994 CST  .8729
FDE 1.6992 FRA 1.3516 FC3  .0432 BSP  11957   SGB 3864.9 R23 -.0629 R13 -.9974     LSA 3096.0 MSA  216.2 SSA    1.6
BDE 8.8746 BRA 6.1655 BC3  .1872 FSP   -224   SG1 3826.9 SG2  540.3 THA  87.83     EL1 2860.1 EL2  210.1 ALF  81.63
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 396.017

```
RL  151.43 LAL    .00 LOL 324.65 VL  26.978 GAL   -.44 AZL  12.44 HCA 176.79 SMA 129.47 ECC .16975 INC77.5566 V1  29.423
RP  107.50 LAP   3.14 LOP 143.95 VP  38.002 GAP   -.16 AZP 167.54 TAL 182.14 TAP 358.92 RCA 107.49 APO 151.45 V2  35.253
RC  87.241 GL   48.13 GP  -53.20 ZAL  89.79 ZAP  89.81 ETS 185.12 ZAE  50.62 ETE  85.14 ZAC  27.72 ETC 292.69 CLP  89.68
PLANETOCENTRIC CONIC
C31251.351 VHL 35.374 DLA  27.76 RAL 244.34 RAD 6573.1 VEL 37.049 PTH   3.54 VHP 46.563 DPA -33.33 RAP  68.34 ECC21.5941
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 44 50	4054.54	-4.64	163.85	157.97	62.03	1 52 24	3454.5	-8.35	157.13
90.00	23 2 45	4373.79	5.62	181.70	152.56	62.20	24 15 39	3773.8	1.85	175.05
100.00	2 51 33	3646.02	-9.70	136.52	160.71	61.59	3 52 19	3046.0	-13.43	129.71
100.00	23 38 43	4257.55	10.69	170.46	149.84	61.92	24 49 40	3657.6	6.86	163.77
110.00	5 1 39	3238.89	-17.79	110.23	165.33	60.32	5 55 37	2638.9	-21.60	103.18
110.00	23 45 7	4237.44	18.82	164.37	145.27	60.92	24 55 44	3637.4	14.80	157.56

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-5.3223 TRA -.5063 TC3 -.0892 BAU 4.1825   SGT 1072.2 SGR 3182.0 SG3   58.7     ST   862.7 SR  1975.6 SS  1637.9
RD-11.6409 RR-10.7046 RC3 -.2336 FAU-.07288   RRT  .8352 RRF -.9995 RTF -.8201     CRT  .9638 CRS  .9998 CST  .9580
FDE 2.3827 FRA 2.3546 FC3  .0504 BSP  10111   SGB 3357.8 R23 -.0763 R13 -.9969     LSA 2697.9 MSA  227.2 SSA    1.3
BDE12.7999 BRA10.7165 BC3  .2500 FSP   -186   SG1 3309.5 SG2  567.0 THA  73.79     EL1 2145.3 EL2  211.8 ALF  66.94
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 406.841

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RL  151.43 LAL    .00 LOL 324.65 VL  26.972 GAL  -1.20 AZL 141.45 HCA 184.10 SMA 129.43 ECC .17121 INC51.4538 V1  29.423
RP  107.51 LAP   3.21 LOP 147.20 VP  37.995 GAP   1.45 AZP  38.62 TAL 185.84 TAP   9.94 RCA 107.27 APO 151.59 V2  35.249
RC  89.506 GL  -59.10 GP   69.35 ZAL  90.54 ZAP  91.64 ETS 184.54 ZAE  72.46 ETE 280.50 ZAC 147.59 ETC 290.96 CLP  94.66
PLANETOCENTRIC CONIC
C3 604.059 VHL 24.578 DLA -72.12 RAL 187.06 RAD 6572.6 VEL 26.932 PTH   3.39 VHP 31.214 DPA  76.12 RAP 336.39 ECC10.9413
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.42	2 46 11	2415.03	1.47	78.88	96.57	162.11	3 26 26	1815.0	9.07	76.82
159.58	13 24 26	649.18	1.47	286.28	96.60	162.11	13 35 15	49.2	9.08	284.22
20.42	2 46 11	2415.03	1.47	78.88	96.57	162.11	3 26 26	1815.0	9.07	76.82
159.58	13 24 26	649.18	1.47	286.28	96.60	162.11	13 35 15	49.2	9.08	284.22
20.42	2 46 11	2415.03	1.47	78.88	96.57	162.11	3 26 26	1815.0	9.07	76.82
159.58	13 24 26	649.18	1.47	286.28	96.60	162.11	13 35 15	49.2	9.08	284.22

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.1718 TRA 1.4570 TC3 -.1090 BAU 2.0855   SGT 1721.7 SGR 3526.7 SG3   67.5     ST  1250.6 SR  3082.1 SS  1862.3
RD-13.1086 RRA-1.7549 RC3  .2341 FAU-.03277   RRT -.9510 RRF  .9995 RTF -.9501     CRT -.9904 CRS-1.0000 CST  .9904
FDE-2.9372 FRA -.3918 FC3  .0470 BSP  12154   SGB 3924.5 R23 -.0598 R13  .9977     LSA 3808.5 MSA  163.4 SSA    1.9
BDE14.0920 BRA 2.2809 BC3  .2582 FSP   -212   SG1 3894.8 SG2  481.8 THA 115.32     EL1 3322.3 EL2  160.2 ALF 111.95
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 412.405

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RL  151.43 LAL    .00 LOL 324.65 VL  26.963 GAL   -.97 AZL 119.40 HCA 186.66 SMA 129.37 ECC .17130 INC29.4019 V1  29.423
RP  107.52 LAP   3.26 LOP 150.45 VP  37.985 GAP   1.66 AZP  60.76 TAL 184.71 TAP  11.37 RCA 107.21 APO 151.53 V2  35.245
RC  91.778 GL  -65.85 GP   83.40 ZAL  90.48 ZAP  93.22 ETS 180.53 ZAE  87.17 ETE 275.22 ZAC 160.53 ETC 301.18 CLP 119.31
PLANETOCENTRIC CONIC
C3 210.402 VHL 14.505 DLA -75.45 RAL 165.86 RAD 6571.2 VEL 18.213 PTH   3.02 VHP 18.122 DPA  72.07 RAP 280.79 ECC 4.4627
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.58	1 13 45	2309.94	8.95	79.42	73.51	165.27	1 52 15	1709.9	16.68	77.72
163.42	12 7 45	5815.96	8.95	260.85	73.53	165.27	13 44 41	5216.0	16.68	259.15
16.58	1 13 45	2309.94	8.95	79.42	73.51	165.27	1 52 15	1709.9	16.68	77.72
163.42	12 7 45	5815.96	8.95	260.85	73.53	165.27	13 44 41	5216.0	16.68	259.15
16.58	1 13 45	2309.94	8.95	79.42	73.51	165.27	1 52 15	1709.9	16.68	77.72
163.42	12 7 45	5815.96	8.95	260.85	73.53	165.27	13 44 41	5216.0	16.68	259.15

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.3196 TRA  .9340 TC3 -.0405 BAU  .3470   SGT 1734.9 SGR 3898.1 SG3   90.6     ST  1016.7 SR  2776.8 SS  1200.6
RDE-6.6892 RRA-1.8101 RC3  .1165 FAU-.00444   RRT -.9818 RRF  .9990 RTF -.9763     CRT -.9908 CRS -.9999 CST  .9886
FDE-1.8563 FRA -.4754 FC3  .0183 BSP  13542   SGB 4266.7 R23 -.0551 R13  .9977     LSA 3188.7 MSA  133.9 SSA    1.7
BDE 7.0800 BRA 2.0368 BC3  .1234 FSP   -292   SG1 4256.0 SG2  301.4 THA 113.73     EL1 2954.2 EL2  129.2 ALF 109.98
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 418.410

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RL  151.43 LAL    .00 LOL 324.65 VL  26.952 GAL   -.82 AZL 110.18 HCA 189.64 SMA 129.30 ECC .17173 INC20.1787 V1  29.423
RP  107.53 LAP   3.31 LOP 153.70 VP  37.973 GAP   1.98 AZP  70.08 TAL 183.94 TAP  13.58 RCA 107.09 APO 151.50 V2  35.240
RC  94.056 GL  -66.07 GP   83.76 ZAL  90.28 ZAP  95.58 ETS  48.18 ZAE  95.65 ETE 142.29 ZAC 165.52 ETC 191.67 CLP-153.61
PLANETOCENTRIC CONIC
C3 103.446 VHL 10.171 DLA -75.72 RAL 165.29 RAD 6570.0 VEL 14.993 PTH   2.70 VHP 12.535 DPA  65.58 RAP 262.88 ECC 2.7025
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.28	1 10 52	2181.68	17.44	77.87	70.70	165.01	1 47 14	1581.7	25.15	76.01
163.72	12 6 4	5686.61	17.44	258.99	70.71	165.01	13 40 51	5086.6	25.16	257.13
16.28	1 10 52	2181.68	17.44	77.87	70.70	165.01	1 47 14	1581.7	25.15	76.01
163.72	12 6 4	5686.61	17.44	258.99	70.71	165.01	13 40 51	5086.6	25.16	257.13
16.28	1 10 52	2181.68	17.44	77.87	70.70	165.01	1 47 14	1581.7	25.15	76.01
163.72	12 6 4	5686.61	17.44	258.99	70.71	165.01	13 40 51	5086.6	25.16	257.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5976 TRA-1.3162 TC3 -.1151 BAU  .1703   SGT 3350.6 SGR 2829.3 SG3  127.3     ST  1718.7 SR  2447.0 SS  1160.0
RDE 4.2711 RRA  .6508 RC3  .0438 FAU .00852   RRT -.8446 RRF -.9682 RTF  .9492     CRT -.9327 CRS  .9934 CST -.9679
FDE-1.8172 FRA -.4595 FC3 -.0713 BSP  13793   SGB 4385.4 R23  .0868 R13 -.9951     LSA 3165.8 MSA  515.0 SSA    2.2
BDE 4.9989 BRA 1.4683 BC3  .1232 FSP   -409   SG1 4217.0 SG2 1203.5 THA 140.69     EL1 2945.6 EL2  514.9 ALF 124.43
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 424.536

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RL  151.43 LAL    .00 LOL 324.65 VL  26.939 GAL   -.67 AZL 105.35 HCA 192.75 SMA 129.21 ECC .17235 INC15.3482 V1  29.423
RP  107.55 LAP   3.35 LOP 156.95 VP  37.958 GAP   2.33 AZP  75.01 TAL 183.24 TAP  15.99 RCA 106.94 APO 151.48 V2  35.235
RC  96.339 GL  -64.21 GP   77.60 ZAL  89.87 ZAP  98.57 ETS  31.38 ZAE 101.82 ETE 125.50 ZAC 165.76 ETC 200.35 CLP-133.94
PLANETOCENTRIC CONIC
C3  62.701 VHL  7.918 DLA -75.41 RAL 172.81 RAD 6569.2 VEL 13.567 PTH   2.48 VHP  9.676 DPA  59.88 RAP 253.67 ECC 2.0319
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.63	1 41 34	2067.00	24.89	75.82	75.86	163.88	2 16 1	1467.0	32.55	73.61
163.37	12 35 22	5573.19	24.90	257.30	75.89	163.88	14 8 16	4973.2	32.56	255.09
16.63	1 41 34	2067.00	24.89	75.82	75.86	163.88	2 16 1	1467.0	32.55	73.61
163.37	12 35 22	5573.19	24.90	257.30	75.89	163.88	14 8 16	4973.2	32.56	255.09
16.63	1 41 34	2067.00	24.89	75.82	75.86	163.88	2 16 1	1467.0	32.55	73.61
163.37	12 35 22	5573.19	24.90	257.30	75.89	163.88	14 8 16	4973.2	32.56	255.09

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3868 TRA -.8505 TC3 -.3562 BAU  .3800   SGT 3044.6 SGR 3261.9 SG3  175.3     ST  1876.2 SR  2750.9 SS  1353.3
RDE 3.7297 RRA  .6188 RC3  .2803 FAU .01904   RRT -.9318 RRF -.9951 RTF  .9561     CRT -.9788 CRS  .9995 CST -.9846
FDE-2.1804 FRA -.4201 FC3 -.2629 BSP  14021   SGB 4462.1 R23  .0923 R13 -.9940     LSA 3579.9 MSA  321.9 SSA    2.8
BDE 4.4280 BRA 1.0518 BC3  .4533 FSP   -562   SG1 4385.7 SG2  821.8 THA 132.88     EL1 3314.5 EL2  319.0 ALF 124.08
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 430.698

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RL  151.43 LAL    .00 LOL 324.65 VL  26.924 GAL   -.53 AZL 102.40 HCA 195.91 SMA 129.11 ECC .17313 INC12.4003 V1  29.423
RP  107.57 LAP   3.37 LOP 160.20 VP  37.942 GAP   2.69 AZP  78.06 TAL 182.54 TAP  18.45 RCA 106.75 APO 151.46 V2  35.229
RC  98.624 GL  -61.59 GP   71.60 ZAL  89.26 ZAP 102.02 ETS  31.47 ZAE 106.81 ETE 126.22 ZAC 163.10 ETC 218.53 CLP-131.28
PLANETOCENTRIC CONIC
C3  43.207 VHL  6.573 DLA -74.63 RAL 182.77 RAD 6568.6 VEL 12.829 PTH   2.34 VHP  8.012 DPA  54.65 RAP 247.52 ECC 1.7111
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.52	2 23 6	1973.02	30.78	73.27	83.33	162.03	2 55 59	1373.0	38.36	70.55
162.48	13 13 18	5482.66	30.79	255.64	83.36	162.03	14 44 40	4882.7	38.36	252.92
17.52	2 23 6	1973.02	30.78	73.27	83.33	162.03	2 55 59	1373.0	38.36	70.55
162.48	13 13 18	5482.66	30.79	255.64	83.36	162.03	14 44 40	4882.7	38.36	252.92
17.52	2 23 6	1973.02	30.78	73.27	83.33	162.03	2 55 59	1373.0	38.36	70.55
162.48	13 13 18	5482.66	30.79	255.64	83.36	162.03	14 44 40	4882.7	38.36	252.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5729 TRA -.6403 TC3 -.6728 BAU  .4860   SGT 3200.9 SGR 3182.3 SG3  230.5     ST  2330.1 SR  2866.9 SS  1601.1
RDE 3.2598 RRA  .3861 RC3  .5052 FAU .02903   RRT -.9457 RRF -.9959 RTF  .9611     CRT -.9900 CRS  .9999 CST -.9921
FDE-2.6241 FRA -.3468 FC3 -.5817 BSP  14245   SGB 4513.6 R23  .1066 R13 -.9920     LSA 4017.8 MSA  262.3 SSA    3.6
BDE 4.1528 BRA  .7477 BC3  .8413 FSP   -741   SG1 4452.0 SG2  743.5 THA 135.18     EL1 3685.6 EL2  255.4 ALF 129.04
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 436.869

```
RL  151.43 LAL    .00 LOL 324.65 VL  26.907 GAL   -.38 AZL 100.41 HCA 199.10 SMA 128.99 ECC .17406 INC10.4131 V1  29.423
RP  107.59 LAP   3.39 LOP 163.45 VP  37.923 GAP   3.06 AZP  80.15 TAL 181.82 TAP  20.92 RCA 106.54 APO 151.44 V2  35.222
RC 100.910 GL  -58.66 GP   65.98 ZAL  88.45 ZAP 105.80 ETS  32.92 ZAE 110.97 ETE 128.89 ZAC 159.23 ETC 230.31 CLP-131.98
PLANETOCENTRIC CONIC
C3  32.424 VHL  5.694 DLA -73.41 RAL 192.81 RAD 6568.3 VEL 12.401 PTH   2.24 VHP  6.968 DPA  49.68 RAP 242.96 ECC 1.5336
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.93	3 6 2	1897.62	35.22	70.15	90.66	159.54	3 37 40	1297.6	42.65	66.77
161.07	13 50 27	5413.11	35.22	253.94	90.68	159.54	15 20 40	4813.1	42.66	250.56
18.93	3 6 2	1897.62	35.22	70.15	90.66	159.54	3 37 40	1297.6	42.65	66.77
161.07	13 50 27	5413.11	35.22	253.94	90.68	159.54	15 20 40	4813.1	42.66	250.56
18.93	3 6 2	1897.62	35.22	70.15	90.66	159.54	3 37 40	1297.6	42.65	66.77
161.07	13 50 27	5413.11	35.22	253.94	90.68	159.54	15 20 40	4813.1	42.66	250.56

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7085 TRA -.4773 TC3-1.0555 BAU  .5496   SGT 3420.6 SGR 3025.1 SG3  288.3     ST  2771.9 SR  2832.9 SS  1817.4
RDE 2.8069 RRA  .2075 RC3  .7024 FAU .03846   RRT -.9556 RRF -.9957 RTF  .9664     CRT -.9944 CRS 1.0000 CST -.9951
FDE-2.9892 FRA -.2409 FC3-1.0268 BSP  14404   SGB 4566.3 R23  .1171 R13 -.9901     LSA 4354.6 MSA  221.7 SSA    4.5
BDE 3.9006 BRA  .5204 BC3 1.2679 FSP   -922   SG1 4516.2 SG2  675.1 THA 138.67     EL1 3957.9 EL2  209.2 ALF 134.37
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LAUNCH DATE AUG 18 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 443.036

RL	151.43	LAL	.00	LOL	324.65	VL	26.888	GAL	-.23	AZL	98.98	HCA	202.30	SMA	128.87	ECC	.17512	INC	8.9782
RP	107.61	LAP	3.39	LOP	166.70	VP	37.903	GAP	3.42	AZP	81.68	TAL	181.07	TAP	23.37	RCA	106.30	APO	151.43
RC	103.196	GL	-55.61	GP	60.72	ZAL	87.43	ZAP	109.76	ETS	34.42	ZAE	114.45	ETE	132.15	ZAC	155.00	ETC	237.67

V1	29.423	V2	35.215	CLP	-133.73														

PLANETOCENTRIC CONIC

C3	25.854	VHL	5.085	DLA	-71.83	RAL	201.99	RAD	6568.0	VEL	12.134	PTH	2.17	VHP	6.286	DPA	44.94	RAP	239.47
ECC	1.4255																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.75	3 46 26	1836.89	38.42	66.51	96.89	156.55	4 17 3	1236.9	45.67	62.38
159.25	14 23 18	5360.67	38.43	252.15	96.91	156.54	15 52 38	4760.7	45.68	248.02
20.75	3 46 26	1836.89	38.42	66.51	96.89	156.55	4 17 3	1236.9	45.67	62.38
159.25	14 23 18	5360.67	38.43	252.15	96.91	156.54	15 52 38	4760.7	45.68	248.02
20.75	3 46 26	1836.89	38.42	66.51	96.89	156.55	4 17 3	1236.9	45.67	62.38
159.25	14 23 18	5360.67	38.43	252.15	96.91	156.54	15 52 38	4760.7	45.68	248.02

DIFFERENTIAL CORRECTIONS

TDE	-2.7534	TRA	-.3293	TC3	-1.4877	BAU	.5936
RDE	2.3652	RRA	.0718	RC3	.8584	FAU	.04691
FDE	-3.2007	FRA	-.1002	FC3	-1.5709	BSP	14628
BDE	3.6297	BRA	.3370	BC3	1.7175	FSP	-1100

MID-COURSE EXECUTION ACCURACY

SGT	3651.1	SGR	2816.4	SG3	342.2		
RRT	-.9626	RRF	-.9950	RTF	.9706		
SGB	4611.2	R23	.1245	R13	-.9883		
SG1	4570.7	SG2	609.9	THA	142.63		

ORBIT DETERMINATION ACCURACY

ST	3123.4	SR	2666.4	SS	1960.0
CRT	-.9963	CRS	1.0000	CST	-.9964
LSA	4546.4	MSA	193.3	SSA	5.4
EL1	4103.1	EL2	173.3	ALF	139.53

LAUNCH DATE AUG 18 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 449.191

RL	151.43	LAL	.00	LOL	324.65	VL	26.868	GAL	-.06	AZL	97.89	HCA	205.51	SMA	128.73	ECC	.17632	INC	7.8885
RP	107.64	LAP	3.39	LOP	169.94	VP	37.881	GAP	3.79	AZP	82.87	TAL	180.28	TAP	25.78	RCA	106.03	APO	151.43
RC	105.482	GL	-52.55	GP	55.81	ZAL	86.21	ZAP	113.78	ETS	35.71	ZAE	117.33	ETE	135.64	ZAC	150.79	ETC	242.48

V1	29.423	V2	35.207	CLP	-135.86		

PLANETOCENTRIC CONIC

C3	21.573	VHL	4.645	DLA	-70.00	RAL	210.09	RAD	6567.9	VEL	11.956	PTH	2.13	VHP	5.835	DPA	40.41	RAP	236.77
ECC	1.3550																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.86	4 23 14	1787.27	40.62	62.49	101.89	153.22	4 53 1	1187.3	47.65	57.57
157.14	14 51 9	5321.82	40.63	250.34	101.91	153.22	16 19 51	4721.8	47.66	245.41
22.86	4 23 14	1787.27	40.62	62.49	101.89	153.22	4 53 1	1187.3	47.65	57.57
157.14	14 51 9	5321.82	40.63	250.34	101.91	153.22	16 19 51	4721.8	47.66	245.41
22.86	4 23 14	1787.27	40.62	62.49	101.89	153.22	4 53 1	1187.3	47.65	57.57
157.14	14 51 9	5321.82	40.63	250.34	101.91	153.22	16 19 51	4721.8	47.66	245.41

DIFFERENTIAL CORRECTIONS

TDE	-2.7318	TRA	-.1932	TC3	-1.9586	BAU	.6307
RDE	1.9733	RRA	-.0237	RC3	.9729	FAU	.05427
FDE	-3.2683	FRA	.0556	FC3	-2.1779	BSP	14870
BDE	3.3699	BRA	.1947	BC3	2.1869	FSP	-1258

MID-COURSE EXECUTION ACCURACY

SGT	3892.6	SGR	2597.9	SG3	390.1		
RRT	-.9679	RRF	-.9939	RTF	.9745		
SGB	4679.9	R23	.1260	R13	-.9872		
SG1	4647.8	SG2	547.3	THA	146.62		

ORBIT DETERMINATION ACCURACY

ST	3376.8	SR	2434.5	SS	2032.9
CRT	-.9974	CRS	1.0000	CST	-.9970
LSA	4629.5	MSA	172.0	SSA	6.4
EL1	4160.4	EL2	143.5	ALF	144.23

LAUNCH DATE AUG 18 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 455.331

RL	151.43	LAL	.00	LOL	324.65	VL	26.847	GAL	.12	AZL	97.03	HCA	208.72	SMA	128.58	ECC	.17766	INC	7.0285
RP	107.66	LAP	3.37	LOP	173.18	VP	37.858	GAP	4.15	AZP	83.83	TAL	179.45	TAP	28.17	RCA	105.74	APO	151.43
RC	107.765	GL	-49.52	GP	51.27	ZAL	84.82	ZAP	117.76	ETS	36.74	ZAE	119.64	ETE	139.16	ZAC	146.78	ETC	245.78

V1	29.423	V2	35.198	CLP	-138.11		

PLANETOCENTRIC CONIC

C3	18.653	VHL	4.319	DLA	-68.01	RAL	217.20	RAD	6567.8	VEL	11.834	PTH	2.10	VHP	5.538	DPA	36.13	RAP	234.72
ECC	1.3070																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.18	4 56 37	1746.00	42.02	58.25	105.85	149.73	5 25 43	1146.0	48.78	52.56
154.82	15 14 28	5293.82	42.03	248.56	105.87	149.73	16 42 42	4693.8	48.79	242.87
25.18	4 56 37	1746.00	42.02	58.25	105.85	149.73	5 25 43	1146.0	48.78	52.56
154.82	15 14 28	5293.82	42.03	248.56	105.87	149.73	16 42 42	4693.8	48.79	242.87
25.18	4 56 37	1746.00	42.02	58.25	105.85	149.73	5 25 43	1146.0	48.78	52.56
154.82	15 14 28	5293.82	42.03	248.56	105.87	149.73	16 42 42	4693.8	48.79	242.87

DIFFERENTIAL CORRECTIONS

TDE	-2.6467	TRA	-.0454	TC3	-2.4238	BAU	.6555
RDE	1.6149	RRA	-.1085	RC3	1.0169	FAU	.05904
FDE	-3.1641	FRA	.2542	FC3	-2.7402	BSP	14892
BDE	3.1005	BRA	.1176	BC3	2.6285	FSP	-1355

MID-COURSE EXECUTION ACCURACY

SGT	4091.2	SGR	2347.2	SG3	423.6		
RRT	-.9684	RRF	-.9923	RTF	.9747		
SGB	4716.7	R23	.1339	R13	-.9848		
SG1	4689.0	SG2	510.5	THA	150.56		

ORBIT DETERMINATION ACCURACY

ST	3512.1	SR	2145.7	SS	2012.9
CRT	-.9977	CRS	.9999	CST	-.9970
LSA	4578.6	MSA	164.2	SSA	7.5
EL1	4113.8	EL2	124.0	ALF	148.60

LAUNCH DATE AUG 18 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 461.456

RL	151.43	LAL	.00	LOL	324.65	VL	26.824	GAL	.31	AZL	96.33	HCA	211.94	SMA	128.43	ECC	.17913	INC	6.3288
RP	107.69	LAP	3.34	LOP	176.42	VP	37.833	GAP	4.51	AZP	84.62	TAL	178.59	TAP	30.52	RCA	105.43	APO	151.44
RC	110.046	GL	-46.53	GP	47.11	ZAL	83.25	ZAP	121.60	ETS	37.52	ZAE	121.45	ETE	142.61	ZAC	143.05	ETC	248.14

V1	29.423	V2	35.189	CLP	-140.35		

PLANETOCENTRIC CONIC

C3	16.599	VHL	4.074	DLA	-65.90	RAL	223.47	RAD	6567.7	VEL	11.747	PTH	2.07	VHP	5.351	DPA	32.10	RAP	233.21
ECC	1.2732																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.63	5 27 6	1711.03	42.76	53.93	109.02	146.21	5 55 37	1111.0	49.23	47.54
152.37	15 33 59	5274.64	42.77	246.92	109.04	146.21	17 1 54	4674.6	49.23	240.53
27.63	5 27 6	1711.03	42.76	53.93	109.02	146.21	5 55 37	1111.0	49.23	47.54
152.37	15 33 59	5274.64	42.77	246.92	109.04	146.21	17 1 54	4674.6	49.23	240.53
27.63	5 27 6	1711.03	42.76	53.93	109.02	146.21	5 55 37	1111.0	49.23	47.54
152.37	15 33 59	5274.64	42.77	246.92	109.04	146.21	17 1 54	4674.6	49.23	240.53

DIFFERENTIAL CORRECTIONS

TDE	-2.5467	TRA	.0922	TC3	-2.8987	BAU	.6828
RDE	1.3352	RRA	-.1608	RC3	1.0327	FAU	.06273
FDE	-2.9985	FRA	.4334	FC3	-3.2721	BSP	15173
BDE	2.8755	BRA	.1854	BC3	3.0772	FSP	-1449

MID-COURSE EXECUTION ACCURACY

SGT	4302.0	SGR	2130.8	SG3	449.9		
RRT	-.9696	RRF	-.9902	RTF	.9764		
SGB	4800.8	R23	.1310	R13	-.9838		
SG1	4777.8	SG2	469.2	THA	154.08		

ORBIT DETERMINATION ACCURACY

ST	3583.5	SR	1885.2	SS	1960.7
CRT	-.9981	CRS	.9998	CST	-.9969
LSA	4496.2	MSA	155.2	SSA	8.5
EL1	4047.8	EL2	103.3	ALF	152.28

LAUNCH DATE AUG 18 1970 FLIGHT TIME 166.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 467.561

RL	151.43	LAL	.00	LOL	324.65	VL	26.800	GAL	.51	AZL	95.75	HCA	215.15	SMA	128.27	ECC	.18074	INC	5.7452
RP	107.72	LAP	3.30	LOP	179.66	VP	37.807	GAP	4.86	AZP	85.30	TAL	177.69	TAP	32.84	RCA	105.09	APO	151.45
RC	112.324	GL	-43.61	GP	43.32	ZAL	81.52	ZAP	125.27	ETS	38.09	ZAE	122.83	ETE	145.90	ZAC	139.64	ETC	249.89

V1	29.423	V2	35.179	CLP	-142.53														

PLANETOCENTRIC CONIC

C3	15.129	VHL	3.890	DLA	-63.73	RAL	229.06	RAD	6567.6	VEL	11.684	PTH	2.05	VHP	5.243	DPA	28.35	RAP	232.15
ECC	1.2490																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.18	5 55 19	1680.78	42.98	49.63	111.67	142.78	6 23 20	1080.8	49.13	42.66
149.82	15 50 25	5262.85	42.99	245.50	111.69	142.77	17 18 8	4662.9	49.14	238.52
30.18	5 55 19	1680.78	42.98	49.63	111.67	142.78	6 23 20	1080.8	49.13	42.66
149.82	15 50 25	5262.85	42.99	245.50	111.69	142.77	17 18 8	4662.9	49.14	238.52
30.18	5 55 19	1680.78	42.98	49.63	111.67	142.78	6 23 20	1080.8	49.13	42.66
149.82	15 50 25	5262.85	42.99	245.50	111.69	142.77	17 18 8	4662.9	49.14	238.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4251	TRA	.2328	TC3	-3.3546	BAU	.7089	SGT	4491.3	SGR	1924.3	SG3	464.9	ST	3580.7	SR	1637.0	SS	1860.5
RDE	1.1029	RRA	-.1993	RC3	1.0147	FAU	.06490	RRT	-.9694	RRF	-.9874	RTF	.9772	CRT	-.9984	CRS	.9996	CST	-.9965
FDE	-2.7567	FRA	.6101	FC3	-3.7135	BSP	15463	SGB	4886.2	R23	.1267	R13	-.9827	LSA	4352.0	MSA	150.7	SSA	9.6
BDE	2.6642	BRA	.3065	BC3	3.5047	FSP	-1509	SG1	4866.7	SG2	436.1	THA	157.25	EL1	3936.3	EL2	85.4	ALF	155.46

LAUNCH DATE AUG 18 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 473.648

RL	151.43	LAL	.00	LOL	324.65	VL	26.774	GAL	.72	AZL	95.25	HCA	218.37	SMA	128.10	ECC	.18249	INC	5.2482
RP	107.75	LAP	3.26	LOP	182.90	VP	37.780	GAP	5.22	AZP	85.88	TAL	176.75	TAP	35.12	RCA	104.73	APO	151.48
RC	114.599	GL	-40.75	GP	39.89	ZAL	79.66	ZAP	128.73	ETS	38.52	ZAE	123.82	ETE	148.96	ZAC	136.57	ETC	251.24

V1	29.423	V2	35.169	CLP	-144.64														

PLANETOCENTRIC CONIC

C3	14.076	VHL	3.752	DLA	-61.52	RAL	234.12	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	5.195	DPA	24.87	RAP	231.49
ECC	1.2316																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.80	6 21 45	1654.12	42.77	45.43	113.99	139.49	6 49 19	1054.1	48.60	38.00
147.20	16 4 18	5257.44	42.78	244.36	114.00	139.49	17 31 55	4657.4	48.61	236.92
32.80	6 21 45	1654.12	42.77	45.43	113.99	139.49	6 49 19	1054.1	48.60	38.00
147.20	16 4 18	5257.44	42.78	244.36	114.00	139.49	17 31 55	4657.4	48.61	236.92
32.80	6 21 45	1654.12	42.77	45.43	113.99	139.49	6 49 19	1054.1	48.60	38.00
147.20	16 4 18	5257.44	42.78	244.36	114.00	139.49	17 31 55	4657.4	48.61	236.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2911	TRA	.3804	TC3	-3.7634	BAU	.7309	SGT	4658.4	SGR	1735.0	SG3	470.1	ST	3519.0	SR	1415.3	SS	1730.4
RDE	.9154	RRA	-.2289	RC3	.9597	FAU	.06515	RRT	-.9673	RRF	-.9836	RTF	.9772	CRT	-.9986	CRS	.9992	CST	-.9958
FDE	-2.4750	FRA	.7824	FC3	-4.0072	BSP	15660	SGB	4971.0	R23	.1218	R13	-.9813	LSA	4166.3	MSA	150.1	SSA	10.7
BDE	2.4672	BRA	.4440	BC3	3.8839	FSP	-1526	SG1	4953.8	SG2	413.9	THA	160.04	EL1	3792.3	EL2	69.1	ALF	158.11

LAUNCH DATE AUG 18 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 479.714

RL	151.43	LAL	.00	LOL	324.65	VL	26.748	GAL	.95	AZL	94.82	HCA	221.59	SMA	127.93	ECC	.18439	INC	4.8174
RP	107.79	LAP	3.20	LOP	186.14	VP	37.751	GAP	5.58	AZP	86.39	TAL	175.78	TAP	37.37	RCA	104.34	APO	151.52
RC	116.871	GL	-37.96	GP	36.81	ZAL	77.68	ZAP	131.97	ETS	38.83	ZAE	124.52	ETE	151.78	ZAC	133.83	ETC	252.31

V1	29.423	V2	35.158	CLP	-146.65														

PLANETOCENTRIC CONIC

C3	13.332	VHL	3.651	DLA	-59.29	RAL	238.73	RAD	6567.5	VEL	11.607	PTH	2.03	VHP	5.194	DPA	21.66	RAP	231.16
ECC	1.2194																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.46	6 46 48	1630.14	42.20	41.38	116.12	136.41	7 13 58	1030.1	47.72	33.60
144.54	16 16 1	5257.69	42.21	243.55	116.13	136.41	17 43 39	4657.7	47.73	235.76
35.46	6 46 48	1630.14	42.20	41.38	116.12	136.41	7 13 58	1030.1	47.72	33.60
144.54	16 16 1	5257.69	42.21	243.55	116.13	136.41	17 43 39	4657.7	47.73	235.76
35.46	6 46 48	1630.14	42.20	41.38	116.12	136.41	7 13 58	1030.1	47.72	33.60
144.54	16 16 1	5257.69	42.21	243.55	116.13	136.41	17 43 39	4657.7	47.73	235.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1549	TRA	.5289	TC3	-4.1401	BAU	.7550	SGT	4818.3	SGR	1569.7	SG3	468.7	ST	3417.6	SR	1227.3	SS	1587.7
RDE	.7683	RRA	-.2484	RC3	.8958	FAU	.06470	RRT	-.9645	RRF	-.9788	RTF	.9772	CRT	-.9990	CRS	.9982	CST	-.9947
FDE	-2.1861	FRA	.9349	FC3	-4.2015	BSP	15985	SGB	5067.6	R23	.1132	R13	-.9803	LSA	3960.3	MSA	151.2	SSA	11.8
BDE	2.2878	BRA	.5844	BC3	4.2359	FSP	-1536	SG1	5052.1	SG2	395.3	THA	162.45	EL1	3630.9	EL2	52.8	ALF	160.26

LAUNCH DATE AUG 18 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 485.759

RL	151.43	LAL	.00	LOL	324.65	VL	26.721	GAL	1.19	AZL	94.44	HCA	224.81	SMA	127.75	ECC	.18644	INC	4.4381
RP	107.82	LAP	3.13	LOP	189.37	VP	37.722	GAP	5.93	AZP	86.85	TAL	174.78	TAP	39.59	RCA	103.93	APO	151.57
RC	119.138	GL	-35.25	GP	34.05	ZAL	75.60	ZAP	134.99	ETS	39.08	ZAE	124.97	ETE	154.32	ZAC	131.40	ETC	253.19

V1	29.423	V2	35.147	CLP	-148.57														

PLANETOCENTRIC CONIC

C3	12.830	VHL	3.582	DLA	-57.05	RAL	242.97	RAD	6567.5	VEL	11.585	PTH	2.03	VHP	5.228	DPA	18.70	RAP	231.12
ECC	1.2111																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.16	7 10 48	1608.08	41.36	37.50	118.16	133.56	7 37 36	1008.1	46.58	29.49
141.84	16 25 52	5263.14	41.37	243.10	118.18	133.55	17 53 35	4663.1	46.59	235.08
38.16	7 10 48	1608.08	41.36	37.50	118.16	133.56	7 37 36	1008.1	46.58	29.49
141.84	16 25 52	5263.14	41.37	243.10	118.18	133.55	17 53 35	4663.1	46.59	235.08
38.16	7 10 48	1608.08	41.36	37.50	118.16	133.56	7 37 36	1008.1	46.58	29.49
141.84	16 25 52	5263.14	41.37	243.10	118.18	133.55	17 53 35	4663.1	46.59	235.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0169	TRA	.6822	TC3	-4.4606	BAU	.7779	SGT	4964.4	SGR	1424.9	SG3	461.6	ST	3283.2	SR	1069.9	SS	1439.7
RDE	.6530	RRA	-.2621	RC3	.8201	FAU	.06331	RRT	-.9604	RRF	-.9726	RTF	.9770	CRT	-.9994	CRS	.9965	CST	-.9932
FDE	-1.9021	FRA	1.0713	FC3	-4.2718	BSP	16291	SGB	5164.8	R23	.1026	R13	-.9794	LSA	3738.1	MSA	154.4	SSA	12.9
BDE	2.1199	BRA	.7308	BC3	4.5354	FSP	-1522	SG1	5150.7	SG2	382.6	THA	164.50	EL1	3453.0	EL2	36.4	ALF	161.96

LAUNCH DATE AUG 18 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 491.779

RL	151.43	LAL	.00	LOL	324.65	VL	26.693	GAL	1.45	AZL	94.10	HCA	228.03	SMA	127.57	ECC	.18865	INC	4.0997	V1	29.423
RP	107.86	LAP	3.05	LOP	192.60	VP	37.691	GAP	6.29	AZP	87.26	TAL	173.75	TAP	41.78	RCA	103.50	APO	151.64	V2	35.136
RC	121.402	GL	-32.62	GP	31.57	ZAL	73.44	ZAP	137.80	ETS	39.30	ZAE	125.23	ETE	156.61	ZAC	129.26	ETC	253.92	CLP	-150.40

PLANETOCENTRIC CONIC

C3	12.525	VHL	3.539	DLA	-54.82	RAL	246.90	RAD	6567.5	VEL	11.572	PTH	2.02	VHP	5.291	DPA	15.97	RAP	231.34	ECC	1.2061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.88	7 33 58	1587.50	40.29	33.80	120.18	130.94	8 0 25	987.5	45.23	25.64
139.12	16 34 1	5273.45	40.30	243.03	120.19	130.93	18 1 55	4673.5	45.24	234.86
40.88	7 33 58	1587.50	40.29	33.80	120.18	130.94	8 0 25	987.5	45.23	25.64
139.12	16 34 1	5273.45	40.30	243.03	120.19	130.93	18 1 55	4673.5	45.24	234.86
40.88	7 33 58	1587.50	40.29	33.80	120.18	130.94	8 0 25	987.5	45.23	25.64
139.12	16 34 1	5273.45	40.30	243.03	120.19	130.93	18 1 55	4673.5	45.24	234.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.8998	TRA .8194	TC3	-4.7899	BAU .8123	SGT 5124.0	SGR 1305.3	SG3 452.1	ST 3153.9	SR 952.2	SS 1312.8
RDE	.5717	RRA -.2644	RC3	.7674	FAU .06285	RRT -.9568	RRF -.9651	RTF .9785	CRT -.9998	CRS .9937	CST -.9919
FDE	-1.6665	FRA 1.1611	FC3	-4.3442	BSP 17146	SGB 5287.6	R23 .0826	R13 -.9801	LSA 3543.1	MSA 153.8	SSA 13.9
BDE	1.9839	BRA .8610	BC3	4.8510	FSP -1561	SG1 5274.7	SG2 368.8	THA 166.23	EL1 3294.5	EL2 19.7	ALF 163.20

LAUNCH DATE AUG 18 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 497.781

RL	151.43	LAL	.00	LOL	324.65	VL	26.665	GAL	1.72	AZL	93.79	HCA	231.24	SMA	127.38	ECC	.19103	INC	3.7940	V1	29.423
RP	107.89	LAP	2.96	LOP	195.83	VP	37.660	GAP	6.65	AZP	87.62	TAL	172.69	TAP	43.94	RCA	103.05	APO	151.72	V2	35.124
RC	123.660	GL	-30.07	GP	29.36	ZAL	71.21	ZAP	140.40	ETS	39.51	ZAE	125.35	ETE	158.63	ZAC	127.38	ETC	254.56	CLP	-152.13

PLANETOCENTRIC CONIC

C3	12.387	VHL	3.520	DLA	-52.61	RAL	250.56	RAD	6567.5	VEL	11.566	PTH	2.02	VHP	5.378	DPA	13.45	RAP	231.79	ECC	1.2039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.62	7 56 34	1567.77	39.05	30.27	122.23	128.56	8 22 41	967.8	43.73	22.03
136.38	16 40 41	5288.48	39.06	243.35	122.24	128.55	18 8 49	4688.5	43.74	235.10
43.62	7 56 34	1567.77	39.05	30.27	122.23	128.56	8 22 41	967.8	43.73	22.03
136.38	16 40 41	5288.48	39.06	243.35	122.24	128.55	18 8 49	4688.5	43.74	235.10
43.62	7 56 34	1567.77	39.05	30.27	122.23	128.56	8 22 41	967.8	43.73	22.03
136.38	16 40 41	5288.48	39.06	243.35	122.24	128.55	18 8 49	4688.5	43.74	235.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.7437	TRA 1.0027	TC3	-4.9289	BAU .8236	SGT 5227.0	SGR 1192.9	SG3 436.8	ST 2952.8	SR 835.8	SS 1155.9
RDE	.4946	RRA -.2782	RC3	.6639	FAU .05903	RRT -.9482	RRF -.9554	RTF .9766	CRT -.9998	CRS .9870	CST -.9880
FDE	-1.3869	FRA 1.2935	FC3	-4.1253	BSP 17021	SGB 5361.4	R23 .0779	R13 -.9779	LSA 3275.0	MSA 167.6	SSA 14.8
BDE	1.8125	BRA 1.0406	BC3	4.9735	FSP -1470	SG1 5348.5	SG2 370.5	THA 167.73	EL1 3068.8	EL2 15.6	ALF 164.20

LAUNCH DATE AUG 18 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 503.758

RL	151.43	LAL	.00	LOL	324.65	VL	26.636	GAL	2.00	AZL	93.51	HCA	234.46	SMA	127.19	ECC	.19358	INC	3.5149	V1	29.423
RP	107.93	LAP	2.86	LOP	199.05	VP	37.628	GAP	7.01	AZP	87.95	TAL	171.61	TAP	46.07	RCA	102.57	APO	151.82	V2	35.112
RC	125.912	GL	-27.61	GP	27.39	ZAL	68.95	ZAP	142.81	ETS	39.74	ZAE	125.37	ETE	160.42	ZAC	125.73	ETC	255.13	CLP	-153.79

PLANETOCENTRIC CONIC

C3	12.398	VHL	3.521	DLA	-50.42	RAL	253.99	RAD	6567.5	VEL	11.567	PTH	2.02	VHP	5.485	DPA	11.13	RAP	232.43	ECC	1.2040

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.36	8 18 42	1548.51	37.66	26.89	124.32	126.40	8 44 31	948.5	42.10	18.63
133.64	16 45 51	5308.09	37.68	244.06	124.34	126.39	18 14 19	4708.1	42.11	235.79
46.36	8 18 42	1548.51	37.66	26.89	124.32	126.40	8 44 31	948.5	42.10	18.63
133.64	16 45 51	5308.09	37.68	244.06	124.34	126.39	18 14 19	4708.1	42.11	235.79
46.36	8 18 42	1548.51	37.66	26.89	124.32	126.40	8 44 31	948.5	42.10	18.63
133.64	16 45 51	5308.09	37.68	244.06	124.34	126.39	18 14 19	4708.1	42.11	235.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.6019	TRA 1.1789	TC3	-5.0451	BAU .8417	SGT 5337.0	SGR 1100.4	SG3 420.9	ST 2760.9	SR 748.1	SS 1023.3
RDE	.4396	RRA -.2853	RC3	.5823	FAU .05596	RRT -.9392	RRF -.9441	RTF .9759	CRT -.9991	CRS .9756	CST -.9832
FDE	-1.1526	FRA 1.3920	FC3	-3.9075	BSP 17236	SGB 5449.3	R23 .0674	R13 -.9768	LSA 3032.6	MSA 180.4	SSA 15.6
BDE	1.6611	BRA 1.2130	BC3	5.0786	FSP -1416	SG1 5436.7	SG2 370.9	THA 168.99	EL1 2860.3	EL2 31.1	ALF 164.85

LAUNCH DATE AUG 18 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 509.709

RL	151.43	LAL	.00	LOL	324.65	VL	26.606	GAL	2.30	AZL	93.26	HCA	237.67	SMA	127.00	ECC	.19633	INC	3.2576	V1	29.423
RP	107.97	LAP	2.75	LOP	202.27	VP	37.595	GAP	7.37	AZP	88.26	TAL	170.50	TAP	48.17	RCA	102.07	APO	151.93	V2	35.099
RC	128.158	GL	-25.25	GP	25.62	ZAL	66.67	ZAP	145.05	ETS	40.02	ZAE	125.31	ETE	161.99	ZAC	124.28	ETC	255.64	CLP	-155.38

PLANETOCENTRIC CONIC

C3	12.544	VHL	3.542	DLA	-48.27	RAL	257.20	RAD	6567.5	VEL	11.573	PTH	2.02	VHP	5.610	DPA	8.98	RAP	233.25	ECC	1.2064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.12	8 40 35	1529.27	36.18	23.64	126.48	124.46	9 6 4	929.3	40.40	15.39
130.88	16 49 36	5332.34	36.19	245.17	126.49	124.44	18 18 28	4732.3	40.41	236.92
49.12	8 40 35	1529.27	36.18	23.64	126.48	124.46	9 6 4	929.3	40.40	15.39
130.88	16 49 36	5332.34	36.19	245.17	126.49	124.44	18 18 28	4732.3	40.41	236.92
49.12	8 40 35	1529.27	36.18	23.64	126.48	124.46	9 6 4	929.3	40.40	15.39
130.88	16 49 36	5332.34	36.19	245.17	126.49	124.44	18 18 28	4732.3	40.41	236.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.4642	TRA 1.3596	TC3	-5.1060	BAU .8605	SGT 5441.8	SGR 1022.3	SG3 404.1	ST 2570.1	SR 678.6	SS 907.2
RDE	.3985	RRA -.2908	RC3	.5089	FAU .05287	RRT -.9287	RRF -.9311	RTF .9752	CRT -.9966	CRS .9565	CST -.9767
FDE	-.9457	FRA 1.4751	FC3	-3.6491	BSP 17528	SGB 5537.0	R23 .0571	R13 -.9759	LSA 2801.9	MSA 195.9	SSA 16.1
BDE	1.5175	BRA 1.3903	BC3	5.1313	FSP -1367	SG1 5524.4	SG2 373.4	THA 170.06	EL1 2657.6	EL2 54.3	ALF 165.25

LAUNCH DATE AUG 18 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 515.634

RL	151.43	LAL	.00	LOL	324.65	VL	26.575	GAL	2.62	AZL	93.02	HCA	240.88	SMA	126.80	ECC	.19927	INC	3.0180	V1	29.423
RP	108.01	LAP	2.64	LOP	205.49	VP	37.562	GAP	7.74	AZP	88.53	TAL	169.37	TAP	50.25	RCA	101.54	APO	152.07	V2	35.086
RC	130.397	GL	-22.98	GP	24.04	ZAL	64.38	ZAP	147.14	ETS	40.35	ZAE	125.19	ETE	163.37	ZAC	123.02	ETC	256.13	CLP	-156.89

PLANETOCENTRIC CONIC

C3	12.821	VHL	3.581	DLA	-46.17	RAL	260.22	RAD	6567.5	VEL	11.585	PTH	2.03	VHP	5.749	DPA	6.99	RAP	234.22	ECC	1.2110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.87	9 2 18	1509.72	34.62	20.49	128.69	122.70	9 27 28	909.7	38.64	12.29
128.13	16 51 57	5361.23	34.63	246.68	128.70	122.69	18 21 18	4761.2	38.65	238.47
51.87	9 2 18	1509.72	34.62	20.49	128.69	122.70	9 27 28	909.7	38.64	12.29
128.13	16 51 57	5361.23	34.63	246.68	128.70	122.69	18 21 18	4761.2	38.65	238.47
51.87	9 2 18	1509.72	34.62	20.49	128.69	122.70	9 27 28	909.7	38.64	12.29
128.13	16 51 57	5361.23	34.63	246.68	128.70	122.69	18 21 18	4761.2	38.65	238.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3278	TRA	1.5478	TC3	-5.1053	BAU	.8783	SGT	5538.2	SGR	956.0	SG3	386.9	ST	2382.8	SR	623.1	SS	807.3
RDE	.3677	RRA	-.2959	RC3	.4423	FAU	.04973	RRT	-.9167	RRF	-.9165	RTF	.9746	CRT	-.9908	CRS	.9260	CST	-.9680
FDE	-.7617	FRA	1.5472	FC3	-3.3580	BSP	17804	SGB	5620.1	R23	.0474	R13	-.9751	LSA	2582.9	MSA	214.8	SSA	16.5
BDE	1.3778	BRA	1.5758	BC3	5.1244	FSP	-1314	SG1	5607.4	SG2	377.3	THA	170.97	EL1	2461.6	EL2	81.6	ALF	165.46

LAUNCH DATE AUG 18 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 521.532

RL	151.43	LAL	.00	LOL	324.65	VL	26.545	GAL	2.95	AZL	92.79	HCA	244.09	SMA	126.61	ECC	.20243	INC	2.7931	V1	29.423
RP	108.05	LAP	2.51	LOP	208.71	VP	37.528	GAP	8.11	AZP	88.78	TAL	168.22	TAP	52.31	RCA	100.98	APO	152.24	V2	35.074
RC	132.627	GL	-20.81	GP	22.63	ZAL	62.11	ZAP	149.08	ETS	40.76	ZAE	125.04	ETE	164.59	ZAC	121.91	ETC	256.60	CLP	-158.34

PLANETOCENTRIC CONIC

C3	13.225	VHL	3.637	DLA	-44.12	RAL	263.05	RAD	6567.5	VEL	11.602	PTH	2.03	VHP	5.903	DPA	5.14	RAP	235.33	ECC	1.2176

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.63	9 24 0	1489.46	33.01	17.42	130.97	121.12	9 48 50	889.5	36.86	9.27
125.37	16 52 54	5394.87	33.03	248.58	130.98	121.11	18 22 49	4794.9	36.87	240.43
54.63	9 24 0	1489.46	33.01	17.42	130.97	121.12	9 48 50	889.5	36.86	9.27
125.37	16 52 54	5394.87	33.03	248.58	130.98	121.11	18 22 49	4794.9	36.87	240.43
54.63	9 24 0	1489.46	33.01	17.42	130.97	121.12	9 48 50	889.5	36.86	9.27
125.37	16 52 54	5394.87	33.03	248.58	130.98	121.11	18 22 49	4794.9	36.87	240.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.1926	TRA	1.7440	TC3	-5.0486	BAU	.8952	SGT	5627.1	SGR	899.8	SG3	369.6	ST	2204.9	SR	578.8	SS	724.7
RDE	.3451	RRA	-.3010	RC3	.3831	FAU	.04659	RRT	-.9032	RRF	-.9004	RTF	.9740	CRT	-.9796	CRS	.8802	CST	-.9570
FDE	-.5992	FRA	1.6101	FC3	-3.0498	BSP	18077	SGB	5698.6	R23	.0387	R13	-.9744	LSA	2380.2	MSA	237.2	SSA	16.7
BDE	1.2416	BRA	1.7697	BC3	5.0631	FSP	-1262	SG1	5685.8	SG2	382.2	THA	171.74	EL1	2276.8	EL2	112.5	ALF	165.54

LAUNCH DATE AUG 18 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 527.400

RL	151.43	LAL	.00	LOL	324.65	VL	26.514	GAL	3.30	AZL	92.58	HCA	247.30	SMA	126.41	ECC	.20581	INC	2.5804	V1	29.423
RP	108.09	LAP	2.38	LOP	211.92	VP	37.494	GAP	8.49	AZP	89.00	TAL	167.05	TAP	54.34	RCA	100.39	APO	152.42	V2	35.061
RC	134.850	GL	-18.74	GP	21.35	ZAL	59.87	ZAP	150.89	ETS	41.26	ZAE	124.87	ETE	165.65	ZAC	120.95	ETC	257.05	CLP	-159.74

PLANETOCENTRIC CONIC

C3	13.758	VHL	3.709	DLA	-42.13	RAL	265.73	RAD	6567.5	VEL	11.625	PTH	2.04	VHP	6.069	DPA	3.42	RAP	236.56	ECC	1.2264

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.39	9 45 51	1467.98	31.38	14.37	133.32	119.70	10 10 19	868.0	35.07	6.30
122.61	16 52 22	5433.56	31.39	250.89	133.32	119.69	18 22 56	4833.6	35.08	242.82
57.39	9 45 51	1467.98	31.38	14.37	133.32	119.70	10 10 19	868.0	35.07	6.30
122.61	16 52 22	5433.56	31.39	250.89	133.32	119.69	18 22 56	4833.6	35.08	242.82
57.39	9 45 51	1467.98	31.38	14.37	133.32	119.70	10 10 19	868.0	35.07	6.30
122.61	16 52 22	5433.56	31.39	250.89	133.32	119.69	18 22 56	4833.6	35.08	242.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.0580	TRA	1.9491	TC3	-4.9412	BAU	.9109	SGT	5708.8	SGR	852.3	SG3	352.6	ST	2041.2	SR	543.2	SS	659.6
RDE	.3290	RRA	-.3066	RC3	.3310	FAU	.04348	RRT	-.8886	RRF	-.8832	RTF	.9734	CRT	-.9603	CRS	.8158	CST	-.9442
FDE	-.4554	FRA	1.6660	FC3	-2.7361	BSP	18337	SGB	5772.1	R23	.0311	R13	-.9737	LSA	2197.1	MSA	263.0	SSA	16.8
BDE	1.1079	BRA	1.9731	BC3	4.9523	FSP	-1209	SG1	5759.1	SG2	387.6	THA	172.41	EL1	2107.1	EL2	146.8	ALF	165.59

LAUNCH DATE AUG 18 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 533.235

RL	151.43	LAL	.00	LOL	324.65	VL	26.482	GAL	3.67	AZL	92.38	HCA	250.50	SMA	126.21	ECC	.20944	INC	2.3774	V1	29.423
RP	108.13	LAP	2.24	LOP	215.13	VP	37.460	GAP	8.88	AZP	89.21	TAL	165.86	TAP	56.36	RCA	99.77	APO	152.64	V2	35.047
RC	137.063	GL	-16.78	GP	20.21	ZAL	57.67	ZAP	152.59	ETS	41.86	ZAE	124.68	ETE	166.59	ZAC	120.10	ETC	257.49	CLP	-161.08

PLANETOCENTRIC CONIC

C3	14.424	VHL	3.798	DLA	-40.21	RAL	268.24	RAD	6567.6	VEL	11.654	PTH	2.05	VHP	6.248	DPA	1.83	RAP	237.90	ECC	1.2374

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.17	10 8 1	1444.82	29.74	11.32	135.72	118.42	10 32 6	844.8	33.28	3.32
119.83	16 50 18	5477.55	29.75	253.63	135.72	118.41	18 21 35	4877.5	33.29	245.62
60.17	10 8 1	1444.82	29.74	11.32	135.72	118.42	10 32 6	844.8	33.28	3.32
119.83	16 50 18	5477.55	29.75	253.63	135.72	118.41	18 21 35	4877.5	33.29	245.62
60.17	10 8 1	1444.82	29.74	11.32	135.72	118.42	10 32 6	844.8	33.28	3.32
119.83	16 50 18	5477.55	29.75	253.63	135.72	118.41	18 21 35	4877.5	33.29	245.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.9412	TRA	2.1461	TC3	-4.8375	BAU	.9346	SGT	5787.3	SGR	812.2	SG3	335.5	ST	1909.5	SR	518.4	SS	613.3
RDE	.3213	RRA	-.3098	RC3	.2946	FAU	.04123	RRT	-.8734	RRF	-.8652	RTF	.9738	CRT	-.9320	CRS	.7445	CST	-.9353
FDE	-.3461	FRA	1.6997	FC3	-2.4748	BSP	19012	SGB	5844.0	R23	.0221	R13	-.9740	LSA	2051.6	MSA	286.0	SSA	16.6
BDE	.9946	BRA	2.1684	BC3	4.8464	FSP	-1193	SG1	5830.8	SG2	392.6	THA	172.98	EL1	1970.2	EL2	182.1	ALF	165.67

LAUNCH DATE AUG 18 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 539.041

RL 151.43 LAL .00 LOL 324.65 VL 26.451 GAL 4.06 AZL 92.18 HCA 253.70 SMA 126.01 ECC .21334 INC 2.1826 V1 29.423
RP 108.17 LAP 2.09 LOP 218.34 VP 37.425 GAP 9.28 AZP 89.39 TAL 164.66 TAP 58.36 RCA 99.13 APO 152.89 V2 35.034
RC 139.266 GL -14.92 GP 19.18 ZAL 55.52 ZAP 154.18 ETS 42.58 ZAE 124.49 ETE 167.41 ZAC 119.36 ETC 257.94 CLP-162.38

PLANETOCENTRIC CONIC

C3 15.232 VHL 3.903 DLA -38.36 RAL 270.62 RAD 6567.6 VEL 11.688 PTH 2.06 VHP 6.439 DPA .33 RAP 239.34 ECC 1.2507

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.96	10 30 43	1419.31	28.10	8.19	138.18	117.26	10 54 22	819.3	31.51	.27
117.04	16 46 34	5527.36	28.11	256.81	138.18	117.25	18 18 42	4927.4	31.52	248.89
62.96	10 30 43	1419.31	28.10	8.19	138.18	117.26	10 54 22	819.3	31.51	.27
117.04	16 46 34	5527.36	28.11	256.81	138.18	117.25	18 18 42	4927.4	31.52	248.89
62.96	10 30 43	1419.31	28.10	8.19	138.18	117.26	10 54 22	819.3	31.51	.27
117.04	16 46 34	5527.36	28.11	256.81	138.18	117.25	18 18 42	4927.4	31.52	248.89

DIFFERENTIAL CORRECTIONS
TDE -.7946 TRA 2.3839 TC3-4.6125 BAU .9406
RDE .3122 RRA -.3191 RC3 .2479 FAU .03764
FDE -.2221 FRA 1.7566 FC3-2.1393 BSP 18930
BDE .8537 BRA 2.4052 BC3 4.6192 FSP -1115

MID-COURSE EXECUTION ACCURACY
SGT 5851.9 SGR 777.5 SG3 319.9
RRT -.8568 RRF -.8467 RTF .9724
SGB 5903.4 R23 .0188 R13 -.9726
SG1 5889.9 SG2 398.4 THA 173.48

ORBIT DETERMINATION ACCURACY
ST 1779.1 SR 492.2 SS 578.8
CRT -.8854 CRS .6378 CST -.9222
LSA 1907.9 MSA 319.4 SSA 16.5
EL1 1832.5 EL2 222.1 ALF 166.03

LAUNCH DATE AUG 18 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 544.810

RL 151.43 LAL .00 LOL 324.65 VL 26.419 GAL 4.48 AZL 91.99 HCA 256.90 SMA 125.81 ECC .21752 INC 1.9941 V1 29.423
RP 108.21 LAP 1.94 LOP 221.54 VP 37.390 GAP 9.69 AZP 89.55 TAL 163.45 TAP 60.35 RCA 98.44 APO 153.17 V2 35.021
RC 141.459 GL -13.17 GP 18.25 ZAL 53.44 ZAP 155.67 ETS 43.42 ZAE 124.29 ETE 168.14 ZAC 118.72 ETC 258.38 CLP-163.63

PLANETOCENTRIC CONIC

C3 16.190 VHL 4.024 DLA -36.59 RAL 272.86 RAD 6567.6 VEL 11.729 PTH 2.07 VHP 6.643 DPA -1.06 RAP 240.87 ECC 1.2664

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.80	10 54 10	1390.70	26.48	4.94	140.69	116.22	11 17 20	790.7	29.78	357.09
114.20	16 41 0	5583.56	26.50	260.48	140.69	116.21	18 14 4	4983.6	29.79	252.63
65.80	10 54 10	1390.70	26.48	4.94	140.69	116.22	11 17 20	790.7	29.78	357.09
114.20	16 41 0	5583.56	26.50	260.48	140.69	116.21	18 14 4	4983.6	29.79	252.63
65.80	10 54 10	1390.70	26.48	4.94	140.69	116.22	11 17 20	790.7	29.78	357.09
114.20	16 41 0	5583.56	26.50	260.48	140.69	116.21	18 14 4	4983.6	29.79	252.63

DIFFERENTIAL CORRECTIONS
TDE -.6570 TRA 2.6230 TC3-4.3848 BAU .9502
RDE .3082 RRA -.3275 RC3 .2120 FAU .03459
FDE -.1209 FRA 1.8006 FC3-1.8496 BSP 19055
BDE .7257 BRA 2.6434 BC3 4.3899 FSP -1059

MID-COURSE EXECUTION ACCURACY
SGT 5913.1 SGR 747.8 SG3 304.8
RRT -.8401 RRF -.8282 RTF .9717
SGB 5960.1 R23 .0148 R13 -.9718
SG1 5946.5 SG2 403.3 THA 173.91

ORBIT DETERMINATION ACCURACY
ST 1683.4 SR 472.2 SS 559.2
CRT -.8231 CRS .5275 CST -.9161
LSA 1802.1 MSA 349.1 SSA 16.3
EL1 1728.8 EL2 261.2 ALF 166.69

LAUNCH DATE AUG 18 1970 FLIGHT TIME 194.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 550.540

RL 151.43 LAL .00 LOL 324.65 VL 26.387 GAL 4.91 AZL 91.81 HCA 260.10 SMA 125.60 ECC .22201 INC 1.8107 V1 29.423
RP 108.25 LAP 1.78 LOP 224.74 VP 37.355 GAP 10.11 AZP 89.69 TAL 162.22 TAP 62.32 RCA 97.72 APO 153.49 V2 35.008
RC 143.643 GL -11.52 GP 17.41 ZAL 51.42 ZAP 157.07 ETS 44.42 ZAE 124.09 ETE 168.78 ZAC 118.15 ETC 258.83 CLP-164.84

PLANETOCENTRIC CONIC

C3 17.311 VHL 4.161 DLA -34.89 RAL 274.98 RAD 6567.7 VEL 11.777 PTH 2.08 VHP 6.859 DPA -2.36 RAP 242.49 ECC 1.2849

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.71	11 18 47	1357.70	24.89	1.46	143.24	115.27	11 41 25	757.7	28.08	353.68
111.29	16 33 16	5647.30	24.91	264.71	143.25	115.26	18 7 23	5047.3	28.09	256.93
68.71	11 18 47	1357.70	24.89	1.46	143.24	115.27	11 41 25	757.7	28.08	353.68
111.29	16 33 16	5647.30	24.91	264.71	143.25	115.26	18 7 23	5047.3	28.09	256.93
68.71	11 18 47	1357.70	24.89	1.46	143.24	115.27	11 41 25	757.7	28.08	353.68
111.29	16 33 16	5647.30	24.91	264.71	143.25	115.26	18 7 23	5047.3	28.09	256.93

DIFFERENTIAL CORRECTIONS
TDE -.5216 TRA 2.8703 TC3-4.1432 BAU .9598
RDE .3074 RRA -.3363 RC3 .1824 FAU .03178
FDE -.0340 FRA 1.8385 FC3-1.5892 BSP 19232
BDE .6055 BRA 2.8899 BC3 4.1472 FSP -1009

MID-COURSE EXECUTION ACCURACY
SGT 5968.4 SGR 721.8 SG3 290.2
RRT -.8236 RRF -.8099 RTF .9712
SGB 6011.9 R23 .0111 R13 -.9713
SG1 5998.1 SG2 407.4 THA 174.29

ORBIT DETERMINATION ACCURACY
ST 1617.6 SR 456.0 SS 550.0
CRT -.7449 CRS .4179 CST -.9169
LSA 1728.1 MSA 374.8 SSA 16.1
EL1 1654.1 EL2 297.5 ALF 167.74

LAUNCH DATE AUG 18 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 556.228

RL 151.43 LAL .00 LOL 324.65 VL 26.354 GAL 5.37 AZL 91.63 HCA 263.30 SMA 125.40 ECC .22685 INC 1.6309 V1 29.423
RP 108.29 LAP 1.62 LOP 227.94 VP 37.320 GAP 10.54 AZP 89.81 TAL 160.99 TAP 64.29 RCA 96.96 APO 153.85 V2 34.995
RC 145.816 GL -9.97 GP 16.65 ZAL 49.48 ZAP 158.39 ETS 45.58 ZAE 123.89 ETE 169.34 ZAC 117.64 ETC 259.29 CLP-166.03

PLANETOCENTRIC CONIC

C3 18.611 VHL 4.314 DLA -33.27 RAL 276.98 RAD 6567.8 VEL 11.832 PTH 2.10 VHP 7.089 DPA -3.57 RAP 244.17 ECC 1.3063

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.76	11 45 9	1318.46	23.34	357.61	145.83	114.41	12 7 7	718.5	26.43	349.89
108.24	16 22 50	5720.31	23.35	269.62	145.84	114.40	17 58 10	5120.3	26.44	261.90
71.76	11 45 9	1318.46	23.34	357.61	145.83	114.41	12 7 7	718.5	26.43	349.89
108.24	16 22 50	5720.31	23.35	269.62	145.84	114.40	17 58 10	5120.3	26.44	261.90
110.00	15 33 48	5870.76	18.20	278.48	143.04	119.45	17 11 39	5270.8	21.98	271.39
110.00	17 33 20	5504.04	28.70	255.24	148.23	109.42	19 5 4	4904.0	31.08	246.84

DIFFERENTIAL CORRECTIONS
TDE -.3871 TRA 3.1280 TC3-3.8889 BAU .9684
RDE .3091 RRA -.3457 RC3 .1573 FAU .02912
FDE .0414 FRA 1.8731 FC3-1.3547 BSP 19426
BDE .4954 BRA 3.1471 BC3 3.8921 FSP -963

MID-COURSE EXECUTION ACCURACY
SGT 6017.6 SGR 698.9 SG3 276.2
RRT -.8072 RRF -.7921 RTF .9708
SGB 6058.0 R23 .0081 R13 -.9709
SG1 6044.1 SG2 410.8 THA 174.62

ORBIT DETERMINATION ACCURACY
ST 1580.0 SR 442.4 SS 548.2
CRT -.6539 CRS .3148 CST -.9234
LSA 1684.1 MSA 394.9 SSA 15.8
EL1 1607.4 EL2 329.0 ALF 169.17

LAUNCH DATE AUG 18 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 561.870

RL	151.43	LAL	.00	LOL	324.65	VL	26.322	GAL	5.86	AZL	91.45	HCA	266.49	SMA	125.20	ECC	.23205	INC	1.4535	V1	29.423
RP	108.33	LAP	1.45	LOP	231.13	VP	37.285	GAP	10.99	AZP	89.91	TAL	159.75	TAP	66.24	RCA	96.15	APO	154.25	V2	34.982
RC	147.979	GL	-8.52	GP	15.96	ZAL	47.62	ZAP	159.64	ETS	46.93	ZAE	123.70	ETE	169.84	ZAC	117.20	ETC	259.76	CLP	-167.18

PLANETOCENTRIC CONIC

C3	20.110	VHL	4.484	DLA	-31.73	RAL	278.86	RAD	6567.8	VEL	11.895	PTH	2.11	VHP	7.333	DPA	-4.70	RAP	245.92	ECC	1.3310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.06	12 14 17	1269.61	21.83	353.14	148.47	113.62	12 35 26	669.6	24.83	345.49
104.94	16 8 43	5805.81	21.84	275.43	148.47	113.61	17 45 29	5205.8	24.84	267.77
75.06	12 14 17	1269.61	21.83	353.14	148.47	113.62	12 35 26	669.6	24.83	345.49
104.94	16 8 43	5805.81	21.84	275.43	148.47	113.61	17 45 29	5205.8	24.84	267.77
110.00	15 3 34	720.45	13.42	308.38	143.85	121.74	15 15 34	120.4	17.52	301.67
110.00	18 18 37	5402.97	30.78	248.10	152.03	105.66	19 48 40	4803.0	32.62	239.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2505	TRA	3.3993	TC3	-3.6237	BAU	.9749	SGT	6061.2	SGR	678.4	SG3	263.1	ST	1568.0	SR	430.3	SS	551.7
RDE	.3124	RRA	-.3560	RC3	.1355	FAU	.02655	RRT	-.7913	RRF	-.7750	RTF	.9705	CRT	-.5542	CRS	.2204	CST	-.9335
FDE	.1086	FRA	1.9062	FC3	-1.1431	BSP	19590	SGB	6099.1	R23	.0057	R13	-.9705	LSA	1667.6	MSA	408.6	SSA	15.4
BDE	.4005	BRA	3.4179	BC3	3.6263	FSP	-918	SG1	6085.1	SG2	413.1	THA	174.92	EL1	1587.0	EL2	353.8	ALF	170.90

LAUNCH DATE AUG 18 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 567.461

RL	151.43	LAL	.00	LOL	324.65	VL	26.290	GAL	6.38	AZL	91.28	HCA	269.68	SMA	125.00	ECC	.23766	INC	1.2775	V1	29.423
RP	108.37	LAP	1.28	LOP	234.33	VP	37.250	GAP	11.46	AZP	89.99	TAL	158.51	TAP	68.19	RCA	95.29	APO	154.71	V2	34.969
RC	150.132	GL	-7.16	GP	15.33	ZAL	45.84	ZAP	160.81	ETS	48.47	ZAE	123.50	ETE	170.29	ZAC	116.80	ETC	260.23	CLP	-168.31

PLANETOCENTRIC CONIC

C3	21.831	VHL	4.672	DLA	-30.26	RAL	280.64	RAD	6567.9	VEL	11.967	PTH	2.13	VHP	7.593	DPA	-5.76	RAP	247.73	ECC	1.3593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.85	12 48 29	1203.69	20.36	347.51	151.13	112.89	13 8 33	603.7	23.28	339.91
101.15	15 48 42	623.09	20.37	304.77	151.14	112.88	15 59 5	23.1	23.29	297.16
78.85	12 48 29	1203.69	20.36	347.51	151.13	112.89	13 8 33	603.7	23.28	339.91
101.15	15 48 42	623.09	20.37	304.77	151.14	112.88	15 59 5	23.1	23.29	297.16
110.00	14 45 24	822.65	9.69	313.96	145.30	122.94	14 59 7	222.7	13.96	307.46
110.00	18 50 57	5340.17	31.84	243.52	155.28	103.14	20 19 57	4740.2	33.32	234.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1130	TRA	3.6834	TC3	-3.3548	BAU	.9797	SGT	6098.8	SGR	659.4	SG3	250.5	ST	1577.8	SR	419.4	SS	558.3
RDE	.3174	RRA	-.3670	RC3	.1167	FAU	.02410	RRT	-.7760	RRF	-.7587	RTF	.9702	CRT	-.4526	CRS	.1375	CST	-.9450
FDE	.1677	FRA	1.9377	FC3	-.9559	BSP	19748	SGB	6134.4	R23	.0038	R13	-.9703	LSA	1674.5	MSA	415.6	SSA	15.1
BDE	.3369	BRA	3.7016	BC3	3.3568	FSP	-876	SG1	6120.4	SG2	414.5	THA	175.18	EL1	1589.8	EL2	371.2	ALF	172.74

LAUNCH DATE AUG 18 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 572.995

RL	151.43	LAL	.00	LOL	324.65	VL	26.257	GAL	6.93	AZL	91.10	HCA	272.87	SMA	124.80	ECC	.24372	INC	1.1018	V1	29.423
RP	108.41	LAP	1.10	LOP	237.52	VP	37.215	GAP	11.95	AZP	90.06	TAL	157.27	TAP	70.14	RCA	94.38	APO	155.22	V2	34.956
RC	152.275	GL	-5.90	GP	14.76	ZAL	44.14	ZAP	161.91	ETS	50.25	ZAE	123.31	ETE	170.68	ZAC	116.44	ETC	260.72	CLP	-169.41

PLANETOCENTRIC CONIC

C3	23.801	VHL	4.879	DLA	-28.88	RAL	282.31	RAD	6568.0	VEL	12.049	PTH	2.15	VHP	7.868	DPA	-6.74	RAP	249.59	ECC	1.3917

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.08	13 35 59	1093.89	18.94	338.76	153.83	112.22	13 54 13	493.9	21.79	331.20
95.92	15 14 34	774.93	18.95	315.39	153.83	112.21	15 27 28	174.9	21.80	307.83
100.00	14 41 19	881.87	13.51	320.68	151.24	116.92	14 56 1	281.9	17.01	313.64
100.00	16 51 55	5750.21	24.56	272.38	156.02	107.59	18 27 45	5150.2	26.74	264.25
110.00	14 32 27	909.76	6.44	318.60	147.05	123.64	14 47 37	309.8	10.81	312.24
110.00	19 17 16	5295.09	32.49	240.16	158.34	101.26	20 45 31	4695.1	33.70	231.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0258	TRA	3.9813	TC3	-3.0872	BAU	.9829	SGT	6130.9	SGR	641.7	SG3	238.7	ST	1604.8	SR	409.4	SS	566.5
RDE	.3236	RRA	-.3785	RC3	.1006	FAU	.02179	RRT	-.7613	RRF	-.7434	RTF	.9702	CRT	-.3543	CRS	.0661	CST	-.9561
FDE	.2199	FRA	1.9680	FC3	-.7927	BSP	19918	SGB	6164.4	R23	.0022	R13	-.9702	LSA	1700.0	MSA	416.5	SSA	14.8
BDE	.3246	BRA	3.9992	BC3	3.0888	FSP	-837	SG1	6150.4	SG2	414.8	THA	175.42	EL1	1611.7	EL2	381.2	ALF	174.53

LAUNCH DATE AUG 18 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 578.465

RL	151.43	LAL	.00	LOL	324.65	VL	26.225	GAL	7.51	AZL	90.93	HCA	276.06	SMA	124.60	ECC	.25026	INC	.9252	V1	29.423
RP	108.45	LAP	.92	LOP	240.70	VP	37.180	GAP	12.47	AZP	90.10	TAL	156.03	TAP	72.09	RCA	93.42	APO	155.79	V2	34.943
RC	154.408	GL	-4.72	GP	14.24	ZAL	42.53	ZAP	162.94	ETS	52.29	ZAE	123.12	ETE	171.04	ZAC	116.12	ETC	261.21	CLP	-170.50

PLANETOCENTRIC CONIC

C3	26.054	VHL	5.104	DLA	-27.57	RAL	283.89	RAD	6568.1	VEL	12.142	PTH	2.18	VHP	8.162	DPA	-7.65	RAP	251.50	ECC	1.4288

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 34 28	1142.68	12.89	339.55	154.44	115.43	13 53 30	542.7	16.21	332.44
90.00	15 28 42	770.66	22.38	316.41	158.38	107.82	15 41 32	170.7	24.61	308.45
100.00	14 14 14	1014.15	9.31	328.26	152.58	118.53	14 31 8	414.2	13.05	321.47
100.00	17 31 36	5662.46	26.23	266.40	159.62	104.87	19 5 59	5062.5	28.02	258.05
110.00	14 22 33	988.01	3.47	322.71	149.01	124.03	14 39 1	388.0	7.91	316.44
110.00	19 39 46	5261.37	32.91	237.62	161.30	99.81	21 7 28	4661.4	33.91	228.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1662	TRA	4.2939	TC3	-2.8235	BAU	.9839	SGT	6156.9	SGR	624.7	SG3	227.4	ST	1644.1	SR	399.9	SS	575.3
RDE	.3308	RRA	-.3905	RC3	.0865	FAU	.01960	RRT	-.7472	RRF	-.7289	RTF	.9703	CRT	-.2630	CRS	.0054	CST	-.9658
FDE	.2660	FRA	1.9977	FC3	-.6511	BSP	20089	SGB	6188.5	R23	.0009	R13	-.9703	LSA	1738.8	MSA	412.6	SSA	14.4
BDE	.3703	BRA	4.3116	BC3	2.8248	FSP	-801	SG1	6174.6	SG2	414.0	THA	175.65	EL1	1647.6	EL2	385.0	ALF	176.13

LAUNCH DATE AUG 18 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 583.863

RL	151.43	LAL	.00	LOL	324.65	VL	26.193	GAL	8.13	AZL	90.75	HCA	279.24	SMA	124.40	ECC	.25735	INC	.7467	V1	29.423		
RP	108.49	LAP	.74	LOP	243.89	VP	37.146	GAP	13.01	AZP	90.12	TAL	154.80	TAP	74.04	RCA	92.39	APO	156.42	V2	34.931		
RC	156.530	GL	-3.62	GP	13.76	ZAL	41.00	ZAP	163.91	ETS	54.61	ZAE	122.92	ETE	171.36	ZAC	115.83	ETC	261.71	CLP	-171.58		

PLANETOCENTRIC CONIC

C3	28.629	VHL	5.351	DLA	-26.33	RAL	285.38	RAD	6568.2	VEL	12.248	PTH	2.20	VHP	8.476	DPA	-8.50	RAP	253.45	ECC	1.4712		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 4 36	1285.01	8.60	347.80	155.80	117.08	13 26 1	685.0	12.16	340.93
90.00	16 10 26	675.21	24.22	310.02	162.06	105.13	16 21 41	75.2	26.07	301.84
100.00	13 56 53	1116.16	5.95	333.96	154.36	119.35	14 15 29	516.2	9.81	327.31
100.00	18 0 50	5607.53	27.14	262.55	162.87	103.04	19 34 17	5007.3	28.66	254.08
110.00	14 14 41	1060.28	.71	326.49	151.12	124.18	14 32 21	460.3	5.19	320.26
110.00	19 59 31	5235.98	33.19	235.69	164.21	98.70	21 26 47	4636.0	34.03	226.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3082	TRA	4.6219	TC3	-2.5675	BAU	.9831	SGT	6176.7	SGR	608.0	SG3	216.8	ST	1691.2	SR	390.7	SS	584.0
RDE	.3391	RRA	-.4027	RC3	.0742	FAU	.01753	RRT	-.7337	RRF	-.7153	RTF	.9705	CRT	-.1809	CRS	-.0460	CST	-.9738
FDE	.3067	FRA	2.0269	FC3	-.5300	BSP	20279	SGB	6206.6	R23	-.0000	R13	-.9705	LSA	1785.9	MSA	405.4	SSA	14.0
BDE	.4582	BRA	4.6394	BC3	2.5686	FSP	-767	SG1	6192.9	SG2	412.0	THA	175.85	EL1	1692.8	EL2	383.9	ALF	177.48

LAUNCH DATE AUG 18 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 589.180

RL	151.43	LAL	.00	LOL	324.65	VL	26.161	GAL	8.79	AZL	90.57	HCA	282.42	SMA	124.21	ECC	.26504	INC	.5649	V1	29.423		
RP	108.53	LAP	.55	LOP	247.07	VP	37.112	GAP	13.59	AZP	90.12	TAL	153.58	TAP	76.00	RCA	91.29	APO	157.13	V2	34.919		
RC	158.641	GL	-2.60	GP	13.32	ZAL	39.55	ZAP	164.81	ETS	57.25	ZAE	122.72	ETE	171.65	ZAC	115.56	ETC	262.22	CLP	-172.64		

PLANETOCENTRIC CONIC

C3	31.575	VHL	5.619	DLA	-25.16	RAL	286.78	RAD	6568.3	VEL	12.367	PTH	2.23	VHP	8.812	DPA	-9.28	RAP	255.43	ECC	1.5196		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 46 9	1391.10	5.26	353.81	157.62	117.86	13 9 20	791.1	8.95	347.07
90.00	16 40 3	618.22	25.18	306.12	165.35	103.40	16 50 22	18.2	26.78	297.82
100.00	13 44 5	1204.06	2.99	338.82	156.37	119.76	14 4 9	604.1	6.93	332.24
100.00	18 24 49	5568.54	27.71	259.81	165.97	101.70	19 57 37	4968.5	29.04	251.26
110.00	14 8 16	1128.18	-1.89	330.03	153.33	124.14	14 27 4	528.2	2.60	323.82
110.00	20 17 7	5217.18	33.37	234.26	167.11	97.86	21 44 4	4617.2	34.10	225.09

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4529	TRA	4.9673	TC3	-2.3201	BAU	.9797	SGT	6190.9	SGR	591.4	SG3	206.7	ST	1742.9	SR	381.6	SS	592.6
RDE	.3480	RRA	-.4152	RC3	.0634	FAU	.01556	RRT	-.7208	RRF	-.7025	RTF	.9710	CRT	-.1081	CRS	-.0896	CST	-.9801
FDE	.3432	FRA	2.0567	FC3	-.4265	BSP	20479	SGB	6219.1	R23	-.0007	R13	-.9710	LSA	1837.9	MSA	395.8	SSA	13.7
BDE	.5712	BRA	4.9846	BC3	2.3209	FSP	-737	SG1	6205.6	SG2	409.0	THA	176.04	EL1	1743.4	EL2	379.3	ALF	178.58

LAUNCH DATE AUG 18 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 594.404

RL	151.43	LAL	.00	LOL	324.65	VL	26.129	GAL	9.50	AZL	90.38	HCA	285.60	SMA	124.02	ECC	.27341	INC	.3788	V1	29.423		
RP	108.56	LAP	.37	LOP	250.25	VP	37.079	GAP	14.20	AZP	90.10	TAL	152.37	TAP	77.97	RCA	90.11	APO	157.92	V2	34.907		
RC	160.740	GL	-1.65	GP	12.93	ZAL	38.19	ZAP	165.64	ETS	60.26	ZAE	122.52	ETE	171.91	ZAC	115.31	ETC	262.74	CLP	-173.70		

PLANETOCENTRIC CONIC

C3	34.947	VHL	5.912	DLA	-24.07	RAL	288.10	RAD	6568.4	VEL	12.503	PTH	2.26	VHP	9.173	DPA	-9.99	RAP	257.44	ECC	1.5751		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 32 38	1481.49	2.36	358.87	159.68	118.23	12 57 20	881.5	6.12	352.21
90.00	17 4 3	5867.03	25.77	281.31	168.48	102.16	18 41 50	5267.0	27.19	272.92
100.00	13 34 2	1283.32	.31	343.17	158.54	119.89	13 55 25	683.3	4.28	336.64
100.00	18 45 21	5540.43	28.08	257.80	169.00	100.70	20 17 42	4940.4	29.27	249.20
110.00	14 2 56	1192.69	-4.35	333.40	155.64	123.94	14 22 48	592.7	.14	327.19
110.00	20 32 56	5203.83	33.49	233.23	170.00	97.27	21 59 40	4603.8	34.14	224.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6011	TRA	5.3322	TC3	-2.0821	BAU	.9731	SGT	6199.6	SGR	574.7	SG3	197.1	ST	1796.7	SR	372.4	SS	601.1
RDE	.3576	RRA	-.4277	RC3	.0536	FAU	.01366	RRT	-.7084	RRF	-.6904	RTF	.9716	CRT	-.0441	CRS	-.1269	CST	-.9851
FDE	.3763	FRA	2.0877	FC3	-.3385	BSP	20675	SGB	6226.2	R23	-.0012	R13	-.9716	LSA	1892.0	MSA	384.8	SSA	13.3
BDE	.6994	BRA	5.3493	BC3	2.0828	FSP	-707	SG1	6213.0	SG2	404.7	THA	176.23	EL1	1796.8	EL2	372.0	ALF	179.45

LAUNCH DATE AUG 18 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 599.520

RL	151.43	LAL	.00	LOL	324.65	VL	26.097	GAL	10.26	AZL	90.19	HCA	288.78	SMA	123.82	ECC	.28252	INC	.1868	V1	29.423		
RP	108.60	LAP	.18	LOP	253.42	VP	37.046	GAP	14.85	AZP	90.06	TAL	151.19	TAP	79.97	RCA	88.84	APO	158.81	V2	34.896		
RC	162.826	GL	-.77	GP	12.56	ZAL	36.92	ZAP	166.40	ETS	63.66	ZAE	122.30	ETE	172.15	ZAC	115.07	ETC	263.26	CLP	-174.76		

PLANETOCENTRIC CONIC

C3	38.815	VHL	6.230	DLA	-23.03	RAL	289.33	RAD	6568.5	VEL	12.656	PTH	2.30	VHP	9.562	DPA	-10.65	RAP	259.48	ECC	1.6388		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 22 3	1562.52	-.25	3.39	161.89	118.32	12 48 5	962.5	3.54	356.76
90.00	17 24 29	5839.05	26.16	279.35	171.52	101.25	19 1 48	5239.1	27.45	270.92
100.00	13 25 51	1356.60	-2.18	347.19	160.81	119.82	13 48 27	756.6	1.81	340.67
100.00	19 3 22	5520.21	28.32	256.35	171.98	99.98	20 35 22	4920.2	29.41	247.71
110.00	13 58 25	1254.45	-6.69	336.66	158.02	123.60	14 19 20	654.5	-2.22	330.41
110.00	20 47 17	5195.12	33.57	232.56	172.89	96.88	22 13 52	4595.1	34.15	223.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7542	TRA	5.7191	TC3	-1.8542	BAU	.9625	SGT	6203.4	SGR	557.6	SG3	188.1	ST	1850.8	SR	362.9	SS	609.6
RDE	.3676	RRA	-.4402	RC3	.0448	FAU	.01183	RRT	-.6963	RRF	-.6788	RTF	.9723	CRT	.0121	CRS	-.1592	CST	-.9888
FDE	.4070	FRA	2.1208	FC3	-.2638	BSP	20858	SGB	6228.4	R23	-.0014	R13	-.9723	LSA	1946.7	MSA	372.7	SSA	12.9
BDE	.8390	BRA	5.7360	BC3	1.8547	FSP	-679	SG1	6215.6	SG2	399.4	THA	176.40	EL1	1850.8	EL2	362.9	ALF	.14

LAUNCH DATE AUG 18 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 604.512

RL	151.43	LAL	.00	LOL	324.65	VL	26.066	GAL	11.07	AZL	89.99	HCA	291.95	SMA	123.64	ECC	.29246	INC	.0000	V1	29.423
RP	108.63	LAP	-.01	LOP	256.60	VP	37.013	GAP	15.55	AZP	90.00	TAL	150.03	TAP	81.98	RCA	87.48	APO	159.79	V2	34.885
RC	164.900	GL	.05	GP	12.23	ZAL	35.72	ZAP	167.09	ETS	67.49	ZAE	122.08	ETE	172.37	ZAC	114.84	ETC	263.79	CLP	-175.82

PLANETOCENTRIC CONIC

C3	43.263	VHL	6.577	DLA	-22.06	RAL	290.48	RAD	6568.6	VEL	12.831	PTH	2.34	VHP	9.981	DPA	-11.25	RAP	261.53	ECC	1.7120

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 13 25	1637.10	-2.65	7.55	164.19	118.20	12 40 42	1037.1	1.14	.92
90.00	17 42 18	5819.24	26.41	277.95	174.51	100.60	19 19 17	5219.2	27.61	269.49
100.00	13 19 1	1425.37	-4.50	350.97	163.17	119.58	13 42 46	825.4	-.52	344.44
100.00	19 19 23	5506.20	28.49	255.34	174.93	99.47	20 51 9	4906.2	29.50	246.68
110.00	13 54 34	1313.91	-8.91	339.82	160.47	123.14	14 16 28	713.9	-4.49	333.52
110.00	21 0 19	5190.42	33.60	232.20	175.77	96.67	22 26 50	4590.4	34.16	223.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.9135	TRA	6.1307	TC3	-1.6364	BAU .9467	SGT 6202.5	SGR 539.9	SG3 179.6	ST 1904.1	SR 353.1 SS 618.3
RDE	.3780	RRA	-.4523	RC3	.0368	FAU .01002	RRT -.6844	RRF -.6676	RTF .9732	CRT .0616	CRS -.1876 CST -.9917
FDE	.4360	FRA	2.1565	FC3	-.2005	BSP 21004	SGB 6226.0	R23 -.0015	R13 -.9732	LSA 2000.8	MSA 360.0 SSA 12.6
BDE	.9886	BRA	6.1474	BC3	1.6368	FSP -651	SG1 6213.6	SG2 393.0	THA 176.58	EL1 1904.3	EL2 352.4 ALF .68

LAUNCH DATE AUG 18 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 609.358

RL	151.43	LAL	.00	LOL	324.65	VL	26.035	GAL	11.95	AZL	89.78	HCA	295.13	SMA	123.45	ECC	.30335	INC	.2196	V1	29.423
RP	108.66	LAP	-.20	LOP	259.77	VP	36.982	GAP	16.30	AZP	89.91	TAL	148.91	TAP	84.03	RCA	86.00	APO	160.90	V2	34.874
RC	166.961	GL	.81	GP	11.92	ZAL	34.62	ZAP	167.68	ETS	71.79	ZAE	121.83	ETE	172.58	ZAC	114.63	ETC	264.33	CLP	-176.88

PLANETOCENTRIC CONIC

C3	48.394	VHL	6.957	DLA	-21.15	RAL	291.55	RAD	6568.8	VEL	13.029	PTH	2.38	VHP	10.436	DPA	-11.78	RAP	263.59	ECC	1.7964

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 6 11	1706.83	-4.89	11.46	166.58	117.93	12 34 38	1106.8	-1.11	4.81
90.00	17 58 5	5805.77	26.58	277.00	177.46	100.15	19 34 51	5205.8	27.71	268.52
100.00	13 13 12	1490.54	-6.68	354.59	165.60	119.20	13 38 2	890.5	-2.73	348.02
100.00	19 33 45	5497.30	28.58	254.69	177.85	99.14	21 5 22	4897.3	29.55	246.02
110.00	13 51 14	1371.35	-11.03	342.91	162.96	122.56	14 14 5	771.3	-6.66	336.55
110.00	21 12 13	5189.25	33.61	232.11	178.66	96.62	22 38 42	4589.3	34.16	222.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	1.0807	TRA	6.5708	TC3	-1.4288	BAU .9246	SGT 6198.1	SGR 521.6	SG3 171.7	ST 1956.1	SR 342.9 SS 627.8
RDE	.3887	RRA	-.4640	RC3	.0294	FAU .00823	RRT -.6725	RRF -.6567	RTF .9743	CRT .1057	CRS -.2130 CST -.9939
FDE	.4642	FRA	2.1961	FC3	-.1471	BSP 21095	SGB 6220.0	R23 -.0015	R13 -.9743	LSA 2053.7	MSA 346.7 SSA 12.2
BDE	1.1485	BRA	6.5872	BC3	1.4291	FSP -622	SG1 6208.0	SG2 385.4	THA 176.75	EL1 1956.4	EL2 340.9 ALF 1.09

LAUNCH DATE AUG 18 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 614.032

RL	151.43	LAL	.00	LOL	324.65	VL	26.004	GAL	12.90	AZL	89.56	HCA	298.30	SMA	123.27	ECC	.31531	INC	.4387	V1	29.423
RP	108.69	LAP	-.39	LOP	262.94	VP	36.951	GAP	17.12	AZP	89.79	TAL	147.83	TAP	86.12	RCA	84.40	APO	162.14	V2	34.864
RC	169.007	GL	1.51	GP	11.64	ZAL	33.59	ZAP	168.19	ETS	76.58	ZAE	121.57	ETE	172.77	ZAC	114.42	ETC	264.86	CLP	-177.96

PLANETOCENTRIC CONIC

C3	54.334	VHL	7.371	DLA	-20.30	RAL	292.54	RAD	6569.0	VEL	13.255	PTH	2.42	VHP	10.931	DPA	-12.26	RAP	265.65	ECC	1.8942

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 0 0	1772.69	-6.98	15.18	169.02	117.51	12 29 32	1172.7	-3.24	8.49
90.00	18 12 10	5797.47	26.68	276.41	180.37	99.87	19 48 48	5197.5	27.77	267.92
100.00	13 8 10	1552.69	-8.72	358.06	168.08	118.70	13 34 3	952.7	-4.83	351.44
100.00	19 46 41	5492.71	28.63	254.36	180.74	98.98	21 18 14	4892.7	29.58	245.68
110.00	13 48 17	1426.96	-13.05	345.96	165.50	121.88	14 12 4	827.0	-8.75	339.51
110.00	21 23 3	5191.20	33.60	232.26	181.54	96.70	22 49 34	4591.2	34.16	223.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	1.2579	TRA	7.0434	TC3	-1.2313	BAU .8946	SGT 6190.8	SGR 502.5	SG3 164.3	ST 2006.4	SR 332.3 SS 638.2
RDE	.3996	RRA	-.4749	RC3	.0226	FAU .00641	RRT -.6603	RRF -.6456	RTF .9756	CRT .1453	CRS -.2363 CST -.9955
FDE	.4922	FRA	2.2403	FC3	-.1021	BSP 21106	SGB 6211.1	R23 -.0014	R13 -.9756	LSA 2105.3	MSA 333.1 SSA 11.8
BDE	1.3198	BRA	7.0594	BC3	1.2315	FSP -593	SG1 6199.7	SG2 376.8	THA 176.92	EL1 2007.0	EL2 328.7 ALF 1.42

LAUNCH DATE AUG 18 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 618.503

RL	151.43	LAL	.00	LOL	324.65	VL	25.974	GAL	13.93	AZL	89.33	HCA	301.46	SMA	123.09	ECC	.32847	INC	.6711	V1	29.423
RP	108.72	LAP	-.57	LOP	266.11	VP	36.920	GAP	18.01	AZP	89.65	TAL	146.79	TAP	88.26	RCA	82.66	APO	163.52	V2	34.855
RC	171.039	GL	2.16	GP	11.38	ZAL	32.66	ZAP	168.58	ETS	81.85	ZAE	121.28	ETE	172.95	ZAC	114.21	ETC	265.39	CLP	-179.06

PLANETOCENTRIC CONIC

C3	61.240	VHL	7.826	DLA	-19.50	RAL	293.45	RAD	6569.1	VEL	13.513	PTH	2.47	VHP	11.473	DPA	-12.69	RAP	267.70	ECC	2.0078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 54 37	1835.28	-8.93	18.74	171.50	116.98	12 25 13	1235.3	-5.24	12.00
90.00	18 24 48	5793.48	26.72	276.13	183.24	99.73	20 1 21	5193.5	27.80	267.63
100.00	13 3 45	1612.21	-10.65	1.43	170.58	118.10	13 30 37	1012.2	-6.81	354.74
100.00	19 58 21	5491.80	28.64	254.30	183.59	98.94	21 29 53	4891.8	29.58	245.62
110.00	13 45 40	1480.86	-14.97	348.96	168.07	121.10	14 10 21	880.9	-10.74	342.41
110.00	21 32 56	5195.90	33.56	232.62	184.39	96.91	22 59 32	4595.9	34.15	223.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	1.4461	TRA	7.5523	TC3	-1.0448	BAU .8555	SGT 6181.1	SGR 482.5	SG3 157.4	ST 2054.4	SR 321.3 SS 650.0
RDE	.4108	RRA	-.4846	RC3	.0165	FAU .00456	RRT -.6477	RRF -.6342	RTF .9770	CRT .1813	CRS -.2581 CST -.9967
FDE	.5206	FRA	2.2900	FC3	-.0644	BSP 21024	SGB 6199.9	R23 -.0012	R13 -.9770	LSA 2155.0	MSA 319.2 SSA 11.4
BDE	1.5033	BRA	7.5679	BC3	1.0449	FSP -563	SG1 6189.0	SG2 367.2	THA 177.10	EL1 2055.2	EL2 315.8 ALF 1.66

LAUNCH DATE AUG 19 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 28 1970

HELIOCENTRIC CONIC DISTANCE 154.848

RL	151.40	LAL	-.00	LOL	325.61	VL	21.597	GAL	3.58	AZL	93.00	HCA	60.59	SMA	103.14	ECC	.47117	INC	2.9978	V1	29.429		
RP	108.40	LAP	-2.61	LOP	26.16	VP	34.087	GAP	-27.97	AZP	91.47	TAL	175.96	TAP	236.55	RCA	54.54	APO	151.73	V2	34.961		
RC	44.337	GL	-7.94	GP	-6.61	ZAL	78.04	ZAP	18.51	ETS	156.89	ZAE	168.94	ETE	170.96	ZAC	91.96	ETC	257.51	CLP	17.32		

PLANETOCENTRIC CONIC

C3	66.568	VHL	8.159	DLA	-29.42	RAL	244.42	RAD	6569.3	VEL	13.708	PTH	2.50	VHP	16.617	DPA	-20.32	RAP	219.17	ECC	2.0955		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.65	10 41 32	1412.21	11.89	358.84	132.49	117.12	11 5 5	812.2	15.43	351.87
98.35	12 58 50	968.70	11.90	326.28	132.50	117.11	13 14 59	368.7	15.44	319.31
100.00	12 27 7	1070.31	7.47	331.41	130.10	119.03	12 44 57	470.3	11.28	324.70
100.00	13 55 57	785.82	16.39	315.01	134.78	115.35	14 9 3	185.8	19.67	307.75
110.00	12 4 44	1140.82	-2.37	330.69	124.06	124.11	12 23 45	540.8	2.12	324.48
110.00	16 34 49	5576.13	26.97	260.13	139.74	111.84	18 7 45	4976.1	29.69	252.00

DIFFERENTIAL CORRECTIONS

TDE	.1867	TRA	-.9758	TC3	-.0599	BAU	.0538	SGT	803.5	SGR	444.4	SG3	45.3	ST	270.0	SR	443.9	SS	213.6				
RDE	-.6321	RRA	-.0204	RC3	.0084	FAU	.01669	RRT	-.1304	RRF	.1376	RTF	-.6470	CRT	-.4758	CRS	-.6437	CST	.9756				
FDE	-.1382	FRA	.4642	FC3	-.2170	BSP	2003	SGB	918.2	R23	-.0175	R13	.6490	LSA	499.3	MSA	257.1	SSA	14.2				
BDE	.6590	BRA	.9760	BC3	.0604	FSP	-96	SG1	806.5	SG2	439.0	THA	174.13	EL1	468.2	EL2	225.1	ALF	111.28				

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 19 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 161.310

RL	151.40	LAL	-.00	LOL	325.61	VL	22.067	GAL	3.37	AZL	92.77	HCA	63.77	SMA	104.81	ECC	.44761	INC	2.7717	V1	29.429		
RP	108.36	LAP	-2.49	LOP	29.35	VP	34.400	GAP	-26.53	AZP	91.23	TAL	175.82	TAP	239.60	RCA	57.90	APO	151.72	V2	34.974		
RC	43.276	GL	-7.98	GP	-6.89	ZAL	77.68	ZAP	17.11	ETS	153.98	ZAE	171.19	ETE	172.25	ZAC	91.94	ETC	257.70	CLP	15.70		

PLANETOCENTRIC CONIC

C3	58.934	VHL	7.677	DLA	-29.52	RAL	244.82	RAD	6569.1	VEL	13.427	PTH	2.45	VHP	15.831	DPA	-21.13	RAP	220.62	ECC	1.9699		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.29	10 40 17	1391.97	12.83	357.83	131.09	116.82	11 3 29	792.0	16.33	350.81
98.71	13 3 19	930.08	12.85	323.91	131.09	116.81	13 18 49	330.1	16.34	316.89
100.00	12 33 33	1025.33	8.95	328.89	129.01	118.64	12 50 39	425.3	12.70	322.11
100.00	13 52 44	771.95	16.79	314.17	133.08	115.10	14 5 36	171.9	20.04	306.88
110.00	12 7 41	1106.84	-1.07	328.91	122.89	124.17	12 26 8	506.8	3.42	322.71
110.00	16 35 5	5551.24	27.59	258.46	138.03	111.03	18 7 36	4951.2	30.19	250.23

DIFFERENTIAL CORRECTIONS

TDE	.1875	TRA	-.9596	TC3	-.0498	BAU	.0395	SGT	838.3	SGR	449.0	SG3	49.8	ST	283.8	SR	448.8	SS	221.9				
RDE	-.6013	RRA	-.0113	RC3	.0055	FAU	.01729	RRT	-.1475	RRF	.1541	RTF	-.6685	CRT	-.4875	CRS	-.6420	CST	.9788				
FDE	-.1406	FRA	.4787	FC3	-.2541	BSP	2188	SGB	951.0	R23	-.0177	R13	.6706	LSA	510.8	MSA	264.8	SSA	14.5				
BDE	.6299	BRA	.9597	BC3	.0501	FSP	-108	SG1	842.0	SG2	442.2	THA	173.76	EL1	477.1	EL2	233.1	ALF	112.89				

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 19 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 167.824

RL	151.40	LAL	-.00	LOL	325.61	VL	22.502	GAL	3.14	AZL	92.56	HCA	66.96	SMA	106.44	ECC	.42528	INC	2.5575	V1	29.429		
RP	108.32	LAP	-2.35	LOP	32.55	VP	34.694	GAP	-25.15	AZP	91.00	TAL	175.74	TAP	242.70	RCA	61.17	APO	151.71	V2	34.987		
RC	42.355	GL	-7.98	GP	-7.20	ZAL	77.42	ZAP	15.77	ETS	150.49	ZAE	173.58	ETE	174.94	ZAC	91.89	ETC	257.89	CLP	14.07		

PLANETOCENTRIC CONIC

C3	52.214	VHL	7.226	DLA	-29.56	RAL	245.12	RAD	6568.9	VEL	13.175	PTH	2.41	VHP	15.077	DPA	-21.96	RAP	222.08	ECC	1.8593		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.13	10 40 13	1366.12	13.76	356.39	129.52	116.43	11 2 59	766.1	17.20	349.31
98.87	13 5 43	896.29	13.78	321.89	129.53	116.42	13 20 40	296.3	17.21	314.81
100.00	12 37 7	987.85	10.16	326.77	127.62	118.26	12 53 34	387.8	13.86	319.93
100.00	13 51 31	749.80	17.43	312.83	131.34	114.68	14 4 1	149.8	20.61	305.49
110.00	12 9 28	1074.96	.15	327.25	121.54	124.18	12 27 23	475.0	4.63	321.04
110.00	16 35 38	5523.49	28.25	256.57	136.17	110.09	18 7 42	4923.5	30.72	248.25

DIFFERENTIAL CORRECTIONS

TDE	.1878	TRA	-.9446	TC3	-.0369	BAU	.0258	SGT	875.5	SGR	453.1	SG3	54.7	ST	298.2	SR	453.1	SS	230.4				
RDE	-.5715	RRA	-.0027	RC3	.0014	FAU	.01796	RRT	-.1650	RRF	.1725	RTF	-.6884	CRT	-.4979	CRS	-.6406	CST	.9814				
FDE	-.1432	FRA	.4936	FC3	-.2977	BSP	2345	SGB	985.9	R23	-.0197	R13	.6907	LSA	522.4	MSA	272.4	SSA	14.7				
BDE	.6015	BRA	.9446	BC3	.0370	FSP	-121	SG1	879.8	SG2	444.7	THA	173.44	EL1	485.9	EL2	241.2	ALF	114.56				

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 19 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 174.382

RL	151.40	LAL	-.00	LOL	325.61	VL	22.906	GAL	2.90	AZL	92.35	HCA	70.16	SMA	108.03	ECC	.40414	INC	2.3530	V1	29.429		
RP	108.27	LAP	-2.21	LOP	35.75	VP	34.970	GAP	-23.84	AZP	90.80	TAL	175.71	TAP	245.87	RCA	64.37	APO	151.69	V2	35.000		
RC	41.583	GL	-7.93	GP	-7.53	ZAL	77.27	ZAP	14.52	ETS	146.29	ZAE	176.07	ETE	181.91	ZAC	91.80	ETC	258.10	CLP	12.45		

PLANETOCENTRIC CONIC

C3	46.296	VHL	6.804	DLA	-29.55	RAL	245.30	RAD	6568.7	VEL	12.948	PTH	2.36	VHP	14.355	DPA	-22.81	RAP	223.54	ECC	1.7619		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.18	10 41 22	1334.71	14.65	354.52	127.81	115.95	11 3 37	734.7	18.03	347.38
98.82	13 6 1	867.66	14.67	320.22	127.82	115.94	13 20 28	267.7	18.04	313.08
100.00	12 37 0	960.50	11.04	325.21	125.92	117.96	12 53 0	360.5	14.69	318.33
100.00	13 53 4	717.10	18.35	310.84	129.60	114.02	14 5 1	117.1	21.44	303.41
110.00	12 9 59	1045.64	1.27	325.72	120.02	124.16	12 27 25	445.6	5.74	319.49
110.00	16 36 34	5492.76	28.95	254.46	134.16	109.02	18 8 7	4892.8	31.27	246.02

DIFFERENTIAL CORRECTIONS

TDE	.1883	TRA	-.9293	TC3	-.0201	BAU	.0127	SGT	913.8	SGR	456.9	SG3	60.1	ST	313.0	SR	456.8	SS	238.8				
RDE	-.5425	RRA	.0053	RC3	-.0042	FAU	.01869	RRT	-.1842	RRF	.1929	RTF	-.7071	CRT	-.5095	CRS	-.6395	CST	.9841				
FDE	-.1456	FRA	.5087	FC3	-.3495	BSP	2497	SGB	1021.6	R23	-.0221	R13	.7096	LSA	534.2	MSA	279.3	SSA	15.0				
BDE	.5742	BRA	.9293	BC3	.0205	FSP	-136	SG1	918.9	SG2	446.6	THA	173.10	EL1	494.8	EL2	248.6	ALF	116.38				

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 19 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 180.982

RL	151.40	LAL	-.00	LOL	325.61	VL	23.279	GAL	2.65	AZL	92.16	HCA	73.35	SMA	109.56	ECC	.38420	INC	2.1565	V1	29.429
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.229	GAP	-22.58	AZP	90.62	TAL	175.73	TAP	249.09	RCA	67.47	APO	151.66	V2	35.013
RC	40.971	GL	-7.85	GP	-7.91	ZAL	77.22	ZAP	13.37	ETS	141.20	ZAE	178.37	ETE	213.69	ZAC	91.67	ETC	258.31	CLP	10.81

PLANETOCENTRIC CONIC

C3	41.086	VHL	6.410	DLA	-29.47	RAL	245.36	RAD	6568.6	VEL	12.746	PTH	2.32	VHP	13.662	DPA	-23.68	RAP	225.00	ECC	1.6762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.48	10 43 57	1297.22	15.50	352.17	125.95	115.38	11 5 35	697.2	18.80	344.95
98.52	13 3 57	845.03	15.52	318.97	125.95	115.37	13 18 2	245.0	18.81	311.75
100.00	12 33 5	943.88	11.57	324.26	123.92	117.76	12 48 49	343.9	15.19	317.35
100.00	13 57 31	673.61	19.53	308.15	127.85	113.09	14 8 44	73.6	22.49	300.61
110.00	12 9 8	1019.35	2.27	324.35	118.32	124.12	12 26 7	419.4	6.73	318.11
110.00	16 37 57	5458.94	29.68	252.09	132.00	107.79	18 8 56	4858.9	31.82	243.54

DIFFERENTIAL CORRECTIONS

TDE	.1892	TRA	-.9140	TC3	.0017	BAU	.0066
RDE	-.5144	RRA	.0128	RC3	-.0118	FAU	.01950
FDE	-.1480	FRA	.5243	FC3	-.4109	BSP	2652
BDE	.5481	BRA	.9141	BC3	.0120	FSP	-152

MID-COURSE EXECUTION ACCURACY

SGT	953.5	SGR	460.3	SG3	66.1		
RRT	-.2054	RRF	.2157	RTF	-.7250		
SGB	1058.8	R23	-.0252	R13	.7278		
SG1	959.5	SG2	447.6	THA	172.75		

ORBIT DETERMINATION ACCURACY

ST	328.4	SR	459.8	SS	247.1
CRT	-.5223	CRS	-.6386	CST	.9866
LSA	546.6	MSA	285.3	SSA	15.3
EL1	504.0	EL2	255.5	ALF	118.35

LAUNCH DATE AUG 19 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 187.617

RL	151.40	LAL	-.00	LOL	325.61	VL	23.624	GAL	2.40	AZL	91.97	HCA	76.55	SMA	111.05	ECC	.36543	INC	1.9663	V1	29.429
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.471	GAP	-21.39	AZP	90.46	TAL	175.82	TAP	252.37	RCA	70.47	APO	151.63	V2	35.027
RC	40.525	GL	-7.70	GP	-8.31	ZAL	77.28	ZAP	12.36	ETS	135.06	ZAE	177.82	ETE	306.66	ZAC	91.50	ETC	258.53	CLP	9.17

PLANETOCENTRIC CONIC

C3	36.501	VHL	6.042	DLA	-29.32	RAL	245.32	RAD	6568.4	VEL	12.565	PTH	2.28	VHP	12.998	DPA	-24.58	RAP	226.45	ECC	1.6007

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.07	10 48 23	1252.48	16.29	349.24	123.94	114.72	11 9 16	652.5	19.49	341.95
97.93	12 59 8	829.98	16.30	318.24	123.95	114.71	13 12 58	230.0	19.50	310.95
100.00	12 25 55	936.49	11.80	323.84	121.67	117.66	12 41 31	336.5	15.41	316.91
100.00	14 4 18	621.20	20.89	304.86	126.04	111.88	14 14 39	21.2	23.68	297.17
110.00	12 6 50	996.56	3.14	323.16	116.46	124.06	12 23 27	396.6	7.59	316.90
110.00	16 39 52	5421.94	30.42	249.47	129.70	106.40	18 10 14	4821.9	32.37	240.79

DIFFERENTIAL CORRECTIONS

TDE	.1903	TRA	-.8982	TC3	.0295	BAU	.0179
RDE	-.4873	RRA	.0200	RC3	-.0219	FAU	.02041
FDE	-.1502	FRA	.5404	FC3	-.4840	BSP	2808
BDE	.5232	BRA	.8984	BC3	.0367	FSP	-170

MID-COURSE EXECUTION ACCURACY

SGT	994.1	SGR	463.4	SG3	72.7		
RRT	-.2291	RRF	.2412	RTF	-.7422		
SGB	1096.8	R23	-.0285	R13	.7452		
SG1	1001.2	SG2	447.9	THA	172.37		

ORBIT DETERMINATION ACCURACY

ST	344.2	SR	462.2	SS	255.3
CRT	-.5363	CRS	-.6375	CST	.9892
LSA	559.2	MSA	290.4	SSA	15.6
EL1	513.6	EL2	261.5	ALF	120.42

LAUNCH DATE AUG 19 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 194.282

RL	151.40	LAL	-.00	LOL	325.61	VL	23.943	GAL	2.15	AZL	91.78	HCA	79.75	SMA	112.48	ECC	.34780	INC	1.7809	V1	29.429
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.698	GAP	-20.24	AZP	90.32	TAL	175.96	TAP	255.72	RCA	73.36	APO	151.60	V2	35.040
RC	40.252	GL	-7.50	GP	-8.77	ZAL	77.46	ZAP	11.53	ETS	127.75	ZAE	175.19	ETE	326.34	ZAC	91.27	ETC	258.76	CLP	7.52

PLANETOCENTRIC CONIC

C3	32.467	VHL	5.698	DLA	-29.09	RAL	245.15	RAD	6568.3	VEL	12.403	PTH	2.24	VHP	12.361	DPA	-25.51	RAP	227.89	ECC	1.5343

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.06	10 55 39	1197.51	16.99	345.52	121.81	113.97	11 15 36	597.5	20.09	338.15
96.94	12 50 35	825.84	17.01	318.26	121.82	113.96	13 4 20	225.8	20.10	310.90
100.00	12 16 11	936.32	11.81	323.83	119.22	117.66	12 31 47	336.3	15.42	316.90
100.00	14 12 44	5850.31	22.34	278.99	124.12	110.39	15 50 14	5250.3	24.92	271.13
110.00	12 3 2	977.69	3.86	322.17	114.44	123.99	12 19 20	377.7	8.30	315.89
110.00	16 42 22	5381.70	31.16	246.56	127.25	104.82	18 12 3	4781.7	32.88	237.76

DIFFERENTIAL CORRECTIONS

TDE	.1915	TRA	-.8822	TC3	.0635	BAU	.0314
RDE	-.4613	RRA	.0268	RC3	-.0349	FAU	.02141
FDE	-.1522	FRA	.5570	FC3	-.5709	BSP	2962
BDE	.4995	BRA	.8826	BC3	.0724	FSP	-190

MID-COURSE EXECUTION ACCURACY

SGT	1035.8	SGR	466.6	SG3	80.0		
RRT	-.2555	RRF	.2699	RTF	-.7582		
SGB	1136.0	R23	-.0328	R13	.7616		
SG1	1044.2	SG2	447.5	THA	171.95		

ORBIT DETERMINATION ACCURACY

ST	360.3	SR	463.9	SS	263.3
CRT	-.5512	CRS	-.6365	CST	.9915
LSA	572.3	MSA	294.4	SSA	16.0
EL1	523.5	EL2	266.4	ALF	122.57

LAUNCH DATE AUG 19 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 200.974

RL	151.40	LAL	-.00	LOL	325.61	VL	24.238	GAL	1.89	AZL	91.60	HCA	82.96	SMA	113.85	ECC	.33129	INC	1.5992	V1	29.429
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.909	GAP	-19.14	AZP	90.20	TAL	176.17	TAP	259.13	RCA	76.13	APO	151.57	V2	35.053
RC	40.156	GL	-7.22	GP	-9.27	ZAL	77.74	ZAP	10.94	ETS	119.26	ZAE	172.35	ETE	331.45	ZAC	90.99	ETC	258.99	CLP	5.84

PLANETOCENTRIC CONIC

C3	28.921	VHL	5.378	DLA	-28.76	RAL	244.88	RAD	6568.2	VEL	12.260	PTH	2.21	VHP	11.751	DPA	-26.46	RAP	229.31	ECC	1.4760

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.73	11 8 2	1125.01	17.60	340.46	119.55	113.12	11 26 47	525.0	20.58	333.02
95.27	12 36 0	840.28	17.61	319.60	119.56	113.11	12 50 0	240.3	20.59	312.16
100.00	12 4 27	941.86	11.63	324.15	116.62	117.73	12 20 9	341.9	15.25	317.23
100.00	14 22 15	5786.70	23.79	274.81	122.08	108.65	15 58 42	5186.7	26.12	266.79
110.00	11 57 41	963.15	4.41	321.41	112.28	123.93	12 13 45	363.1	8.84	315.12
110.00	16 45 31	5338.18	31.87	243.37	124.67	103.06	18 14 29	4738.2	33.34	234.45

DIFFERENTIAL CORRECTIONS

TDE	.1930	TRA	-.8653	TC3	.1058	BAU	.0455
RDE	-.4363	RRA	.0333	RC3	-.0516	FAU	.02254
FDE	-.1538	FRA	.5741	FC3	-.6746	BSP	3133
BDE	.4771	BRA	.8659	BC3	.1177	FSP	-213

MID-COURSE EXECUTION ACCURACY

SGT	1077.5	SGR	469.9	SG3	88.1		
RRT	-.2853	RRF	.3020	RTF	-.7735		
SGB	1175.5	R23	-.0372	R13	.7772		
SG1	1087.6	SG2	446.2	THA	171.46		

ORBIT DETERMINATION ACCURACY

ST	376.6	SR	465.0	SS	270.8
CRT	-.5677	CRS	-.6350	CST	.9936
LSA	585.5	MSA	297.1	SSA	16.3
EL1	534.0	EL2	270.0	ALF	124.74

LAUNCH DATE AUG 19 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 207.688

RL	151.40	LAL	-.00	LOL	325.61	VL	24.510	GAL	1.65	AZL	91.42	HCA	86.16	SMA	115.16	ECC	.31586	INC	1.4198	V1	29.429
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.106	GAP	-18.08	AZP	90.09	TAL	176.43	TAP	262.59	RCA	78.78	APO	151.53	V2	35.066
RC	40.238	GL	-6.86	GP	-9.82	ZAL	78.13	ZAP	10.65	ETS	109.82	ZAE	169.48	ETE	333.40	ZAC	90.64	ETC	259.23	CLP	4.15

PLANETOCENTRIC CONIC

C3	25.808	VHL	5.080	DLA	-28.34	RAL	244.50	RAD	6568.0	VEL	12.132	PTH	2.17	VHP	11.166	DPA	-27.45	RAP	230.71	ECC	1.4247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.79	11 40 12	987.64	18.09	330.60	117.19	112.19	11 56 40	387.6	20.95	323.09
91.21	12 0 46	921.00	18.11	325.73	117.20	112.18	12 16 7	321.0	20.96	318.22
100.00	11 51 6	952.30	11.30	324.74	113.92	117.86	12 6 58	352.3	14.94	317.85
100.00	14 32 33	5719.62	25.18	270.31	119.88	106.67	16 7 53	5119.6	27.22	262.11
110.00	11 50 47	953.30	4.79	320.89	109.99	123.89	12 6 40	353.3	9.21	314.59
110.00	16 49 22	5291.38	32.54	239.88	121.95	101.10	18 17 33	4691.4	33.73	230.85

DIFFERENTIAL CORRECTIONS

TDE	.1939	TRA	-.8484	TC3	.1568	BAU	.0597
RDE	-.4123	RRA	.0397	RC3	-.0730	FAU	.02379
FDE	-.1545	FRA	.5923	FC3	-.7979	BSP	3293
BDE	.4556	BRA	.8493	BC3	.1730	FSP	-239

MID-COURSE EXECUTION ACCURACY

SGT	1120.3	SGR	473.6	SG3	97.1		
RRT	-.3182	RRF	.3377	RTF	-.7880		
SGB	1216.3	R23	-.0423	R13	.7922		
SG1	1132.2	SG2	444.2	THA	170.93		

ORBIT DETERMINATION ACCURACY

ST	392.7	SR	465.3	SS	277.6
CRT	-.5839	CRS	-.6317	CST	.9954
LSA	598.4	MSA	299.0	SSA	16.7
EL1	544.5	EL2	272.4	ALF	126.87

LAUNCH DATE AUG 19 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 214.418

RL	151.40	LAL	-.00	LOL	325.61	VL	24.761	GAL	1.40	AZL	91.24	HCA	89.37	SMA	116.41	ECC	.30149	INC	1.2416	V1	29.429
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.289	GAP	-17.07	AZP	90.01	TAL	176.75	TAP	266.12	RCA	81.31	APO	151.50	V2	35.079
RC	40.497	GL	-6.41	GP	-10.43	ZAL	78.64	ZAP	10.70	ETS	99.90	ZAE	166.63	ETE	334.14	ZAC	90.22	ETC	259.46	CLP	2.42

PLANETOCENTRIC CONIC

C3	23.078	VHL	4.804	DLA	-27.81	RAL	244.01	RAD	6567.9	VEL	12.019	PTH	2.15	VHP	10.606	DPA	-28.48	RAP	232.08	ECC	1.3798

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 1 20	1080.42	14.68	335.85	113.08	114.49	11 19 20	480.4	17.86	328.62
90.00	12 35 46	773.31	22.32	316.58	116.20	107.89	12 48 39	173.3	24.56	308.63
100.00	11 36 21	967.23	10.82	325.60	111.13	118.03	11 52 28	367.2	14.49	318.73
100.00	14 43 26	5649.78	26.45	265.52	117.52	104.45	16 17 36	5049.8	28.18	257.14
110.00	11 42 19	948.44	4.97	320.64	107.59	123.86	11 58 8	348.4	9.39	314.33
110.00	16 53 57	5241.33	33.13	236.10	119.11	98.93	18 21 18	4641.3	34.01	226.97

DIFFERENTIAL CORRECTIONS

TDE	.1938	TRA	-.8312	TC3	.2161	BAU	.0734
RDE	-.3893	RRA	.0461	RC3	-.0998	FAU	.02516
FDE	-.1541	FRA	.6115	FC3	-.9438	BSP	3468
BDE	.4348	BRA	8324	BC3	.2380	FSP	-268

MID-COURSE EXECUTION ACCURACY

SGT	1163.0	SGR	478.1	SG3	107.1		
RRT	-.3541	RRF	.3773	RTF	-.8012		
SGB	1257.4	R23	-.0488	R13	.8060		
SG1	1177.3	SG2	441.7	THA	170.34		

ORBIT DETERMINATION ACCURACY

ST	408.1	SR	464.7	SS	283.5
CRT	-.5992	CRS	-.6263	CST	.9967
LSA	610.3	MSA	300.1	SSA	17.1
EL1	554.5	EL2	273.8	ALF	128.87

LAUNCH DATE AUG 19 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 221.162

RL	151.40	LAL	-.00	LOL	325.61	VL	24.992	GAL	1.16	AZL	91.06	HCA	92.58	SMA	117.59	ECC	.28813	INC	1.0635	V1	29.429
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.460	GAP	-16.10	AZP	89.95	TAL	177.12	TAP	269.71	RCA	83.71	APO	151.48	V2	35.092
RC	40.930	GL	-5.85	GP	-11.11	ZAL	79.25	ZAP	11.13	ETS	90.15	ZAE	163.84	ETE	334.27	ZAC	89.72	ETC	259.70	CLP	.66

PLANETOCENTRIC CONIC

C3	20.687	VHL	4.548	DLA	-27.15	RAL	243.43	RAD	6567.8	VEL	11.919	PTH	2.12	VHP	10.070	DPA	-29.56	RAP	233.41	ECC	1.3405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 34 49	1133.63	13.15	339.01	109.82	115.30	10 53 43	533.6	16.46	331.89
90.00	12 57 39	667.26	24.36	309.48	114.14	104.89	13 8 46	67.3	26.17	301.28
100.00	11 20 21	986.54	10.20	326.70	108.30	118.25	11 36 48	386.5	13.90	319.86
100.00	14 54 48	5577.62	27.58	260.45	115.00	102.01	16 27 46	4977.6	28.96	251.92
110.00	11 32 21	948.85	4.96	320.66	105.11	123.87	11 48 10	348.8	9.37	314.35
110.00	16 59 18	5188.08	33.62	232.02	116.15	96.56	18 25 46	4588.1	34.16	222.82

DIFFERENTIAL CORRECTIONS

TDE	.1894	TRA	-.8153	TC3	.2817	BAU	.0862
RDE	-.3672	RRA	.0527	RC3	-.1334	FAU	.02671
FDE	-.1521	FRA	.6321	FC3	-1.1176	BSP	3566
BDE	.4131	BRA	.8170	BC3	.3117	FSP	-299

MID-COURSE EXECUTION ACCURACY

SGT	1206.2	SGR	484.0	SG3	118.2		
RRT	-.3898	RRF	.4211	RTF	-.8116		
SGB	1299.6	R23	-.0609	R13	.8173		
SG1	1223.1	SG2	439.5	THA	169.78		

ORBIT DETERMINATION ACCURACY

ST	420.6	SR	463.1	SS	288.2
CRT	-.6065	CRS	-.6176	CST	.9971
LSA	618.7	MSA	302.1	SSA	17.7
EL1	561.5	EL2	275.8	ALF	130.48

LAUNCH DATE AUG 19 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 227.915

RL	151.40	LAL	-.00	LOL	325.61	VL	25.204	GAL	.93	AZL	90.88	HCA	95.80	SMA	118.71	ECC	.27575	INC	.8843	V1	29.429
RP	107.95	LAP	-.88	LOP	61.41	VP	36.618	GAP	-15.16	AZP	89.91	TAL	177.55	TAP	273.34	RCA	85.98	APO	151.45	V2	35.105
RC	41.530	GL	-5.17	GP	-11.87	ZAL	79.96	ZAP	11.92	ETS	81.19	ZAE	161.14	ETE	334.00	ZAC	89.14	ETC	259.94	CLP	-1.13

PLANETOCENTRIC CONIC

C3	18.599	VHL	4.313	DLA	-26.35	RAL	242.77	RAD	6567.8	VEL	11.831	PTH	2.10	VHP	9.559	DPA	-30.70	RAP	234.69	ECC	1.3061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 4	1178.80	11.83	341.67	106.70	115.92	10 30 42	578.8	15.22	334.63
90.00	13 16 7	5859.66	25.88	280.79	111.78	101.92	14 53 47	5259.7	27.26	272.40
100.00	11 3 14	1010.30	9.44	328.04	105.45	118.50	11 20 4	410.3	13.17	321.24
100.00	15 6 38	5503.40	28.52	255.13	112.34	99.37	16 38 21	4903.4	29.52	246.47
110.00	11 20 56	954.75	4.73	320.97	102.59	123.89	11 36 51	354.7	9.15	314.67
110.00	17 5 25	5131.71	33.98	227.66	113.08	94.00	18 30 57	4531.7	34.16	218.42

DIFFERENTIAL CORRECTIONS

TDE	.1917	TRA	-.7955	TC3	.3684	BAU	.1014
RDE	-.3460	RRA	.0595	RC3	-.1751	FAU	.02840
FDE	-.1479	FRA	.6543	FC3	-1.3222	BSP	3810
BDE	.3955	BRA	.7977	BC3	.4078	FSP	-335

MID-COURSE EXECUTION ACCURACY

SGT	1247.7	SGR	491.8	SG3	130.5		
RRT	-.4386	RRF	.4688	RTF	-.8261		
SGB	1341.1	R23	-.0627	R13	.8322		
SG1	1268.8	SG2	434.6	THA	168.87		

ORBIT DETERMINATION ACCURACY

ST	436.1	SR	460.4	SS	291.4
CRT	-.6299	CRS	-.6045	CST	.9967
LSA	629.9	MSA	299.9	SSA	18.1
EL1	572.7	EL2	272.2	ALF	132.53

LAUNCH DATE AUG 19 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 234.673

RL	151.40	LAL	-.00	LOL	325.61	VL	25.400	GAL	.71	AZL	90.70	HCA	99.01	SMA	119.77	ECC	.26432	INC	.7030	V1	29.429
RP	107.91	LAP	-.69	LOP	64.62	VP	36.764	GAP	-14.26	AZP	89.89	TAL	178.02	TAP	277.03	RCA	88.11	APO	151.43	V2	35.117
RC	42.291	GL	-4.36	GP	-12.72	ZAL	80.78	ZAP	13.05	ETS	73.36	ZAE	158.56	ETE	333.45	ZAC	88.45	ETC	260.17	CLP	-2.98

PLANETOCENTRIC CONIC

C3	16.779	VHL	4.096	DLA	-25.40	RAL	242.03	RAD	6567.7	VEL	11.754	PTH	2.07	VHP	9.071	DPA	-31.89	RAP	235.91	ECC	1.2761

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 6	1222.72	10.51	344.22	103.68	116.45	10 8 28	622.7	13.98	337.26
90.00	13 33 13	5767.90	27.00	274.31	109.20	98.86	15 9 21	5167.9	27.95	265.77
100.00	10 45 7	1038.63	8.51	329.64	102.62	118.76	11 2 25	438.6	12.29	322.88
100.00	15 18 54	5427.23	29.23	249.59	109.55	96.53	16 49 21	4827.2	29.83	240.83
110.00	11 8 9	966.32	4.29	321.58	100.04	123.95	11 24 16	366.3	8.72	315.29
110.00	17 12 20	5072.30	34.16	223.03	109.94	91.27	18 36 53	4472.3	33.96	213.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1879	TRA	-.7782	TC3	.4601	BAU	.1150	SGT	1289.7	SGR	502.2	SG3	144.1	ST	447.1	SR	456.1	SS	292.6
RDE	-.3253	RRA	.0669	RC3	-.2264	FAU	.03029	RRT	-.4852	RRF	.5200	RTF	-.8370	CRT	-.6418	CRS	-.5834	CST	.9944
FDE	-.1404	FRA	.6785	FC3	-1.5627	BSP	3959	SGB	1384.0	R23	-.0719	R13	.8440	LSA	635.1	MSA	299.7	SSA	18.6
BDE	.3757	BRA	.7811	BC3	.5127	FSP	-375	SG1	1315.3	SG2	430.5	THA	168.00	EL1	578.7	EL2	270.2	ALF	134.11

LAUNCH DATE AUG 19 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 241.434

RL	151.40	LAL	-.00	LOL	325.61	VL	25.578	GAL	.50	AZL	90.52	HCA	102.23	SMA	120.77	ECC	.25378	INC	.5183	V1	29.429
RP	107.88	LAP	-.51	LOP	67.84	VP	36.899	GAP	-13.39	AZP	89.89	TAL	178.53	TAP	280.76	RCA	90.12	APO	151.41	V2	35.129
RC	43.202	GL	-3.40	GP	-13.66	ZAL	81.68	ZAP	14.49	ETS	66.77	ZAE	156.11	ETE	332.66	ZAC	87.65	ETC	260.39	CLP	-4.87

PLANETOCENTRIC CONIC

C3	15.198	VHL	3.898	DLA	-24.28	RAL	241.24	RAD	6567.6	VEL	11.687	PTH	2.06	VHP	8.606	DPA	-33.17	RAP	237.07	ECC	1.2501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 25 16	1267.99	9.12	346.82	100.76	116.92	9 46 24	668.0	12.66	339.93
90.00	13 49 45	5677.68	27.78	267.83	106.48	95.70	15 24 23	5077.7	28.28	259.20
100.00	10 26 4	1071.72	7.42	331.49	99.84	119.04	10 43 56	471.7	11.24	324.78
100.00	15 31 38	5349.18	29.70	243.83	106.66	93.54	17 0 47	4749.2	29.88	235.03
110.00	10 54 7	983.75	3.63	322.49	97.51	124.01	11 10 31	383.8	8.07	316.22
110.00	17 20 4	5009.92	34.15	218.16	106.75	88.39	18 43 34	4409.9	33.55	208.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1823	TRA	-.7612	TC3	.5615	BAU	.1283	SGT	1330.3	SGR	516.5	SG3	159.2	ST	455.6	SR	450.3	SS	292.4
RDE	-.3054	RRA	.0749	RC3	-.2891	FAU	.03237	RRT	-.5343	RRF	.5746	RTF	-.8469	CRT	-.6517	CRS	-.5549	CST	.9896
FDE	-.1298	FRA	.7053	FC3	-1.8437	BSP	4116	SGB	1427.0	R23	-.0829	R13	.8551	LSA	637.0	MSA	299.5	SSA	19.2
BDE	.3557	BRA	.7648	BC3	.6316	FSP	-419	SG1	1361.8	SG2	426.5	THA	166.98	EL1	582.1	EL2	267.3	ALF	135.51

LAUNCH DATE AUG 19 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 248.194

RL	151.40	LAL	-.00	LOL	325.61	VL	25.742	GAL	.30	AZL	90.33	HCA	105.45	SMA	121.70	ECC	.24411	INC	.3287	V1	29.429
RP	107.84	LAP	-.32	LOP	71.06	VP	37.024	GAP	-12.55	AZP	89.91	TAL	179.08	TAP	284.53	RCA	91.99	APO	151.40	V2	35.141
RC	44.254	GL	-2.28	GP	-14.72	ZAL	82.67	ZAP	16.20	ETS	61.34	ZAE	153.81	ETE	331.65	ZAC	86.73	ETC	260.60	CLP	-6.83

PLANETOCENTRIC CONIC

C3	13.830	VHL	3.719	DLA	-22.98	RAL	240.42	RAD	6567.5	VEL	11.628	PTH	2.04	VHP	8.165	DPA	-34.53	RAP	238.13	ECC	1.2276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 19	1316.05	7.63	349.56	97.95	117.35	9 24 15	716.0	11.24	342.74
90.00	14 6 6	5587.79	28.22	261.29	103.67	92.45	15 39 14	4987.8	28.26	252.62
100.00	10 6 13	1109.82	6.16	333.61	97.15	119.31	10 24 43	509.8	10.02	326.95
100.00	15 44 54	5269.26	29.89	237.90	103.72	90.42	17 12 43	4669.3	29.63	229.11
110.00	10 38 57	1007.18	2.74	323.71	95.03	124.09	10 55 44	407.2	7.19	317.46
110.00	17 28 39	4944.65	33.91	213.07	103.54	85.39	18 51 4	4344.7	32.90	203.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1703	TRA	-.7461	TC3	.6685	BAU	.1408	SGT	1369.4	SGR	534.6	SG3	175.8	ST	457.6	SR	440.8	SS	288.4
RDE	-.2847	RRA	.0840	RC3	-.3647	FAU	.03461	RRT	-.5812	RRF	.6288	RTF	-.8551	CRT	-.6496	CRS	-.4983	CST	.9796
FDE	-.1092	FRA	.7358	FC3	-2.1662	BSP	4192	SGB	1470.0	R23	-.0972	R13	.8649	LSA	628.4	MSA	302.7	SSA	19.9
BDE	.3318	BRA	.7509	BC3	.7615	FSP	-463	SG1	1407.8	SG2	423.1	THA	165.92	EL1	577.1	EL2	265.7	ALF	136.65

LAUNCH DATE AUG 19 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 254.949

RL	151.40	LAL	-.00	LOL	325.61	VL	25.892	GAL	.11	AZL	90.13	HCA	108.67	SMA	122.56	ECC	.23526	INC	.1325	V1	29.429
RP	107.81	LAP	-.13	LOP	74.28	VP	37.139	GAP	-11.75	AZP	89.96	TAL	179.65	TAP	288.33	RCA	93.73	APO	151.40	V2	35.152
RC	45.436	GL	-.97	GP	-15.91	ZAL	83.72	ZAP	18.16	ETS	56.93	ZAE	151.66	ETE	330.42	ZAC	85.66	ETC	260.80	CLP	-8.86

PLANETOCENTRIC CONIC

C3	12.654	VHL	3.557	DLA	-21.49	RAL	239.57	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	7.748	DPA	-35.98	RAP	239.10	ECC	1.2083

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 9	1367.82	6.00	352.50	95.28	117.73	9 1 56	767.8	9.67	345.73
90.00	14 22 34	5497.52	28.31	254.69	100.82	89.15	15 54 12	4897.5	27.89	246.05
100.00	9 45 39	1153.15	4.71	336.01	94.57	119.55	10 4 53	553.2	8.61	329.40
100.00	15 58 45	5187.42	29.78	231.82	100.77	87.23	17 25 12	4587.4	29.07	223.09
110.00	10 22 47	1036.77	1.61	325.26	92.64	124.15	10 40 4	436.8	6.08	319.03
110.00	17 38 6	4876.56	33.41	207.82	100.38	82.32	18 59 23	4276.6	31.99	198.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1512	TRA	-.7365	TC3	.7627	BAU	.1501	SGT	1406.8	SGR	557.5	SG3	193.8	ST	453.7	SR	426.9	SS	284.5
RDE	-.2632	RRA	.0953	RC3	-.4530	FAU	.03686	RRT	-.6228	RRF	.6818	RTF	-.8599	CRT	-.6315	CRS	-.4060	CST	.9614
FDE	-.0779	FRA	.7749	FC3	-2.5216	BSP	4164	SGB	1513.2	R23	-.1187	R13	.8720	LSA	609.9	MSA	310.8	SSA	20.8
BDE	.3035	BRA	.7426	BC3	.8871	FSP	-506	SG1	1453.1	SG2	422.2	THA	164.82	EL1	562.9	EL2	266.7	ALF	137.76

LAUNCH DATE AUG 19 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 261.698

RL	151.40	LAL	-.00	LOL	325.61	VL	26.028	GAL	-.07	AZL	89.93	HCA	111.90	SMA	123.37	ECC	.22718	INC	.0678
RP	107.77	LAP	.06	LOP	77.50	VP	37.245	GAP	-10.97	AZP	90.03	TAL	180.25	TAP	292.15	RCA	95.34	APO	151.40
RC	46.738	GL	.53	GP	-17.25	ZAL	84.84	ZAP	20.35	ETS	53.34	ZAE	149.64	ETE	328.96	ZAC	84.44	ETC	260.98

V1	29.429	V2	35.163	CLP	-10.97														

PLANETOCENTRIC CONIC

C3	11.648	VHL	3.413	DLA	-19.79	RAL	238.73	RAD	6567.4	VEL	11.534	PTH	2.01	VHP	7.355	DPA	-37.56	RAP	239.94
ECC	1.1917																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 15 39	1424.04	4.21	355.66	92.79	118.03	8 39 23	824.0	7.93	348.95
90.00	14 39 21	5406.29	28.03	248.03	97.99	85.82	16 9 27	4806.3	27.16	239.47
100.00	9 24 27	1202.04	3.06	338.71	92.16	119.75	9 44 29	602.0	7.00	332.13
100.00	16 13 15	5103.51	29.34	225.62	97.85	83.99	17 38 18	4503.5	28.20	217.01
110.00	10 5 43	1072.71	.23	327.13	90.39	124.18	10 23 36	472.7	4.72	320.92
110.00	17 48 28	4805.62	32.64	202.43	97.28	79.22	19 8 33	4205.6	30.81	193.69

DIFFERENTIAL CORRECTIONS

TDE	.1606	TRA	-.6898	TC3	.9554	BAU	.1736
RDE	-.2464	RRA	.1003	RC3	-.5746	FAU	.04049
FDE	-.0677	FRA	.7759	FC3	-3.0091	BSP	4943
BDE	.2941	BRA	.6970	BC3	1.1149	FSP	-621

MID-COURSE EXECUTION ACCURACY

SGT	1418.6	SGR	597.5	SG3	214.2		
RRT	-.6932	RRF	.7428	RTF	-.8738		
SGB	1539.3	R23	-.1123	R13	.8872		
SG1	1483.2	SG2	411.9	THA	162.32		

ORBIT DETERMINATION ACCURACY

ST	457.5	SR	417.3	SS	276.4		
CRT	-.6890	CRS	-.3858	CST	.9304		
LSA	610.2	MSA	295.0	SSA	21.5		
EL1	569.6	EL2	242.9	ALF	138.81		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 268.437

RL	151.40	LAL	-.00	LOL	325.61	VL	26.152	GAL	-.24	AZL	89.72	HCA	115.12	SMA	124.12	ECC	.21984	INC	.2821
RP	107.74	LAP	.26	LOP	80.73	VP	37.341	GAP	-10.22	AZP	90.12	TAL	180.87	TAP	295.99	RCA	96.83	APO	151.40
RC	48.150	GL	2.25	GP	-18.76	ZAL	86.00	ZAP	22.78	ETS	50.43	ZAE	147.75	ETE	327.26	ZAC	83.03	ETC	261.13

V1	29.429	V2	35.174	CLP	-13.17														

PLANETOCENTRIC CONIC

C3	10.799	VHL	3.286	DLA	-17.87	RAL	237.92	RAD	6567.4	VEL	11.497	PTH	2.00	VHP	6.986	DPA	-39.28	RAP	240.64
ECC	1.1777																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 51 54	1485.27	2.24	359.08	90.52	118.24	8 16 40	885.3	6.00	352.42
90.00	14 56 38	5313.78	27.39	241.34	95.24	82.52	16 25 12	4713.8	26.07	232.92
100.00	9 2 43	1256.75	1.21	341.71	89.94	119.87	9 23 40	656.7	5.18	335.17
100.00	16 28 30	5017.54	28.56	219.35	95.05	80.78	17 52 8	4417.5	26.99	210.90
110.00	9 47 56	1115.12	-1.39	329.35	88.32	124.16	10 6 31	515.1	3.10	323.14
110.00	17 59 48	4731.93	31.56	196.95	94.34	76.14	19 18 39	4131.9	29.34	188.45

DIFFERENTIAL CORRECTIONS

TDE	.1412	TRA	-.6881	TC3	1.0633	BAU	.1839
RDE	-.2238	RRA	.1180	RC3	-.7012	FAU	.04320
FDE	-.0222	FRA	.8382	FC3	-3.4633	BSP	4906
BDE	.2646	BRA	.6982	BC3	1.2737	FSP	-665

MID-COURSE EXECUTION ACCURACY

SGT	1462.2	SGR	641.4	SG3	237.3		
RRT	-.7365	RRF	.7927	RTF	-.8806		
SGB	1596.7	R23	-.1301	R13	.8966		
SG1	1542.9	SG2	411.2	THA	160.67		

ORBIT DETERMINATION ACCURACY

ST	451.8	SR	395.8	SS	282.1		
CRT	-.6762	CRS	-.2482	CST	.8770		
LSA	587.8	MSA	307.1	SSA	22.2		
EL1	551.0	EL2	239.1	ALF	140.55		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 275.166

RL	151.40	LAL	-.00	LOL	325.61	VL	26.264	GAL	-.40	AZL	89.49	HCA	118.35	SMA	124.80	ECC	.21320	INC	.5068
RP	107.71	LAP	.45	LOP	83.96	VP	37.429	GAP	-9.49	AZP	90.24	TAL	181.48	TAP	299.83	RCA	98.20	APO	151.41
RC	49.661	GL	4.20	GP	-20.46	ZAL	87.17	ZAP	25.45	ETS	48.04	ZAE	145.95	ETE	325.29	ZAC	81.42	ETC	261.26

V1	29.429	V2	35.184	CLP	-15.47														

PLANETOCENTRIC CONIC

C3	10.092	VHL	3.177	DLA	-15.72	RAL	237.17	RAD	6567.4	VEL	11.467	PTH	1.99	VHP	6.644	DPA	-41.14	RAP	241.15
ECC	1.1661																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 55	1552.05	.09	2.81	88.51	118.32	7 53 47	952.1	3.87	356.17
90.00	15 14 38	5219.66	26.38	234.64	92.66	79.31	16 41 37	4619.7	24.64	226.40
100.00	8 40 34	1317.59	-.85	345.05	87.98	119.88	9 2 32	717.6	3.13	338.52
100.00	16 44 39	4929.36	27.44	213.04	92.42	77.64	18 6 48	4329.4	25.46	204.80
110.00	9 29 32	1164.23	-3.26	331.91	86.48	124.05	9 48 56	564.2	1.23	325.71
110.00	18 12 11	4655.48	30.18	191.42	91.60	73.14	19 29 46	4055.5	27.58	183.20

DIFFERENTIAL CORRECTIONS

TDE	.1110	TRA	-.6816	TC3	1.1531	BAU	.1932
RDE	-.1977	RRA	.1354	RC3	-.8486	FAU	.04611
FDE	.0428	FRA	.8899	FC3	-3.9551	BSP	4784
BDE	.2267	BRA	.6949	BC3	1.4317	FSP	-717

MID-COURSE EXECUTION ACCURACY

SGT	1485.8	SGR	694.4	SG3	260.7		
RRT	-.7662	RRF	.8356	RTF	-.8823		
SGB	1640.1	R23	-.1571	R13	.9031		
SG1	1585.9	SG2	418.1	THA	158.75		

ORBIT DETERMINATION ACCURACY

ST	432.8	SR	364.9	SS	293.7		
CRT	-.6389	CRS	-.0631	CST	.8029		
LSA	548.4	MSA	324.8	SSA	23.2		
EL1	514.5	EL2	236.1	ALF	142.52		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 281.880

RL	151.40	LAL	-.00	LOL	325.61	VL	26.366	GAL	-.55	AZL	89.25	HCA	121.58	SMA	125.43	ECC	.20720	INC	.7455
RP	107.68	LAP	.64	LOP	87.19	VP	37.510	GAP	-8.79	AZP	90.39	TAL	182.09	TAP	303.67	RCA	99.44	APO	151.42
RC	51.263	GL	6.39	GP	-22.37	ZAL	88.34	ZAP	28.35	ETS	46.06	ZAE	144.23	ETE	323.04	ZAC	79.58	ETC	261.35

V1	29.429	V2	35.193	CLP	-17.89														

PLANETOCENTRIC CONIC

C3	9.518	VHL	3.085	DLA	-13.33	RAL	236.49	RAD	6567.3	VEL	11.441	PTH	1.98	VHP	6.328	DPA	-43.19	RAP	241.46
ECC	1.1566																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 3 37	1625.01	-2.27	6.88	86.79	118.23	7 30 42	1025.0	1.53	.25
90.00	15 33 29	5123.50	24.99	227.94	90.28	76.23	16 58 53	4523.5	22.85	219.92
100.00	8 17 59	1385.03	-3.14	348.75	86.31	119.74	8 41 4	785.0	.84	342.23
100.00	17 1 48	4838.71	25.96	206.71	90.00	74.63	18 22 26	4238.7	23.59	198.71
110.00	9 10 35	1220.31	-5.40	334.85	84.90	123.81	9 30 55	620.3	-.92	328.63
110.00	18 25 42	4576.19	28.49	185.88	89.11	70.26	19 41 58	3976.2	25.53	177.95

DIFFERENTIAL CORRECTIONS

TDE	.0972	TRA	-.6582	TC3	1.2934	BAU	.2102
RDE	-.1715	RRA	.1536	RC3	-1.0277	FAU	.04967
FDE	.1068	FRA	.9346	FC3	-4.5180	BSP	5141
BDE	.1972	BRA	.6759	BC3	1.6520	FSP	-811

MID-COURSE EXECUTION ACCURACY

SGT	1499.2	SGR	767.8	SG3	286.5		
RRT	-.8095	RRF	.8750	RTF	-.8912		
SGB	1684.4	R23	-.1592	R13	.9151		
SG1	1632.7	SG2	413.9	THA	155.83		

ORBIT DETERMINATION ACCURACY

ST	418.6	SR	331.0	SS	315.4		
CRT	-.6576	CRS	.0761	CST	.6953		
LSA	520.7	MSA	335.5	SSA	23.4		
EL1	489.1	EL2	213.4	ALF	144.91		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 288.580

RL	151.40	LAL	-.00	LOL	325.61	VL	26.457	GAL	-.68	AZL	89.00	HCA	124.81	SMA	126.01	ECC	.20182	INC	1.0015	V1	29.429
RP	107.65	LAP	.82	LOP	90.42	VP	37.582	GAP	-8.12	AZP	90.57	TAL	182.69	TAP	307.50	RCA	100.58	APO	151.44	V2	35.202
RC	52.948	GL	8.83	GP	-24.53	ZAL	89.49	ZAP	31.52	ETS	44.39	ZAE	142.53	ETE	320.49	ZAC	77.49	ETC	261.39	CLP	-20.44

PLANETOCENTRIC CONIC

C3	9.069	VHL	3.012	DLA	-10.69	RAL	235.91	RAD	6567.3	VEL	11.422	PTH	1.98	VHP	6.042	DPA	-45.44	RAP	241.50	ECC	1.1493

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 39 3	1704.68	-4.82	11.34	85.43	117.94	7 7 28	1104.7	-1.05	4.69
90.00	15 53 27	5025.04	23.23	221.26	88.20	73.33	17 17 12	4425.0	20.73	213.48
100.00	7 55 3	1459.47	-5.64	352.86	84.98	119.40	8 19 23	859.5	-1.68	346.31
100.00	17 20 8	4745.49	24.12	200.40	87.90	71.79	18 39 13	4145.5	21.41	192.65
110.00	8 51 12	1283.65	-7.78	338.20	83.66	123.39	9 12 36	683.6	-3.34	331.94
110.00	18 40 29	4494.07	26.47	180.34	86.93	67.54	19 55 23	3894.1	23.19	172.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0735	TRA	-.6428	TC3	1.3869	BAU	.2245	SGT	1505.5	SGR	856.5	SG3	313.2	ST	399.5	SR	285.7	SS	359.8
RDE	-.1396	RRA	.1766	RC3	-1.2268	FAU	.05313	RRT	-.8376	RRF	.9065	RTF	-.8952	CRT	-.6661	CRS	.1884	CST	.6002
FDE	.1941	FRA	.9896	FC3	-5.0718	BSP	5333	SGB	1732.0	R23	-.1702	R13	.9245	LSA	496.7	MSA	351.4	SSA	23.4
BDE	.1578	BRA	.6667	BC3	1.8517	FSP	-898	SG1	1680.6	SG2	419.1	THA	152.68	EL1	453.9	EL2	187.5	ALF	148.58

LAUNCH DATE AUG 19 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 295.263

RL	151.40	LAL	-.00	LOL	325.61	VL	26.539	GAL	-.80	AZL	88.72	HCA	128.04	SMA	126.53	ECC	.19700	INC	1.2786	V1	29.429
RP	107.63	LAP	1.01	LOP	93.65	VP	37.648	GAP	-7.46	AZP	90.79	TAL	183.26	TAP	311.30	RCA	101.60	APO	151.46	V2	35.210
RC	54.707	GL	11.55	GP	-26.95	ZAL	90.58	ZAP	34.94	ETS	42.92	ZAE	140.80	ETE	317.62	ZAC	75.11	ETC	261.38	CLP	-23.13

PLANETOCENTRIC CONIC

C3	8.744	VHL	2.957	DLA	-7.80	RAL	235.46	RAD	6567.3	VEL	11.408	PTH	1.97	VHP	5.788	DPA	-47.91	RAP	241.22	ECC	1.1439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 14 9	1791.80	-7.58	16.26	84.47	117.37	6 44 1	1191.8	-3.85	9.56
90.00	16 14 46	4923.92	21.10	214.61	86.47	70.66	17 36 49	4323.9	18.27	207.08
100.00	7 31 44	1541.49	-8.36	357.43	84.05	118.80	7 57 26	941.5	-4.45	350.82
100.00	17 39 51	4649.45	21.93	194.10	86.15	69.16	18 57 21	4049.5	18.90	186.62
110.00	8 31 25	1354.65	-10.42	342.01	82.80	122.74	8 53 59	754.6	-6.03	335.67
110.00	18 56 40	4409.06	24.14	174.83	85.13	65.03	20 10 9	3809.1	20.58	167.51

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0471	TRA	-.6292	TC3	1.4511	BAU	.2395	SGT	1503.0	SGR	965.0	SG3	340.5	ST	381.1	SR	231.4	SS	428.4
RDE	-.1011	RRA	.2052	RC3	-1.4465	FAU	.05653	RRT	-.8590	RRF	.9315	RTF	-.8980	CRT	-.7142	CRS	.1909	CST	.5421
FDE	.3022	FRA	1.0521	FC3	-5.5970	BSP	5523	SGB	1786.1	R23	-.1777	R13	.9341	LSA	508.2	MSA	351.4	SSA	22.8
BDE	.1116	BRA	.6618	BC3	2.0489	FSP	-987	SG1	1734.0	SG2	428.3	THA	149.02	EL1	421.1	EL2	146.6	ALF	153.03

LAUNCH DATE AUG 19 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 301.927

RL	151.40	LAL	-.00	LOL	325.61	VL	26.612	GAL	-.91	AZL	88.42	HCA	131.27	SMA	127.00	ECC	.19272	INC	1.5814	V1	29.429
RP	107.60	LAP	1.19	LOP	96.89	VP	37.707	GAP	-6.83	AZP	91.04	TAL	183.81	TAP	315.08	RCA	102.53	APO	151.48	V2	35.218
RC	56.533	GL	14.55	GP	-29.68	ZAL	91.59	ZAP	38.65	ETS	41.58	ZAE	138.99	ETE	314.42	ZAC	72.43	ETC	261.30	CLP	-25.98

PLANETOCENTRIC CONIC

C3	8.544	VHL	2.923	DLA	-4.64	RAL	235.16	RAD	6567.3	VEL	11.399	PTH	1.97	VHP	5.569	DPA	-50.62	RAP	240.53	ECC	1.1406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 48 48	1887.20	-10.52	21.73	83.98	116.44	6 20 15	1287.2	-6.88	14.93
90.00	16 37 42	4819.71	18.61	207.99	85.16	68.26	17 58 2	4219.7	15.49	200.70
100.00	7 7 57	1631.84	-11.28	2.55	83.58	117.87	7 35 9	1031.8	-7.46	355.84
100.00	18 1 14	4550.31	19.40	187.83	84.82	66.80	19 17 4	3950.3	16.09	180.60
110.00	8 11 12	1433.84	-13.30	346.34	82.39	121.78	8 35 6	833.8	-9.00	339.87
110.00	19 14 28	4321.08	21.51	169.37	83.76	62.77	20 26 29	3721.1	17.68	162.32

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0193	TRA	-.6140	TC3	1.4781	BAU	.2558	SGT	1485.3	SGR	1095.4	SG3	367.1	ST	365.1	SR	178.4	SS	519.1
RDE	-.0536	RRA	.2393	RC3	-1.6824	FAU	.05972	RRT	-.8741	RRF	.9504	RTF	-.8992	CRT	-.8579	CRS	-.0564	CST	.5308
FDE	.4327	FRA	1.1157	FC3	-6.0514	BSP	5706	SGB	1845.5	R23	-.1794	R13	.9439	LSA	570.8	MSA	329.1	SSA	21.4
BDE	.0570	BRA	.6590	BC3	2.2394	FSP	-1072	SG1	1792.0	SG2	441.0	THA	144.74	EL1	397.6	EL2	84.2	ALF	156.12

LAUNCH DATE AUG 19 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 308.572

RL	151.40	LAL	-.00	LOL	325.61	VL	26.677	GAL	-1.00	AZL	88.08	HCA	134.50	SMA	127.42	ECC	.18892	INC	1.9158	V1	29.429
RP	107.58	LAP	1.37	LOP	100.12	VP	37.759	GAP	-6.22	AZP	91.34	TAL	184.32	TAP	318.82	RCA	103.35	APO	151.50	V2	35.225
RC	58.419	GL	17.84	GP	-32.72	ZAL	92.49	ZAP	42.63	ETS	40.27	ZAE	137.02	ETE	310.91	ZAC	69.41	ETC	261.13	CLP	-29.01

PLANETOCENTRIC CONIC

C3	8.476	VHL	2.911	DLA	-1.23	RAL	235.03	RAD	6567.3	VEL	11.396	PTH	1.97	VHP	5.390	DPA	-53.57	RAP	239.34	ECC	1.1395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 22 47	1991.97	-13.62	27.86	84.03	115.07	5 55 59	1392.0	-10.13	20.92
90.00	17 2 39	4711.95	15.76	201.36	84.34	66.17	18 21 11	4112.0	12.41	194.29
100.00	6 43 34	1731.42	-14.38	8.32	83.65	116.49	7 12 25	1131.4	-10.71	1.45
100.00	18 24 34	4447.74	16.53	181.56	83.97	64.73	19 38 42	3847.7	12.99	174.56
110.00	7 50 30	1521.89	-16.40	351.28	82.51	120.42	8 15 52	921.9	-12.24	344.64
110.00	19 34 7	4230.03	18.57	163.93	82.87	60.77	20 44 37	3630.0	14.53	157.14

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0084	TRA	-.5999	TC3	1.4578	BAU	.2735	SGT	1454.4	SGR	1250.2	SG3	391.6	ST	355.5	SR	170.2	SS	629.6
RDE	.0059	RRA	.2818	RC3	-1.9240	FAU	.06242	RRT	-.8834	RRF	.9646	RTF	-.8986	CRT	-.9917	CRS	-.5806	CST	.5610
FDE	.5852	FRA	1.1844	FC3	-6.3751	BSP	5925	SGB	1917.8	R23	-.1747	R13	.9538	LSA	678.7	MSA	301.2	SSA	19.4
BDE	.0103	BRA	.6628	BC3	2.4139	FSP	-1152	SG1	1862.5	SG2	457.5	THA	139.88	EL1	393.7	EL2	19.8	ALF	154.54

LAUNCH DATE AUG 19 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 315.197

RL	151.40	LAL	-.00	LOL	325.61	VL	26.735	GAL	-1.09	AZL	87.71	HCA	137.73	SMA	127.80	ECC	.18558	INC	2.2898
RP	107.56	LAP	1.54	LOP	103.36	VP	37.806	GAP	-5.62	AZP	91.69	TAL	184.78	TAP	322.51	RCA	104.08	APO	151.52
RC	60.358	GL	21.41	GP	-36.09	ZAL	93.26	ZAP	46.87	ETS	38.90	ZAE	134.82	ETE	307.11	ZAC	66.05	ETC	260.85

V1	29.429	V2	35.232	CLP	-32.22														

PLANETOCENTRIC CONIC

C3	8.558	VHL	2.925	DLA	2.44	RAL	235.09	RAD	6567.3	VEL	11.399	PTH	1.97	VHP	5.256	DPA	-56.78	RAP	237.49

ECC	1.1408	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	4 55 49	2107.54	-16.84	34.82	84.71	113.11	5 30 56	1507.5	-13.56	27.67							
		90.00	17 30 6	4600.00	12.57	194.69	84.08	64.42	18 46 46	4000.0	9.03	187.80							
		100.00	6 18 17	1841.49	-17.61	14.89	84.35	114.55	6 48 59	1241.5	-14.15	7.81							
		100.00	18 50 18	4341.28	13.33	175.27	83.69	63.00	20 2 39	3741.3	9.61	168.47							
		110.00	7 29 9	1619.71	-19.68	356.97	83.26	118.53	7 56 9	1019.7	-15.72	350.09							
		110.00	19 55 56	4135.82	15.35	158.53	82.54	59.08	21 4 52	3535.8	11.14	151.95							

DIFFERENTIAL CORRECTIONS

TDE	-.0345	TRA	-.5844	TC3	1.3845	BAU	.2933												
RDE	.0814	RRA	.3337	RC3	-2.1574	FAU	.06434												
FDE	.7585	FRA	1.2522	FC3	-6.5090	BSP	6191												
BDE	.0884	BRA	.6730	BC3	2.5634	FSP	-1222												

MID-COURSE EXECUTION ACCURACY

SGT	1404.8	SGR	1430.6	SG3	412.0														
RRT	-.8871	RRF	.9748	RTF	-.8954														
SGB	2005.0	R23	-.1625	R13	.9635														
SG1	1947.6	SG2	476.3	THA	134.41														

ORBIT DETERMINATION ACCURACY

ST	351.2	SR	255.7	SS	754.8														
CRT	-.8819	CRS	-.9076	CST	.6107														
LSA	825.5	MSA	276.7	SSA	16.8														
EL1	422.7	EL2	100.2	ALF	145.05														

LAUNCH DATE AUG 19 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 321.800

RL	151.40	LAL	-.00	LOL	325.61	VL	26.785	GAL	-1.16	AZL	87.29	HCA	140.97	SMA	128.13	ECC	.18266	INC	2.7133
RP	107.54	LAP	1.71	LOP	106.60	VP	37.847	GAP	-5.05	AZP	92.11	TAL	185.19	TAP	326.16	RCA	104.73	APO	151.54
RC	62.346	GL	25.27	GP	-39.81	ZAL	93.87	ZAP	51.37	ETS	37.39	ZAE	132.31	ETE	303.08	ZAC	62.34	ETC	260.44

V1	29.429	V2	35.238	CLP	-35.64														

PLANETOCENTRIC CONIC

C3	8.816	VHL	2.969	DLA	6.36	RAL	235.35	RAD	6567.3	VEL	11.411	PTH	1.98	VHP	5.176	DPA	-60.21	RAP	234.76

ECC	1.1451	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	4 27 21	2235.90	-20.08	42.84	86.13	110.40	5 4 37	1635.9	-17.12	35.41							
		90.00	18 0 41	4482.96	9.04	187.90	84.47	63.05	19 15 24	3883.0	5.35	181.16							
		100.00	5 51 44	1963.78	-20.90	22.48	85.79	111.87	6 24 27	1363.8	-17.75	15.11							
		100.00	19 19 0	4230.31	9.82	168.91	84.06	61.62	20 29 31	3630.3	5.95	162.26							
		110.00	7 6 54	1728.53	-23.07	3.58	84.75	115.95	7 35 42	1128.5	-19.40	356.38							
		110.00	20 20 20	4038.32	11.87	153.12	82.84	57.71	21 27 38	3438.3	7.53	146.72							

DIFFERENTIAL CORRECTIONS

TDE	-.0569	TRA	-.5688	TC3	1.2532	BAU	.3149												
RDE	.1779	RRA	.3987	RC3	-2.3599	FAU	.06508												
FDE	.9485	FRA	1.3187	FC3	-6.3904	BSP	6526												
BDE	.1868	BRA	.6946	BC3	2.6721	FSP	-1275												

MID-COURSE EXECUTION ACCURACY

SGT	1336.2	SGR	1637.4	SG3	426.0														
RRT	-.8846	RRF	.9822	RTF	-.8884														
SGB	2113.4	R23	-.1442	R13	.9724														
SG1	2054.3	SG2	496.6	THA	128.49														

ORBIT DETERMINATION ACCURACY

ST	349.7	SR	416.6	SS	889.1														
CRT	-.7931	CRS	-.9798	CST	.6586														
LSA	1009.7	MSA	258.1	SSA	14.2														
EL1	516.0	EL2	171.9	ALF	128.75														

LAUNCH DATE AUG 19 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 328.379

RL	151.40	LAL	-.00	LOL	325.61	VL	26.828	GAL	-1.21	AZL	86.80	HCA	144.20	SMA	128.42	ECC	.18012	INC	3.2005
RP	107.53	LAP	1.87	LOP	109.85	VP	37.883	GAP	-4.49	AZP	92.60	TAL	185.54	TAP	329.74	RCA	105.29	APO	151.55
RC	64.375	GL	29.41	GP	-43.85	ZAL	94.29	ZAP	56.06	ETS	35.63	ZAE	129.45	ETE	298.86	ZAC	58.29	ETC	259.86

V1	29.429	V2	35.243	CLP	-39.26														

PLANETOCENTRIC CONIC

C3	9.298	VHL	3.049	DLA	10.51	RAL	235.85	RAD	6567.3	VEL	11.432	PTH	1.98	VHP	5.158	DPA	-63.81	RAP	230.80

ECC	1.1530	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	3 56 37	2380.00	-23.21	52.24	88.43	106.69	4 36 17	1780.0	-20.70	44.47							
		90.00	18 35 23	4359.36	5.16	180.89	85.65	62.12	19 48 3	3759.4	1.39	174.24							
		100.00	5 23 11	2100.78	-24.10	31.40	88.12	108.23	5 58 12	1500.8	-21.39	23.65							
		100.00	19 51 30	4113.81	5.99	162.39	85.19	60.66	21 0 4	3513.8	2.03	155.83							
		110.00	6 43 19	1850.06	-26.47	11.39	87.15	112.46	7 14 9	1250.1	-23.19	3.76							
		110.00	20 47 52	3937.29	8.14	147.67	83.87	56.69	21 53 29	3337.3	3.70	141.39							

DIFFERENTIAL CORRECTIONS

TDE	-.0698	TRA	-.5495	TC3	1.0701	BAU	.3389												
RDE	.2995	RRA	.4781	RC3	-2.5075	FAU	.06432												
FDE	1.1408	FRA	1.3740	FC3	-5.9893	BSP	6913												
BDE	.3076	BRA	.7284	BC3	2.7263	FSP	-1298												

MID-COURSE EXECUTION ACCURACY

SGT	1243.3	SGR	1868.2	SG3	430.5														
RRT	-.8745	RRF	.9873	RTF	-.8751														
SGB	2244.1	R23	-.1214	R13	.9801														
SG1	2184.0	SG2	515.9	THA	122.21														

ORBIT DETERMINATION ACCURACY

ST	341.8	SR	627.7	SS	1019.0														
CRT	-.7505	CRS	-.9946	CST	.6799														
LSA	1220.2	MSA	245.2	SSA	11.8														
EL1	684.0	EL2	207.3	ALF	114.64														

LAUNCH DATE AUG 19 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 334.935

RL	151.40	LAL	-.00	LOL	325.61	VL	26.866	GAL	-1.26	AZL	86.23	HCA	147.43	SMA	128.67	ECC	.17794	INC	3.7706
RP	107.51	LAP	2.03	LOP	113.09	VP	37.913	GAP	-3.95	AZP	93.18	TAL	185.84	TAP	333.26	RCA	105.78	APO	151.57
RC	66.441	GL	33.81	GP	-48.20	ZAL	94.51	ZAP	60.87	ETS	33.53	ZAE	126.19	ETE	294.52	ZAC	53.92	ETC	259.06

V1	29.429	V2	35.247	CLP	-43.09														

PLANETOCENTRIC CONIC

C3	10.076	VHL	3.174	DLA	14.87	RAL	236.59	RAD	6567.4	VEL	11.466	PTH	1.99	VHP	5.217	DPA	-67.50	RAP	225.08

ECC	1.1658	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	3 22 10	2544.67	-25.97	63.51	91.75	101.70	4 4 34	1944.7	-24.09	55.34							
		90.00	19 15 45	4226.42	.89	173.45	87.77	61.70	20 26 12	3626.4	-2.90	166.82							
		100.00	4 51 32	2256.43	-27.00	42.05	91.49	103.34	5 29 9	1656.4	-24.89	33.88							
		100.00	20 29 4	3989.88	1.81	155.55	87.26	60.16	21 35 34	3389.9	-2.17	149.03							
		110.00	6 17 43	1986.78	-29.68	20.72	90.64	107.79	6 50 50	1386.8	-26.97	12.59							
		110.00	21 19 22	3832.30	4.18	142.12	85.78	56.04	22 23 15	3232.3	-.31	135.91							

DIFFERENTIAL CORRECTIONS

TDE	-.0702	TRA	-.5247	TC3	.8456	BAU	.3648												
RDE	.4551	RRA	.5751	RC3	-2.5729	FAU	.06181												
FDE	1.3282	FRA	1.4113	FC3	-5.3108	BSP	7386												
BDE	.4605	BRA	.7784	BC3	2.7083	FSP	-1289												

MID-COURSE EXECUTION ACCURACY

SGT	1124.4	SGR	2120.4	SG3	423.8														
RRT	-.8528	RRF	.9909	RTF	-.8514														
SGB	2400.1	R23	-.0959	R13	.9864														
SG1	2340.4	SG2	532.1	THA	115.76														

ORBIT DETERMINATION ACCURACY

ST	320.5	SR	883.7	SS	1138.7														
CRT	-.7045	CRS	-.9984	CST	.6640														
LSA	1457.6	MSA	235.6	SSA	9.6														
EL1	913.9	EL2	219.9	ALF	105.23														

LAUNCH DATE AUG 19 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 341.466

RL	151.40	LAL	-.00	LOL	325.61	VL	26.898	GAL	-1.29	AZL	85.55	HCA	150.65	SMA	128.88	ECC	.17608	INC	4.4511	V1	29.429
RP	107.50	LAP	2.18	LOP	116.33	VP	37.939	GAP	-3.43	AZP	93.88	TAL	186.06	TAP	336.72	RCA	106.19	APO	151.58	V2	35.251
RC	68.539	GL	38.43	GP	-52.81	ZAL	94.53	ZAP	65.71	ETS	30.99	ZAE	122.51	ETE	290.10	ZAC	49.28	ETC	257.96	CLP	-47.12

PLANETOCENTRIC CONIC

C3	11.276	VHL	3.358	DLA	19.39	RAL	237.60	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	5.369	DPA	-71.09	RAP	216.74	ECC	1.1856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 41 12	2739.07	-27.91	77.39	96.18	95.02	3 26 51	2139.1	-26.92	68.86
90.00	20 4 43	4077.76	-3.90	165.15	91.13	61.93	21 12 41	3477.8	-7.62	158.45
100.00	4 14 38	2437.78	-29.17	55.08	96.03	96.83	4 55 16	1837.8	-27.92	46.50
100.00	21 13 58	3854.28	-2.78	148.11	90.51	60.23	22 18 12	3254.3	-6.73	141.54
110.00	5 48 59	2142.61	-32.39	32.05	95.42	101.59	6 24 42	1542.6	-30.45	23.37
110.00	21 56 7	3722.22	-.02	136.37	88.78	55.82	22 58 9	3122.2	-4.51	130.16

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0486	TRA	-.4929	TC3	.5939	BAU	.3910	SGT 980.2 SGR 2386.2 SG3 404.0	ST 280.3	SR 1174.3	SS 1233.9
RDE	.6510	RRA	.6959	RC3	-2.5249	FAU	.05725	RRT -.8084 RRF .9935 RTF -.8058	CRT -.5888	CRS -.9994	CST .5627
FDE	1.4903	FRA	1.4291	FC3	-4.3955	BSP	7904	SGB 2579.7 R23 -.0707 R13 .9910	LSA 1710.9	MSA 229.9	SSA 7.8
BDE	.6528	BRA	.8528	BC3	2.5938	FSP	-1235	SG1 2521.2 SG2 546.1 THA 109.31	EL1 1186.2	EL2 224.3	ALF 98.30

LAUNCH DATE AUG 19 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 347.970

RL	151.40	LAL	-.00	LOL	325.61	VL	26.924	GAL	-1.31	AZL	84.72	HCA	153.88	SMA	129.06	ECC	.17452	INC	5.2835	V1	29.429
RP	107.49	LAP	2.32	LOP	119.58	VP	37.961	GAP	-2.92	AZP	94.75	TAL	186.22	TAP	340.10	RCA	106.54	APO	151.59	V2	35.254
RC	70.666	GL	43.21	GP	-57.65	ZAL	94.35	ZAP	70.45	ETS	27.90	ZAE	118.43	ETE	285.61	ZAC	44.42	ETC	256.46	CLP	-51.30

PLANETOCENTRIC CONIC

C3	13.107	VHL	3.620	DLA	24.03	RAL	238.87	RAD	6567.5	VEL	11.597	PTH	2.03	VHP	5.642	DPA	-74.32	RAP	204.43	ECC	1.2157

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 46 19	2986.94	-28.05	95.48	101.54	85.98	2 36 6	2386.9	-28.32	86.83
90.00	21 9 48	3893.52	-9.69	154.71	96.23	63.26	22 14 42	3293.5	-13.20	147.80
100.00	3 27 31	2660.66	-29.84	71.58	101.65	88.19	4 11 52	2060.7	-29.77	62.78
100.00	22 11 18	3695.04	-8.10	139.28	95.39	61.13	23 12 53	3095.0	-11.90	132.55
110.00	5 14 58	2324.50	-34.02	45.98	101.58	93.52	5 53 43	1724.5	-33.16	36.84
110.00	22 40 20	3603.96	-4.54	130.19	93.20	56.08	23 40 24	3004.0	-8.96	123.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.0067	TRA	-.4481	TC3	.3436	BAU	.4166	SGT 815.4 SGR 2655.9 SG3 371.1	ST 233.3	SR 1484.9	SS 1293.2
RDE	.8957	RRA	.8448	RC3	-2.3526	FAU	.05086	RRT -.7135 RRF .9952 RTF -.7099	CRT -.2528	CRS -.9998	CST .2345
FDE	1.6096	FRA	1.4183	FC3	-3.3596	BSP	8510	SGB 2778.2 R23 -.0469 R13 .9941	LSA 1969.8	MSA 226.8	SSA 6.3
BDE	.8957	BRA	.9562	BC3	2.3775	FSP	-1145	SG1 2721.7 SG2 557.5 THA 102.91	EL1 1486.1	EL2 225.5	ALF 92.33

LAUNCH DATE AUG 19 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 354.446

RL	151.40	LAL	-.00	LOL	325.61	VL	26.945	GAL	-1.32	AZL	83.67	HCA	157.10	SMA	129.21	ECC	.17324	INC	6.3319	V1	29.429
RP	107.48	LAP	2.46	LOP	122.83	VP	37.978	GAP	-2.43	AZP	95.84	TAL	186.30	TAP	343.40	RCA	106.82	APO	151.59	V2	35.256
RC	72.818	GL	48.08	GP	-62.66	ZAL	93.99	ZAP	74.96	ETS	24.18	ZAE	113.97	ETE	281.05	ZAC	39.38	ETC	254.40	CLP	-55.59

PLANETOCENTRIC CONIC

C3	15.943	VHL	3.993	DLA	28.69	RAL	240.44	RAD	6567.6	VEL	11.719	PTH	2.06	VHP	6.075	DPA	-76.71	RAP	186.58	ECC	1.2624

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.16	22 52 3	3614.12	-21.15	139.52	105.50	70.14	23 52 17	3014.1	-23.66	131.72
94.84	0 16 34	3353.16	-21.13	120.40	105.49	70.13	1 12 27	2753.2	-23.65	112.60
100.00	2 8 36	2992.86	-26.67	95.67	107.34	75.97	2 58 29	2392.9	-28.33	87.26
100.00	23 42 42	3449.65	-15.81	125.14	103.14	64.30	24 40 12	2849.7	-19.14	117.93
110.00	4 30 40	2548.06	-33.59	63.38	108.80	83.26	5 13 8	1948.1	-34.16	54.18
110.00	23 37 7	3467.22	-9.67	122.94	99.60	57.05	24 34 54	2867.2	-13.95	116.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.1142	TRA	-.3832	TC3	.1192	BAU	.4382	SGT 654.9 SGR 2914.1 SG3 326.7	ST 249.5	SR 1796.0	SS 1309.6
RDE	1.2005	RRA	1.0298	RC3	-2.0524	FAU	.04287	RRT -.4871 RRF .9964 RTF -.4828	CRT .4178	CRS -.9999	CST -.4279
FDE	1.6733	FRA	1.3771	FC3	-2.3278	BSP	9137	SGB 2986.8 R23 -.0249 R13 .9961	LSA 2225.2	MSA 226.3	SSA 5.0
BDE	1.2060	BRA	1.0988	BC3	2.0559	FSP	-1017	SG1 2932.2 SG2 568.4 THA 96.49	EL1 1799.0	EL2 226.3	ALF 86.63

LAUNCH DATE AUG 19 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 360.889

RL	151.40	LAL	-.00	LOL	325.61	VL	26.962	GAL	-1.31	AZL	82.30	HCA	160.30	SMA	129.32	ECC	.17220	INC	7.7017	V1	29.429
RP	107.48	LAP	2.59	LOP	126.08	VP	37.991	GAP	-1.96	AZP	97.26	TAL	186.30	TAP	346.61	RCA	107.05	APO	151.59	V2	35.258
RC	74.992	GL	52.93	GP	-67.84	ZAL	93.47	ZAP	79.08	ETS	19.71	ZAE	109.15	ETE	276.31	ZAC	34.20	ETC	251.50	CLP	-59.83

PLANETOCENTRIC CONIC

C3	20.497	VHL	4.527	DLA	33.28	RAL	242.29	RAD	6567.8	VEL	11.911	PTH	2.12	VHP	6.733	DPA	-77.66	RAP	163.36	ECC	1.3373

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.73	21 20 52	3985.39	-22.71	168.02	112.70	64.99	22 27 17	3385.4	-25.89	160.38
108.27	2 2 30	3099.12	-22.70	102.10	112.69	64.98	2 54 10	2499.1	-25.87	94.46
71.73	21 20 52	3985.39	-22.71	168.02	112.70	64.99	22 27 17	3385.4	-25.89	160.38
108.27	2 2 30	3099.12	-22.70	102.10	112.69	64.98	2 54 10	2499.1	-25.87	94.46
110.00	3 12 33	2884.30	-28.14	87.95	115.20	69.74	4 0 37	2284.3	-30.63	79.64
110.00	1 13 56	3248.21	-17.48	110.77	109.80	60.14	2 8 4	2648.2	-21.31	103.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.3066	TRA	-.2847	TC3	-.0516	BAU	.4514	SGT 581.8 SGR 3144.0 SG3 274.5	ST 409.0	SR 2079.0	SS 1280.8
RDE	1.5784	RRA	1.2658	RC3	-1.6465	FAU	.03382	RRT .0102 RRF .9971 RTF .0153	CRT .8241	CRS -1.0000	CST -.8279
FDE	1.6747	FRA	1.3096	FC3	-1.4284	BSP	9791	SGB 3197.3 R23 -.0047 R13 .9971	LSA 2465.3	MSA 228.9	SSA 4.1
BDE	1.6079	BRA	1.2974	BC3	1.6473	FSP	-864	SG1 3144.0 SG2 581.8 THA 89.89	EL1 2106.5	EL2 228.6	ALF 80.68

LAUNCH DATE AUG 19 1970 FLIGHT TIME 134.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 367.295

RL	151.40	LAL	-.00	LOL	325.61	VL	26.974	GAL	-1.28	AZL	80.42	HCA	163.50	SMA	129.40	ECC	.17139	INC	9.5791
RP	107.48	LAP	2.71	LOP	129.33	VP	38.001	GAP	-1.50	AZP	99.19	TAL	186.22	TAP	349.72	RCA	107.23	APO	151.58
RC	77.186	GL	57.60	GP	-73.23	ZAL	92.84	ZAP	82.67	ETS	14.25	ZAE	103.93	ETE	271.15	ZAC	28.86	ETC	247.12

PLANETOCENTRIC CONIC

C3	28.248	VHL	5.315	DLA	37.64	RAL	244.40	RAD	6568.1	VEL	12.232	PTH	2.20	VHP	7.732	DPA	-76.71	RAP	139.23

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.10	20 46 1	4193.91	-22.79	184.60	121.41	59.20	21 55 55	3593.9	-26.69	177.32
115.90	2 54 11	3047.66	-22.77	98.07	121.40	59.19	3 44 59	2447.7	-26.68	90.80
64.10	20 46 1	4193.91	-22.79	184.60	121.41	59.20	21 55 55	3593.9	-26.69	177.32
115.90	2 54 11	3047.66	-22.77	98.07	121.40	59.19	3 44 59	2447.7	-26.68	90.80
64.10	20 46 1	4193.91	-22.79	184.60	121.41	59.20	21 55 55	3593.9	-26.69	177.32
115.90	2 54 11	3047.66	-22.77	98.07	121.40	59.19	3 44 59	2447.7	-26.68	90.80

DIFFERENTIAL CORRECTIONS

TDE	.6442	TRA	-.1268	TC3	-.1599	BAU	.4396
RDE	2.0634	RRA	1.5945	RC3	-1.1531	FAU	.02377
FDE	1.6336	FRA	1.2375	FC3	-.7284	BSP	9993
BDE	2.1616	BRA	1.5995	BC3	1.1641	FSP	-669

MID-COURSE EXECUTION ACCURACY

SGT	735.5	SGR	3340.9	SG3	220.9		
RRT	.5609	RRF	.9976	RTF	.5656		
SGB	3420.9	R23	.0156	R13	.9975		
SG1	3367.1	SG2	604.2	THA	82.72		

ORBIT DETERMINATION ACCURACY

ST	696.4	SR	2318.0	SS	1224.1		
CRT	.9361	CRS	-1.0000	CST	-.9380		
LSA	2701.9	MSA	236.9	SSA	3.3		
EL1	2408.9	EL2	235.6	ALF	74.13		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 373.650

RL	151.40	LAL	-.00	LOL	325.61	VL	26.983	GAL	-1.24	AZL	77.68	HCA	166.67	SMA	129.46	ECC	.17078	INC	12.3244
RP	107.48	LAP	2.82	LOP	132.58	VP	38.007	GAP	-1.06	AZP	102.00	TAL	186.05	TAP	352.72	RCA	107.35	APO	151.57
RC	79.396	GL	61.84	GP	-78.98	ZAL	92.14	ZAP	85.63	ETS	6.98	ZAE	98.22	ETE	264.65	ZAC	23.29	ETC	239.60

PLANETOCENTRIC CONIC

C3	42.653	VHL	6.531	DLA	41.52	RAL	246.66	RAD	6568.6	VEL	12.807	PTH	2.33	VHP	9.295	DPA	-73.99	RAP	119.03

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.27	20 27 47	4375.21	-20.74	198.36	131.35	53.19	21 40 42	3775.2	-25.39	191.69
121.73	3 30 30	3073.96	-20.73	98.80	131.34	53.18	4 21 44	2474.0	-25.37	92.14
58.27	20 27 47	4375.21	-20.74	198.36	131.35	53.19	21 40 42	3775.2	-25.39	191.69
121.73	3 30 30	3073.96	-20.73	98.80	131.34	53.18	4 21 44	2474.0	-25.37	92.14
58.27	20 27 47	4375.21	-20.74	198.36	131.35	53.19	21 40 42	3775.2	-25.39	191.69
121.73	3 30 30	3073.96	-20.73	98.80	131.34	53.18	4 21 44	2474.0	-25.37	92.14

DIFFERENTIAL CORRECTIONS

TDE	1.3073	TRA	.1904	TC3	-.1781	BAU	.4089
RDE	2.5985	RRA	2.0030	RC3	-.6946	FAU	.01498
FDE	1.5336	FRA	1.1377	FC3	-.3041	BSP	10818
BDE	2.9088	BRA	2.0120	BC3	.7171	FSP	-526

MID-COURSE EXECUTION ACCURACY

SGT	1191.3	SGR	3395.3	SG3	167.2		
RRT	.8280	RRF	.9978	RTF	.8384		
SGB	3598.2	R23	.0325	R13	.9975		
SG1	3540.7	SG2	640.5	THA	73.24		

ORBIT DETERMINATION ACCURACY

ST	1148.8	SR	2386.0	SS	1127.3		
CRT	.9710	CRS	-.9999	CST	-.9735		
LSA	2867.2	MSA	250.9	SSA	2.8		
EL1	2636.5	EL2	248.5	ALF	64.70		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 379.931

RL	151.40	LAL	-.00	LOL	325.61	VL	26.988	GAL	-1.18	AZL	73.27	HCA	169.79	SMA	129.49	ECC	.17036	INC	16.7276
RP	107.48	LAP	2.92	LOP	135.83	VP	38.009	GAP	-.65	AZP	106.48	TAL	185.76	TAP	355.56	RCA	107.43	APO	151.56
RC	81.621	GL	65.17	GP	-85.39	ZAL	91.44	ZAP	87.84	ETS	352.34	ZAE	91.69	ETE	251.14	ZAC	17.32	ETC	220.95

PLANETOCENTRIC CONIC

C3	73.222	VHL	8.557	DLA	44.48	RAL	248.84	RAD	6569.4	VEL	13.949	PTH	2.55	VHP	11.912	DPA	-69.70	RAP	103.31

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.14	20 19 39	4552.97	-16.08	210.09	141.79	47.95	21 35 32	3953.0	-21.33	204.14
125.86	3 56 0	3161.06	-16.06	102.48	141.78	47.94	4 48 41	2561.1	-21.32	96.53
54.14	20 19 39	4552.97	-16.08	210.09	141.79	47.95	21 35 32	3953.0	-21.33	204.14
125.86	3 56 0	3161.06	-16.06	102.48	141.78	47.94	4 48 41	2561.1	-21.32	96.53
54.14	20 19 39	4552.97	-16.08	210.09	141.79	47.95	21 35 32	3953.0	-21.33	204.14
125.86	3 56 0	3161.06	-16.06	102.48	141.78	47.94	4 48 41	2561.1	-21.32	96.53

DIFFERENTIAL CORRECTIONS

TDE	3.0310	TRA	1.1356	TC3	-.1415	BAU	.2993
RDE	2.7041	RRA	2.4509	RC3	-.2710	FAU	.00634
FDE	1.4478	FRA	1.0714	FC3	-.0749	BSP	11416
BDE	4.0619	BRA	2.7012	BC3	.3057	FSP	-388

MID-COURSE EXECUTION ACCURACY

SGT	2305.0	SGR	2963.7	SG3	121.2		
RRT	.9131	RRF	.9929	RTF	.9496		
SGB	3754.6	R23	.0494	R13	.9973		
SG1	3677.4	SG2	757.3	THA	52.77		

ORBIT DETERMINATION ACCURACY

ST	2054.5	SR	1937.7	SS	1044.9		
CRT	.9785	CRS	-.9980	CST	-.9894		
LSA	2996.6	MSA	296.2	SSA	2.3		
EL1	2808.9	EL2	292.5	ALF	43.29		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 386.069

RL	151.40	LAL	-.00	LOL	325.61	VL	26.989	GAL	-1.08	AZL	65.14	HCA	172.81	SMA	129.50	ECC	.17009	INC	24.8556
RP	107.48	LAP	3.02	LOP	139.08	VP	38.009	GAP	-.27	AZP	114.68	TAL	185.30	TAP	358.11	RCA	107.48	APO	151.53
RC	83.861	GL	66.44	GP	-85.97	ZAL	90.79	ZAP	89.27	ETS	223.54	ZAE	83.37	ETE	123.64	ZAC	10.96	ETC	73.69

PLANETOCENTRIC CONIC

C3	153.104	VHL	12.374	DLA	45.47	RAL	250.25	RAD	6570.7	VEL	16.566	PTH	2.88	VHP	16.848	DPA	-63.24	RAP	90.33

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.80	20 20 11	4719.93	-9.10	218.67	151.20	45.25	21 38 51	4119.9	-14.68	213.22
127.20	4 6 43	3301.47	-9.09	108.62	151.19	45.25	5 1 45	2701.5	-14.66	103.17
52.80	20 20 11	4719.93	-9.10	218.67	151.20	45.25	21 38 51	4119.9	-14.68	213.22
127.20	4 6 43	3301.47	-9.09	108.62	151.19	45.25	5 1 45	2701.5	-14.66	103.17
52.80	20 20 11	4719.93	-9.10	218.67	151.20	45.25	21 38 51	4119.9	-14.68	213.22
127.20	4 6 43	3301.47	-9.09	108.62	151.19	45.25	5 1 45	2701.5	-14.66	103.17

DIFFERENTIAL CORRECTIONS

TDE	2.4721	TRA	2.6093	TC3	.0009	BAU	.0400
RDE	-5.5510	RRA	-3.0381	RC3	-.0195	FAU	-.00340
FDE	1.4703	FRA	1.1045	FC3	.0192	BSP	11777
BDE	6.0766	BRA	4.0048	BC3	.0195	FSP	-278

MID-COURSE EXECUTION ACCURACY

SGT	2068.6	SGR	3261.0	SG3	86.3		
RRT	-.9486	RRF	-.9872	RTF	.9854		
SGB	3861.8	R23	-.0650	R13	-.9971		
SG1	3821.2	SG2	558.6	THA	121.80		

ORBIT DETERMINATION ACCURACY

ST	1256.0	SR	2639.9	SS	1041.0		
CRT	-.9812	CRS	.9967	CST	-.9936		
LSA	3095.2	MSA	223.9	SSA	1.6		
EL1	2915.2	EL2	219.4	ALF	115.18		

LAUNCH DATE AUG 19 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 391.817

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.987 GAL   -.91 AZL  46.58 HCA 175.49 SMA 129.49 ECC .16989 INC43.4222 V1  29.429
RP  107.49 LAP   3.10 LOP 142.33 VP  38.005 GAP   -.01 AZP 133.33 TAL 184.43 TAP 359.92 RCA 107.49 APO 151.49 V2  35.254
RC  86.111 GL   62.08 GP  -72.86 ZAL  90.23 ZAP  89.89 ETS 190.90 ZAE  70.11 ETE  92.04 ZAC  10.94 ETC 330.36 CLP  89.63
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PLANETOCENTRIC CONIC

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C3 440.627 VHL 20.991 DLA  41.14 RAL 249.17 RAD 6572.2 VEL 23.705 PTH   3.30 VHP 27.985 DPA -51.64 RAP  78.26 ECC 8.2516
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.82	20 40 7	4795.01	-2.15	218.87	156.72	48.91	22 0 2	4195.0	-7.39	213.22
121.18	3 38 7	3506.81	-2.14	120.44	156.70	48.91	4 36 34	2906.8	-7.37	114.79
58.82	20 40 7	4795.01	-2.15	218.87	156.72	48.91	22 0 2	4195.0	-7.39	213.22
121.18	3 38 7	3506.81	-2.14	120.44	156.70	48.91	4 36 34	2906.8	-7.37	114.79
58.82	20 40 7	4795.01	-2.15	218.87	156.72	48.91	22 0 2	4195.0	-7.39	213.22
121.18	3 38 7	3506.81	-2.14	120.44	156.70	48.91	4 36 34	2906.8	-7.37	114.79

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.1625 TRA  .5096 TC3 -.0449 BAU 1.2679   SGT  646.5 SGR 3763.1 SG3   65.2     ST   592.9 SR  2766.6 SS  1271.4
 RDE-9.7531 RRA-6.9217 RC3 -.2105 FAU-.02320   RRT  .5239 RRF -.9982 RTF -.4794     CRT  .9327 CRS  .9995 CST  .9206
 FDE 1.8360 FRA 1.4641 FC3  .0456 BSP  11555   SGB 3818.2 R23 -.0644 R13 -.9974     LSA 3094.4 MSA  216.7 SSA    1.6
 BDE 9.9900 BRA 6.9404 BC3  .2152 FSP   -207   SG1 3778.6 SG2  548.5 THA  84.75     EL1 2821.6 EL2  209.7 ALF  78.63
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 396.057

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.982 GAL   -.44 AZL    .49 HCA 176.83 SMA 129.46 ECC .16963 INC89.4740 V1  29.429
RP  107.50 LAP   3.17 LOP 145.58 VP  37.999 GAP   -.15 AZP 179.51 TAL 182.14 TAP 358.97 RCA 107.50 APO 151.42 V2  35.251
RC  88.372 GL   42.76 GP  -46.78 ZAL  89.81 ZAP  89.83 ETS 184.54 ZAE  44.17 ETE  84.47 ZAC  33.61 ETC 288.65 CLP  89.75
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PLANETOCENTRIC CONIC

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C31579.395 VHL 39.742 DLA  22.40 RAL 243.54 RAD 6573.2 VEL 41.239 PTH   3.57 VHP 52.139 DPA -26.91 RAP  67.11 ECC26.9928
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 28 37	3685.08	-15.78	142.44	162.02	66.18	3 30 2	3085.1	-18.87	135.12
90.00	21 4 45	4758.86	17.03	204.22	148.08	67.03	22 24 4	4158.9	13.77	197.05
100.00	4 6 17	3370.15	-18.09	120.35	163.10	65.79	5 2 27	2770.1	-21.21	112.94
100.00	22 9 46	4549.02	19.36	187.75	147.04	66.77	23 25 35	3949.0	16.05	180.52
110.00	5 48 12	3051.27	-23.72	98.90	165.87	64.63	6 39 4	2451.3	-26.93	91.21
110.00	22 44 20	4440.67	25.04	176.85	144.35	65.93	23 58 20	3840.7	21.57	169.42

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-5.7888 TRA -.6571 TC3 -.0963 BAU 5.0393   SGT 1137.0 SGR 2900.0 SG3   57.9     ST   835.5 SR  1653.6 SS  1663.2
 RD-10.8966 RR-10.9763 RC3 -.2184 FAU-.09251   RRT  .8537 RRF -.9996 RTF -.8406     CRT  .9613 CRS  .9998 CST  .9552
 FDE 2.4153 FRA 2.6110 FC3  .0507 BSP   8858   SGB 3115.0 R23 -.0878 R13 -.9960     LSA 2479.3 MSA  227.2 SSA    1.2
 BDE12.3388 BRA10.9960 BC3  .2387 FSP   -174   SG1 3064.1 SG2  560.4 THA  70.83     EL1 1841.1 EL2  206.6 ALF  63.74
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 407.336

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.975 GAL  -1.29 AZL 135.18 HCA 184.57 SMA 129.41 ECC .17136 INC45.1751 V1  29.429
RP  107.51 LAP   3.24 LOP 148.83 VP  37.991 GAP   1.58 AZP  44.92 TAL 186.25 TAP  10.81 RCA 107.23 APO 151.58 V2  35.247
RC  90.641 GL  -61.42 GP   73.12 ZAL  90.70 ZAP  92.02 ETS 184.30 ZAE  76.26 ETE 279.47 ZAC 151.01 ETC 292.69 CLP  96.97
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PLANETOCENTRIC CONIC

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C3 474.431 VHL 21.781 DLA -73.73 RAL 181.30 RAD 6572.3 VEL 24.408 PTH   3.32 VHP 27.598 DPA  76.80 RAP 319.63 ECC 8.8079
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.56	2 15 25	2400.45	2.70	79.59	90.50	163.71	2 55 26	1800.4	10.38	77.73
161.44	13 1 22	626.30	2.71	285.10	90.52	163.71	13 11 48	26.3	10.38	283.24
18.56	2 15 25	2400.45	2.70	79.59	90.50	163.71	2 55 26	1800.4	10.38	77.73
161.44	13 1 22	626.30	2.71	285.10	90.52	163.71	13 11 48	26.3	10.38	283.24
18.56	2 15 25	2400.45	2.70	79.59	90.50	163.71	2 55 26	1800.4	10.38	77.73
161.44	13 1 22	626.30	2.71	285.10	90.52	163.71	13 11 48	26.3	10.38	283.24

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.2599 TRA 1.3257 TC3 -.0997 BAU 1.5381   SGT 1730.0 SGR 3608.6 SG3   70.3     ST  1181.2 SR  3040.0 SS  1654.1
 RD-11.3785 RRA-1.8867 RC3  .2210 FAU-.02409   RRT -.9572 RRF  .9994 RTF -.9550     CRT -.9894 CRS-1.0000 CST  .9890
 FDE-2.5977 FRA -.4242 FC3  .0440 BSP  12129   SGB 4001.9 R23 -.0591 R13  .9977     LSA 3653.2 MSA  163.4 SSA    1.8
 BDE12.1497 BRA 2.3059 BC3  .2425 FSP   -216   SG1 3976.0 SG2  454.2 THA 115.00     EL1 3257.5 EL2  160.3 ALF 111.08
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 413.035

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.965 GAL  -1.08 AZL 117.01 HCA 187.26 SMA 129.34 ECC .17154 INC27.0143 V1  29.429
RP  107.53 LAP   3.29 LOP 152.08 VP  37.980 GAP   1.82 AZP  63.17 TAL 185.21 TAP  12.47 RCA 107.15 APO 151.53 V2  35.243
RC  92.917 GL  -66.16 GP   84.56 ZAL  90.71 ZAP  93.84 ETS 173.43 ZAE  89.09 ETE 267.55 ZAC 161.81 ETC 297.59 CLP 134.97
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PLANETOCENTRIC CONIC

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C3 179.235 VHL 13.388 DLA -75.70 RAL 164.86 RAD 6570.9 VEL 17.337 PTH   2.95 VHP 16.709 DPA  70.89 RAP 275.18 ECC 3.9497
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.29	1 5 16	2285.23	10.62	79.28	72.11	165.45	1 43 21	1685.2	18.35	77.58
163.71	12 0 23	5790.22	10.62	260.42	72.13	165.45	13 36 54	5190.2	18.36	258.72
16.29	1 5 16	2285.23	10.62	79.28	72.11	165.45	1 43 21	1685.2	18.35	77.58
163.71	12 0 23	5790.22	10.62	260.42	72.13	165.45	13 36 54	5190.2	18.36	258.72
16.29	1 5 16	2285.23	10.62	79.28	72.11	165.45	1 43 21	1685.2	18.35	77.58
163.71	12 0 23	5790.22	10.62	260.42	72.13	165.45	13 36 54	5190.2	18.36	258.72

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.6917 TRA  .6847 TC3 -.0176 BAU  .1927   SGT 1390.7 SGR 4046.2 SG3   95.8     ST   806.8 SR  2762.5 SS  1140.3
 RDE-6.0804 RRA-1.7841 RC3  .0785 FAU-.00124   RRT -.9884 RRF  .9983 RTF -.9806     CRT -.9934 CRS -.9996 CST  .9899
 FDE-1.7550 FRA -.4704 FC3  .0060 BSP  13467   SGB 4278.5 R23 -.0561 R13  .9975     LSA 3094.1 MSA   96.6 SSA    1.8
 BDE 6.3113 BRA 1.9109 BC3  .0804 FSP   -307   SG1 4273.9 SG2  200.3 THA 108.81     EL1 2876.6 EL2   88.6 ALF 106.19
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 419.069

RL	151.40	LAL	-.00	LOL	325.61	VL	26.953	GAL	-.92	AZL	109.02	HCA	190.27	SMA	129.26	ECC	.17202	INC	19.0192	V1	29.429		
RP	107.54	LAP	3.33	LOP	155.33	VP	37.966	GAP	2.15	AZP	71.26	TAL	184.45	TAP	14.72	RCA	107.02	APO	151.49	V2	35.238		
RC	95.197	GL	-65.78	GP	82.45	ZAL	90.55	ZAP	96.40	ETS	42.29	ZAE	96.93	ETE	135.98	ZAC	165.72	ETC	190.39	CLP	-147.99		

PLANETOCENTRIC CONIC

C3	92.732	VHL	9.630	DLA	-75.74	RAL	166.53	RAD	6569.8	VEL	14.631	PTH	2.65	VHP	11.879	DPA	64.47	RAP	260.23	ECC	2.5261		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.25	1 11 49	2158.20	18.99	77.55	71.50	164.90	1 47 48	1558.2	26.70	75.64
163.75	12 7 8	5663.02	18.99	258.65	71.52	164.90	13 41 31	5063.0	26.70	256.74
16.25	1 11 49	2158.20	18.99	77.55	71.50	164.90	1 47 48	1558.2	26.70	75.64
163.75	12 7 8	5663.02	18.99	258.65	71.52	164.90	13 41 31	5063.0	26.70	256.74
16.25	1 11 49	2158.20	18.99	77.55	71.50	164.90	1 47 48	1558.2	26.70	75.64
163.75	12 7 8	5663.02	18.99	258.65	71.52	164.90	13 41 31	5063.0	26.70	256.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6599	TRA	-1.2023	TC3	-.1652	BAU	.2315	SGT	3322.0	SGR	2872.4	SG3	134.2	ST	1806.5	SR	2389.9	SS	1164.2				
RDE	3.9285	RRA	.6879	RC3	.0871	FAU	.01081	RRT	-.8987	RRF	-.9833	RTF	.9604	CRT	-.9574	CRS	.9965	CST	-.9781				
FDE	-1.8250	FRA	-.4530	FC3	-.1809	BSP	13822	SGB	4391.7	R23	.0859	R13	-.9950	LSA	3186.4	MSA	421.2	SSA	2.3				
BDE	4.7443	BRA	1.3852	BC3	.1867	FSP	-432	SG1	4281.5	SG2	977.5	THA	139.61	EL1	2966.2	EL2	420.5	ALF	126.75				

LAUNCH DATE AUG 19 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 425.199

RL	151.40	LAL	-.00	LOL	325.61	VL	26.938	GAL	-.78	AZL	104.67	HCA	193.39	SMA	129.16	ECC	.17268	INC	14.6703	V1	29.429		
RP	107.56	LAP	3.36	LOP	158.58	VP	37.951	GAP	2.50	AZP	75.71	TAL	183.73	TAP	17.12	RCA	106.86	APO	151.46	V2	35.232		
RC	97.481	GL	-63.72	GP	76.27	ZAL	90.19	ZAP	99.54	ETS	32.71	ZAE	102.80	ETE	126.57	ZAC	165.25	ETC	205.13	CLP	-134.29		

PLANETOCENTRIC CONIC

C3	57.888	VHL	7.608	DLA	-75.29	RAL	174.76	RAD	6569.1	VEL	13.388	PTH	2.45	VHP	9.326	DPA	58.83	RAP	251.99	ECC	1.9527		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.76	1 45 41	2047.31	26.14	75.37	77.35	163.57	2 19 49	1447.3	33.79	73.07
163.24	12 38 57	5554.02	26.15	256.98	77.37	163.57	14 11 31	4954.0	33.80	254.68
16.76	1 45 41	2047.31	26.14	75.37	77.35	163.57	2 19 49	1447.3	33.79	73.07
163.24	12 38 57	5554.02	26.15	256.98	77.37	163.57	14 11 31	4954.0	33.80	254.68
16.76	1 45 41	2047.31	26.14	75.37	77.35	163.57	2 19 49	1447.3	33.79	73.07
163.24	12 38 57	5554.02	26.15	256.98	77.37	163.57	14 11 31	4954.0	33.80	254.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4919	TRA	-.8276	TC3	-.4245	BAU	.4108	SGT	3156.5	SGR	3147.1	SG3	182.6	ST	2016.0	SR	2679.8	SS	1372.0				
RDE	3.4970	RRA	.5575	RC3	.3188	FAU	.02104	RRT	-.9376	RRF	-.9950	RTF	.9605	CRT	-.9824	CRS	.9996	CST	-.9875				
FDE	-2.2086	FRA	-.4091	FC3	-.3147	BSP	13995	SGB	4457.3	R23	.0980	R13	-.9933	LSA	3610.3	MSA	305.9	SSA	2.9				
BDE	4.2940	BRA	.9978	BC3	.5309	FSP	-586	SG1	4387.2	SG2	787.5	THA	135.09	EL1	3339.8	EL2	302.0	ALF	126.82				

LAUNCH DATE AUG 19 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 431.358

RL	151.40	LAL	-.00	LOL	325.61	VL	26.922	GAL	-.63	AZL	101.95	HCA	196.56	SMA	129.05	ECC	.17350	INC	11.9520	V1	29.429		
RP	107.58	LAP	3.38	LOP	161.83	VP	37.933	GAP	2.86	AZP	78.53	TAL	183.01	TAP	19.57	RCA	106.66	APO	151.44	V2	35.226		
RC	99.767	GL	-61.00	GP	70.35	ZAL	89.61	ZAP	103.11	ETS	32.90	ZAE	107.59	ETE	127.54	ZAC	162.28	ETC	221.63	CLP	-132.41		

PLANETOCENTRIC CONIC

C3	40.631	VHL	6.374	DLA	-74.39	RAL	184.82	RAD	6568.6	VEL	12.728	PTH	2.31	VHP	7.812	DPA	53.60	RAP	246.33	ECC	1.6687		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.80	2 27 54	1956.96	31.75	72.67	84.85	161.55	3 0 31	1357.0	39.29	69.82
162.20	13 16 58	5467.71	31.75	255.31	84.87	161.55	14 48 5	4867.7	39.30	252.47
17.80	2 27 54	1956.96	31.75	72.67	84.85	161.55	3 0 31	1357.0	39.29	69.82
162.20	13 16 58	5467.71	31.75	255.31	84.87	161.55	14 48 5	4867.7	39.30	252.47
17.80	2 27 54	1956.96	31.75	72.67	84.85	161.55	3 0 31	1357.0	39.29	69.82
162.20	13 16 58	5467.71	31.75	255.31	84.87	161.55	14 48 5	4867.7	39.30	252.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6419	TRA	-.6269	TC3	-.7613	BAU	.5068	SGT	3311.7	SGR	3070.5	SG3	237.5	ST	2456.6	SR	2780.6	SS	1614.7				
RDE	3.0691	RRA	.3472	RC3	.5393	FAU	.03088	RRT	-.9487	RRF	-.9956	RTF	.9638	CRT	-.9911	CRS	.9999	CST	-.9930				
FDE	-2.6352	FRA	-.3339	FC3	-.6580	BSP	14201	SGB	4516.1	R23	.1119	R13	-.9912	LSA	4038.6	MSA	253.4	SSA	3.7				
BDE	4.0496	BRA	.7166	BC3	.9330	FSP	-761	SG1	4458.2	SG2	721.0	THA	137.28	EL1	3702.3	EL2	245.2	ALF	131.43				

LAUNCH DATE AUG 19 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 437.522

RL	151.40	LAL	-.00	LOL	325.61	VL	26.904	GAL	-.48	AZL	100.09	HCA	199.75	SMA	128.93	ECC	.17446	INC	10.0897	V1	29.429		
RP	107.60	LAP	3.39	LOP	165.07	VP	37.914	GAP	3.22	AZP	80.49	TAL	182.27	TAP	22.01	RCA	106.44	APO	151.42	V2	35.218		
RC	102.053	GL	-58.03	GP	64.81	ZAL	88.80	ZAP	106.96	ETS	34.19	ZAE	111.60	ETE	130.19	ZAC	158.32	ETC	232.20	CLP	-133.25		

PLANETOCENTRIC CONIC

C3	30.870	VHL	5.556	DLA	-73.07	RAL	194.70	RAD	6568.2	VEL	12.339	PTH	2.22	VHP	6.852	DPA	48.65	RAP	242.11	ECC	1.5080		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.32	3 10 27	1884.42	35.93	69.40	91.95	158.92	3 41 51	1284.4	43.33	65.87
160.68	13 53 16	5401.59	35.94	253.58	91.97	158.92	15 23 18	4801.6	43.34	250.05
19.32	3 10 27	1884.42	35.93	69.40	91.95	158.92	3 41 51	1284.4	43.33	65.87
160.68	13 53 16	5401.59	35.94	253.58	91.97	158.92	15 23 18	4801.6	43.34	250.05
19.32	3 10 27	1884.42	35.93	69.40	91.95	158.92	3 41 51	1284.4	43.33	65.87
160.68	13 53 16	5401.59	35.94	253.58	91.97	158.92	15 23 18	4801.6	43.34	250.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7430	TRA	-.4638	TC3	-1.1599	BAU	.5650	SGT	3515.8	SGR	2907.5	SG3	293.1	ST	2871.5	SR	2726.4	SS	1814.7				
RDE	2.6373	RRA	.1795	RC3	.7272	FAU	.03998	RRT	-.9566	RRF	-.9953	RTF	.9674	CRT	-.9947	CRS	1.0000	CST	-.9954				
FDE	-2.9635	FRA	-.2211	FC3	-1.1211	BSP	14379	SGB	4562.3	R23	.1230	R13	-.9891	LSA	4350.3	MSA	217.0	SSA	4.6				
BDE	3.8051	BRA	.4973	BC3	1.3691	FSP	-937	SG1	4514.3	SG2	659.7	THA	140.65	EL1	3954.5	EL2	202.7	ALF	136.49				

LAUNCH DATE AUG 19 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 443.680
RL 151.40 LAL -.00 LOL 325.61 VL 26.885 GAL -.32 AZL 98.73 HCA 202.95 SMA 128.80 ECC .17556 INC 8.7292 V1 29.429
RP 107.63 LAP 3.39 LOP 168.32 VP 37.892 GAP 3.58 AZP 81.95 TAL 181.49 TAP 24.44 RCA 106.19 APO 151.41 V2 35.211
RC 104.339 GL -54.96 GP 59.62 ZAL 87.79 ZAP 110.95 ETS 35.52 ZAE 114.95 ETE 133.39 ZAC 154.10 ETC 238.89 CLP-134.99
PLANETOCENTRIC CONIC
C3 24.831 VHL 4.983 DLA -71.43 RAL 203.67 RAD 6568.0 VEL 12.092 PTH 2.16 VHP 6.222 DPA 43.91 RAP 238.88 ECC 1.4086

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.21	3 50 11	1825.80	38.93	65.65	97.91	155.83	4 20 37	1225.8	46.14	61.35
158.79	14 25 6	5351.84	38.94	251.77	97.93	155.83	15 54 18	4751.8	46.15	247.47
21.21	3 50 11	1825.80	38.93	65.65	97.91	155.83	4 20 37	1225.8	46.14	61.35
158.79	14 25 6	5351.84	38.94	251.77	97.93	155.83	15 54 18	4751.8	46.15	247.47
21.21	3 50 11	1825.80	38.93	65.65	97.91	155.83	4 20 37	1225.8	46.14	61.35
158.79	14 25 6	5351.84	38.94	251.77	97.93	155.83	15 54 18	4751.8	46.15	247.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.7646 TRA -.3164 TC3-1.6058 BAU .6067 SGT 3737.6 SGR 2706.7 SG3 344.8 ST 3197.5 SR 2556.7 SS 1943.8
RDE 2.2229 RRA .0534 RC3 .8726 FAU .04802 RRT -.9624 RRF -.9946 RTF .9707 CRT -.9964 CRS 1.0000 CST -.9965
FDE-3.1437 FRA -.0775 FC3-1.6742 BSP 14575 SGB 4614.8 R23 .1305 R13 -.9872 LSA 4528.0 MSA 191.6 SSA 5.6
BDE 3.5474 BRA .3208 BC3 1.8276 FSP -1103 SG1 4575.6 SG2 600.4 THA 144.42 EL1 4090.5 EL2 169.5 ALF 141.38

LAUNCH DATE AUG 19 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 449.827
RL 151.40 LAL -.00 LOL 325.61 VL 26.863 GAL -.14 AZL 97.69 HCA 206.16 SMA 128.65 ECC .17679 INC 7.6871 V1 29.429
RP 107.65 LAP 3.38 LOP 171.56 VP 37.870 GAP 3.94 AZP 83.09 TAL 180.67 TAP 26.83 RCA 105.91 APO 151.40 V2 35.202
RC 106.624 GL -51.89 GP 54.79 ZAL 86.57 ZAP 114.97 ETS 36.66 ZAE 117.71 ETE 136.79 ZAC 149.94 ETC 243.31 CLP-137.07
PLANETOCENTRIC CONIC
C3 20.855 VHL 4.567 DLA -69.55 RAL 211.59 RAD 6567.8 VEL 11.926 PTH 2.12 VHP 5.804 DPA 39.41 RAP 236.41 ECC 1.3432

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.38	4 26 23	1777.68	40.97	61.55	102.68	152.44	4 56 1	1177.7	47.94	56.45
156.62	14 52 2	5315.12	40.98	249.94	102.70	152.43	16 20 37	4715.1	47.95	244.84
23.38	4 26 23	1777.68	40.97	61.55	102.68	152.44	4 56 1	1177.7	47.94	56.45
156.62	14 52 2	5315.12	40.98	249.94	102.70	152.43	16 20 37	4715.1	47.95	244.84
23.38	4 26 23	1777.68	40.97	61.55	102.68	152.44	4 56 1	1177.7	47.94	56.45
156.62	14 52 2	5315.12	40.98	249.94	102.70	152.43	16 20 37	4715.1	47.95	244.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.7210 TRA -.1779 TC3-2.0879 BAU .6430 SGT 3962.3 SGR 2487.9 SG3 388.9 ST 3419.8 SR 2318.0 SS 1995.4
RDE 1.8471 RRA -.0375 RC3 .9798 FAU .05503 RRT -.9670 RRF -.9934 RTF .9738 CRT -.9973 CRS 1.0000 CST -.9969
FDE-3.1703 FRA .0826 FC3-2.2842 BSP 14869 SGB 4678.6 R23 .1327 R13 -.9859 LSA 4584.7 MSA 172.7 SSA 6.6
BDE 3.2887 BRA .1818 BC3 2.3063 FSP -1256 SG1 4647.2 SG2 540.7 THA 148.26 EL1 4128.9 EL2 141.4 ALF 145.90

LAUNCH DATE AUG 19 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 455.958
RL 151.40 LAL -.00 LOL 325.61 VL 26.841 GAL .04 AZL 96.86 HCA 209.37 SMA 128.50 ECC .17816 INC 6.8590 V1 29.429
RP 107.68 LAP 3.36 LOP 174.80 VP 37.845 GAP 4.30 AZP 84.02 TAL 179.82 TAP 29.19 RCA 105.61 APO 151.40 V2 35.193
RC 108.906 GL -48.85 GP 50.34 ZAL 85.16 ZAP 118.91 ETS 37.55 ZAE 119.91 ETE 140.23 ZAC 146.00 ETC 246.37 CLP-139.24
PLANETOCENTRIC CONIC
C3 18.123 VHL 4.257 DLA -67.52 RAL 218.55 RAD 6567.7 VEL 11.811 PTH 2.09 VHP 5.531 DPA 35.15 RAP 234.54 ECC 1.2983

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.74	4 59 18	1737.51	42.24	57.25	106.47	148.91	5 28 16	1137.5	48.93	51.39
154.26	15 14 39	5288.81	42.24	248.17	106.49	148.91	16 42 47	4688.8	48.93	242.31
25.74	4 59 18	1737.51	42.24	57.25	106.47	148.91	5 28 16	1137.5	48.93	51.39
154.26	15 14 39	5288.81	42.24	248.17	106.49	148.91	16 42 47	4688.8	48.93	242.31
25.74	4 59 18	1737.51	42.24	57.25	106.47	148.91	5 28 16	1137.5	48.93	51.39
154.26	15 14 39	5288.81	42.24	248.17	106.49	148.91	16 42 47	4688.8	48.93	242.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.6236 TRA -.0279 TC3-2.5580 BAU .6663 SGT 4149.8 SGR 2248.0 SG3 419.5 ST 3531.7 SR 2039.1 SS 1964.5
RDE 1.5121 RRA -.1178 RC3 1.0102 FAU .05912 RRT -.9667 RRF -.9916 RTF .9735 CRT -.9976 CRS .9999 CST -.9967
FDE-3.0458 FRA .2820 FC3-2.8240 BSP 14648 SGB 4719.6 R23 .1410 R13 -.9832 LSA 4523.6 MSA 166.4 SSA 7.6
BDE 3.0281 BRA .1210 BC3 2.7502 FSP -1306 SG1 4692.1 SG2 508.5 THA 152.00 EL1 4076.3 EL2 122.9 ALF 150.03

LAUNCH DATE AUG 19 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 462.073
RL 151.40 LAL -.00 LOL 325.61 VL 26.817 GAL .23 AZL 96.18 HCA 212.59 SMA 128.35 ECC .17966 INC 6.1816 V1 29.429
RP 107.71 LAP 3.32 LOP 178.04 VP 37.820 GAP 4.66 AZP 84.79 TAL 178.93 TAP 31.52 RCA 105.29 APO 151.40 V2 35.184
RC 111.186 GL -45.86 GP 46.26 ZAL 83.57 ZAP 122.71 ETS 38.23 ZAE 121.63 ETE 143.58 ZAC 142.35 ETC 248.59 CLP-141.41
PLANETOCENTRIC CONIC
C3 16.192 VHL 4.024 DLA -65.39 RAL 224.71 RAD 6567.6 VEL 11.729 PTH 2.07 VHP 5.361 DPA 31.17 RAP 233.20 ECC 1.2665

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.23	5 29 30	1703.28	42.87	52.90	109.54	145.38	5 57 53	1103.3	49.26	46.36
151.77	15 33 38	5271.06	42.88	246.56	109.56	145.38	17 1 29	4671.1	49.26	240.01
28.23	5 29 30	1703.28	42.87	52.90	109.54	145.38	5 57 53	1103.3	49.26	46.36
151.77	15 33 38	5271.06	42.88	246.56	109.56	145.38	17 1 29	4671.1	49.26	240.01
28.23	5 29 30	1703.28	42.87	52.90	109.54	145.38	5 57 53	1103.3	49.26	46.36
151.77	15 33 38	5271.06	42.88	246.56	109.56	145.38	17 1 29	4671.1	49.26	240.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.5188 TRA .1021 TC3-3.0438 BAU .6955 SGT 4357.2 SGR 2041.6 SG3 443.2 ST 3588.7 SR 1792.1 SS 1906.1
RDE 1.2532 RRA -.1599 RC3 1.0284 FAU .06279 RRT -.9688 RRF -.9893 RTF .9760 CRT -.9980 CRS .9998 CST -.9967
FDE-2.8722 FRA .4423 FC3-3.3569 BSP 15186 SGB 4811.7 R23 .1335 R13 -.9828 LSA 4438.4 MSA 155.2 SSA 8.7
BDE 2.8133 BRA .1897 BC3 3.2128 FSP -1427 SG1 4789.7 SG2 460.4 THA 155.34 EL1 4010.0 EL2 100.7 ALF 153.49

LAUNCH DATE AUG 19 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 468.170

```
RL  151.40 LAL   -.00 LOL 325.61 VL  26.792 GAL    .44 AZL  95.61 HCA 215.81 SMA 128.18 ECC .18130 INC 5.6140 V1  29.429
RP  107.74 LAP   3.28 LOP 181.28 VP  37.793 GAP   5.01 AZP  85.44 TAL 178.01 TAP  33.81 RCA 104.94 APO 151.42 V2  35.174
RC 113.462 GL  -42.93 GP   42.56 ZAL  81.82 ZAP 126.32 ETS  38.73 ZAE 122.93 ETE 146.76 ZAC 139.04 ETC 250.25 CLP-143.52
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PLANETOCENTRIC CONIC

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C3  14.809 VHL  3.848 DLA -63.20 RAL 230.23 RAD 6567.6 VEL 11.670 PTH   2.05 VHP  5.265 DPA  27.47 RAP 232.28 ECC 1.2437
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.81	5 57 31	1673.58	42.99	48.58	112.13	141.95	6 25 25	1073.6	49.06	41.48
149.19	15 49 40	5260.49	43.00	245.17	112.15	141.94	17 17 21	4660.5	49.07	238.06
30.81	5 57 31	1673.58	42.99	48.58	112.13	141.95	6 25 25	1073.6	49.06	41.48
149.19	15 49 40	5260.49	43.00	245.17	112.15	141.94	17 17 21	4660.5	49.07	238.06
30.81	5 57 31	1673.58	42.99	48.58	112.13	141.95	6 25 25	1073.6	49.06	41.48
149.19	15 49 40	5260.49	43.00	245.17	112.15	141.94	17 17 21	4660.5	49.07	238.06

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3951 TRA  .2434 TC3-3.5015 BAU  .7212   SGT 4541.5 SGR 1848.5 SG3  456.7    ST  3575.0 SR  1560.4 SS  1805.8
RDE 1.0397 RRA -.1969 RC3 1.0048 FAU .06456   RRT -.9680 RRF -.9863 RTF  .9766    CRT -.9983 CRS  .9996 CST -.9962
FDE-2.6337 FRA  .6156 FC3-3.7741 BSP  15505   SGB 4903.3 R23  .1289 R13 -.9817    LSA 4295.8 MSA  151.6 SSA    9.8
BDE 2.6110 BRA  .3131 BC3 3.6428 FSP  -1484   SG1 4884.3 SG2  431.0 THA 158.32    EL1 3899.8 EL2   83.4 ALF 156.44
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 474.247

```
RL  151.40 LAL   -.00 LOL 325.61 VL  26.766 GAL    .66 AZL  95.13 HCA 219.02 SMA 128.01 ECC .18307 INC 5.1287 V1  29.429
RP  107.77 LAP   3.23 LOP 184.52 VP  37.765 GAP   5.36 AZP  86.01 TAL 177.05 TAP  36.07 RCA 104.57 APO 151.44 V2  35.164
RC 115.736 GL  -40.06 GP   39.21 ZAL  79.93 ZAP 129.71 ETS  39.09 ZAE 123.87 ETE 149.72 ZAC 136.05 ETC 251.53 CLP-145.56
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PLANETOCENTRIC CONIC

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C3  13.818 VHL  3.717 DLA -60.97 RAL 235.24 RAD 6567.5 VEL 11.628 PTH   2.04 VHP  5.227 DPA  24.04 RAP 231.74 ECC 1.2274
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.45	6 23 53	1647.24	42.70	44.38	114.43	138.69	6 51 21	1047.2	48.45	36.84
146.55	16 3 14	5256.21	42.71	244.08	114.44	138.68	17 30 51	4656.2	48.46	236.54
33.45	6 23 53	1647.24	42.70	44.38	114.43	138.69	6 51 21	1047.2	48.45	36.84
146.55	16 3 14	5256.21	42.71	244.08	114.44	138.68	17 30 51	4656.2	48.46	236.54
33.45	6 23 53	1647.24	42.70	44.38	114.43	138.69	6 51 21	1047.2	48.45	36.84
146.55	16 3 14	5256.21	42.71	244.08	114.44	138.68	17 30 51	4656.2	48.46	236.54

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2575 TRA  .3916 TC3-3.9084 BAU  .7430   SGT 4701.0 SGR 1669.1 SG3  460.4    ST  3500.7 SR  1351.2 SS  1674.2
RDE  .8654 RRA -.2248 RC3  .9479 FAU .06458   RRT -.9658 RRF -.9822 RTF  .9765    CRT -.9986 CRS  .9990 CST -.9954
FDE-2.3552 FRA  .7821 FC3-4.0464 BSP  15700   SGB 4988.5 R23  .1229 R13 -.9804    LSA 4106.1 MSA  151.0 SSA   11.0
BDE 2.4177 BRA  .4516 BC3 4.0217 FSP  -1495   SG1 4971.7 SG2  409.5 THA 160.94    EL1 3751.8 EL2   67.1 ALF 158.92
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 480.303

```
RL  151.40 LAL   -.00 LOL 325.61 VL  26.739 GAL    .89 AZL  94.71 HCA 222.24 SMA 127.83 ECC .18500 INC 4.7067 V1  29.429
RP  107.80 LAP   3.16 LOP 187.75 VP  37.735 GAP   5.72 AZP  86.51 TAL 176.06 TAP  38.30 RCA 104.18 APO 151.48 V2  35.153
RC 118.005 GL  -37.27 GP   36.21 ZAL  77.92 ZAP 132.89 ETS  39.36 ZAE 124.52 ETE 152.43 ZAC 133.40 ETC 252.56 CLP-147.50
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PLANETOCENTRIC CONIC

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C3  13.122 VHL  3.622 DLA -58.73 RAL 239.82 RAD 6567.5 VEL 11.598 PTH   2.03 VHP  5.232 DPA  20.87 RAP 231.52 ECC 1.2160
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.13	6 48 57	1623.42	42.07	40.33	116.56	135.63	7 16 1	1023.4	47.50	32.47
143.87	16 14 42	5257.53	42.08	243.34	116.58	135.62	17 42 20	4657.5	47.51	235.47
36.13	6 48 57	1623.42	42.07	40.33	116.56	135.63	7 16 1	1023.4	47.50	32.47
143.87	16 14 42	5257.53	42.08	243.34	116.58	135.62	17 42 20	4657.5	47.51	235.47
36.13	6 48 57	1623.42	42.07	40.33	116.56	135.63	7 16 1	1023.4	47.50	32.47
143.87	16 14 42	5257.53	42.08	243.34	116.58	135.62	17 42 20	4657.5	47.51	235.47

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1188 TRA  .5406 TC3-4.2790 BAU  .7664   SGT 4853.3 SGR 1512.2 SG3  457.9    ST  3388.8 SR  1174.1 SS  1531.5
RDE  .7287 RRA -.2435 RC3  .8815 FAU .06387   RRT -.9626 RRF -.9769 RTF  .9765    CRT -.9990 CRS  .9980 CST -.9943
FDE-2.0726 FRA  .9294 FC3-4.2142 BSP  16013   SGB 5083.5 R23  .1136 R13 -.9794    LSA 3896.7 MSA  152.2 SSA   12.1
BDE 2.2406 BRA  .5930 BC3 4.3688 FSP  -1498   SG1 5068.3 SG2  392.5 THA 163.20    EL1 3586.0 EL2   50.7 ALF 160.91
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 486.339

```
RL  151.40 LAL   -.00 LOL 325.61 VL  26.712 GAL   1.14 AZL  94.33 HCA 225.46 SMA 127.65 ECC .18708 INC 4.3341 V1  29.429
RP  107.84 LAP   3.09 LOP 190.98 VP  37.705 GAP   6.07 AZP  86.96 TAL 175.03 TAP  40.49 RCA 103.77 APO 151.53 V2  35.141
RC 120.271 GL  -34.56 GP   33.51 ZAL  75.81 ZAP 135.84 ETS  39.58 ZAE 124.95 ETE 154.88 ZAC 131.04 ETC 253.41 CLP-149.37
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PLANETOCENTRIC CONIC

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C3  12.658 VHL  3.558 DLA -56.47 RAL 244.04 RAD 6567.5 VEL 11.578 PTH   2.02 VHP  5.272 DPA  17.96 RAP 231.59 ECC 1.2083
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.86	7 13 2	1601.40	41.16	36.45	118.63	132.81	7 39 44	1001.4	46.30	28.37
141.14	16 24 19	5264.07	41.17	242.97	118.64	132.80	17 52 3	4664.1	46.31	234.88
38.86	7 13 2	1601.40	41.16	36.45	118.63	132.81	7 39 44	1001.4	46.30	28.37
141.14	16 24 19	5264.07	41.17	242.97	118.64	132.80	17 52 3	4664.1	46.31	234.88
38.86	7 13 2	1601.40	41.16	36.45	118.63	132.81	7 39 44	1001.4	46.30	28.37
141.14	16 24 19	5264.07	41.17	242.97	118.64	132.80	17 52 3	4664.1	46.31	234.88

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9785 TRA  .6946 TC3-4.5931 BAU  .7891   SGT 4993.6 SGR 1375.3 SG3  450.2    ST  3245.1 SR  1025.8 SS  1384.3
RDE  .6214 RRA -.2569 RC3  .8058 FAU .06236   RRT -.9581 RRF -.9702 RTF  .9762    CRT -.9994 CRS  .9959 CST -.9926
FDE-1.7960 FRA 1.0613 FC3-4.2648 BSP  16321   SGB 5179.5 R23  .1026 R13 -.9784    LSA 3670.8 MSA  155.8 SSA   13.2
BDE 2.0738 BRA  .7406 BC3 4.6632 FSP  -1483   SG1 5165.5 SG2  380.8 THA 165.14    EL1 3403.2 EL2   34.3 ALF 162.47
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 492.349

RL	151.40	LAL	-.00	LOL	325.61	VL	26.683	GAL	1.40	AZL	94.00	HCA	228.68	SMA	127.46	ECC	.18932	INC	4.0007
RP	107.87	LAP	3.00	LOP	194.21	VP	37.674	GAP	6.43	AZP	87.36	TAL	173.99	TAP	42.66	RCA	103.33	APO	151.59
RC	122.531	GL	-31.93	GP	31.11	ZAL	73.61	ZAP	-138.58	ETS	39.78	ZAE	125.19	ETE	157.08	ZAC	128.96	ETC	254.13

V1	29.429	V2	35.130	CLP	-151.14														

PLANETOCENTRIC CONIC

C3	12.384	VHL	3.519	DLA	-54.23	RAL	247.96	RAD	6567.5	VEL	11.566	PTH	2.02	VHP	5.340	DPA	15.27	RAP	231.89
ECC	1.2038																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.60	7 36 20	1580.69	40.04	32.75	120.68	130.22	8 2 40	980.7	44.90	24.54
138.40	16 32 16	5275.46	40.06	242.98	120.70	130.21	18 0 11	4675.5	44.91	234.76
41.60	7 36 20	1580.69	40.04	32.75	120.68	130.22	8 2 40	980.7	44.90	24.54
138.40	16 32 16	5275.46	40.06	242.98	120.70	130.21	18 0 11	4675.5	44.91	234.76
41.60	7 36 20	1580.69	40.04	32.75	120.68	130.22	8 2 40	980.7	44.90	24.54
138.40	16 32 16	5275.46	40.06	242.98	120.70	130.21	18 0 11	4675.5	44.91	234.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8566	TRA	.8354	TC3	-4.9055	BAU	.8216	SGT	5145.1	SGR	1261.5	SG3	440.1	ST	3104.0	SR	913.8	SS	1256.4
RDE	.5451	RRA	-.2602	RC3	.7498	FAU	.06158	RRT	-.9539	RRF	-.9622	RTF	.9775	CRT	-.9998	CRS	.9926	CST	-.9910
FDE	-1.5637	FRA	1.1514	FC3	-4.3051	BSP	17127	SGB	5297.5	R23	.0830	R13	-.9790	LSA	3467.6	MSA	156.2	SSA	14.2
BDE	1.9349	BRA	.8750	BC3	4.9625	FSP	-1516	SG1	5284.6	SG2	368.7	THA	166.77	EL1	3235.7	EL2	18.3	ALF	163.60

LAUNCH DATE AUG 19 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 498.341

RL	151.40	LAL	-.00	LOL	325.61	VL	26.654	GAL	1.67	AZL	93.70	HCA	231.89	SMA	127.27	ECC	.19173	INC	3.6990
RP	107.91	LAP	2.91	LOP	197.44	VP	37.642	GAP	6.78	AZP	87.72	TAL	172.91	TAP	44.80	RCA	102.87	APO	151.67
RC	124.786	GL	-29.38	GP	28.95	ZAL	71.36	ZAP	141.12	ETS	39.98	ZAE	125.31	ETE	159.02	ZAC	127.14	ETC	254.75

V1	29.429	V2	35.118	CLP	-152.83														

PLANETOCENTRIC CONIC

C3	12.274	VHL	3.503	DLA	-52.01	RAL	251.62	RAD	6567.5	VEL	11.561	PTH	2.02	VHP	5.430	DPA	12.79	RAP	232.41
ECC	1.2020																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.37	7 59 7	1560.70	38.75	29.22	122.77	127.87	8 25 8	960.7	43.35	20.94
135.63	16 38 41	5291.65	38.76	243.39	122.78	127.86	18 6 52	4691.7	43.36	235.12
44.37	7 59 7	1560.70	38.75	29.22	122.77	127.87	8 25 8	960.7	43.35	20.94
135.63	16 38 41	5291.65	38.76	243.39	122.78	127.86	18 6 52	4691.7	43.36	235.12
44.37	7 59 7	1560.70	38.75	29.22	122.77	127.87	8 25 8	960.7	43.35	20.94
135.63	16 38 41	5291.65	38.76	243.39	122.78	127.86	18 6 52	4691.7	43.36	235.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7012	TRA	1.0180	TC3	-5.0403	BAU	.8340	SGT	5246.7	SGR	1156.6	SG3	425.3	ST	2899.9	SR	805.8	SS	1105.5
RDE	.4743	RRA	-.2735	RC3	.6512	FAU	.05794	RRT	-.9450	RRF	-.9519	RTF	.9758	CRT	-.9998	CRS	.9848	CST	-.9867
FDE	-1.2981	FRA	1.2778	FC3	-4.0865	BSP	17041	SGB	5372.6	R23	.0772	R13	-.9770	LSA	3201.9	MSA	170.0	SSA	15.1
BDE	1.7660	BRA	1.0541	BC3	5.0822	FSP	-1430	SG1	5359.8	SG2	370.3	THA	168.18	EL1	3009.8	EL2	17.0	ALF	164.47

LAUNCH DATE AUG 19 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 504.308

RL	151.40	LAL	-.00	LOL	325.61	VL	26.624	GAL	1.96	AZL	93.42	HCA	235.10	SMA	127.08	ECC	.19431	INC	3.4229
RP	107.95	LAP	2.81	LOP	200.66	VP	37.610	GAP	7.14	AZP	88.04	TAL	171.80	TAP	46.91	RCA	102.39	APO	151.77
RC	127.036	GL	-26.92	GP	27.03	ZAL	69.07	ZAP	143.48	ETS	40.21	ZAE	125.32	ETE	160.74	ZAC	125.54	ETC	255.32

V1	29.429	V2	35.105	CLP	-154.45														

PLANETOCENTRIC CONIC

C3	12.309	VHL	3.508	DLA	-49.81	RAL	255.04	RAD	6567.5	VEL	11.563	PTH	2.02	VHP	5.540	DPA	10.51	RAP	233.13
ECC	1.2026																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.14	8 21 30	1541.04	37.33	25.83	124.91	125.75	8 47 11	941.0	41.70	17.54
132.86	16 43 36	5312.53	37.34	244.21	124.92	125.74	18 12 8	4712.5	41.71	235.92
47.14	8 21 30	1541.04	37.33	25.83	124.91	125.75	8 47 11	941.0	41.70	17.54
132.86	16 43 36	5312.53	37.34	244.21	124.92	125.74	18 12 8	4712.5	41.71	235.92
47.14	8 21 30	1541.04	37.33	25.83	124.91	125.75	8 47 11	941.0	41.70	17.54
132.86	16 43 36	5312.53	37.34	244.21	124.92	125.74	18 12 8	4712.5	41.71	235.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5583	TRA	1.1948	TC3	-5.1462	BAU	.8521	SGT	5353.3	SGR	1069.3	SG3	409.7	ST	2703.8	SR	723.5	SS	976.7
RDE	.4233	RRA	-.2808	RC3	.5713	FAU	.05487	RRT	-.9355	RRF	-.9400	RTF	.9749	CRT	-.9988	CRS	.9717	CST	-.9812
FDE	-1.0729	FRA	1.3733	FC3	-3.8594	BSP	17270	SGB	5459.0	R23	.0668	R13	-.9759	LSA	2958.7	MSA	183.5	SSA	15.8
BDE	1.6147	BRA	1.2274	BC3	5.1778	FSP	-1379	SG1	5446.4	SG2	371.4	THA	169.37	EL1	2798.7	EL2	34.4	ALF	165.03

LAUNCH DATE AUG 19 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 510.249

RL	151.40	LAL	-.00	LOL	325.61	VL	26.594	GAL	2.27	AZL	93.17	HCA	238.31	SMA	126.88	ECC	.19709	INC	3.1678
RP	107.99	LAP	2.70	LOP	203.88	VP	37.577	GAP	7.50	AZP	88.33	TAL	170.68	TAP	48.99	RCA	101.88	APO	151.89
RC	129.278	GL	-24.56	GP	25.31	ZAL	66.76	ZAP	145.67	ETS	40.49	ZAE	125.26	ETE	162.26	ZAC	124.15	ETC	255.83

V1	29.429	V2	35.093	CLP	-155.99														

PLANETOCENTRIC CONIC

C3	12.479	VHL	3.533	DLA	-47.65	RAL	258.25	RAD	6567.5	VEL	11.570	PTH	2.02	VHP	5.666	DPA	8.40	RAP	234.00
ECC	1.2054																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.92	8 43 36	1521.34	35.81	22.56	127.11	123.83	9 8 58	921.3	39.96	14.30
130.08	16 47 6	5338.05	35.83	245.42	127.12	123.82	18 16 4	4738.1	39.97	237.16
49.92	8 43 36	1521.34	35.81	22.56	127.11	123.83	9 8 58	921.3	39.96	14.30
130.08	16 47 6	5338.05	35.83	245.42	127.12	123.82	18 16 4	4738.1	39.97	237.16
49.92	8 43 36	1521.34	35.81	22.56	127.11	123.83	9 8 58	921.3	39.96	14.30
130.08	16 47 6	5338.05	35.83	245.42	127.12	123.82	18 16 4	4738.1	39.97	237.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4191	TRA	1.3769	TC3	-5.1936	BAU	.8705	SGT	5454.5	SGR	995.9	SG3	393.4	ST	2509.7	SR	658.5	SS	865.0
RDE	.3853	RRA	-.2867	RC3	.4997	FAU	.05183	RRT	-.9246	RRF	-.9265	RTF	.9743	CRT	-.9958	CRS	.9497	CST	-.9738
FDE	-.8746	FRA	1.4545	FC3	-3.5955	BSP	17551	SGB	5544.7	R23	.0562	R13	-.9750	LSA	2727.7	MSA	199.7	SSA	16.4
BDE	1.4705	BRA	1.4064	BC3	5.2176	FSP	-1330	SG1	5532.0	SG2	374.1	THA	170.37	EL1	2594.0	EL2	58.6	ALF	165.35

LAUNCH DATE AUG 19 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 516.164

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.563 GAL   2.59 AZL  92.93 HCA 241.52 SMA 126.68 ECC .20006 INC 2.9299 V1  29.429
RP  108.03 LAP   2.58 LOP 207.10 VP  37.543 GAP   7.87 AZP  88.60 TAL 169.53 TAP  51.05 RCA 101.34 APO 152.03 V2  35.080
RC 131.513 GL  -22.30 GP   23.77 ZAL  64.44 ZAP 147.71 ETS  40.84 ZAE 125.16 ETE 163.59 ZAC 122.92 ETC 256.32 CLP-157.47
PLANETOCENTRIC CONIC
C3  12.778 VHL  3.575 DLA -45.54 RAL 261.26 RAD 6567.5 VEL 11.583 PTH   2.03 VHP   5.808 DPA   6.44 RAP 235.03 ECC 1.2103
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.71	9 5 39	1501.08	34.23	19.38	129.37	122.10	9 30 40	901.1	38.18	11.18
127.29	16 49 7	5368.44	34.24	247.05	129.38	122.09	18 18 35	4768.4	38.19	238.84
52.71	9 5 39	1501.08	34.23	19.38	129.37	122.10	9 30 40	901.1	38.18	11.18
127.29	16 49 7	5368.44	34.24	247.05	129.38	122.09	18 18 35	4768.4	38.19	238.84
52.71	9 5 39	1501.08	34.23	19.38	129.37	122.10	9 30 40	901.1	38.18	11.18
127.29	16 49 7	5368.44	34.24	247.05	129.38	122.09	18 18 35	4768.4	38.19	238.84

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.2813 TRA 1.5664 TC3-5.1801 BAU  .8881   SGT 5548.2 SGR  933.6 SG3  376.7   ST  2320.9 SR   606.6 SS   770.2
RDE  .3571 RRA -.2922 RC3  .4352 FAU .04875   RRT -.9122 RRF -.9113 RTF  .9737   CRT -.9890 CRS  .9149 CST -.9640
FDE -.6987 FRA 1.5253 FC3-3.3029 BSP  17822   SGB 5626.2 R23  .0463 R13 -.9743   LSA 2509.9 MSA  219.4 SSA   16.7
BDE 1.3302 BRA 1.5934 BC3 5.1983 FSP  -1280   SG1 5613.5 SG2  378.1 THA 171.23   EL1 2397.3 EL2   87.0 ALF 165.49
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 522.051

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.532 GAL   2.93 AZL  92.71 HCA 244.73 SMA 126.48 ECC .20326 INC 2.7062 V1  29.429
RP  108.07 LAP   2.45 LOP 210.31 VP  37.509 GAP   8.24 AZP  88.84 TAL 168.36 TAP  53.09 RCA 100.78 APO 152.19 V2  35.067
RC 133.740 GL  -20.14 GP   22.39 ZAL  62.15 ZAP 149.61 ETS  41.26 ZAE 125.02 ETE 164.76 ZAC 121.85 ETC 256.79 CLP-158.89
PLANETOCENTRIC CONIC
C3  13.205 VHL  3.634 DLA -43.49 RAL 264.10 RAD 6567.5 VEL 11.601 PTH   2.03 VHP   5.963 DPA   4.62 RAP 236.19 ECC 1.2173
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.50	9 27 42	1479.99	32.60	16.27	131.70	120.55	9 52 22	880.0	36.38	8.13
124.50	16 49 42	5403.70	32.61	249.08	131.71	120.54	18 19 46	4803.7	36.39	240.93
55.50	9 27 42	1479.99	32.60	16.27	131.70	120.55	9 52 22	880.0	36.38	8.13
124.50	16 49 42	5403.70	32.61	249.08	131.71	120.54	18 19 46	4803.7	36.39	240.93
55.50	9 27 42	1479.99	32.60	16.27	131.70	120.55	9 52 22	880.0	36.38	8.13
124.50	16 49 42	5403.70	32.61	249.08	131.71	120.54	18 19 46	4803.7	36.39	240.93

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1449 TRA 1.7642 TC3-5.1106 BAU  .9047   SGT 5635.1 SGR  881.0 SG3  360.1   ST  2143.3 SR   565.1 SS   693.0
RDE  .3365 RRA -.2979 RC3  .3777 FAU .04567   RRT -.8984 RRF -.8948 RTF  .9732   CRT -.9760 CRS  .8631 CST -.9518
FDE -.5433 FRA 1.5876 FC3-2.9942 BSP  18097   SGB 5703.5 R23  .0376 R13 -.9736   LSA 2309.6 MSA  242.9 SSA   16.9
BDE 1.1933 BRA 1.7892 BC3 5.1245 FSP  -1230   SG1 5690.6 SG2  383.2 THA 171.97   EL1 2213.4 EL2  119.2 ALF 165.53
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 527.909

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.500 GAL   3.29 AZL  92.49 HCA 247.94 SMA 126.28 ECC .20668 INC 2.4943 V1  29.429
RP  108.11 LAP   2.31 LOP 213.53 VP  37.474 GAP   8.62 AZP  89.06 TAL 167.17 TAP  55.11 RCA 100.18 APO 152.38 V2  35.054
RC 135.957 GL  -18.08 GP   21.15 ZAL  59.89 ZAP 151.38 ETS  41.78 ZAE 124.85 ETE 165.79 ZAC 120.92 ETC 257.25 CLP-160.26
PLANETOCENTRIC CONIC
C3  13.762 VHL  3.710 DLA -41.50 RAL 266.78 RAD 6567.5 VEL 11.625 PTH   2.04 VHP   6.131 DPA   2.94 RAP 237.47 ECC 1.2265
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.30	9 49 58	1457.45	30.95	13.17	134.09	119.15	10 14 16	857.5	34.57	5.10
121.70	16 48 45	5444.22	30.96	251.54	134.09	119.14	18 19 30	4844.2	34.58	243.47
58.30	9 49 58	1457.45	30.95	13.17	134.09	119.15	10 14 16	857.5	34.57	5.10
121.70	16 48 45	5444.22	30.96	251.54	134.09	119.14	18 19 30	4844.2	34.58	243.47
58.30	9 49 58	1457.45	30.95	13.17	134.09	119.15	10 14 16	857.5	34.57	5.10
121.70	16 48 45	5444.22	30.96	251.54	134.09	119.14	18 19 30	4844.2	34.58	243.47

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.0091 TRA 1.9707 TC3-4.9893 BAU  .9199   SGT 5713.7 SGR  836.1 SG3  343.6   ST  1981.8 SR   531.7 SS   633.2
RDE  .3220 RRA -.3040 RC3  .3265 FAU .04259   RRT -.8833 RRF -.8772 RTF  .9725   CRT -.9538 CRS  .7917 CST -.9380
FDE -.4058 FRA 1.6427 FC3-2.6792 BSP  18354   SGB 5774.5 R23  .0302 R13 -.9728   LSA 2130.3 MSA  269.8 SSA   17.0
BDE 1.0592 BRA 1.9940 BC3 5.0000 FSP  -1179   SG1 5761.4 SG2  388.8 THA 172.60   EL1 2046.0 EL2  154.7 ALF 165.56
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 533.734

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.468 GAL   3.67 AZL  92.29 HCA 251.14 SMA 126.08 ECC .21035 INC 2.2918 V1  29.429
RP  108.15 LAP   2.17 LOP 216.73 VP  37.439 GAP   9.01 AZP  89.26 TAL 165.97 TAP  57.11 RCA  99.56 APO 152.60 V2  35.041
RC 138.166 GL  -16.13 GP   20.04 ZAL  57.67 ZAP 153.04 ETS  42.41 ZAE 124.68 ETE 166.69 ZAC 120.09 ETC 257.70 CLP-161.57
PLANETOCENTRIC CONIC
C3  14.454 VHL  3.802 DLA -39.57 RAL 269.29 RAD 6567.6 VEL 11.655 PTH   2.05 VHP   6.311 DPA   1.36 RAP 238.85 ECC 1.2379
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.11	10 12 38	1432.90	29.29	10.03	136.53	117.89	10 36 31	832.9	32.77	2.04
118.89	16 46 10	5490.37	29.30	254.44	136.54	117.88	18 17 40	4890.4	32.78	246.44
61.11	10 12 38	1432.90	29.29	10.03	136.53	117.89	10 36 31	832.9	32.77	2.04
118.89	16 46 10	5490.37	29.30	254.44	136.54	117.88	18 17 40	4890.4	32.78	246.44
61.11	10 12 38	1432.90	29.29	10.03	136.53	117.89	10 36 31	832.9	32.77	2.04
118.89	16 46 10	5490.37	29.30	254.44	136.54	117.88	18 17 40	4890.4	32.78	246.44

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.8888 TRA 2.1717 TC3-4.8677 BAU  .9423   SGT 5789.8 SGR  798.4 SG3  327.2   ST  1851.8 SR   508.1 SS   591.4
RDE  .3150 RRA -.3083 RC3  .2899 FAU .04028   RRT -.8678 RRF -.8590 RTF  .9728   CRT -.9215 CRS  .7125 CST -.9285
FDE -.2993 FRA 1.6789 FC3-2.4127 BSP  18962   SGB 5844.6 R23  .0218 R13 -.9730   LSA 1987.5 MSA  294.4 SSA   16.8
BDE  .9430 BRA 2.1934 BC3 4.8763 FSP  -1158   SG1 5831.3 SG2  393.9 THA 173.14   EL1 1910.7 EL2  191.2 ALF 165.66
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 539.529

RL 151.40 LAL -.00 LOL 325.61 VL 26.436 GAL 4.06 AZL 92.10 HCA 254.34 SMA 125.88 ECC .21429 INC 2.0971 V1 29.429
RP 108.19 LAP 2.02 LOP 219.94 VP 37.404 GAP 9.41 AZP 89.43 TAL 164.75 TAP 59.10 RCA 98.90 APO 152.85 V2 35.028
RC 140.364 GL -14.29 GP 19.03 ZAL 55.51 ZAP 154.59 ETS 43.16 ZAE 124.49 ETE 167.49 ZAC 119.38 ETC 258.15 CLP-162.84

PLANETOCENTRIC CONIC

C3 15.288 VHL 3.910 DLA -37.72 RAL 271.67 RAD 6567.6 VEL 11.691 PTH 2.06 VHP 6.504 DPA -.10 RAP 240.33 ECC 1.2516

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.96	10 35 55	1405.73	27.65	6.81	139.03	116.76	10 59 21	805.7	31.00	358.89
116.04	16 41 51	5542.58	27.66	257.80	139.04	116.75	18 14 13	4942.6	31.01	249.88
63.96	10 35 55	1405.73	27.65	6.81	139.03	116.76	10 59 21	805.7	31.00	358.89
116.04	16 41 51	5542.58	27.66	257.80	139.04	116.75	18 14 13	4942.6	31.01	249.88
63.96	10 35 55	1405.73	27.65	6.81	139.03	116.76	10 59 21	805.7	31.00	358.89
116.04	16 41 51	5542.58	27.66	257.80	139.04	116.75	18 14 13	4942.6	31.01	249.88

DIFFERENTIAL CORRECTIONS
TDE -.7417 TRA 2.4099 TC3-4.6347 BAU .9486
RDE .3071 RRA -.3178 RC3 .2450 FAU .03681
FDE -.1814 FRA 1.7342 FC3-2.0847 BSP 18907
BDE .8028 BRA 2.4308 BC3 4.6411 FSP -1086

MID-COURSE EXECUTION ACCURACY
SGT 5852.4 SGR 765.4 SG3 312.1
RRT -.8510 RRF -.8403 RTF .9716
SGB 5902.2 R23 .0182 R13 -.9718
SG1 5888.7 SG2 399.5 THA 173.62

ORBIT DETERMINATION ACCURACY
ST 1728.3 SR 483.5 SS 562.5
CRT -.8692 CRS .5995 CST -.9163
LSA 1851.9 MSA 327.9 SSA 16.6
EL1 1779.6 EL2 232.2 ALF 166.09

LAUNCH DATE AUG 19 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 545.286

RL 151.40 LAL -.00 LOL 325.61 VL 26.404 GAL 4.48 AZL 91.91 HCA 257.54 SMA 125.67 ECC .21852 INC 1.9087 V1 29.429
RP 108.23 LAP 1.86 LOP 223.14 VP 37.369 GAP 9.81 AZP 89.59 TAL 163.53 TAP 61.07 RCA 98.21 APO 153.14 V2 35.014
RC 142.552 GL -12.55 GP 18.12 ZAL 53.41 ZAP 156.05 ETS 44.04 ZAE 124.30 ETE 168.19 ZAC 118.74 ETC 258.61 CLP-164.08

PLANETOCENTRIC CONIC

C3 16.275 VHL 4.034 DLA -35.95 RAL 273.91 RAD 6567.7 VEL 11.733 PTH 2.07 VHP 6.709 DPA -1.47 RAP 241.90 ECC 1.2678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.86	11 0 9	1374.84	26.02	3.42	141.58	115.73	11 23 4	774.8	29.26	355.57
113.14	16 35 30	5601.81	26.03	261.70	141.59	115.72	18 8 52	5001.8	29.27	253.85
66.86	11 0 9	1374.84	26.02	3.42	141.58	115.73	11 23 4	774.8	29.26	355.57
113.14	16 35 30	5601.81	26.03	261.70	141.59	115.72	18 8 52	5001.8	29.27	253.85
66.86	11 0 9	1374.84	26.02	3.42	141.58	115.73	11 23 4	774.8	29.26	355.57
113.14	16 35 30	5601.81	26.03	261.70	141.59	115.72	18 8 52	5001.8	29.27	253.85

DIFFERENTIAL CORRECTIONS
TDE -.6032 TRA 2.6501 TC3-4.3992 BAU .9583
RDE .3040 RRA -.3266 RC3 .2103 FAU .03386
FDE -.0848 FRA 1.7780 FC3-1.8010 BSP 19042
BDE .6755 BRA 2.6702 BC3 4.4042 FSP -1032

MID-COURSE EXECUTION ACCURACY
SGT 5911.9 SGR 737.3 SG3 297.5
RRT -.8343 RRF -.8217 RTF .9709
SGB 5957.7 R23 .0143 R13 -.9710
SG1 5943.9 SG2 404.3 THA 174.03

ORBIT DETERMINATION ACCURACY
ST 1640.4 SR 464.8 SS 547.5
CRT -.8004 CRS .4854 CST -.9121
LSA 1754.6 MSA 357.4 SSA 16.4
EL1 1683.2 EL2 271.5 ALF 166.88

LAUNCH DATE AUG 19 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 551.005

RL 151.40 LAL -.00 LOL 325.61 VL 26.371 GAL 4.93 AZL 91.72 HCA 260.74 SMA 125.47 ECC .22307 INC 1.7248 V1 29.429
RP 108.27 LAP 1.70 LOP 226.34 VP 37.334 GAP 10.23 AZP 89.72 TAL 162.29 TAP 63.03 RCA 97.48 APO 153.46 V2 35.001
RC 144.730 GL -10.92 GP 17.30 ZAL 51.39 ZAP 157.43 ETS 45.08 ZAE 124.12 ETE 168.81 ZAC 118.19 ETC 259.07 CLP-165.27

PLANETOCENTRIC CONIC

C3 17.428 VHL 4.175 DLA -34.26 RAL 276.02 RAD 6567.7 VEL 11.782 PTH 2.08 VHP 6.927 DPA -2.74 RAP 243.55 ECC 1.2868

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.86	11 25 46	1338.79	24.43	359.74	144.17	114.80	11 48 4	738.8	27.56	351.96
110.14	16 26 44	5669.33	24.44	266.20	144.18	114.79	18 1 14	5069.3	27.57	258.42
69.86	11 25 46	1338.79	24.43	359.74	144.17	114.80	11 48 4	738.8	27.56	351.96
110.14	16 26 44	5669.33	24.44	266.20	144.18	114.79	18 1 14	5069.3	27.57	258.42
69.86	11 25 46	1338.79	24.43	359.74	144.17	114.80	11 48 4	738.8	27.56	351.96
110.14	16 26 44	5669.33	24.44	266.20	144.18	114.79	18 1 14	5069.3	27.57	258.42

DIFFERENTIAL CORRECTIONS
TDE -.4668 TRA 2.8990 TC3-4.1491 BAU .9677
RDE .3039 RRA -.3358 RC3 .1813 FAU .03111
FDE -.0019 FRA 1.8161 FC3-1.5454 BSP 19227
BDE .5570 BRA 2.9184 BC3 4.1531 FSP -985

MID-COURSE EXECUTION ACCURACY
SGT 5965.4 SGR 712.6 SG3 283.4
RRT -.8176 RRF -.8034 RTF .9704
SGB 6007.8 R23 .0107 R13 -.9705
SG1 5993.9 SG2 408.3 THA 174.40

ORBIT DETERMINATION ACCURACY
ST 1583.3 SR 449.4 SS 542.0
CRT -.7156 CRS .3749 CST -.9153
LSA 1690.1 MSA 382.0 SSA 16.1
EL1 1616.9 EL2 307.4 ALF 168.08

LAUNCH DATE AUG 19 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 556.679

RL 151.40 LAL -.00 LOL 325.61 VL 26.339 GAL 5.39 AZL 91.54 HCA 263.93 SMA 125.27 ECC .22797 INC 1.5445 V1 29.429
RP 108.31 LAP 1.54 LOP 229.54 VP 37.298 GAP 10.67 AZP 89.84 TAL 161.04 TAP 64.97 RCA 96.71 APO 153.82 V2 34.988
RC 146.899 GL -9.39 GP 16.56 ZAL 49.44 ZAP 158.72 ETS 46.29 ZAE 123.93 ETE 169.36 ZAC 117.69 ETC 259.54 CLP-166.44

PLANETOCENTRIC CONIC

C3 18.764 VHL 4.332 DLA -32.64 RAL 278.01 RAD 6567.8 VEL 11.838 PTH 2.10 VHP 7.159 DPA -3.93 RAP 245.26 ECC 1.3088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.04	11 53 31	1295.17	22.88	355.59	146.80	113.95	12 15 6	695.2	25.91	347.88
106.96	16 14 53	5747.43	22.89	271.48	146.81	113.94	17 50 40	5147.4	25.92	263.76
73.04	11 53 31	1295.17	22.88	355.59	146.80	113.95	12 15 6	695.2	25.91	347.88
106.96	16 14 53	5747.43	22.89	271.48	146.81	113.94	17 50 40	5147.4	25.92	263.76
110.00	15 16 24	639.85	16.26	303.86	143.19	120.49	15 27 4	39.8	20.18	296.94
110.00	17 51 10	5450.75	29.85	251.51	149.74	107.49	19 22 1	4850.8	31.95	242.93

DIFFERENTIAL CORRECTIONS
TDE -.3408 TRA 3.1483 TC3-3.9095 BAU .9815
RDE .3074 RRA -.3443 RC3 .1597 FAU .02887
FDE .0631 FRA 1.8440 FC3-1.3321 BSP 19671
BDE .4590 BRA 3.1671 BC3 3.9128 FSP -958

MID-COURSE EXECUTION ACCURACY
SGT 6011.1 SGR 690.7 SG3 269.5
RRT -.8013 RRF -.7856 RTF .9705
SGB 6050.6 R23 .0071 R13 -.9706
SG1 6036.6 SG2 411.5 THA 174.72

ORBIT DETERMINATION ACCURACY
ST 1553.9 SR 437.8 SS 540.4
CRT -.6239 CRS .2803 CST -.9245
LSA 1655.0 MSA 399.0 SSA 15.7
EL1 1578.9 EL2 336.8 ALF 169.55

LAUNCH DATE AUG 19 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 562.309

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.306 GAL   5.89 AZL  91.37 HCA 267.12 SMA 125.06 ECC .23324 INC 1.3664 V1  29.429
RP  108.35 LAP   1.36 LOP 232.73 VP  37.263 GAP  11.12 AZP  89.93 TAL 159.79 TAP  66.92 RCA  95.89 APO 154.23 V2  34.975
RC 149.057 GL   -7.96 GP   15.88 ZAL  47.57 ZAP 159.93 ETS  47.68 ZAE 123.74 ETE 169.84 ZAC 117.25 ETC 260.01 CLP-167.57
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PLANETOCENTRIC CONIC

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C3  20.303 VHL  4.506 DLA -31.11 RAL 279.80 RAD 6567.8 VEL 11.903 PTH   2.11 VHP  7.404 DPA  -5.04 RAP 247.04 ECC 1.3341
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.54	12 24 51	1239.30	21.36	350.64	149.47	113.17	12 45 31	639.3	24.31	342.99
103.46	15 58 33	5840.67	21.38	277.85	149.48	113.16	17 35 54	5240.7	24.33	270.19
76.54	12 24 51	1239.30	21.36	350.64	149.47	113.17	12 45 31	639.3	24.31	342.99
103.46	15 58 33	5840.67	21.38	277.85	149.48	113.16	17 35 54	5240.7	24.33	270.19
110.00	14 52 22	759.67	12.00	310.54	144.35	122.25	15 5 2	159.7	16.18	303.92
110.00	18 30 13	5368.30	31.39	245.58	153.26	104.29	19 59 41	4768.3	33.03	236.75

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.1918 TRA 3.4325 TC3-3.6150 BAU  .9819   SGT 6054.9 SGR  670.8 SG3  257.3   ST  1551.8 SR   424.7 SS   548.9
RDE  .3098 RRA -.3563 RC3  .1350 FAU .02598   RRT -.7855 RRF -.7686 RTF  .9698   CRT -.5147 CRS  .1799 CST -.9355
FDE  .1356 FRA 1.8852 FC3-1.1077 BSP  19570   SGB 6091.9 R23  .0054 R13 -.9698   LSA 1649.1 MSA  412.1 SSA   15.5
BDE  .3643 BRA 3.4510 BC3 3.6175 FSP   -898   SG1 6077.8 SG2  413.6 THA 175.00   EL1 1568.0 EL2  360.4 ALF 171.53
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 567.886

```
RL  151.40 LAL   -.00 LOL 325.61 VL  26.274 GAL   6.41 AZL  91.19 HCA 270.31 SMA 124.86 ECC .23892 INC 1.1894 V1  29.429
RP  108.39 LAP   1.19 LOP 235.92 VP  37.228 GAP  11.59 AZP  90.01 TAL 158.54 TAP  68.85 RCA  95.03 APO 154.69 V2  34.962
RC 151.205 GL   -6.63 GP   15.26 ZAL  45.79 ZAP 161.08 ETS  49.28 ZAE 123.56 ETE 170.28 ZAC 116.86 ETC 260.49 CLP-168.68
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PLANETOCENTRIC CONIC

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C3  22.069 VHL  4.698 DLA -29.66 RAL 281.67 RAD 6567.9 VEL 11.977 PTH   2.13 VHP  7.666 DPA  -6.07 RAP 248.88 ECC 1.3632
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.80	13 3 28	1159.12	19.90	343.99	152.17	112.45	13 22 47	559.1	22.77	336.39
99.20	15 34 5	672.91	19.92	308.27	152.18	112.44	15 45 18	72.9	22.78	300.67
100.00	15 8 35	754.49	17.29	313.12	150.97	114.77	15 21 9	154.5	20.49	305.78
100.00	16 11 40	5840.81	22.57	278.37	153.28	110.14	17 49 1	5240.8	25.10	270.49
110.00	14 36 36	855.36	8.48	315.71	145.96	123.24	14 50 51	255.4	12.79	309.27
110.00	19 0 8	5312.71	32.25	241.48	156.42	102.00	20 28 41	4712.7	33.57	232.49

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.0523 TRA 3.7190 TC3-3.3412 BAU  .9864   SGT 6091.2 SGR  652.5 SG3  245.2   ST  1570.0 SR   414.2 SS   557.2
RDE  .3150 RRA -.3676 RC3  .1165 FAU .02358   RRT -.7701 RRF -.7525 RTF  .9696   CRT -.4108 CRS  .0999 CST -.9477
FDE  .1926 FRA 1.9174 FC3 -.9251 BSP  19730   SGB 6126.0 R23  .0035 R13 -.9697   LSA 1665.2 MSA  416.7 SSA   15.1
BDE  .3193 BRA 3.7371 BC3 3.3432 FSP   -857   SG1 6111.9 SG2  414.8 THA 175.26   EL1 1579.7 EL2  375.3 ALF 173.44
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 573.405

```
RL  151.40 LAL   -.00 LOL 325.61 VL  26.241 GAL   6.97 AZL  91.01 HCA 273.50 SMA 124.66 ECC .24505 INC 1.0125 V1  29.429
RP  108.43 LAP   1.01 LOP 239.11 VP  37.193 GAP  12.09 AZP  90.06 TAL 157.29 TAP  70.79 RCA  94.11 APO 155.21 V2  34.949
RC 153.343 GL   -5.38 GP   14.70 ZAL  44.09 ZAP 162.15 ETS  51.12 ZAE 123.37 ETE 170.66 ZAC 116.51 ETC 260.99 CLP-169.78
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PLANETOCENTRIC CONIC

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C3  24.091 VHL  4.908 DLA -28.28 RAL 283.34 RAD 6568.0 VEL 12.061 PTH   2.16 VHP  7.944 DPA  -7.03 RAP 250.76 ECC 1.3965
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	14 12 49	978.34	17.46	329.65	154.45	112.65	14 29 7	378.3	20.38	322.19
90.00	14 38 5	896.40	19.53	324.53	155.33	110.92	14 53 2	296.4	22.21	316.88
100.00	14 24 31	940.44	11.68	324.07	151.65	117.71	14 40 11	340.4	15.30	317.14
100.00	17 9 4	5697.56	25.60	268.81	157.52	105.99	18 44 2	5097.6	27.54	260.55
110.00	14 25 0	938.94	5.33	320.14	147.83	123.81	14 40 39	338.9	9.74	313.82
110.00	19 25 5	5271.84	32.79	238.41	159.44	100.26	20 52 57	4671.8	33.85	229.34

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0881 TRA 4.0191 TC3-3.0693 BAU  .9890   SGT 6121.4 SGR  635.1 SG3  233.7   ST  1604.1 SR   404.5 SS   566.5
RDE  .3215 RRA -.3793 RC3  .1004 FAU .02131   RRT -.7555 RRF -.7372 RTF  .9696   CRT -.3125 CRS  .0318 CST -.9589
FDE  .2428 FRA 1.9485 FC3 -.7657 BSP  19898   SGB 6154.3 R23  .0020 R13 -.9696   LSA 1698.5 MSA  415.5 SSA   14.8
BDE  .3333 BRA 4.0370 BC3 3.0709 FSP   -819   SG1 6140.3 SG2  414.8 THA 175.50   EL1 1609.4 EL2  383.0 ALF 175.22
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 578.858

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RL  151.40 LAL   -.00 LOL 325.61 VL  26.208 GAL   7.56 AZL  90.83 HCA 276.69 SMA 124.46 ECC .25169 INC  .8345 V1  29.429
RP  108.47 LAP    .83 LOP 242.29 VP  37.158 GAP  12.61 AZP  90.10 TAL 156.04 TAP  72.72 RCA  93.14 APO 155.79 V2  34.937
RC 155.470 GL   -4.22 GP   14.19 ZAL  42.48 ZAP 163.16 ETS  53.22 ZAE 123.18 ETE 171.01 ZAC 116.19 ETC 261.49 CLP-170.85
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PLANETOCENTRIC CONIC

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C3  26.402 VHL  5.138 DLA -26.98 RAL 284.92 RAD 6568.1 VEL 12.156 PTH   2.18 VHP  8.241 DPA  -7.92 RAP 252.69 ECC 1.4345
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 15 27	1209.29	10.91	343.44	154.83	116.29	13 35 37	609.3	14.36	336.46
90.00	15 48 1	710.62	23.57	312.41	159.97	106.16	15 59 52	110.6	25.56	304.31
100.00	14 2 41	1056.70	7.92	330.65	153.24	118.92	14 20 18	456.7	11.72	323.92
100.00	17 43 28	5626.48	26.84	263.89	160.93	103.68	19 17 15	5026.5	28.45	255.46
110.00	14 16 0	1014.93	2.44	324.12	149.87	124.11	14 32 55	414.9	6.90	317.87
110.00	19 46 39	5241.02	33.14	236.08	162.38	98.92	21 14 0	4641.0	34.01	226.95

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2307 TRA 4.3341 TC3-2.8031 BAU  .9899   SGT 6146.0 SGR  618.4 SG3  222.8   ST  1649.4 SR   395.2 SS   576.2
RDE  .3290 RRA -.3915 RC3  .0864 FAU .01916   RRT -.7414 RRF -.7228 RTF  .9697   CRT -.2223 CRS -.0261 CST -.9685
FDE  .2874 FRA 1.9790 FC3 -.6283 BSP  20069   SGB 6177.0 R23  .0008 R13 -.9698   LSA 1743.7 MSA  410.0 SSA   14.4
BDE  .4018 BRA 4.3517 BC3 2.8044 FSP   -785   SG1 6163.2 SG2  413.8 THA 175.71   EL1 1651.9 EL2  384.7 ALF 176.78
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LAUNCH DATE AUG 19 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 584.239
RL 151.40 LAL -.00 LOL 325.61 VL 26.176 GAL 8.19 AZL 90.65 HCA 279.87 SMA 124.26 ECC .25888 INC .6542 V1 29.429
RP 108.51 LAP .64 LOP 245.48 VP 37.124 GAP 13.15 AZP 90.11 TAL 154.80 TAP 74.67 RCA 92.09 APO 156.43 V2 34.925
RC 157.587 GL -3.15 GP 13.73 ZAL 40.95 ZAP 164.11 ETS 55.61 ZAE 122.99 ETE 171.32 ZAC 115.89 ETC 262.00 CLP-171.92
PLANETOCENTRIC CONIC
C3 29.045 VHL 5.389 DLA -25.75 RAL 286.40 RAD 6568.2 VEL 12.265 PTH 2.21 VHP 8.558 DPA -8.74 RAP 254.66 ECC 1.4780

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 52 9	1331.12	7.16	350.42	156.48	117.47	13 14 20	731.1	10.78	343.62
90.00	16 23 10	636.31	24.89	307.37	163.42	103.96	16 33 46	36.3	26.57	299.10
100.00	13 47 36	1152.09	4.74	335.95	155.16	119.55	14 6 48	552.1	8.64	329.34
100.00	18 10 24	5578.61	27.56	260.52	164.11	102.05	19 43 23	4978.6	28.95	251.99
110.00	14 8 47	1085.62	-.26	327.81	152.05	124.18	14 26 52	485.6	4.22	321.60
110.00	20 5 43	5217.84	33.37	234.31	165.29	97.89	21 32 41	4617.8	34.10	225.14

DIFFERENTIAL CORRECTIONS
TDE .3752 TRA 4.6651 TC3-2.5443 BAU .9884
RDE .3374 RRA -.4038 RC3 .0741 FAU .01712
FDE .3269 FRA 2.0092 FC3 -.5103 BSP 20254
BDE .5046 BRA 4.6826 BC3 2.5454 FSP -752

MID-COURSE EXECUTION ACCURACY
SGT 6164.7 SGR 601.9 SG3 212.5
RRT -.7279 RRF -.7092 RTF .9701
SGB 6194.0 R23 -.0001 R13 -.9701
SG1 6180.3 SG2 411.7 THA 175.92

ORBIT DETERMINATION ACCURACY
ST 1701.5 SR 386.2 SS 585.6
CRT -.1421 CRS -.0748 CST -.9761
LSA 1796.0 MSA 401.5 SSA 14.0
EL1 1702.4 EL2 382.0 ALF 178.05

LAUNCH DATE AUG 19 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 589.536
RL 151.40 LAL -.00 LOL 325.61 VL 26.144 GAL 8.86 AZL 90.47 HCA 283.05 SMA 124.07 ECC .26668 INC .4706 V1 29.429
RP 108.54 LAP .46 LOP 248.66 VP 37.090 GAP 13.73 AZP 90.11 TAL 153.57 TAP 76.62 RCA 90.98 APO 157.15 V2 34.913
RC 159.692 GL -2.15 GP 13.30 ZAL 39.51 ZAP 164.99 ETS 58.33 ZAE 122.80 ETE 171.61 ZAC 115.62 ETC 262.52 CLP-172.97
PLANETOCENTRIC CONIC
C3 32.068 VHL 5.663 DLA -24.60 RAL 287.80 RAD 6568.3 VEL 12.387 PTH 2.24 VHP 8.897 DPA -9.50 RAP 256.66 ECC 1.5278

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 36 16	1429.46	4.04	355.96	158.45	118.05	13 0 5	829.5	7.76	349.26
90.00	16 50 11	5875.71	25.65	281.91	166.63	102.44	18 28 7	5275.7	27.10	273.55
100.00	13 36 7	1236.20	1.91	340.58	157.27	119.84	13 56 44	636.2	5.86	334.03
100.00	18 33 1	5544.20	28.03	258.07	167.18	100.84	20 5 25	4944.2	29.24	249.47
110.00	14 2 52	1152.34	-2.81	331.29	154.33	124.08	14 22 4	552.3	1.68	325.08
110.00	20 22 46	5200.82	33.52	233.00	168.19	97.14	21 49 27	4600.8	34.14	223.81

DIFFERENTIAL CORRECTIONS
TDE .5223 TRA 5.0132 TC3-2.2956 BAU .9846
RDE .3465 RRA -.4163 RC3 .0632 FAU .01518
FDE .3624 FRA 2.0398 FC3 -.4099 BSP 20458
BDE .6268 BRA 5.0305 BC3 2.2965 FSP -723

MID-COURSE EXECUTION ACCURACY
SGT 6177.3 SGR 585.4 SG3 202.7
RRT -.7149 RRF -.6964 RTF .9706
SGB 6205.0 R23 -.0008 R13 -.9706
SG1 6191.6 SG2 408.4 THA 176.11

ORBIT DETERMINATION ACCURACY
ST 1756.7 SR 377.2 SS 594.6
CRT -.0717 CRS -.1162 CST -.9820
LSA 1851.7 MSA 391.1 SSA 13.6
EL1 1757.0 EL2 376.1 ALF 179.08

LAUNCH DATE AUG 19 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 594.738
RL 151.40 LAL -.00 LOL 325.61 VL 26.112 GAL 9.58 AZL 90.28 HCA 286.23 SMA 123.87 ECC .27517 INC .2821 V1 29.429
RP 108.58 LAP .27 LOP 251.83 VP 37.057 GAP 14.35 AZP 90.08 TAL 152.36 TAP 78.58 RCA 89.79 APO 157.96 V2 34.901
RC 161.784 GL -1.22 GP 12.91 ZAL 38.15 ZAP 165.79 ETS 61.41 ZAE 122.60 ETE 171.87 ZAC 115.37 ETC 263.04 CLP-174.02
PLANETOCENTRIC CONIC
C3 35.531 VHL 5.961 DLA -23.51 RAL 289.11 RAD 6568.4 VEL 12.526 PTH 2.27 VHP 9.262 DPA -10.19 RAP 258.69 ECC 1.5847

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 24 13	1515.53	1.27	.77	160.60	118.29	12 49 29	915.5	5.04	354.12
90.00	17 12 41	5841.36	26.13	279.51	169.72	101.33	18 50 2	5241.4	27.43	271.08
100.00	13 26 58	1312.96	-.70	344.79	159.51	119.89	13 48 51	713.0	3.28	338.27
100.00	18 52 37	5519.16	28.34	256.27	170.19	99.94	20 24 36	4919.2	29.42	247.63
110.00	13 57 55	1215.92	-5.23	334.62	156.69	123.83	14 18 11	615.9	-.75	328.40
110.00	20 38 9	5188.97	33.62	232.09	171.08	96.60	22 4 38	4589.0	34.16	222.89

DIFFERENTIAL CORRECTIONS
TDE .6731 TRA 5.3817 TC3-2.0563 BAU .9771
RDE .3563 RRA -.4288 RC3 .0534 FAU .01331
FDE .3947 FRA 2.0720 FC3 -.3244 BSP 20650
BDE .7616 BRA 5.3988 BC3 2.0570 FSP -694

MID-COURSE EXECUTION ACCURACY
SGT 6184.9 SGR 568.7 SG3 193.4
RRT -.7024 RRF -.6842 RTF .9712
SGB 6210.9 R23 -.0012 R13 -.9712
SG1 6197.8 SG2 403.9 THA 176.29

ORBIT DETERMINATION ACCURACY
ST 1813.4 SR 368.0 SS 603.5
CRT -.0102 CRS -.1514 CST -.9866
LSA 1908.8 MSA 379.5 SSA 13.3
EL1 1813.4 EL2 368.0 ALF 179.88

LAUNCH DATE AUG 19 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 599.830
RL 151.40 LAL -.00 LOL 325.61 VL 26.080 GAL 10.35 AZL 90.09 HCA 289.40 SMA 123.68 ECC .28442 INC .0865 V1 29.429
RP 108.61 LAP .08 LOP 255.01 VP 37.024 GAP 15.01 AZP 90.03 TAL 151.17 TAP 80.57 RCA 88.50 APO 158.86 V2 34.890
RC 163.865 GL -.36 GP 12.55 ZAL 36.88 ZAP 166.53 ETS 64.90 ZAE 122.39 ETE 172.10 ZAC 115.13 ETC 263.57 CLP-175.07
PLANETOCENTRIC CONIC
C3 39.505 VHL 6.285 DLA -22.49 RAL 290.34 RAD 6568.5 VEL 12.684 PTH 2.30 VHP 9.655 DPA -10.82 RAP 260.73 ECC 1.6501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 14 36	1593.72	-1.26	5.13	162.88	118.29	12 41 10	993.7	2.53	358.50
90.00	17 32 5	5816.75	26.44	277.78	172.75	100.51	19 9 2	5216.7	27.63	269.31
100.00	13 19 27	1384.42	-3.12	348.72	161.84	119.74	13 42 32	784.4	.86	342.19
100.00	19 9 55	5501.28	28.54	254.98	173.16	99.29	20 41 37	4901.3	29.53	246.32
110.00	13 53 45	1276.92	-7.53	337.85	159.12	123.44	14 15 2	676.9	-3.08	331.59
110.00	20 52 7	5181.54	33.67	231.52	173.98	96.27	22 18 29	4581.5	34.17	222.31

DIFFERENTIAL CORRECTIONS
TDE .8294 TRA 5.7722 TC3-1.8276 BAU .9655
RDE .3664 RRA -.4411 RC3 .0445 FAU .01150
FDE .4249 FRA 2.1062 FC3 -.2520 BSP 20820
BDE .9067 BRA 5.7890 BC3 1.8281 FSP -666

MID-COURSE EXECUTION ACCURACY
SGT 6187.3 SGR 551.5 SG3 184.7
RRT -.6901 RRF -.6726 RTF .9720
SGB 6211.8 R23 -.0014 R13 -.9720
SG1 6199.0 SG2 398.4 THA 176.47

ORBIT DETERMINATION ACCURACY
ST 1869.6 SR 358.6 SS 612.3
CRT .0438 CRS -.1822 CST -.9900
LSA 1965.7 MSA 367.1 SSA 12.9
EL1 1869.6 EL2 358.3 ALF .50

LAUNCH DATE AUG 19 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 604.793

RL 151.40 LAL -.00 LOL 325.61 VL 26.048 GAL 11.18 AZL 89.89 HCA 292.58 SMA 123.49 ECC .29453 INC .1128 V1 29.429
RP 108.65 LAP -.11 LOP 258.18 VP 36.991 GAP 15.71 AZP 89.96 TAL 150.00 TAP 82.58 RCA 87.12 APO 159.86 V2 34.880
RC 165.932 GL .44 GP 12.22 ZAL 35.69 ZAP 167.19 ETS 68.81 ZAE 122.16 ETE 172.32 ZAC 114.90 ETC 264.11 CLP-176.13

PLANETOCENTRIC CONIC

C3 44.077 VHL 6.639 DLA -21.53 RAL 291.48 RAD 6568.7 VEL 12.862 PTH 2.34 VHP 10.081 DPA -11.39 RAP 262.79 ECC 1.7254

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 6 41	1666.26	-3.59	9.19	165.25	118.11	12 34 27	1066.3	.19	2.55
90.00	17 49 9	5799.46	26.65	276.55	175.73	99.93	19 25 48	5199.5	27.75	268.06
100.00	13 13 8	1451.79	-5.38	352.44	164.26	119.45	13 37 20	851.8	-1.42	345.89
100.00	19 25 23	5489.16	28.67	254.10	176.11	98.85	20 56 52	4889.2	29.60	245.42
110.00	13 50 10	1335.73	-9.72	340.99	161.61	122.93	14 12 26	735.7	-5.32	334.67
110.00	21 4 51	5177.98	33.70	231.24	176.88	96.11	22 31 9	4578.0	34.18	222.03

DIFFERENTIAL CORRECTIONS
TDE .9923 TRA 6.1882 TC3-1.6097 BAU .9488
RDE .3770 RRA -.4531 RC3 .0364 FAU .00972
FDE .4537 FRA 2.1434 FC3 -.1908 BSP 20965
BDE 1.0615 BRA 6.2047 BC3 1.6101 FSP -639

MID-COURSE EXECUTION ACCURACY
SGT 6185.6 SGR 533.7 SG3 176.5
RRT -.6779 RRF -.6612 RTF .9730
SGB 6208.6 R23 -.0015 R13 -.9730
SG1 6196.2 SG2 391.7 THA 176.64

ORBIT DETERMINATION ACCURACY
ST 1924.5 SR 348.9 SS 621.5
CRT .0913 CRS -.2094 CST -.9926
LSA 2021.5 MSA 354.1 SSA 12.5
EL1 1924.8 EL2 347.4 ALF .98

LAUNCH DATE AUG 19 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 609.607

RL 151.40 LAL -.00 LOL 325.61 VL 26.017 GAL 12.08 AZL 89.67 HCA 295.75 SMA 123.31 ECC .30560 INC .3248 V1 29.429
RP 108.68 LAP -.29 LOP 261.36 VP 36.960 GAP 16.48 AZP 89.86 TAL 148.88 TAP 84.63 RCA 85.62 APO 160.99 V2 34.869
RC 167.985 GL 1.18 GP 11.92 ZAL 34.59 ZAP 167.75 ETS 73.20 ZAE 121.92 ETE 172.53 ZAC 114.68 ETC 264.65 CLP-177.19

PLANETOCENTRIC CONIC

C3 49.355 VHL 7.025 DLA -20.63 RAL 292.55 RAD 6568.8 VEL 13.066 PTH 2.38 VHP 10.542 DPA -11.91 RAP 264.86 ECC 1.8123

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 0 0	1734.43	-5.77	13.01	167.68	117.77	12 28 54	1134.4	-2.01	6.35
90.00	18 4 20	5788.00	26.79	275.74	178.68	99.55	19 40 48	5188.0	27.83	267.23
100.00	13 7 44	1515.83	-7.51	356.00	166.73	119.02	13 33 0	915.8	-3.59	349.41
100.00	19 39 17	5481.84	28.75	253.57	179.03	98.58	21 10 38	4881.8	29.63	244.88
110.00	13 47 3	1392.60	-11.81	344.07	164.15	122.31	14 10 16	792.6	-7.46	337.68
110.00	21 16 27	5177.83	33.70	231.23	179.78	96.10	22 42 45	4577.8	34.18	222.02

DIFFERENTIAL CORRECTIONS
TDE 1.1633 TRA 6.6332 TC3-1.4022 BAU .9254
RDE .3878 RRA -.4645 RC3 .0290 FAU .00793
FDE .4818 FRA 2.1844 FC3 -.1391 BSP 21043
BDE 1.2263 BRA 6.6494 BC3 1.4025 FSP -611

MID-COURSE EXECUTION ACCURACY
SGT 6180.3 SGR 515.3 SG3 168.8
RRT -.6657 RRF -.6499 RTF .9742
SGB 6201.8 R23 -.0015 R13 -.9742
SG1 6189.9 SG2 383.9 THA 176.81

ORBIT DETERMINATION ACCURACY
ST 1977.6 SR 338.8 SS 631.4
CRT .1335 CRS -.2338 CST -.9946
LSA 2075.6 MSA 340.8 SSA 12.1
EL1 1978.2 EL2 335.7 ALF 1.35

LAUNCH DATE AUG 19 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 614.244

RL 151.40 LAL -.00 LOL 325.61 VL 25.986 GAL 13.04 AZL 89.45 HCA 298.92 SMA 123.12 ECC .31777 INC .5479 V1 29.429
RP 108.71 LAP -.48 LOP 264.53 VP 36.929 GAP 17.31 AZP 89.74 TAL 147.79 TAP 86.71 RCA 84.00 APO 162.25 V2 34.859
RC 170.025 GL 1.86 GP 11.65 ZAL 33.58 ZAP 168.23 ETS 78.05 ZAE 121.66 ETE 172.72 ZAC 114.46 ETC 265.19 CLP-178.26

PLANETOCENTRIC CONIC

C3 55.470 VHL 7.448 DLA -19.79 RAL 293.53 RAD 6569.0 VEL 13.298 PTH 2.43 VHP 11.045 DPA -12.37 RAP 266.93 ECC 1.9129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 54 15	1799.02	-7.80	16.67	170.17	117.31	12 24 14	1199.0	-4.08	9.97
90.00	18 17 55	5781.36	26.86	275.27	181.59	99.32	19 54 17	5181.4	27.87	266.75
100.00	13 3 3	1577.02	-9.52	359.43	169.25	118.47	13 29 20	977.0	-5.64	352.79
100.00	19 51 49	5478.58	28.78	253.34	181.93	98.46	21 23 8	4878.6	29.65	244.64
110.00	13 44 19	1447.69	-13.80	347.10	166.73	121.59	14 8 27	847.7	-9.52	340.62
110.00	21 27 2	5180.68	33.68	231.45	182.67	96.23	22 53 23	4580.7	34.17	222.24

DIFFERENTIAL CORRECTIONS
TDE 1.3444 TRA 7.1107 TC3-1.2056 BAU .8942
RDE .3989 RRA -.4749 RC3 .0222 FAU .00613
FDE .5097 FRA 2.2300 FC3 -.0957 BSP 21049
BDE 1.4024 BRA 7.1265 BC3 1.2058 FSP -583

MID-COURSE EXECUTION ACCURACY
SGT 6172.0 SGR 496.0 SG3 161.6
RRT -.6530 RRF -.6384 RTF .9755
SGB 6191.9 R23 -.0013 R13 -.9755
SG1 6180.5 SG2 375.1 THA 176.98

ORBIT DETERMINATION ACCURACY
ST 2028.4 SR 328.3 SS 642.2
CRT .1715 CRS -.2563 CST -.9960
LSA 2127.8 MSA 327.2 SSA 11.8
EL1 2029.2 EL2 323.3 ALF 1.63

LAUNCH DATE AUG 19 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 618.670

RL 151.40 LAL -.00 LOL 325.61 VL 25.956 GAL 14.09 AZL 89.22 HCA 302.09 SMA 122.95 ECC .33117 INC .7847 V1 29.429
RP 108.74 LAP -.66 LOP 267.70 VP 36.899 GAP 18.21 AZP 89.58 TAL 146.76 TAP 88.85 RCA 82.23 APO 163.66 V2 34.850
RC 172.049 GL 2.50 GP 11.39 ZAL 32.65 ZAP 168.59 ETS 83.38 ZAE 121.37 ETE 172.90 ZAC 114.24 ETC 265.72 CLP-179.36

PLANETOCENTRIC CONIC

C3 62.586 VHL 7.911 DLA -19.01 RAL 294.43 RAD 6569.2 VEL 13.562 PTH 2.48 VHP 11.595 DPA -12.77 RAP 268.99 ECC 2.0300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 49 14	1860.52	-9.70	20.19	172.69	116.73	12 20 15	1260.5	-6.04	13.42
90.00	18 30 8	5778.78	26.89	275.09	184.45	99.23	20 6 27	5178.8	27.89	266.56
100.00	12 58 55	1635.69	-11.40	2.77	171.80	117.82	13 26 10	1035.7	-7.59	356.05
100.00	20 3 9	5478.84	28.78	253.35	184.79	98.47	21 34 28	4878.8	29.65	244.66
110.00	13 41 52	1501.10	-15.68	350.10	169.33	120.77	14 6 53	901.1	-11.48	343.51
110.00	21 36 41	5186.20	33.64	231.87	185.53	96.48	23 3 7	4586.2	34.17	222.67

DIFFERENTIAL CORRECTIONS
TDE 1.5376 TRA 7.6261 TC3-1.0192 BAU .8529
RDE .4104 RRA -.4841 RC3 .0160 FAU .00428
FDE .5382 FRA 2.2814 FC3 -.0592 BSP 20952
BDE 1.5914 BRA 7.6415 BC3 1.0193 FSP -553

MID-COURSE EXECUTION ACCURACY
SGT 6161.8 SGR 475.9 SG3 154.9
RRT -.6398 RRF -.6265 RTF .9770
SGB 6180.1 R23 -.0011 R13 -.9770
SG1 6169.3 SG2 365.3 THA 177.16

ORBIT DETERMINATION ACCURACY
ST 2077.0 SR 317.3 SS 654.5
CRT .2063 CRS -.2775 CST -.9971
LSA 2178.2 MSA 313.3 SSA 11.4
EL1 2078.0 EL2 310.4 ALF 1.85

LAUNCH DATE AUG 20 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 29 1970

HELIOCENTRIC CONIC DISTANCE 155.640

RL 151.37 LAL -.00 LOL 326.57 VL 21.755 GAL 3.16 AZL 92.91 HCA 61.22 SMA 103.66 ECC .46280 INC 2.9093 V1 29.435
RP 108.38 LAP -2.55 LOP 27.76 VP 34.189 GAP -27.45 AZP 91.40 TAL 176.32 TAP 237.54 RCA 55.69 APO 151.64 V2 34.967
RC 43.790 GL -7.95 GP -6.78 ZAL 78.83 ZAP 18.08 ETS 155.76 ZAE 170.33 ETE 171.53 ZAC 91.98 ETC 257.64 CLP 16.80

PLANETOCENTRIC CONIC

C3 63.491 VHL 7.968 DLA -29.46 RAL 244.61 RAD 6569.2 VEL 13.596 PTH 2.49 VHP 16.338 DPA -20.85 RAP 220.17 ECC 2.0449

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.50	10 37 8	1404.80	12.25	358.48	131.98	117.01	11 0 32	804.8	15.78	351.49
98.50	12 56 53	953.39	12.27	325.34	131.99	117.00	13 12 46	353.4	15.79	318.35
100.00	12 25 53	1052.65	8.05	330.42	129.72	118.88	12 43 26	452.7	11.84	323.69
100.00	13 50 49	780.77	16.54	314.70	134.15	115.26	14 3 49	180.8	19.80	307.43
110.00	12 2 7	1127.56	-1.86	329.99	123.64	124.14	12 20 54	527.6	2.63	323.79
110.00	16 31 4	5566.67	27.21	259.50	139.12	111.54	18 3 51	4966.7	29.88	251.33

DIFFERENTIAL CORRECTIONS
TDE .1854 TRA -.9507 TC3 -.0517 BAU .0442
RDE -.6170 RRA -.0177 RC3 .0067 FAU .01691
FDE -.1356 FRA .4560 FC3 -.2306 BSP 2060
BDE .6443 BRA .9509 BC3 .0521 FSP -98

MID-COURSE EXECUTION ACCURACY
SGT 800.7 SGR 444.0 SG3 46.2
RRT -.1366 RRF .1425 RTF -.6498
SGB 915.5 R23 -.0159 R13 .6518
SG1 803.9 SG2 438.1 THA 173.83

ORBIT DETERMINATION ACCURACY
ST 270.7 SR 443.7 SS 211.3
CRT -.4840 CRS -.6441 CST .9773
LSA 499.3 MSA 255.5 SSA 14.2
EL1 468.9 EL2 224.1 ALF 111.63

LAUNCH DATE AUG 20 1970 FLIGHT TIME 72.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 162.121

RL 151.37 LAL -.00 LOL 326.57 VL 22.216 GAL 2.95 AZL 92.68 HCA 64.41 SMA 105.33 ECC .43954 INC 2.6842 V1 29.435
RP 108.34 LAP -2.42 LOP 30.95 VP 34.498 GAP -26.03 AZP 91.16 TAL 176.22 TAP 240.63 RCA 59.03 APO 151.63 V2 34.980
RC 42.797 GL -7.97 GP -7.07 ZAL 78.52 ZAP 16.69 ETS 152.65 ZAE 172.65 ETE 173.43 ZAC 91.94 ETC 257.83 CLP 15.16

PLANETOCENTRIC CONIC

C3 56.165 VHL 7.494 DLA -29.53 RAL 244.95 RAD 6569.0 VEL 13.324 PTH 2.43 VHP 15.559 DPA -21.66 RAP 221.62 ECC 1.9243

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.24	10 36 31	1381.26	13.20	357.23	130.48	116.66	10 59 32	781.3	16.67	350.18
98.76	13 0 13	917.20	13.21	323.15	130.49	116.65	13 15 31	317.2	16.69	316.11
100.00	12 30 47	1011.43	9.40	328.10	128.46	118.51	12 47 38	411.4	13.14	321.31
100.00	13 48 39	762.26	17.07	313.59	132.42	114.92	14 1 21	162.3	20.29	306.27
110.00	12 4 26	1094.47	-.60	328.27	122.36	124.18	12 22 41	494.5	3.89	322.06
110.00	16 31 29	5540.03	27.86	257.70	137.31	110.65	18 3 49	4940.0	30.41	249.43

DIFFERENTIAL CORRECTIONS
TDE .1853 TRA -.9358 TC3 -.0407 BAU .0307
RDE -.5867 RRA -.0090 RC3 .0032 FAU .01754
FDE -.1380 FRA .4701 FC3 -.2704 BSP 2207
BDE .6153 BRA .9358 BC3 .0409 FSP -111

MID-COURSE EXECUTION ACCURACY
SGT 836.6 SGR 448.6 SG3 50.8
RRT -.1528 RRF .1595 RTF -.6703
SGB 949.3 R23 -.0178 R13 .6725
SG1 840.5 SG2 441.3 THA 173.52

ORBIT DETERMINATION ACCURACY
ST 284.5 SR 448.6 SS 219.4
CRT -.4935 CRS -.6425 CST .9799
LSA 510.5 MSA 263.5 SSA 14.5
EL1 477.6 EL2 232.4 ALF 113.16

LAUNCH DATE AUG 20 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 168.651

RL 151.37 LAL -.00 LOL 326.57 VL 22.643 GAL 2.73 AZL 92.47 HCA 67.60 SMA 106.96 ECC .41750 INC 2.4708 V1 29.435
RP 108.29 LAP -2.28 LOP 34.15 VP 34.787 GAP -24.67 AZP 90.94 TAL 176.17 TAP 243.77 RCA 62.30 APO 151.61 V2 34.993
RC 41.950 GL -7.95 GP -7.39 ZAL 78.32 ZAP 15.38 ETS 148.90 ZAE 175.09 ETE 177.83 ZAC 91.87 ETC 258.03 CLP 13.53

PLANETOCENTRIC CONIC

C3 49.725 VHL 7.052 DLA -29.55 RAL 245.18 RAD 6568.8 VEL 13.080 PTH 2.39 VHP 14.813 DPA -22.50 RAP 223.07 ECC 1.8183

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.20	10 37 5	1352.20	14.12	355.55	128.82	116.23	10 59 37	752.2	17.53	348.44
98.80	13 1 29	885.91	14.13	321.30	128.82	116.22	13 16 15	285.9	17.54	314.20
100.00	12 32 22	979.11	10.44	326.27	126.89	118.17	12 48 41	379.1	14.13	319.42
100.00	13 48 53	734.23	17.87	311.89	130.66	114.37	14 1 7	134.2	21.01	304.50
110.00	12 5 31	1063.71	.58	326.66	120.90	124.18	12 23 15	463.7	5.06	320.45
110.00	16 32 13	5510.44	28.56	255.68	135.35	109.64	18 4 4	4910.4	30.96	247.30

DIFFERENTIAL CORRECTIONS
TDE .1855 TRA -.9208 TC3 -.0261 BAU .0174
RDE -.5573 RRA -.0009 RC3 -.0015 FAU .01823
FDE -.1404 FRA .4846 FC3 -.3174 BSP 2347
BDE .5873 BRA .9208 BC3 .0261 FSP -124

MID-COURSE EXECUTION ACCURACY
SGT 873.8 SGR 452.8 SG3 55.9
RRT -.1705 RRF .1784 RTF -.6899
SGB 984.2 R23 -.0201 R13 .6924
SG1 878.4 SG2 443.8 THA 173.21

ORBIT DETERMINATION ACCURACY
ST 298.8 SR 452.8 SS 227.6
CRT -.5040 CRS -.6409 CST .9825
LSA 522.0 MSA 270.9 SSA 14.8
EL1 486.4 EL2 240.2 ALF 114.84

LAUNCH DATE AUG 20 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 175.224

RL 151.37 LAL -.00 LOL 326.57 VL 23.038 GAL 2.50 AZL 92.27 HCA 70.79 SMA 108.54 ECC .39668 INC 2.2667 V1 29.435
RP 108.25 LAP -2.14 LOP 37.35 VP 35.059 GAP -23.37 AZP 90.75 TAL 176.18 TAP 246.97 RCA 65.48 APO 151.59 V2 35.007
RC 41.257 GL -7.88 GP -7.74 ZAL 78.23 ZAP 14.16 ETS 144.38 ZAE 177.54 ETE 192.79 ZAC 91.76 ETC 258.24 CLP 11.89

PLANETOCENTRIC CONIC

C3 44.062 VHL 6.638 DLA -29.50 RAL 245.29 RAD 6568.7 VEL 12.862 PTH 2.34 VHP 14.098 DPA -23.35 RAP 224.53 ECC 1.7252

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.38	10 38 57	1317.32	15.00	353.40	127.00	115.70	11 0 55	717.3	18.33	346.23
98.62	13 0 30	860.19	15.01	319.84	127.01	115.69	13 14 50	260.2	18.35	312.66
100.00	12 30 10	957.31	11.14	325.03	125.00	117.92	12 46 7	357.3	14.79	318.14
100.00	13 51 58	695.44	18.94	309.51	128.89	113.57	14 3 34	95.4	21.97	302.02
110.00	12 5 16	1035.76	1.64	325.21	119.26	124.15	12 22 32	435.8	6.11	318.97
110.00	16 33 22	5477.78	29.28	253.41	133.24	108.48	18 4 40	4877.8	31.52	244.92

DIFFERENTIAL CORRECTIONS
TDE .1861 TRA -.9054 TC3 -.0069 BAU .0062
RDE -.5288 RRA .0067 RC3 -.0080 FAU .01900
FDE -.1427 FRA .4993 FC3 -.3732 BSP 2501
BDE .5606 BRA .9054 BC3 .0106 FSP -139

MID-COURSE EXECUTION ACCURACY
SGT 912.2 SGR 456.6 SG3 61.4
RRT -.1902 RRF .1995 RTF -.7087
SGB 1020.1 R23 -.0228 R13 .7114
SG1 917.6 SG2 445.6 THA 172.87

ORBIT DETERMINATION ACCURACY
ST 313.6 SR 456.4 SS 235.7
CRT -.5160 CRS -.6398 CST .9851
LSA 533.8 MSA 277.5 SSA 15.1
EL1 495.4 EL2 247.5 ALF 116.67

LAUNCH DATE AUG 20 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 181.837

RL 151.37 LAL -.00 LOL 326.57 VL 23.404 GAL 2.27 AZL 92.07 HCA 73.99 SMA 110.06 ECC .37706 INC 2.0703 V1 29.435
RP 108.21 LAP -1.99 LOP 40.55 VP 35.314 GAP -22.13 AZP 90.57 TAL 176.25 TAP 250.24 RCA 68.56 APO 151.57 V2 35.020
RC 40.727 GL -7.77 GP -8.12 ZAL 78.25 ZAP 13.05 ETS 138.91 ZAE 178.64 ETE 279.05 ZAC 91.61 ETC 258.46 CLP 10.25

PLANETOCENTRIC CONIC

C3 39.084 VHL 6.252 DLA -29.38 RAL 245.28 RAD 6568.5 VEL 12.667 PTH 2.30 VHP 13.413 DPA -24.23 RAP 225.98 ECC 1.6432

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.83	10 42 29	1275.69	15.82	350.73	125.04	115.08	11 3 45	675.7	19.07	343.48
98.17	12 56 55	841.33	15.84	318.85	125.04	115.07	13 10 57	241.3	19.09	311.60
100.00	12 24 27	945.41	11.52	324.35	122.84	117.77	12 40 12	345.4	15.15	317.44
100.00	13 57 39	646.84	20.24	306.48	127.08	112.48	14 8 26	46.8	23.11	298.86
110.00	12 3 35	1011.09	2.59	323.92	117.45	124.10	12 20 27	411.1	7.04	317.67
110.00	16 34 59	5441.97	30.03	250.89	130.97	107.16	18 5 41	4842.0	32.08	242.28

DIFFERENTIAL CORRECTIONS
TDE .1869 TRA -.8896 TC3 .0177 BAU .0127
RDE -.5012 RRA .0138 RC3 -.0167 FAU .01985
FDE -.1447 FRA .5142 FC3 -.4398 BSP 2649
BDE .5349 BRA .8897 BC3 .0243 FSP -156

MID-COURSE EXECUTION ACCURACY
SGT 951.4 SGR 460.0 SG3 67.6
RRT -.2118 RRF .2229 RTF -.7264
SGB 1056.8 R23 -.0262 R13 .7293
SG1 957.8 SG2 446.6 THA 172.52

ORBIT DETERMINATION ACCURACY
ST 328.8 SR 459.3 SS 243.6
CRT -.5289 CRS -.6384 CST .9877
LSA 545.8 MSA 283.3 SSA 15.4
EL1 504.5 EL2 254.1 ALF 118.61

LAUNCH DATE AUG 20 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 188.484

RL 151.37 LAL -.00 LOL 326.57 VL 23.742 GAL 2.02 AZL 91.88 HCA 77.19 SMA 111.54 ECC .35861 INC 1.8800 V1 29.435
RP 108.17 LAP -1.83 LOP 43.75 VP 35.552 GAP -20.95 AZP 90.42 TAL 176.37 TAP 253.56 RCA 71.54 APO 151.54 V2 35.033
RC 40.367 GL -7.59 GP -8.55 ZAL 78.39 ZAP 12.10 ETS 132.34 ZAE 176.35 ETE 322.41 ZAC 91.41 ETC 258.68 CLP 8.59

PLANETOCENTRIC CONIC

C3 34.710 VHL 5.891 DLA -29.18 RAL 245.16 RAD 6568.4 VEL 12.493 PTH 2.26 VHP 12.756 DPA -25.13 RAP 227.42 ECC 1.5712

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.64	10 48 20	1225.31	16.58	347.37	122.93	114.37	11 8 46	625.3	19.73	340.05
97.36	12 50 5	831.73	16.59	318.50	122.94	114.36	13 3 57	231.7	19.74	311.18
100.00	12 15 51	941.59	11.64	324.13	120.45	117.73	12 31 33	341.6	15.26	317.21
100.00	14 5 15	5878.73	21.66	280.82	125.19	111.12	15 43 14	5278.7	24.33	273.04
110.00	12 0 26	990.14	3.39	322.82	115.48	124.04	12 16 56	390.1	7.83	316.56
110.00	16 37 10	5402.94	30.78	248.10	128.56	105.66	18 7 13	4802.9	32.62	239.36

DIFFERENTIAL CORRECTIONS
TDE .1884 TRA -.8736 TC3 .0482 BAU .0259
RDE -.4747 RRA .0205 RC3 -.0280 FAU .02080
FDE -.1469 FRA .5296 FC3 -.5187 BSP 2804
BDE .5107 BRA .8738 BC3 .0558 FSP -175

MID-COURSE EXECUTION ACCURACY
SGT 991.8 SGR 463.4 SG3 74.4
RRT -.2365 RRF .2495 RTF -.7433
SGB 1094.7 R23 -.0298 R13 .7465
SG1 999.4 SG2 446.8 THA 172.11

ORBIT DETERMINATION ACCURACY
ST 344.7 SR 461.7 SS 251.5
CRT -.5441 CRS -.6377 CST .9902
LSA 558.6 MSA 288.0 SSA 15.8
EL1 514.4 EL2 259.6 ALF 120.71

LAUNCH DATE AUG 20 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 195.159

RL 151.37 LAL -.00 LOL 326.57 VL 24.054 GAL 1.78 AZL 91.69 HCA 80.39 SMA 112.96 ECC .34132 INC 1.6942 V1 29.435
RP 108.13 LAP -1.67 LOP 46.96 VP 35.774 GAP -19.81 AZP 90.28 TAL 176.56 TAP 256.95 RCA 74.40 APO 151.51 V2 35.046
RC 40.182 GL -7.35 GP -9.02 ZAL 78.64 ZAP 11.35 ETS 124.58 ZAE 173.57 ETE 330.45 ZAC 91.16 ETC 258.91 CLP 6.92

PLANETOCENTRIC CONIC

C3 30.868 VHL 5.556 DLA -28.90 RAL 244.92 RAD 6568.2 VEL 12.339 PTH 2.22 VHP 12.126 DPA -26.06 RAP 228.84 ECC 1.5080

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.96	10 58 2	1161.48	17.24	342.97	120.70	113.56	11 17 23	561.5	20.28	335.58
96.04	12 38 29	836.46	17.25	319.16	120.71	113.55	12 52 25	236.5	20.29	311.76
100.00	12 5 1	944.12	11.56	324.28	117.89	117.76	12 20 45	344.1	15.19	317.36
100.00	14 14 11	5817.10	23.11	276.82	123.17	109.50	15 51 8	5217.1	25.56	268.88
110.00	11 55 44	973.34	4.03	321.94	113.35	123.97	12 11 57	373.3	8.46	315.66
110.00	16 39 57	5360.64	31.52	245.02	126.01	103.98	18 9 18	4760.6	33.11	236.16

DIFFERENTIAL CORRECTIONS
TDE .1900 TRA -.8571 TC3 .0862 BAU .0397
RDE -.4492 RRA .0269 RC3 -.0427 FAU .02185
FDE -.1486 FRA .5456 FC3 -.6128 BSP 2963
BDE .4877 BRA .8575 BC3 .0962 FSP -196

MID-COURSE EXECUTION ACCURACY
SGT 1032.9 SGR 466.7 SG3 82.0
RRT -.2641 RRF .2793 RTF -.7593
SGB 1133.4 R23 -.0339 R13 .7630
SG1 1041.9 SG2 446.2 THA 171.65

ORBIT DETERMINATION ACCURACY
ST 360.7 SR 463.3 SS 258.9
CRT -.5603 CRS -.6362 CST .9925
LSA 571.5 MSA 291.5 SSA 16.1
EL1 524.5 EL2 263.9 ALF 122.85

LAUNCH DATE AUG 20 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 201.860

RL 151.37 LAL -.00 LOL 326.57 VL 24.343 GAL 1.54 AZL 91.51 HCA 83.60 SMA 114.31 ECC .32514 INC 1.5119 V1 29.435
RP 108.09 LAP -1.50 LOP 50.17 VP 35.982 GAP -18.73 AZP 90.17 TAL 176.80 TAP 260.40 RCA 77.15 APO 151.48 V2 35.060
RC 40.174 GL -7.03 GP -9.54 ZAL 79.00 ZAP 10.87 ETS 115.70 ZAE 170.71 ETE 333.22 ZAC 90.85 ETC 259.15 CLP 5.23

PLANETOCENTRIC CONIC

C3 27.497 VHL 5.244 DLA -28.52 RAL 244.57 RAD 6568.1 VEL 12.201 PTH 2.19 VHP 11.523 DPA -27.03 RAP 230.25 ECC 1.4525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.41	11 16 44	1067.63	17.79	336.33	118.35	112.67	11 34 31	467.6	20.71	328.86
93.59	12 16 58	872.47	17.81	322.05	118.36	112.66	12 31 31	272.5	20.73	314.58
100.00	11 52 22	951.90	11.31	324.72	115.20	117.85	12 8 14	351.9	14.95	317.82
100.00	14 24 0	5751.47	24.54	272.46	121.00	107.63	15 59 52	5151.5	26.72	264.34
110.00	11 49 27	961.07	4.49	321.30	111.08	123.92	12 5 28	361.1	8.92	315.00
110.00	16 43 25	5315.07	32.22	241.66	123.32	102.10	18 12 0	4715.1	33.55	232.68

DIFFERENTIAL CORRECTIONS
TDE .1911 TRA -.8404 TC3 .1329 BAU .0538
RDE -.4247 RRA .0331 RC3 -.0615 FAU .02303
FDE -.1496 FRA .5623 FC3 -.7252 BSP 3121
BDE .4657 BRA .8411 BC3 .1464 FSP -219

MID-COURSE EXECUTION ACCURACY
SGT 1074.8 SGR 470.3 SG3 90.4
RRT -.2946 RRF .3125 RTF -.7746
SGB 1173.2 R23 -.0387 R13 .7787
SG1 1085.6 SG2 445.0 THA 171.16

ORBIT DETERMINATION ACCURACY
ST 376.7 SR 464.2 SS 265.7
CRT -.5762 CRS -.6333 CST .9945
LSA 584.1 MSA 294.2 SSA 16.5
EL1 534.7 EL2 267.3 ALF 124.97

LAUNCH DATE AUG 20 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 208.580

RL	151.37	LAL	-.00	LOL	326.57	VL	24.609	GAL	1.30	AZL	91.33	HCA	86.81	SMA	115.61	ECC	.31006	INC	1.3316	V1	29.435
RP	108.05	LAP	-1.33	LOP	53.38	VP	36.175	GAP	-17.68	AZP	90.07	TAL	177.10	TAP	263.91	RCA	79.76	APO	151.46	V2	35.073
RC	40.345	GL	-6.63	GP	-10.12	ZAL	79.47	ZAP	10.70	ETS	106.02	ZAE	167.84	ETE	334.31	ZAC	90.47	ETC	259.38	CLP	3.51

PLANETOCENTRIC CONIC

C3	24.543	VHL	4.954	DLA	-28.04	RAL	244.11	RAD	6568.0	VEL	12.080	PTH	2.16	VHP	10.946	DPA	-28.03	RAP	231.63	ECC	1.4039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 10 19	1054.57	15.40	334.30	114.66	114.06	11 27 54	454.6	18.53	327.01
90.00	12 19 42	829.30	21.11	320.24	117.05	109.33	12 33 31	229.3	23.55	312.42
100.00	11 38 13	964.36	10.92	325.43	112.41	118.00	11 54 17	364.4	14.58	318.56
100.00	14 34 29	5682.78	25.87	267.80	118.68	105.52	16 9 12	5082.8	27.75	259.50
110.00	11 41 37	953.66	4.77	320.91	108.70	123.89	11 57 31	353.7	9.19	314.61
110.00	16 47 34	5266.25	32.85	237.99	120.49	100.02	18 15 21	4666.2	33.89	228.91

DIFFERENTIAL CORRECTIONS

TOE	.1915	TRA	-.8232	TC3	.1880	BAU	.0677
RDE	-.4012	RRA	.0392	RC3	-.0852	FAU	.02433
FDE	-.1497	FRA	.5798	FC3	-.8581	BSP	3291
BDE	.4445	BRA	.8241	BC3	.2064	FSP	-246

MID-COURSE EXECUTION ACCURACY

SGT	1116.8	SGR	474.4	SG3	99.6		
RRT	-.3282	RRF	.3494	RTF	-.7890		
SGB	1213.4	R23	-.0445	R13	.7935		
SG1	1129.6	SG2	443.0	THA	170.61		

ORBIT DETERMINATION ACCURACY

ST	392.2	SR	464.2	SS	271.8
CRT	-.5918	CRS	-.6290	CST	.9960
LSA	596.1	MSA	296.0	SSA	16.9
EL1	544.7	EL2	269.4	ALF	127.01

LAUNCH DATE AUG 20 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 215.316

RL	151.37	LAL	-.00	LOL	326.57	VL	24.853	GAL	1.07	AZL	91.15	HCA	90.02	SMA	116.84	ECC	.29602	INC	1.1524	V1	29.435
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.354	GAP	-16.68	AZP	90.00	TAL	177.46	TAP	267.48	RCA	82.25	APO	151.43	V2	35.086
RC	40.692	GL	-6.12	GP	-10.76	ZAL	80.06	ZAP	10.90	ETS	96.10	ZAE	165.03	ETE	334.63	ZAC	90.02	ETC	259.62	CLP	1.76

PLANETOCENTRIC CONIC

C3	21.958	VHL	4.686	DLA	-27.44	RAL	243.55	RAD	6567.9	VEL	11.972	PTH	2.13	VHP	10.393	DPA	-29.07	RAP	232.98	ECC	1.3614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 40 55	1116.38	13.65	337.99	111.24	115.05	10 59 32	516.4	16.92	330.84
90.00	12 44 37	713.22	23.52	312.59	115.16	106.23	12 56 30	113.2	25.53	304.49
100.00	11 22 44	981.28	10.37	326.40	109.56	118.19	11 39 5	381.3	14.06	319.55
100.00	14 45 29	5611.59	27.07	262.85	116.19	103.18	16 19 1	5011.6	28.62	254.39
110.00	11 32 14	951.41	4.86	320.79	106.22	123.88	11 48 6	351.4	9.28	314.49
110.00	16 52 28	5214.23	33.40	234.03	117.54	97.73	18 19 22	4614.2	34.11	224.86

DIFFERENTIAL CORRECTIONS

TOE	.1915	TRA	-.8055	TC3	.2530	BAU	.0816
RDE	-.3786	RRA	.0453	RC3	-.1150	FAU	.02577
FDE	-.1483	FRA	.5982	FC3	-1.0160	BSP	3443
BDE	.4243	BRA	.8068	BC3	.2780	FSP	-275

MID-COURSE EXECUTION ACCURACY

SGT	1158.7	SGR	479.4	SG3	109.9		
RRT	-.3658	RRF	.3902	RTF	-.8024		
SGB	1254.0	R23	-.0506	R13	.8075		
SG1	1174.1	SG2	440.4	THA	169.97		

ORBIT DETERMINATION ACCURACY

ST	407.1	SR	463.4	SS	276.5
CRT	-.6078	CRS	-.6215	CST	.9970
LSA	607.1	MSA	296.7	SSA	17.3
EL1	554.5	EL2	270.1	ALF	128.97

LAUNCH DATE AUG 20 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 222.064

RL	151.37	LAL	-.00	LOL	326.57	VL	25.079	GAL	.84	AZL	90.97	HCA	93.23	SMA	118.01	ECC	.28300	INC	.9729	V1	29.435
RP	107.97	LAP	-.97	LOP	59.80	VP	36.521	GAP	-15.72	AZP	89.95	TAL	177.88	TAP	271.11	RCA	84.61	APO	151.41	V2	35.098
RC	41.209	GL	-5.51	GP	-11.47	ZAL	80.75	ZAP	11.47	ETS	86.61	ZAE	162.29	ETE	334.51	ZAC	89.48	ETC	259.86	CLP	-.02

PLANETOCENTRIC CONIC

C3	19.700	VHL	4.439	DLA	-26.71	RAL	242.89	RAD	6567.8	VEL	11.878	PTH	2.11	VHP	9.865	DPA	-30.17	RAP	234.29	ECC	1.3242

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 26	1162.93	12.30	340.74	108.04	115.71	10 35 49	562.9	15.66	333.67
90.00	13 3 54	614.66	25.24	305.87	112.87	103.29	13 14 8	14.7	26.82	297.56
100.00	11 6 4	1002.61	9.68	327.61	106.68	118.42	11 22 46	402.6	13.41	320.80
100.00	14 56 57	5538.25	28.10	257.64	113.55	100.63	16 29 15	4938.2	29.28	249.04
110.00	11 21 23	954.54	4.74	320.96	103.67	123.89	11 37 17	354.5	9.16	314.65
110.00	16 58 7	5159.09	33.83	229.78	114.48	95.25	18 24 6	4559.1	34.18	220.55

DIFFERENTIAL CORRECTIONS

TOE	.1909	TRA	-.7878	TC3	.3312	BAU	.0960
RDE	-.3570	RRA	.0516	RC3	-.1523	FAU	.02740
FDE	-.1450	FRA	.6183	FC3	-1.2041	BSP	3621
BDE	.4048	BRA	.7895	BC3	.3645	FSP	-308

MID-COURSE EXECUTION ACCURACY

SGT	1201.2	SGR	486.0	SG3	121.4		
RRT	-.4080	RRF	.4354	RTF	-.8158		
SGB	1295.8	R23	-.0566	R13	.8215		
SG1	1219.9	SG2	436.9	THA	169.23		

ORBIT DETERMINATION ACCURACY

ST	421.2	SR	461.4	SS	280.0
CRT	-.6238	CRS	-.6096	CST	.9969
LSA	616.7	MSA	296.8	SSA	17.8
EL1	563.6	EL2	269.5	ALF	130.84

LAUNCH DATE AUG 20 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 228.820

RL	151.37	LAL	-.00	LOL	326.57	VL	25.286	GAL	.62	AZL	90.79	HCA	96.44	SMA	119.12	ECC	.27096	INC	.7924	V1	29.435
RP	107.93	LAP	-.79	LOP	63.01	VP	36.675	GAP	-14.79	AZP	89.91	TAL	178.34	TAP	274.78	RCA	86.84	APO	151.39	V2	35.111
RC	41.891	GL	-4.76	GP	-12.26	ZAL	81.55	ZAP	12.39	ETS	78.05	ZAE	159.66	ETE	334.07	ZAC	88.85	ETC	260.09	CLP	-1.84

PLANETOCENTRIC CONIC

C3	17.733	VHL	4.211	DLA	-25.83	RAL	242.16	RAD	6567.7	VEL	11.795	PTH	2.09	VHP	9.361	DPA	-31.32	RAP	235.54	ECC	1.2918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 53 14	1206.36	11.00	343.27	104.94	116.26	10 13 21	606.4	14.44	336.28
90.00	13 21 14	5809.82	26.53	277.29	110.34	100.28	14 58 4	5209.8	27.68	268.81
100.00	10 48 20	1028.47	8.84	329.06	103.80	118.67	11 5 28	428.5	12.60	322.29
100.00	15 8 50	5462.94	28.93	252.20	110.77	97.87	16 39 53	4862.9	29.72	243.48
110.00	11 9 7	963.25	4.41	321.41	101.09	123.93	11 25 10	363.3	8.84	315.12
110.00	17 4 32	5100.92	34.10	225.26	111.32	92.59	18 29 33	4500.9	34.08	216.01

DIFFERENTIAL CORRECTIONS

TOE	.1880	TRA	-.7702	TC3	.4167	BAU	.1094
RDE	-.3361	RRA	.0582	RC3	-.1982	FAU	.02917
FDE	-.1390	FRA	.6398	FC3	-1.4241	BSP	3803
BDE	.3851	BRA	.7724	BC3	.4614	FSP	-346

MID-COURSE EXECUTION ACCURACY

SGT	1242.6	SGR	494.7	SG3	134.1		
RRT	-.4523	RRF	.4841	RTF	-.8270		
SGB	1337.4	R23	-.0652	R13	.8336		
SG1	1265.3	SG2	433.3	THA	168.42		

ORBIT DETERMINATION ACCURACY

ST	433.1	SR	458.1	SS	281.6
CRT	-.6365	CRS	-.5914	CST	.9954
LSA	623.1	MSA	296.8	SSA	18.4
EL1	570.5	EL2	268.2	ALF	132.48

LAUNCH DATE AUG 20 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 235.580

RL	151.37	LAL	-.00	LOL	326.57	VL	25.476	GAL	.40	AZL	90.61	HCA	99.66	SMA	120.16	ECC	.25985	INC	.6093	V1	29.435
RP	107.89	LAP	-.60	LOP	66.23	VP	36.818	GAP	-13.90	AZP	89.90	TAL	178.85	TAP	278.51	RCA	88.93	APO	151.38	V2	35.123
RC	42.728	GL	-3.88	GP	-13.14	ZAL	82.44	ZAP	13.65	ETS	70.68	ZAE	157.15	ETE	333.39	ZAC	88.12	ETC	260.31	CLP	-3.72

PLANETOCENTRIC CONIC

C3	16.023	VHL	4.003	DLA	-24.79	RAL	241.36	RAD	6567.6	VEL	11.722	PTH	2.07	VHP	8.880	DPA	-32.54	RAP	236.73	ECC	1.2637		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 30 23	1250.28	9.67	345.81	101.93	116.75	9 51 13	650.3	13.18	338.89
90.00	13 37 44	5719.27	27.47	270.83	107.63	97.17	15 13 3	5119.3	28.17	262.23
100.00	10 29 38	1058.99	7.84	330.78	100.96	118.94	10 47 17	459.0	11.64	324.05
100.00	15 21 10	5385.78	29.52	246.54	107.88	94.95	16 50 55	4785.8	29.89	237.75
110.00	10 55 32	977.73	3.86	322.17	98.51	123.99	11 11 50	377.7	8.30	315.89
110.00	17 11 45	5039.81	34.18	220.49	108.10	89.77	18 35 44	4439.8	33.77	211.27

DIFFERENTIAL CORRECTIONS

TDE	.1827	TRA	-.7515	TC3	.5134	BAU	.1227
RDE	-.3157	RRA	.0652	RC3	-.2544	FAU	.03113
FDE	-.1289	FRA	.6627	FC3	-1.6822	BSP	3949
BDE	.3647	BRA	.7544	BC3	.5730	FSP	-386

MID-COURSE EXECUTION ACCURACY

SGT	1281.2	SGR	506.2	SG3	148.1		
RRT	-.4992	RRF	.5360	RTF	-.8376		
SGB	1377.5	R23	-.0747	R13	.8453		
SG1	1308.9	SG2	429.3	THA	167.47		

ORBIT DETERMINATION ACCURACY

ST	441.5	SR	452.9	SS	280.8
CRT	-.6462	CRS	-.5627	CST	.9914
LSA	624.8	MSA	297.0	SSA	19.0
EL1	573.9	EL2	265.9	ALF	133.87

LAUNCH DATE AUG 20 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 242.340

RL	151.37	LAL	-.00	LOL	326.57	VL	25.650	GAL	.20	AZL	90.42	HCA	102.88	SMA	121.13	ECC	.24964	INC	.4224	V1	29.435
RP	107.86	LAP	-.41	LOP	69.45	VP	36.950	GAP	-13.04	AZP	89.91	TAL	179.40	TAP	282.28	RCA	90.89	APO	151.37	V2	35.135
RC	43.711	GL	-2.84	GP	-14.13	ZAL	83.43	ZAP	15.20	ETS	64.55	ZAE	154.79	ETE	332.49	ZAC	87.27	ETC	260.53	CLP	-5.65

PLANETOCENTRIC CONIC

C3	14.542	VHL	3.813	DLA	-23.58	RAL	240.52	RAD	6567.6	VEL	11.659	PTH	2.05	VHP	8.423	DPA	-33.84	RAP	237.85	ECC	1.2393		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 29	1296.44	8.24	348.45	99.03	117.19	9 29 5	696.4	11.82	341.60
90.00	13 53 53	5629.53	28.06	264.33	104.81	93.97	15 27 42	5029.5	28.32	255.67
100.00	10 10 5	1094.39	6.67	332.75	98.18	119.21	10 28 19	494.4	10.52	326.07
100.00	15 33 58	5306.82	29.84	240.69	104.91	91.89	17 2 25	4706.8	29.78	231.89
110.00	10 40 47	998.11	3.08	323.24	95.96	124.06	10 57 25	398.1	7.53	316.98
110.00	17 19 45	4975.86	34.05	215.50	104.86	86.82	18 42 41	4375.9	33.24	206.35

DIFFERENTIAL CORRECTIONS

TDE	.1742	TRA	-.7351	TC3	.6216	BAU	.1362
RDE	-.2953	RRA	.0732	RC3	-.3232	FAU	.03333
FDE	-.1129	FRA	.6895	FC3	-1.9843	BSP	4126
BDE	.3429	BRA	.7387	BC3	.7006	FSP	-433

MID-COURSE EXECUTION ACCURACY

SGT	1321.2	SGR	521.6	SG3	163.9		
RRT	-.5480	RRF	.5903	RTF	-.8477		
SGB	1420.4	R23	-.0860	R13	.8566		
SG1	1355.2	SG2	425.4	THA	166.43		

ORBIT DETERMINATION ACCURACY

ST	446.5	SR	445.2	SS	277.9
CRT	-.6500	CRS	-.5164	CST	.9831
LSA	620.6	MSA	298.8	SSA	19.6
EL1	572.7	EL2	263.8	ALF	135.13

LAUNCH DATE AUG 20 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 249.096

RL	151.37	LAL	-.00	LOL	326.57	VL	25.809	GAL	.01	AZL	90.23	HCA	106.10	SMA	122.04	ECC	.24028	INC	.2304	V1	29.435
RP	107.82	LAP	-.22	LOP	72.67	VP	37.072	GAP	-12.21	AZP	89.94	TAL	179.98	TAP	286.08	RCA	92.72	APO	151.37	V2	35.146
RC	44.829	GL	-1.64	GP	-15.24	ZAL	84.49	ZAP	17.01	ETS	59.51	ZAE	152.58	ETE	331.38	ZAC	86.30	ETC	260.74	CLP	-7.64

PLANETOCENTRIC CONIC

C3	13.266	VHL	3.642	DLA	-22.19	RAL	239.64	RAD	6567.5	VEL	11.604	PTH	2.03	VHP	7.990	DPA	-35.23	RAP	238.87	ECC	1.2183		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 44 23	1345.92	6.69	351.26	96.25	117.58	9 6 49	745.9	10.33	344.47
90.00	14 10 1	5539.76	28.31	257.78	101.92	90.69	15 42 20	4939.8	28.11	249.12
100.00	9 49 46	1134.87	5.32	335.00	95.50	119.46	10 8 41	534.9	9.21	328.37
100.00	15 47 18	5226.04	29.87	234.69	101.91	88.73	17 14 24	4626.0	29.37	225.92
110.00	10 24 58	1024.53	2.07	324.62	93.49	124.03	10 42 3	424.5	6.54	318.38
110.00	17 28 36	4909.14	33.68	210.33	101.62	83.78	18 50 25	4309.1	32.45	201.31

DIFFERENTIAL CORRECTIONS

TDE	.0816	TRA	-.7350	TC3	.6374	BAU	.1328
RDE	-.2562	RRA	.0855	RC3	-.3926	FAU	.03460
FDE	.0122	FRA	.7373	FC3	-2.2578	BSP	2239
BDE	.2688	BRA	.7399	BC3	.7486	FSP	-287

MID-COURSE EXECUTION ACCURACY

SGT	1338.3	SGR	515.1	SG3	178.6		
RRT	-.5308	RRF	.6053	RTF	-.8403		
SGB	1434.0	R23	-.1281	R13	.8515		
SG1	1369.0	SG2	426.7	THA	167.19		

ORBIT DETERMINATION ACCURACY

ST	396.2	SR	405.4	SS	262.0
CRT	-.4243	CRS	-.0589	CST	.9244
LSA	509.0	MSA	361.2	SSA	20.8
EL1	478.5	EL2	304.0	ALF	133.45

LAUNCH DATE AUG 20 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 255.853

RL	151.37	LAL	-.00	LOL	326.57	VL	25.954	GAL	-.18	AZL	90.03	HCA	109.32	SMA	122.89	ECC	.23174	INC	.0280	V1	29.435
RP	107.79	LAP	-.03	LOP	75.89	VP	37.183	GAP	-11.42	AZP	89.99	TAL	180.58	TAP	289.91	RCA	94.41	APO	151.37	V2	35.158
RC	46.073	GL	-.24	GP	-16.48	ZAL	85.61	ZAP	19.06	ETS	55.42	ZAE	150.51	ETE	330.04	ZAC	85.17	ETC	260.93	CLP	-9.72

PLANETOCENTRIC CONIC

C3	12.173	VHL	3.489	DLA	-20.59	RAL	238.76	RAD	6567.5	VEL	11.557	PTH	2.02	VHP	7.581	DPA	-36.73	RAP	239.78	ECC	1.2003		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 2	1399.45	4.99	354.28	93.64	117.91	8 44 22	799.4	8.69	347.55
90.00	14 26 21	5449.41	28.21	251.17	99.04	87.39	15 57 10	4849.4	27.55	242.57
100.00	9 28 50	1180.67	3.78	337.53	92.97	119.67	9 48 30	580.7	7.71	330.94
100.00	16 1 15	5143.42	29.59	228.56	98.94	85.52	17 26 58	4543.4	28.65	219.88
110.00	10 8 15	1057.13	.83	326.32	91.13	124.17	10 25 52	457.1	5.31	320.10
110.00	17 38 19	4839.73	33.04	205.01	98.45	80.69	18 58 59	4239.7	31.40	196.17

DIFFERENTIAL CORRECTIONS

TDE	.1555	TRA	-.7020	TC3	.8581	BAU	.1622
RDE	-.2558	RRA	.0916	RC3	-.5066	FAU	.03844
FDE	-.0693	FRA	.7478	FC3	-2.7338	BSP	4426
BDE	.2993	BRA	.7079	BC3	.9964	FSP	-545

MID-COURSE EXECUTION ACCURACY

SGT	1392.9	SGR	572.0	SG3	200.3		
RRT	-.6487	RRF	.7037	RTF	-.8631		
SGB	1505.8	R23	-.1152	R13	.8760		
SG1	1446.2	SG2	419.3	THA	163.67		

ORBIT DETERMINATION ACCURACY

ST	449.4	SR	422.9	SS	271.0
CRT	-.6589	CRS	-.3853	CST	.9439
LSA	602.3	MSA	301.8	SSA	21.4
EL1	562.3	EL2	254.3	ALF	137.64

LAUNCH DATE AUG 20 1970 FLIGHT TIME 102.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 262.598

RL	151.37	LAL	-.00	LOL	326.57	VL	26.086	GAL	-.35	AZL	89.83	HCA	112.55	SMA	123.68	ECC	.22396	INC	.1729	V1	29.435
RP	107.76	LAP	.16	LOP	79.12	VP	37.286	GAP	-10.65	AZP	90.07	TAL	181.21	TAP	293.76	RCA	95.98	APO	151.38	V2	35.168
RC	47.431	GL	1.35	GP	-17.88	ZAL	86.78	ZAP	21.36	ETS	52.09	ZAE	148.57	ETE	328.48	ZAC	83.87	ETC	261.10	CLP	-11.87

PLANETOCENTRIC CONIC

C3	11.245	VHL	3.353	DLA	-18.79	RAL	237.90	RAD	6567.4	VEL	11.517	PTH	2.01	VHP	7.197	DPA	-38.35	RAP	240.56	ECC	1.1851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 57 25	1457.66	3.13	357.54	91.23	118.16	8 21 42	857.7	6.87	350.86
90.00	14 43 5	5358.03	27.74	244.53	96.20	84.09	16 12 23	4758.0	26.63	236.04
100.00	9 7 19	1232.07	2.05	340.36	90.62	119.83	9 27 51	632.1	6.00	333.80
100.00	16 15 51	5058.85	28.97	222.35	96.04	82.31	17 40 10	4458.9	27.61	213.82
110.00	9 50 44	1096.04	-.66	328.35	88.93	124.18	10 9 0	496.0	3.83	322.14
110.00	17 48 56	4767.64	32.12	199.59	95.39	77.61	19 8 24	4167.6	30.08	190.97

DIFFERENTIAL CORRECTIONS

TDE	.1461	TRA	-.6787	TC3	1.0051	BAU	.1782	SGT	1420.2	SGR	611.0	SG3	221.6	ST	444.7	SR	406.1	SS	268.1
RDE	-.2353	RRA	.1024	RC3	-.6281	FAU	.04153	RRT	-.7039	RRF	.7584	RTF	-.8738	CRT	-.6702	CRS	-.2824	CST	.8966
FDE	-.0367	FRA	.7790	FC3	-3.1975	BSP	4637	SGB	1546.1	R23	-.1209	R13	.8886	LSA	584.9	MSA	303.2	SSA	22.1
BDE	.2770	BRA	.6864	BC3	1.1852	FSP	-608	SG1	1489.7	SG2	413.7	THA	161.69	EL1	550.9	EL2	243.3	ALF	138.87

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 20 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 269.333

RL	151.37	LAL	-.00	LOL	326.57	VL	26.206	GAL	-.51	AZL	89.61	HCA	115.77	SMA	124.41	ECC	.21690	INC	.3897	V1	29.435
RP	107.72	LAP	.35	LOP	82.34	VP	37.379	GAP	-9.91	AZP	90.17	TAL	181.84	TAP	297.61	RCA	97.42	APO	151.39	V2	35.179
RC	48.893	GL	3.16	GP	-19.46	ZAL	87.98	ZAP	23.88	ETS	49.37	ZAE	146.75	ETE	326.67	ZAC	82.39	ETC	261.24	CLP	-14.13

PLANETOCENTRIC CONIC

C3	10.467	VHL	3.235	DLA	-16.77	RAL	237.08	RAD	6567.4	VEL	11.483	PTH	2.00	VHP	6.837	DPA	-40.11	RAP	241.18	ECC	1.1723

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 33	1521.04	1.09	1.08	89.05	118.30	7 58 54	921.0	4.86	354.43
90.00	15 0 23	5265.33	26.91	237.87	93.50	80.85	16 28 9	4665.3	25.37	229.54
100.00	8 45 22	1289.31	.10	343.50	88.50	119.89	9 6 52	689.3	4.08	336.97
100.00	16 31 15	4972.29	28.02	216.10	93.28	79.15	17 54 8	4372.3	26.24	207.75
110.00	9 32 35	1141.41	-2.39	330.72	86.94	124.11	9 51 36	541.4	2.10	324.51
110.00	18 0 32	4692.95	30.89	194.11	92.51	74.58	19 18 45	4092.9	28.47	185.75

DIFFERENTIAL CORRECTIONS

TDE	.1279	TRA	-.6633	TC3	1.1312	BAU	.1913	SGT	1446.4	SGR	658.6	SG3	244.3	ST	432.7	SR	381.6	SS	272.2
RDE	-.2122	RRA	.1162	RC3	-.7671	FAU	.04461	RRT	-.7475	RRF	.8066	RTF	-.8805	CRT	-.6613	CRS	-.1246	CST	.8214
FDE	.0127	FRA	.8193	FC3	-3.6901	BSP	4808	SGB	1589.3	R23	-.1351	R13	.8983	LSA	555.2	MSA	313.3	SSA	22.9
BDE	.2478	BRA	.6734	BC3	1.3668	FSP	-679	SG1	1534.9	SG2	412.3	THA	159.67	EL1	526.9	EL2	235.1	ALF	140.40

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 20 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 276.056

RL	151.37	LAL	-.00	LOL	326.57	VL	26.314	GAL	-.66	AZL	89.38	HCA	119.00	SMA	125.07	ECC	.21053	INC	.6183	V1	29.435
RP	107.69	LAP	.54	LOP	85.57	VP	37.465	GAP	-9.19	AZP	90.30	TAL	182.47	TAP	301.47	RCA	98.74	APO	151.41	V2	35.188
RC	50.451	GL	5.20	GP	-21.23	ZAL	89.19	ZAP	26.64	ETS	47.14	ZAE	145.03	ETE	324.59	ZAC	80.70	ETC	261.35	CLP	-16.49

PLANETOCENTRIC CONIC

C3	9.826	VHL	3.135	DLA	-14.51	RAL	236.33	RAD	6567.4	VEL	11.455	PTH	1.99	VHP	6.504	DPA	-42.04	RAP	241.61	ECC	1.1617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 9 29	1590.09	-1.14	4.93	87.15	118.30	7 35 59	990.1	2.65	358.30
90.00	15 18 27	5170.98	25.72	231.22	90.99	77.73	16 44 38	4571.0	23.77	223.10
100.00	8 23 3	1352.73	-2.05	346.98	86.65	119.83	8 45 36	752.7	1.94	340.46
100.00	16 47 34	4883.59	26.73	209.82	90.72	76.09	18 8 57	4283.6	24.55	201.70
110.00	9 13 54	1193.43	-4.38	333.44	85.20	123.94	9 33 48	593.4	.11	327.23
110.00	18 13 12	4615.65	29.36	188.61	89.86	71.66	19 30 8	4015.6	26.58	180.54

DIFFERENTIAL CORRECTIONS

TDE	.1059	TRA	-.6493	TC3	1.2411	BAU	.2035	SGT	1464.9	SGR	718.8	SG3	268.6	ST	416.3	SR	349.5	SS	289.7
RDE	-.1865	RRA	.1328	RC3	-.9269	FAU	.04781	RRT	-.7839	RRF	.8489	RTF	-.8852	CRT	-.6465	CRS	.0502	CST	.7234
FDE	.0759	FRA	.8653	FC3	-4.2121	BSP	4949	SGB	1631.7	R23	-.1515	R13	.9072	LSA	520.3	MSA	328.8	SSA	23.6
BDE	.2145	BRA	.6627	BC3	1.5491	FSP	-755	SG1	1578.3	SG2	414.2	THA	157.31	EL1	495.2	EL2	224.1	ALF	142.60

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 20 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 282.765

RL	151.37	LAL	-.00	LOL	326.57	VL	26.412	GAL	-.80	AZL	89.14	HCA	122.23	SMA	125.69	ECC	.20480	INC	.8618	V1	29.435
RP	107.67	LAP	.73	LOP	88.80	VP	37.542	GAP	-8.50	AZP	90.46	TAL	183.09	TAP	305.32	RCA	99.95	APO	151.43	V2	35.198
RC	52.096	GL	7.48	GP	-23.23	ZAL	90.38	ZAP	29.65	ETS	45.26	ZAE	143.35	ETE	322.21	ZAC	78.77	ETC	261.42	CLP	-18.97

PLANETOCENTRIC CONIC

C3	9.314	VHL	3.052	DLA	-12.02	RAL	235.66	RAD	6567.3	VEL	11.433	PTH	1.98	VHP	6.199	DPA	-44.15	RAP	241.80	ECC	1.1533

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 45 11	1665.36	-3.56	9.13	85.58	118.11	7 12 56	1065.4	.22	2.50
90.00	15 37 27	5074.70	24.16	224.60	88.73	74.76	17 2 2	4474.7	21.83	216.70
100.00	8 0 24	1422.69	-4.41	350.83	85.11	119.60	8 24 6	822.7	-.43	344.29
100.00	17 4 55	4792.59	25.08	203.56	88.43	73.19	18 24 48	4192.6	22.54	195.69
110.00	8 54 48	1252.33	-6.61	336.54	83.76	123.62	9 15 40	652.3	-2.14	330.30
110.00	18 27 1	4535.72	27.53	183.12	87.50	68.88	19 42 37	3935.7	24.41	175.34

DIFFERENTIAL CORRECTIONS

TDE	.0840	TRA	-.6332	TC3	1.3442	BAU	.2172	SGT	1475.0	SGR	795.5	SG3	294.4	ST	398.1	SR	309.1	SS	324.4
RDE	-.1575	RRA	.1520	RC3	-1.1113	FAU	.05125	RRT	-.8165	RRF	.8851	RTF	-.8897	CRT	-.6427	CRS	.1981	CST	.6167
FDE	.1530	FRA	.9136	FC3	-4.7636	BSP	5119	SGB	1675.8	R23	-.1641	R13	.9166	LSA	488.2	MSA	346.8	SSA	24.0
BDE	.1785	BRA	.6512	BC3	1.7441	FSP	-837	SG1	1623.0	SG2	417.4	THA	154.42	EL1	460.5	EL2	204.7	ALF	145.85

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 20 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 289.458

RL	151.37	LAL	-.00	LOL	326.57	VL	26.500	GAL	-.92	AZL	88.88	HCA	125.46	SMA	126.24	ECC	.19966	INC	1.1234	V1	29.435
RP	107.64	LAP	.92	LOP	92.04	VP	37.612	GAP	-7.83	AZP	90.65	TAL	183.70	TAP	309.16	RCA	101.04	APO	151.45	V2	35.206
RC	53.818	GL	10.01	GP	-25.47	ZAL	91.52	ZAP	32.92	ETS	43.65	ZAE	141.69	ETE	319.53	ZAC	76.58	ETC	261.44	CLP	-21.59

PLANETOCENTRIC CONIC

C3	8.925	VHL	2.988	DLA	-9.29	RAL	235.11	RAD	6567.3	VEL	11.416	PTH	1.98	VHP	5.924	DPA	-46.46	RAP	241.71	ECC	1.1469

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 20 38	1747.40	-6.18	13.75	84.38	117.69	6 49 46	1147.4	-2.42	7.08
90.00	15 57 37	4976.16	22.24	218.02	86.79	72.00	17 20 34	4376.2	19.57	210.36
100.00	7 37 26	1499.66	-6.98	355.09	83.95	119.14	8 2 25	899.7	-3.04	348.52
100.00	17 23 31	4699.13	23.10	197.33	86.47	70.48	18 41 50	4099.1	20.23	189.71
110.00	8 35 19	1318.40	-9.08	340.06	82.66	123.10	8 57 17	718.4	-4.66	333.76
110.00	18 42 7	4453.15	25.38	177.66	85.48	66.29	19 56 20	3853.2	21.96	170.18

DIFFERENTIAL CORRECTIONS

TDE	.0590	TRA	-.6187	TC3	1.4273	BAU	.2319
RDE	-.1230	RRA	.1757	RC3	-1.3186	FAU	.05477
FDE	.2499	FRA	.9686	FC3	-5.3126	BSP	5284
BDE	.1364	BRA	.6432	BC3	1.9431	FSP	-922

MID-COURSE EXECUTION ACCURACY

SGT	1478.4	SGR	890.5	SG3	321.5		
RRT	-.8425	RRF	.9146	RTF	-.8935		
SGB	1725.9	R23	-.1734	R13	.9265		
SG1	1673.0	SG2	423.8	THA	151.06		

ORBIT DETERMINATION ACCURACY

ST	378.9	SR	258.2	SS	382.2		
CRT	-.6568	CRS	.2744	CST	.5368		
LSA	477.0	MSA	358.1	SSA	23.8		
EL1	424.3	EL2	173.9	ALF	150.45		

LAUNCH DATE AUG 20 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 296.134

RL	151.37	LAL	-.00	LOL	326.57	VL	26.579	GAL	-1.03	AZL	88.59	HCA	128.69	SMA	126.75	ECC	.19508	INC	1.4070	V1	29.435
RP	107.61	LAP	1.10	LOP	95.27	VP	37.675	GAP	-7.18	AZP	90.88	TAL	184.27	TAP	312.97	RCA	102.02	APO	151.47	V2	35.214
RC	55.612	GL	12.81	GP	-28.00	ZAL	92.59	ZAP	36.45	ETS	42.21	ZAE	139.98	ETE	316.52	ZAC	74.10	ETC	261.40	CLP	-24.37

PLANETOCENTRIC CONIC

C3	8.658	VHL	2.942	DLA	-6.32	RAL	234.70	RAD	6567.3	VEL	11.404	PTH	1.97	VHP	5.683	DPA	-49.00	RAP	241.27	ECC	1.1425

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 55 46	1836.93	-8.98	18.83	83.61	116.97	6 26 23	1236.9	-5.29	12.10
90.00	16 19 13	4875.01	19.96	211.48	85.23	69.49	17 40 28	4275.0	16.99	204.06
100.00	7 14 7	1584.21	-9.75	359.84	83.20	118.40	7 40 31	984.2	-5.88	353.19
100.00	17 43 34	4602.97	20.78	191.13	84.90	68.01	19 0 16	4003.0	17.61	183.77
110.00	8 15 29	1392.05	-11.79	344.04	81.98	122.32	8 38 41	792.1	-7.44	337.65
110.00	18 58 40	4367.89	22.94	172.25	83.86	63.93	20 11 28	3767.9	19.24	165.06

DIFFERENTIAL CORRECTIONS

TDE	.0318	TRA	-.6043	TC3	1.4730	BAU	.2469
RDE	-.0808	RRA	.2046	RC3	-1.5430	FAU	.05812
FDE	.3686	FRA	1.0283	FC3	-5.8115	BSP	5470
BDE	.0868	BRA	.6380	BC3	2.1332	FSP	-1009

MID-COURSE EXECUTION ACCURACY

SGT	1468.6	SGR	1005.0	SG3	348.5		
RRT	-.8614	RRF	.9374	RTF	-.8956		
SGB	1779.6	R23	-.1789	R13	.9364		
SG1	1725.7	SG2	434.4	THA	147.14		

ORBIT DETERMINATION ACCURACY

ST	361.5	SR	199.9	SS	463.4		
CRT	-.7355	CRS	.1986	CST	.5069		
LSA	517.8	MSA	341.6	SSA	22.8		
EL1	393.9	EL2	124.3	ALF	155.24		

LAUNCH DATE AUG 20 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 302.791

RL	151.37	LAL	-.00	LOL	326.57	VL	26.649	GAL	-1.13	AZL	88.28	HCA	131.92	SMA	127.20	ECC	.19101	INC	1.7176	V1	29.435
RP	107.59	LAP	1.28	LOP	98.51	VP	37.732	GAP	-6.56	AZP	91.15	TAL	184.82	TAP	316.74	RCA	102.90	APO	151.49	V2	35.222
RC	57.469	GL	15.88	GP	-30.82	ZAL	93.55	ZAP	40.26	ETS	40.85	ZAE	138.16	ETE	313.18	ZAC	71.31	ETC	261.28	CLP	-27.31

PLANETOCENTRIC CONIC

C3	8.516	VHL	2.918	DLA	-3.10	RAL	234.45	RAD	6567.3	VEL	11.398	PTH	1.97	VHP	5.477	DPA	-51.78	RAP	240.39	ECC	1.1401

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 30 27	1934.81	-11.95	24.49	83.33	115.87	6 2 42	1334.8	-8.37	17.64
90.00	16 42 32	4770.86	17.35	204.95	84.12	67.26	18 2 3	4170.9	14.12	197.77
100.00	6 50 21	1677.07	-12.71	5.15	82.94	117.29	7 18 18	1077.1	-8.95	358.38
100.00	18 5 19	4503.83	18.13	184.96	83.77	65.82	19 20 23	3903.8	14.71	177.84
110.00	7 55 17	1473.81	-14.72	348.56	81.78	121.20	8 19 51	873.8	-10.48	342.03
110.00	19 16 53	4279.85	20.20	166.88	82.69	61.82	20 28 13	3679.9	16.28	159.95

DIFFERENTIAL CORRECTIONS

TDE	.0046	TRA	-.5900	TC3	1.4798	BAU	.2636
RDE	-.0289	RRA	.2399	RC3	-1.7809	FAU	.06121
FDE	.5084	FRA	1.0919	FC3	-6.2233	BSP	5674
BDE	.0292	BRA	.6369	BC3	2.3154	FSP	-1094

MID-COURSE EXECUTION ACCURACY

SGT	1446.4	SGR	1142.8	SG3	374.6		
RRT	-.8744	RRF	.9549	RTF	-.8960		
SGB	1843.3	R23	-.1782	R13	.9465		
SG1	1787.9	SG2	448.5	THA	142.61		

ORBIT DETERMINATION ACCURACY

ST	349.1	SR	155.6	SS	564.6		
CRT	-.9308	CRS	-.2043	CST	.5236		
LSA	605.7	MSA	312.3	SSA	21.1		
EL1	378.6	EL2	52.4	ALF	157.00		

LAUNCH DATE AUG 20 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 309.427

RL	151.37	LAL	-.00	LOL	326.57	VL	26.711	GAL	-1.22	AZL	87.94	HCA	135.16	SMA	127.60	ECC	.18743	INC	2.0616	V1	29.435
RP	107.57	LAP	1.45	LOP	101.74	VP	37.782	GAP	-5.95	AZP	91.46	TAL	185.32	TAP	320.47	RCA	103.69	APO	151.52	V2	35.229
RC	59.382	GL	19.23	GP	-33.96	ZAL	94.39	ZAP	44.34	ETS	39.50	ZAE	136.15	ETE	309.54	ZAC	68.19	ETC	261.07	CLP	-30.43

PLANETOCENTRIC CONIC

C3	8.508	VHL	2.917	DLA	.37	RAL	234.38	RAD	6567.3	VEL	11.397	PTH	1.97	VHP	5.313	DPA	-54.80	RAP	238.95	ECC	1.1400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 4 27	2042.16	-15.05	30.85	83.62	114.27	5 38 29	1442.2	-11.64	23.83
90.00	17 7 59	4663.18	14.40	198.43	83.53	65.35	18 25 42	4063.2	10.95	191.44
100.00	6 25 58	1779.22	-15.81	11.14	83.25	115.70	6 55 37	1179.2	-12.22	4.19
100.00	18 29 9	4401.35	15.16	178.80	83.15	63.93	19 42 31	3801.3	11.53	171.89
110.00	7 34 37	1564.36	-17.85	353.72	82.14	119.65	8 0 41	964.4	-13.77	346.98
110.00	19 37 0	4188.97	17.19	161.55	82.03	59.99	20 46 49	3589.0	13.07	154.86

DIFFERENTIAL CORRECTIONS

TDE	-.0223	TRA	-.5759	TC3	1.4364	BAU	.2819
RDE	.0364	RRA	.2834	RC3	-2.0200	FAU	.06373
FDE	.6702	FRA	1.1584	FC3	-6.4852	BSP	5928
BDE	.0426	BRA	.6418	BC3	2.4786	FSP	-1176

MID-COURSE EXECUTION ACCURACY

SGT	1408.4	SGR	1305.3	SG3	398.0		
RRT	-.8814	RRF	.9677	RTF	-.8942		
SGB	1920.2	R23	-.1705	R13	.9566		
SG1	1862.8	SG2	466.2	THA	137.47		

ORBIT DETERMINATION ACCURACY

ST	343.1	SR	185.1	SS	682.7		
CRT	-.9559	CRS	-.7706	CST	.5724		
LSA	732.6	MSA	284.7	SSA	18.7		
EL1	386.8	EL2	48.2	ALF	152.25		

LAUNCH DATE AUG 20 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 316.043

RL	151.37	LAL	-.00	LOL	326.57	VL	26.765	GAL	-1.30	AZL	87.55	HCA	138.39	SMA	127.96	ECC	.18428	INC	2.4470	V1	29.435
RP	107.55	LAP	1.62	LOP	104.98	VP	37.826	GAP	-5.36	AZP	91.83	TAL	185.77	TAP	324.15	RCA	104.38	APO	151.54	V2	35.235
RC	61.346	GL	22.85	GP	-37.43	ZAL	95.06	ZAP	48.68	ETS	38.05	ZAE	133.90	ETE	305.62	ZAC	64.73	ETC	260.75	CLP	-33.75

PLANETOCENTRIC CONIC

C3	8.655	VHL	2.942	DLA	4.08	RAL	234.51	RAD	6567.3	VEL	11.404	PTH	1.97	VHP	5.197	DPA	-58.06	RAP	236.78	ECC	1.1424

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 37 24	2160.53	-18.22	38.09	84.57	112.06	5 13 24	1560.5	-15.07	30.83
90.00	17 36 5	4551.27	11.12	191.84	83.52	63.79	18 51 56	3951.3	7.51	185.02
100.00	6 0 39	1891.99	-19.01	17.99	84.22	113.51	6 32 11	1292.0	-15.67	10.79
100.00	18 55 31	4295.04	11.89	172.80	83.12	62.37	20 7 6	3695.0	8.10	165.86
110.00	7 13 17	1664.69	-21.12	359.66	83.15	117.53	7 41 1	1064.7	-17.27	352.65
110.00	19 59 23	4095.11	13.92	156.25	81.94	58.46	21 7 38	3495.1	9.64	149.75

DIFFERENTIAL CORRECTIONS

TDE	-.0458	TRA	-.5608	TC3	1.3383	BAU	.3022
RDE	.1188	RRA	.3372	RC3	-2.2429	FAU	.06532
FDE	.8498	FRA	1.2244	FC3	-6.5342	BSP	6210
BDE	.1273	BRA	.6543	BC3	2.6119	FSP	-1240

MID-COURSE EXECUTION ACCURACY

SGT	1351.7	SGR	1492.8	SG3	416.5		
RRT	-.8825	RRF	.9770	RTF	-.8891		
SGB	2013.8	R23	-.1560	R13	.9662		
SG1	1954.4	SG2	485.6	THA	131.78		

ORBIT DETERMINATION ACCURACY

ST	341.2	SR	306.7	SS	811.6
CRT	-.8259	CRS	-.9543	CST	.6257
LSA	894.2	MSA	263.3	SSA	16.1
EL1	438.6	EL2	134.5	ALF	138.68

LAUNCH DATE AUG 20 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 322.636

RL	151.37	LAL	-.00	LOL	326.57	VL	26.813	GAL	-1.36	AZL	87.11	HCA	141.62	SMA	128.28	ECC	.18153	INC	2.8850	V1	29.435
RP	107.53	LAP	1.79	LOP	108.22	VP	37.865	GAP	-4.80	AZP	92.26	TAL	186.16	TAP	327.78	RCA	104.99	APO	151.56	V2	35.240
RC	63.355	GL	26.75	GP	-41.23	ZAL	95.56	ZAP	53.24	ETS	36.42	ZAE	131.32	ETE	301.48	ZAC	60.92	ETC	260.28	CLP	-37.28

PLANETOCENTRIC CONIC

C3	8.987	VHL	2.998	DLA	8.01	RAL	234.86	RAD	6567.3	VEL	11.418	PTH	1.98	VHP	5.136	DPA	-61.52	RAP	233.62	ECC	1.1479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 8 43	2292.11	-21.37	46.45	86.29	109.03	4 46 55	1692.1	-18.58	38.89
90.00	18 7 34	4434.09	7.52	185.11	84.19	62.62	19 21 28	3834.1	3.79	178.42
100.00	5 33 55	2017.28	-22.22	25.91	85.97	110.53	6 7 32	1417.3	-19.22	18.40
100.00	19 25 2	4184.15	8.31	166.31	83.76	61.18	20 34 46	3584.2	4.40	159.70
110.00	6 50 59	1776.10	-24.46	6.58	84.95	114.66	7 20 36	1176.1	-20.93	359.22
110.00	20 24 27	3998.10	10.40	150.93	82.50	57.25	21 31 6	3398.1	6.01	144.59

DIFFERENTIAL CORRECTIONS

TDE	-.0634	TRA	-.5434	TC3	1.1859	BAU	.3248
RDE	.2235	RRA	.4032	RC3	-2.4293	FAU	.06567
FDE	1.0415	FRA	1.2848	FC3	-6.3259	BSP	6551
BDE	.2323	BRA	.6767	BC3	2.7033	FSP	-1282

MID-COURSE EXECUTION ACCURACY

SGT	1272.9	SGR	1705.7	SG3	427.6		
RRT	-.8767	RRF	.9836	RTF	-.8791		
SGB	2128.3	R23	-.1354	R13	.9749		
SG1	2067.5	SG2	505.2	THA	125.65		

ORBIT DETERMINATION ACCURACY

ST	337.9	SR	488.7	SS	944.4
CRT	-.7640	CRS	-.9893	CST	.6644
LSA	1087.8	MSA	247.6	SSA	13.6
EL1	563.2	EL2	189.1	ALF	121.85

LAUNCH DATE AUG 20 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 329.206

RL	151.37	LAL	-.00	LOL	326.57	VL	26.854	GAL	-1.41	AZL	86.61	HCA	144.85	SMA	128.55	ECC	.17916	INC	3.3904	V1	29.435
RP	107.52	LAP	1.95	LOP	111.47	VP	37.898	GAP	-4.25	AZP	92.77	TAL	186.49	TAP	331.34	RCA	105.52	APO	151.58	V2	35.245
RC	65.403	GL	30.90	GP	-45.34	ZAL	95.85	ZAP	57.97	ETS	34.50	ZAE	128.38	ETE	297.17	ZAC	56.80	ETC	259.62	CLP	-41.03

PLANETOCENTRIC CONIC

C3	9.557	VHL	3.091	DLA	12.16	RAL	235.45	RAD	6567.3	VEL	11.443	PTH	1.98	VHP	5.141	DPA	-65.11	RAP	229.09	ECC	1.1573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 37 26	2440.27	-24.33	56.30	88.92	104.96	4 18 6	1840.3	-22.04	48.38
90.00	18 43 31	4309.85	3.58	178.11	85.68	61.89	19 55 21	3709.8	-.21	171.48
100.00	5 5 0	2157.89	-25.27	35.24	88.63	106.53	5 40 57	1557.9	-22.76	27.34
100.00	19 58 39	4067.45	4.43	159.82	85.21	60.41	21 6 26	3467.5	.46	153.29
110.00	6 27 16	1900.45	-27.74	14.76	87.70	110.83	6 58 56	1300.5	-24.65	6.95
110.00	20 52 52	3897.66	6.65	145.57	83.84	56.39	21 57 49	3297.7	2.19	139.32

DIFFERENTIAL CORRECTIONS

TDE	-.0719	TRA	-.5232	TC3	.9840	BAU	.3494
RDE	.3572	RRA	.4850	RC3	-2.5513	FAU	.06438
FDE	1.2370	FRA	1.3359	FC3	-5.8317	BSP	6957
BDE	.3643	BRA	.7134	BC3	2.7345	FSP	-1295

MID-COURSE EXECUTION ACCURACY

SGT	1171.3	SGR	1942.1	SG3	429.1		
RRT	-.8616	RRF	.9883	RTF	-.8614		
SGB	2268.0	R23	-.1109	R13	.9823		
SG1	2206.8	SG2	523.2	THA	119.26		

ORBIT DETERMINATION ACCURACY

ST	326.6	SR	718.7	SS	1073.8
CRT	-.7292	CRS	-.9970	CST	.6757
LSA	1311.6	MSA	236.2	SSA	11.2
EL1	760.6	EL2	211.1	ALF	109.93

LAUNCH DATE AUG 20 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 335.752

RL	151.37	LAL	-.00	LOL	326.57	VL	26.889	GAL	-1.45	AZL	86.02	HCA	148.08	SMA	128.78	ECC	.17713	INC	3.9840	V1	29.435
RP	107.51	LAP	2.11	LOP	114.71	VP	37.927	GAP	-3.71	AZP	93.38	TAL	186.76	TAP	334.84	RCA	105.97	APO	151.60	V2	35.249
RC	67.486	GL	35.29	GP	-49.73	ZAL	95.92	ZAP	62.79	ETS	32.20	ZAE	125.03	ETE	292.75	ZAC	52.38	ETC	258.71	CLP	-44.98

PLANETOCENTRIC CONIC

C3	10.449	VHL	3.233	DLA	16.49	RAL	236.29	RAD	6567.4	VEL	11.482	PTH	2.00	VHP	5.225	DPA	-68.72	RAP	222.58	ECC	1.1720

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 1 53	2610.70	-26.80	68.16	92.58	99.51	3 45 23	2010.7	-25.21	59.86
90.00	19 25 46	4174.99	-.77	170.59	88.19	61.69	20 35 21	3575.0	-4.55	163.94
100.00	4 32 31	2318.41	-27.90	46.44	92.36	101.20	5 11 9	1718.4	-26.07	38.11
100.00	20 37 49	3942.52	.21	152.95	87.64	60.11	21 43 31	3342.5	-3.77	146.43
110.00	6 1 19	2040.55	-30.74	24.55	91.57	105.74	6 35 20	1440.6	-28.28	16.22
110.00	21 25 30	3793.13	2.69	140.07	86.09	55.91	22 28 43	3193.1	-1.80	133.87

DIFFERENTIAL CORRECTIONS

TDE	-.0624	TRA	-.4965	TC3	.7463	BAU	.3757
RDE	.5241	RRA	.5848	RC3	-2.5836	FAU	.06126
FDE	1.4149	FRA	1.3682	FC3	-5.0751	BSP	7460
BDE	.5278	BRA	.7671	BC3	2.6892	FSP	-1275

MID-COURSE EXECUTION ACCURACY

SGT	1042.8	SGR	2195.7	SG3	418.4		
RRT	-.8301	RRF	.9916	RTF	-.8281		
SGB	2430.8	R23	-.0853	R13	.9880		
SG1	2370.4	SG2	538.6	THA	112.76		

ORBIT DETERMINATION ACCURACY

ST	297.1	SR	985.1	SS	1183.7
CRT	-.6585	CRS	-.9990	CST	.6260
LSA	1551.6	MSA	228.9	SSA	9.1
EL1	1005.3	EL2	219.1	ALF	101.80

LAUNCH DATE AUG 20 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 342.272

RL	151.37	LAL	-.00	LOL	326.57	VL	26.918	GAL	-1.47	AZL	85.30	HCA	151.31	SMA	128.98	ECC	.17541	INC	4.6959	V1	29.435
RP	107.50	LAP	2.25	LOP	117.96	VP	37.951	GAP	-3.20	AZP	94.12	TAL	186.96	TAP	338.27	RCA	106.36	APO	151.61	V2	35.253
RC	69.600	GL	39.88	GP	-54.36	ZAL	95.78	ZAP	67.59	ETS	29.41	ZAE	121.28	ETE	288.25	ZAC	47.71	ETC	257.49	CLP	-49.13

PLANETOCENTRIC CONIC

C3	11.804	VHL	3.436	DLA	20.96	RAL	237.40	RAD	6567.4	VEL	11.541	PTH	2.01	VHP	5.409	DPA	-72.16	RAP	213.11	ECC	1.1943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 18 27	2815.05	-28.23	82.92	97.31	92.26	3 5 22	2215.1	-27.62	74.31
90.00	20 18 2	4020.83	-5.71	161.96	92.01	62.22	21 25 3	3420.8	-9.39	155.20
100.00	3 53 51	2507.44	-29.63	60.20	97.22	94.17	4 35 38	1907.4	-28.73	51.51
100.00	21 25 20	3803.68	-4.49	145.32	91.34	60.42	22 28 43	3203.7	-8.40	138.71
110.00	5 31 50	2200.89	-33.10	36.45	96.75	99.08	6 8 31	1600.9	-31.49	27.59
110.00	22 3 50	3682.99	-1.52	134.33	89.50	55.85	23 5 13	3083.0	-5.99	128.10

DIFFERENTIAL CORRECTIONS

TDE	-.0274	TRA	-.4611	TC3	.4916	BAU	.4022
RDE	.7332	RRA	.7086	RC3	-2.5006	FAU	.05616
FDE	1.5627	FRA	1.3795	FC3	-4.1185	BSP	8024
BDE	.7337	BRA	.8454	BC3	2.5484	FSP	-1214

MID-COURSE EXECUTION ACCURACY

SGT	891.2	SGR	2459.4	SG3	394.7		
RRT	-.7656	RRF	.9939	RTF	-.7623		
SGB	2615.9	R23	-.0604	R13	.9920		
SG1	2557.2	SG2	551.4	THA	106.28		

ORBIT DETERMINATION ACCURACY

ST	251.4	SR	1281.4	SS	1266.5
CRT	-.4659	CRS	-.9997	CST	.4437
LSA	1805.2	MSA	224.6	SSA	7.4
EL1	1286.9	EL2	221.5	ALF	95.38

LAUNCH DATE AUG 20 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 348.764

RL	151.37	LAL	-.00	LOL	326.57	VL	26.942	GAL	-1.49	AZL	84.43	HCA	154.53	SMA	129.14	ECC	.17398	INC	5.5713	V1	29.435
RP	107.49	LAP	2.39	LOP	121.20	VP	37.970	GAP	-2.70	AZP	95.03	TAL	187.09	TAP	341.62	RCA	106.68	APO	151.61	V2	35.255
RC	71.740	GL	44.62	GP	-59.19	ZAL	95.43	ZAP	72.23	ETS	26.05	ZAE	117.14	ETE	283.69	ZAC	42.86	ETC	255.84	CLP	-53.44

PLANETOCENTRIC CONIC

C3	13.861	VHL	3.723	DLA	25.52	RAL	238.79	RAD	6567.5	VEL	11.630	PTH	2.04	VHP	5.720	DPA	-75.10	RAP	199.29	ECC	1.2281

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 15 56	3089.13	-27.34	102.87	102.73	82.34	2 7 25	2489.1	-28.12	94.29
90.00	21 31 39	3815.66	-12.04	150.20	97.86	64.18	22 35 15	3215.7	-15.42	143.15
100.00	3 2 7	2746.79	-29.49	77.96	103.00	84.85	3 47 54	2146.8	-29.89	69.17
100.00	22 28 9	3633.24	-10.12	135.80	96.86	61.72	23 28 43	3033.2	-13.82	128.97
110.00	4 56 12	2389.89	-34.18	51.08	103.23	90.50	5 36 1	1789.9	-33.73	41.86
110.00	22 50 34	3562.90	-6.09	128.03	94.42	56.30	23 49 57	2962.9	-10.48	121.69

DIFFERENTIAL CORRECTIONS

TDE	.0470	TRA	-.4112	TC3	.2441	BAU	.4265
RDE	.9933	RRA	.8617	RC3	-2.2888	FAU	.04918
FDE	1.6640	FRA	1.3639	FC3	-3.0719	BSP	8613
BDE	.9944	BRA	.9548	BC3	2.3018	FSP	-1109

MID-COURSE EXECUTION ACCURACY

SGT	728.0	SGR	2720.5	SG3	358.3		
RRT	-.6209	RRF	.9954	RTF	-.6166		
SGB	2816.2	R23	-.0371	R13	.9947		
SG1	2759.4	SG2	562.6	THA	99.85		

ORBIT DETERMINATION ACCURACY

ST	222.5	SR	1591.8	SS	1312.1
CRT	.0495	CRS	-.9999	CST	-.0644
LSA	2062.9	MSA	222.7	SSA	5.9
EL1	1591.9	EL2	222.2	ALF	89.60

LAUNCH DATE AUG 20 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 355.227

RL	151.37	LAL	-.00	LOL	326.57	VL	26.961	GAL	-1.48	AZL	83.32	HCA	157.75	SMA	129.27	ECC	.17281	INC	6.6813	V1	29.435
RP	107.48	LAP	2.53	LOP	124.45	VP	37.986	GAP	-2.21	AZP	96.19	TAL	187.14	TAP	344.89	RCA	106.93	APO	151.61	V2	35.257
RC	73.903	GL	49.41	GP	-64.17	ZAL	94.89	ZAP	76.59	ETS	22.02	ZAE	112.63	ETE	279.01	ZAC	37.84	ETC	253.55	CLP	-57.84

PLANETOCENTRIC CONIC

C3	17.050	VHL	4.129	DLA	30.08	RAL	240.47	RAD	6567.7	VEL	11.766	PTH	2.08	VHP	6.202	DPA	-77.04	RAP	179.96	ECC	1.2806

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.39	22 2 41	3775.81	-21.75	151.71	106.98	68.69	23 5 36	3175.8	-24.45	143.94
100.61	0 58 20	3222.19	-21.73	110.97	106.97	68.67	1 52 3	2622.2	-24.44	103.20
79.39	22 2 41	3775.81	-21.75	151.71	106.98	68.69	23 5 36	3175.8	-24.45	143.94
100.61	0 58 20	3222.19	-21.73	110.97	106.97	68.67	1 52 3	2622.2	-24.44	103.20
110.00	4 7 34	2628.62	-32.78	69.52	110.48	79.71	4 51 23	2028.6	-33.85	60.45
110.00	23 52 37	3417.38	-11.50	120.24	101.57	57.59	24 49 35	2817.4	-15.70	113.65

DIFFERENTIAL CORRECTIONS

TDE	.1834	TRA	-.3376	TC3	.0353	BAU	.4465
RDE	1.3146	RRA	1.0535	RC3	-1.9584	FAU	.04084
FDE	1.7073	FRA	1.3209	FC3	-2.0736	BSP	9258
BDE	1.3274	BRA	1.1063	BC3	1.9587	FSP	-975

MID-COURSE EXECUTION ACCURACY

SGT	598.9	SGR	2966.0	SG3	311.9		
RRT	-.2801	RRF	.9965	RTF	-.2747		
SGB	3025.9	R23	-.0160	R13	.9964		
SG1	2971.0	SG2	574.0	THA	93.36		

ORBIT DETERMINATION ACCURACY

ST	301.9	SR	1893.9	SS	1314.6
CRT	.6678	CRS	-.9999	CST	-.6745
LSA	2314.3	MSA	223.5	SSA	4.8
EL1	1904.7	EL2	223.4	ALF	83.84

LAUNCH DATE AUG 20 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 361.657

RL	151.37	LAL	-.00	LOL	326.57	VL	26.976	GAL	-1.47	AZL	81.86	HCA	160.95	SMA	129.37	ECC	.17188	INC	8.1442	V1	29.435
RP	107.48	LAP	2.65	LOP	127.70	VP	37.997	GAP	-1.74	AZP	97.70	TAL	187.11	TAP	348.06	RCA	107.14	APO	151.61	V2	35.258
RC	76.087	GL	54.16	GP	-69.32	ZAL	94.20	ZAP	80.52	ETS	17.17	ZAE	107.77	ETE	274.08	ZAC	32.70	ETC	250.30	CLP	-62.19

PLANETOCENTRIC CONIC

C3	22.207	VHL	4.712	DLA	34.54	RAL	242.44	RAD	6567.9	VEL	11.983	PTH	2.14	VHP	6.928	DPA	-77.41	RAP	156.49	ECC	1.3655

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.34	21 2 59	4049.17	-22.93	173.10	114.54	63.43	22 10 29	3449.2	-26.30	165.54
110.66	2 13 45	3073.91	-22.91	100.25	114.54	63.42	3 4 59	2473.9	-26.29	92.69
69.34	21 2 59	4049.17	-22.93	173.10	114.54	63.43	22 10 29	3449.2	-26.30	165.54
110.66	2 13 45	3073.91	-22.91	100.25	114.54	63.42	3 4 59	2473.9	-26.29	92.69
69.34	21 2 59	4049.17	-22.93	173.10	114.54	63.43	22 10 29	3449.2	-26.30	165.54
110.66	2 13 45	3073.91	-22.91	100.25	114.54	63.42	3 4 59	2473.9	-26.29	92.69

DIFFERENTIAL CORRECTIONS

TDE	.4208	TRA	-.2239	TC3	-.1135	BAU	.4571
RDE	1.7079	RRA	1.2982	RC3	-1.5353	FAU	.03168
FDE	1.6880	FRA	1.2532	FC3	-1.2351	BSP	9903
BDE	1.7589	BRA	1.3174	BC3	1.5395	FSP	-819

MID-COURSE EXECUTION ACCURACY

SGT	618.3	SGR	3174.5	SG3	259.0		
RRT	.2975	RRF	.9972	RTF	.3038		
SGB	3234.2	R23	.0035	R13	.9972		
SG1	3180.0	SG2	589.3	THA	86.57		

ORBIT DETERMINATION ACCURACY

ST	521.1	SR	2155.0	SS	1272.9
CRT	.8953	CRS	-1.0000	CST	-.8980
LSA	2546.4	MSA	227.5	SSA	3.9
EL1	2205.5	EL2	226.8	ALF	77.65

LAUNCH DATE AUG 20 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 368.046

RL	151.37	LAL	-.00	LOL	326.57	VL	26.987	GAL	-1.44	AZL	79.83	HCA	164.14	SMA	129.45	ECC	.17116	INC	10.1722	V1	29.435
RP	107.48	LAP	2.77	LOP	130.95	VP	38.005	GAP	-1.29	AZP	99.79	TAL	187.00	TAP	351.14	RCA	107.29	APO	151.60	V2	35.259
RC	78.289	GL	58.70	GP	-74.70	ZAL	93.40	ZAP	83.88	ETS	11.16	ZAE	102.52	ETE	268.54	ZAC	27.39	ETC	245.28	CLP	-66.18

PLANETOCENTRIC CONIC

C3	5.576	VHL	5.576	DLA	38.72	RAL	244.67	RAD	6568.2	VEL	12.348	PTH	2.23	VHP	8.030	DPA	-75.97	RAP	133.79	ECC	1.5118

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.41	20 34 46	4242.24	-22.50	188.39	123.57	57.62	21 45 28	3642.2	-26.61	181.25
117.59	2 59 42	3047.44	-22.49	97.86	123.56	57.61	3 50 29	2447.4	-26.59	90.73
62.41	20 34 46	4242.24	-22.50	188.39	123.57	57.62	21 45 28	3642.2	-26.61	181.25
117.59	2 59 42	3047.44	-22.49	97.86	123.56	57.61	3 50 29	2447.4	-26.59	90.73
62.41	20 34 46	4242.24	-22.50	188.39	123.57	57.62	21 45 28	3642.2	-26.61	181.25
117.59	2 59 42	3047.44	-22.49	97.86	123.56	57.61	3 50 29	2447.4	-26.59	90.73

DIFFERENTIAL CORRECTIONS

TDE	.8408	TRA	-.0308	TC3	-.1887	BAU	.4485
RDE	2.1846	RRA	1.6203	RC3	-1.0621	FAU	.02230
FDE	1.6179	FRA	1.1702	FC3	-.6208	BSP	10510
BDE	2.3408	BRA	1.6206	BC3	1.0788	FSP	-653

MID-COURSE EXECUTION ACCURACY

SGT	890.1	SGR	3315.8	SG3	204.8		
RRT	.7121	RRF	.9976	RTF	.7201		
SGB	3433.2	R23	.0220	R13	.9974		
SG1	3377.9	SG2	613.4	THA	78.80		

ORBIT DETERMINATION ACCURACY

ST	864.0	SR	2334.3	SS	1197.2
CRT	.9577	CRS	-1.0000	CST	-.9596
LSA	2751.9	MSA	236.1	SSA	3.2
EL1	2478.0	EL2	234.3	ALF	70.30

LAUNCH DATE AUG 20 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 374.384

RL	151.37	LAL	-.00	LOL	326.57	VL	26.993	GAL	-1.39	AZL	76.81	HCA	167.31	SMA	129.49	ECC	.17063	INC	13.1851	V1	29.435
RP	107.48	LAP	2.87	LOP	134.20	VP	38.009	GAP	-.86	AZP	102.87	TAL	186.78	TAP	354.09	RCA	107.40	APO	151.59	V2	35.258
RC	80.507	GL	62.73	GP	-80.48	ZAL	92.55	ZAP	86.57	ETS	2.66	ZAE	96.72	ETE	260.95	ZAC	21.80	ETC	236.15	CLP	-68.81

PLANETOCENTRIC CONIC

C3	47.960	VHL	6.925	DLA	42.36	RAL	247.03	RAD	6568.8	VEL	13.012	PTH	2.37	VHP	9.768	DPA	-72.92	RAP	115.28	ECC	1.7893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.08	20 20 15	4418.55	-19.87	201.43	133.70	51.79	21 33 53	3818.6	-24.68	194.93
122.92	3 33 5	3089.54	-19.85	99.45	133.69	51.78	4 24 35	2489.5	-24.66	92.95
57.08	20 20 15	4418.55	-19.87	201.43	133.70	51.79	21 33 53	3818.6	-24.68	194.93
122.92	3 33 5	3089.54	-19.85	99.45	133.69	51.78	4 24 35	2489.5	-24.66	92.95
57.08	20 20 15	4418.55	-19.87	201.43	133.70	51.79	21 33 53	3818.6	-24.68	194.93
122.92	3 33 5	3089.54	-19.85	99.45	133.69	51.78	4 24 35	2489.5	-24.66	92.95

DIFFERENTIAL CORRECTIONS

TDE	1.6795	TRA	.3683	TC3	-.1925	BAU	.3966
RDE	2.6977	RRA	2.0595	RC3	-.5878	FAU	.01303
FDE	1.5255	FRA	1.0942	FC3	-.2353	BSP	10843
BDE	3.1778	BRA	2.0922	BC3	.6186	FSP	-485

MID-COURSE EXECUTION ACCURACY

SGT	1473.8	SGR	3310.8	SG3	154.6		
RRT	.8750	RRF	.9974	RTF	.8898		
SGB	3624.0	R23	.0399	R13	.9972		
SG1	3562.8	SG2	663.1	THA	67.91		

ORBIT DETERMINATION ACCURACY

ST	1395.1	SR	2336.8	SS	1109.4
CRT	.9777	CRS	-.9998	CST	-.9811
LSA	2927.8	MSA	255.9	SSA	2.7
EL1	2709.7	EL2	252.9	ALF	59.43

LAUNCH DATE AUG 20 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 380.636

RL	151.37	LAL	-.00	LOL	326.57	VL	26.996	GAL	-1.32	AZL	71.87	HCA	170.41	SMA	129.51	ECC	.17028	INC	18.1318	V1	29.435
RP	107.48	LAP	2.97	LOP	137.45	VP	38.011	GAP	-.46	AZP	107.89	TAL	186.45	TAP	356.86	RCA	107.46	APO	151.56	V2	35.257
RC	82.739	GL	65.69	GP	-87.06	ZAL	91.70	ZAP	88.52	ETS	340.32	ZAE	89.97	ETE	239.83	ZAC	15.75	ETC	208.40	CLP	-59.70

PLANETOCENTRIC CONIC

C3	84.937	VHL	9.216	DLA	44.94	RAL	249.23	RAD	6569.7	VEL	14.363	PTH	2.61	VHP	12.729	DPA	-68.30	RAP	100.65	ECC	2.3979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.52	20 14 54	4593.28	-14.63	212.41	144.08	47.02	21 31 27	3993.3	-20.00	206.61
126.48	3 56 0	3188.93	-14.62	103.66	144.06	47.02	4 49 9	2588.9	-19.98	97.86
53.52	20 14 54	4593.28	-14.63	212.41	144.08	47.02	21 31 27	3993.3	-20.00	206.61
126.48	3 56 0	3188.93	-14.62	103.66	144.06	47.02	4 49 9	2588.9	-19.98	97.86
53.52	20 14 54	4593.28	-14.63	212.41	144.08	47.02	21 31 27	3993.3	-20.00	206.61
126.48	3 56 0	3188.93	-14.62	103.66	144.06	47.02	4 49 9	2588.9	-19.98	97.86

DIFFERENTIAL CORRECTIONS

TDE	4.0111	TRA	1.7792	TC3	-.1411	BAU	.2568
RDE	1.9701	RRA	2.2429	RC3	-.1767	FAU	.00443
FDE	1.4503	FRA	1.0463	FC3	-.0451	BSP	11405
BDE	4.4689	BRA	2.8629	BC3	.2262	FSP	-356

MID-COURSE EXECUTION ACCURACY

SGT	2954.3	SGR	2342.4	SG3	111.5		
RRT	.8984	RRF	.9734	RTF	.9724		
SGB	3770.2	R23	.0578	R13	.9969		
SG1	3678.6	SG2	826.0	THA	37.69		

ORBIT DETERMINATION ACCURACY

ST	2537.4	SR	1360.0	SS	1036.9
CRT	.9654	CRS	-.9883	CST	-.9939
LSA	3043.3	MSA	318.6	SSA	2.1
EL1	2861.6	EL2	314.4	ALF	27.72

LAUNCH DATE AUG 20 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 386.717

RL	151.37	LAL	-.00	LOL	326.57	VL	26.996	GAL	-1.21	AZL	62.40	HCA	173.39	SMA	129.51	ECC	.17005	INC	27.5983	V1	29.435
RP	107.49	LAP	3.06	LOP	140.70	VP	38.009	GAP	-.10	AZP	117.44	TAL	185.91	TAP	359.29	RCA	107.49	APO	151.53	V2	35.255
RC	84.985	GL	66.19	GP	-83.83	ZAL	90.93	ZAP	89.67	ETS	210.21	ZAE	81.06	ETE	111.04	ZAC	9.49	ETC	52.25	CLP	86.89

PLANETOCENTRIC CONIC

C3	186.792	VHL	13.667	DLA	45.15	RAL	250.47	RAD	6571.0	VEL	17.553	PTH	2.97	VHP	18.484	DPA	-61.19	RAP	88.20	ECC	4.0741

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.24	20 18 45	4749.44	-7.44	219.74	153.02	45.33	21 37 54	4149.4	-13.01	214.33
126.76	4 2 1	3339.45	-7.42	110.47	153.01	45.33	4 57 41	2739.4	-13.00	105.06
53.24	20 18 45	4749.44	-7.44	219.74	153.02	45.33	21 37 54	4149.4	-13.01	214.33
126.76	4 2 1	3339.45	-7.42	110.47	153.01	45.33	4 57 41	2739.4	-13.00	105.06
53.24	20 18 45	4749.44	-7.44	219.74	153.02	45.33	21 37 54	4149.4	-13.01	214.33
126.76	4 2 1	3339.45	-7.42	110.47	153.01	45.33	4 57 41	2739.4	-13.00	105.06

DIFFERENTIAL CORRECTIONS

TDE	1.2947	TRA	1.9506	TC3	.0031	BAU	.1781
RDE	-6.6584	RRA	-3.9150	RC3	-.0713	FAU	-.00603
FDE	1.5187	FRA	1.1230	FC3	.0279	BSP	11713
BDE	6.7831	BRA	4.3740	BC3	.0713	FSP	-257

MID-COURSE EXECUTION ACCURACY

SGT	1280.3	SGR	3639.4	SG3	80.0		
RRT	-.9046	RRF	-.9931	RTF	.9453		
SGB	3858.1	R23	-.0662	R13	-.9970		
SG1	3822.9	SG2	519.5	THA	108.00		

ORBIT DETERMINATION ACCURACY

ST	644.7	SR	2877.3	SS	1065.9
CRT	-.9477	CRS	.9982	CST	-.9650
LSA	3128.6	MSA	206.3	SSA	1.7
EL1	2941.8	EL2	201.3	ALF	102.04

LAUNCH DATE AUG 20 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 392.290

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RL  151.37 LAL   -.00 LOL 326.57 VL  26.993 GAL   -.99 AZL  39.79 HCA 175.92 SMA 129.49 ECC .16984 INC50.2103 V1  29.435
RP  107.50 LAP   3.14 LOP 143.95 VP  38.004 GAP    .11 AZP 140.14 TAL 184.86 TAP    .77 RCA 107.49 APO 151.48 V2  35.253
RC  87.241 GL   59.61 GP  -68.74 ZAL  90.29 ZAP  90.04 ETS 189.23 ZAE  65.93 ETE  90.94 ZAC  13.53 ETC 314.99 CLP  90.11
PLANETOCENTRIC CONIC
C3 577.963 VHL 24.041 DLA  38.65 RAL 248.77 RAD 6572.5 VEL 26.443 PTH   3.38 VHP 31.885 DPA -47.65 RAP  76.37 ECC10.5118
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.51	20 51 39	4768.86	-1.11	215.79	157.40	51.36	22 11 8	4168.9	-6.09	209.93
117.49	3 15 32	3577.07	-1.09	125.51	157.39	51.36	4 15 9	2977.1	-6.07	119.65
62.51	20 51 39	4768.86	-1.11	215.79	157.40	51.36	22 11 8	4168.9	-6.09	209.93
117.49	3 15 32	3577.07	-1.09	125.51	157.39	51.36	4 15 9	2977.1	-6.07	119.65
62.51	20 51 39	4768.86	-1.11	215.79	157.40	51.36	22 11 8	4168.9	-6.09	209.93
117.49	3 15 32	3577.07	-1.09	125.51	157.39	51.36	4 15 9	2977.1	-6.07	119.65

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.9195 TRA  .3203 TC3 -.0568 BAU 1.8105   SGT  753.9 SGR 3662.8 SG3   62.3     ST   696.5 SR  2656.3 SS  1371.5
RD-10.7337 RRA-7.8081 RC3 -.2273 FAU-.03138   RRT  .6684 RRF -.9986 RTF -.6339    CRT  .9509 CRS  .9996 CST  .9417
FDE 1.9948 FRA 1.6130 FC3  .0470 BSP  11332   SGB 3739.6 R23 -.0662 R13 -.9974   LSA 3061.9 MSA  217.1 SSA    1.5
BDE11.1237 BRA 7.8146 BC3  .2343 FSP   -198   SG1 3698.1 SG2  555.4 THA  81.99   EL1 2738.1 EL2  209.1 ALF  75.92
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 403.130

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RL  151.37 LAL   -.00 LOL 326.57 VL  26.987 GAL  -1.77 AZL 168.82 HCA 183.27 SMA 129.44 ECC .17207 INC78.8206 V1  29.435
RP  107.51 LAP   3.21 LOP 147.20 VP  37.996 GAP   1.73 AZP  11.20 TAL 188.56 TAP  11.82 RCA 107.17 APO 151.72 V2  35.249
RC  89.506 GL  -47.55 GP   53.79 ZAL  90.78 ZAP  91.35 ETS 183.52 ZAE  56.97 ETE 280.03 ZAC 132.49 ETC 284.71 CLP  92.28
PLANETOCENTRIC CONIC
C31286.249 VHL 35.864 DLA -63.90 RAL 209.45 RAD 6573.1 VEL 37.517 PTH   3.54 VHP 45.990 DPA  68.08 RAP  22.11 ECC22.1684
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.98	4 28 46	2424.89	-1.01	74.51	119.93	153.90	5 9 10	1824.9	6.18	71.40
150.02	14 24 47	717.42	-1.00	292.25	119.95	153.90	14 36 44	117.4	6.19	289.14
29.98	4 28 46	2424.89	-1.01	74.51	119.93	153.90	5 9 10	1824.9	6.18	71.40
150.02	14 24 47	717.42	-1.00	292.25	119.95	153.90	14 36 44	117.4	6.19	289.14
29.98	4 28 46	2424.89	-1.01	74.51	119.93	153.90	5 9 10	1824.9	6.18	71.40
150.02	14 24 47	717.42	-1.00	292.25	119.95	153.90	14 36 44	117.4	6.19	289.14

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.9955 TRA 1.5972 TC3 -.1192 BAU 4.4267   SGT 1521.8 SGR 3018.2 SG3   60.0     ST  1131.3 SR  2536.3 SS  2361.6
RD-15.8732 RRA  .0343 RC3  .2282 FAU-.07421   RRT -.9200 RRF  .9995 RTF -.9214    CRT -.9879 CRS-1.0000 CST  .9884
FDE-3.7197 FRA -.0126 FC3  .0499 BSP  10590   SGB 3380.2 R23 -.0725 R13  .9969   LSA 3641.8 MSA  165.5 SSA    2.4
BDE17.3464 BRA 1.5976 BC3  .2574 FSP   -193   SG1 3336.9 SG2  539.5 THA 115.60   EL1 2772.6 EL2  160.7 ALF 113.87
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 407.875

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RL  151.37 LAL   -.00 LOL 326.57 VL  26.978 GAL  -1.38 AZL 130.09 HCA 185.07 SMA 129.39 ECC .17155 INC40.0879 V1  29.435
RP  107.52 LAP   3.26 LOP 150.45 VP  37.986 GAP   1.71 AZP  50.02 TAL 186.68 TAP  11.75 RCA 107.19 APO 151.58 V2  35.245
RC  91.778 GL  -63.12 GP   76.25 ZAL  90.89 ZAP  92.46 ETS 183.53 ZAE  79.49 ETE 277.99 ZAC 153.83 ETC 294.15 CLP 100.41
PLANETOCENTRIC CONIC
C3 379.151 VHL 19.472 DLA -74.79 RAL 176.35 RAD 6572.0 VEL 22.371 PTH   3.25 VHP 24.623 DPA  76.49 RAP 304.91 ECC 7.2399
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.34	1 49 16	2382.07	4.09	79.96	85.23	164.75	2 28 58	1782.1	11.80	78.24
162.66	12 40 11	602.96	4.09	284.25	85.25	164.75	12 50 14	3.0	11.81	282.52
17.34	1 49 16	2382.07	4.09	79.96	85.23	164.75	2 28 58	1782.1	11.80	78.24
162.66	12 40 11	602.96	4.09	284.25	85.25	164.75	12 50 14	3.0	11.81	282.52
17.34	1 49 16	2382.07	4.09	79.96	85.23	164.75	2 28 58	1782.1	11.80	78.24
162.66	12 40 11	602.96	4.09	284.25	85.25	164.75	12 50 14	3.0	11.81	282.52

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.4069 TRA 1.2016 TC3 -.0862 BAU 1.1050   SGT 1712.5 SGR 3695.7 SG3   73.8     ST  1080.9 SR  2955.9 SS  1474.5
RDE-9.7969 RRA-1.9417 RC3  .2003 FAU-.01718   RRT -.9614 RRF  .9994 RTF -.9578    CRT -.9872 CRS-1.0000 CST  .9863
FDE-2.2999 FRA -.4444 FC3  .0392 BSP  12696   SGB 4073.2 R23 -.0589 R13  .9977   LSA 3471.7 MSA  165.6 SSA    1.7
BDE10.3724 BRA 2.2834 BC3  .2180 FSP   -234   SG1 4050.4 SG2  429.9 THA 114.30   EL1 3143.1 EL2  162.4 ALF 109.90
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 413.673

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RL  151.37 LAL   -.00 LOL 326.57 VL  26.967 GAL  -1.18 AZL 114.98 HCA 187.86 SMA 129.31 ECC .17181 INC24.9779 V1  29.435
RP  107.53 LAP   3.31 LOP 153.70 VP  37.974 GAP   1.98 AZP  65.23 TAL 185.72 TAP  13.58 RCA 107.09 APO 151.52 V2  35.240
RC  94.056 GL  -66.30 GP   85.01 ZAL  90.97 ZAP  94.51 ETS 157.42 ZAE  90.84 ETE 251.02 ZAC 162.85 ETC 285.40 CLP 154.71
PLANETOCENTRIC CONIC
C3 154.591 VHL 12.433 DLA -75.86 RAL 164.49 RAD 6570.7 VEL 16.611 PTH   2.89 VHP 15.510 DPA  69.67 RAP 270.55 ECC 3.5442
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.11	0 59 28	2260.27	12.30	79.07	71.33	165.52	1 37 8	1660.3	20.03	77.36
163.89	11 55 21	5764.57	12.30	260.02	71.35	165.52	13 31 25	5164.6	20.04	258.32
16.11	0 59 28	2260.27	12.30	79.07	71.33	165.52	1 37 8	1660.3	20.03	77.36
163.89	11 55 21	5764.57	12.30	260.02	71.35	165.52	13 31 25	5164.6	20.04	258.32
16.11	0 59 28	2260.27	12.30	79.07	71.33	165.52	1 37 8	1660.3	20.03	77.36
163.89	11 55 21	5764.57	12.30	260.02	71.35	165.52	13 31 25	5164.6	20.04	258.32

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .6477 TRA  .1995 TC3  .0012 BAU  .0684   SGT  480.5 SGR 4260.1 SG3  101.2     ST   319.1 SR  2801.1 SS  1098.5
RDE-5.6704 RRA-1.7827 RC3  .0331 FAU .00161   RRT -.9996 RRF  .9972 RTF -.9984    CRT-1.0000 CRS -.9991 CST  .9994
FDE-1.6848 FRA -.4648 FC3 -.0090 BSP  13427   SGB 4287.1 R23  .0587 R13  .9972   LSA 3025.4 MSA   42.8 SSA     .4
BDE 5.7073 BRA 1.7939 BC3  .0331 FSP   -323   SG1 4287.1 SG2   13.0 THA  96.43   EL1 2819.2 EL2    2.2 ALF  96.50
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 419.728
RL 151.37 LAL -.00 LOL 326.57 VL 26.953 GAL -1.03 AZL 107.98 HCA 190.91 SMA 129.22 ECC .17234 INC17.9827 V1 29.435
RP 107.55 LAP 3.35 LOP 156.95 VP 37.959 GAP 2.31 AZP 72.32 TAL 184.95 TAP 15.86 RCA 106.95 APO 151.49 V2 35.235
RC 96.339 GL -65.44 GP 81.09 ZAL 90.86 ZAP 97.26 ETS 40.12 ZAE 98.14 ETE 133.44 ZAC 165.75 ETC 192.78 CLP-144.66
PLANETOCENTRIC CONIC
C3 83.682 VHL 9.148 DLA -75.71 RAL 168.00 RAD 6569.6 VEL 14.319 PTH 2.60 VHP 11.302 DPA 63.35 RAP 257.87 ECC 2.3772

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.28	1 13 48	2135.29	20.49	77.19	72.53	164.73	1 49 23	1535.3	28.19	75.22
163.72	12 9 0	5640.20	20.49	258.32	72.55	164.73	13 43 0	5040.2	28.19	256.35
16.28	1 13 48	2135.29	20.49	77.19	72.53	164.73	1 49 23	1535.3	28.19	75.22
163.72	12 9 0	5640.20	20.49	258.32	72.55	164.73	13 43 0	5040.2	28.19	256.35
16.28	1 13 48	2135.29	20.49	77.19	72.53	164.73	1 49 23	1535.3	28.19	75.22
163.72	12 9 0	5640.20	20.49	258.32	72.55	164.73	13 43 0	5040.2	28.19	256.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.6802 TRA-1.1268 TC3 -.2183 BAU .2830 SGT 3340.2 SGR 2850.6 SG3 141.0 ST 1885.3 SR 2343.7 SS 1173.0
RDE 3.6541 RRA .6632 RC3 .1278 FAU .01297 RRT -.9189 RRF -.9878 RTF .9654 CRT -.9676 CRS .9976 CST -.9827
FDE-1.8400 FRA -.4451 FC3 -.1342 BSP 13784 SGB 4391.2 R23 .0893 R13 -.9946 LSA 3206.6 MSA 375.4 SSA 2.4
BDE 4.5316 BRA 1.3074 BC3 .2529 FSP -453 SG1 4303.6 SG2 872.8 THA 139.91 EL1 2984.6 EL2 373.9 ALF 128.61

LAUNCH DATE AUG 20 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 425.859
RL 151.37 LAL -.00 LOL 326.57 VL 26.938 GAL -.88 AZL 104.05 HCA 194.04 SMA 129.11 ECC .17304 INC14.0454 V1 29.435
RP 107.57 LAP 3.37 LOP 160.20 VP 37.942 GAP 2.67 AZP 76.36 TAL 184.22 TAP 18.25 RCA 106.77 APO 151.45 V2 35.229
RC 98.624 GL -63.18 GP 74.95 ZAL 90.53 ZAP 100.54 ETS 33.97 ZAE 103.75 ETE 127.61 ZAC 164.66 ETC 209.50 CLP-134.81
PLANETOCENTRIC CONIC
C3 53.646 VHL 7.324 DLA -75.13 RAL 176.79 RAD 6568.9 VEL 13.229 PTH 2.42 VHP 9.012 DPA 57.75 RAP 250.44 ECC 1.8829

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.94	1 50 12	2028.24	27.35	74.87	78.88	163.21	2 24 0	1428.2	34.98	72.48
163.06	12 42 44	5535.62	27.35	256.66	78.91	163.21	14 15 0	4935.6	34.98	254.26
16.94	1 50 12	2028.24	27.35	74.87	78.88	163.21	2 24 0	1428.2	34.98	72.48
163.06	12 42 44	5535.62	27.35	256.66	78.91	163.21	14 15 0	4935.6	34.98	254.26
16.94	1 50 12	2028.24	27.35	74.87	78.88	163.21	2 24 0	1428.2	34.98	72.48
163.06	12 42 44	5535.62	27.35	256.66	78.91	163.21	14 15 0	4935.6	34.98	254.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.5746 TRA -.8075 TC3 -.4995 BAU .4408 SGT 3264.0 SGR 3044.3 SG3 190.2 ST 2145.3 SR 2614.4 SS 1392.2
RDE 3.2895 RRA .5050 RC3 .3582 FAU .02308 RRT -.9417 RRF -.9948 RTF .9636 CRT -.9849 CRS .9996 CST -.9894
FDE-2.2375 FRA -.3994 FC3 -.3725 BSP 14032 SGB 4463.3 R23 .1036 R13 -.9926 LSA 3645.5 MSA 293.0 SSA 3.1
BDE 4.1772 BRA .9524 BC3 .6147 FSP -611 SG1 4398.2 SG2 760.0 THA 137.12 EL1 3369.6 EL2 288.1 ALF 129.29

LAUNCH DATE AUG 20 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 432.014
RL 151.37 LAL -.00 LOL 326.57 VL 26.920 GAL -.73 AZL 101.53 HCA 197.21 SMA 129.00 ECC .17390 INC11.5296 V1 29.435
RP 107.59 LAP 3.39 LOP 163.45 VP 37.924 GAP 3.02 AZP 78.97 TAL 183.47 TAP 20.68 RCA 106.56 APO 151.43 V2 35.222
RC 100.910 GL -60.39 GP 69.11 ZAL 89.97 ZAP 104.21 ETS 34.24 ZAE 108.35 ETE 128.81 ZAC 161.43 ETC 224.41 CLP-133.53
PLANETOCENTRIC CONIC
C3 38.297 VHL 6.188 DLA -74.12 RAL 186.87 RAD 6568.5 VEL 12.636 PTH 2.29 VHP 7.630 DPA 52.54 RAP 245.24 ECC 1.6303

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.11	2 32 48	1941.38	32.66	72.02	86.35	161.03	3 5 9	1341.4	40.18	69.04
161.89	13 20 34	5453.40	32.67	254.98	86.37	161.03	14 51 27	4853.4	40.19	252.00
18.11	2 32 48	1941.38	32.66	72.02	86.35	161.03	3 5 9	1341.4	40.18	69.04
161.89	13 20 34	5453.40	32.67	254.98	86.37	161.03	14 51 27	4853.4	40.19	252.00
18.11	2 32 48	1941.38	32.66	72.02	86.35	161.03	3 5 9	1341.4	40.18	69.04
161.89	13 20 34	5453.40	32.67	254.98	86.37	161.03	14 51 27	4853.4	40.19	252.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.6955 TRA -.6118 TC3 -.8531 BAU .5252 SGT 3409.8 SGR 2958.0 SG3 243.9 ST 2571.9 SR 2693.7 SS 1625.9
RDE 2.8895 RRA .3094 RC3 .5697 FAU .03258 RRT -.9505 RRF -.9953 RTF .9654 CRT -.9919 CRS .9999 CST -.9937
FDE-2.6407 FRA -.3182 FC3 -.7366 BSP 14197 SGB 4514.0 R23 .1178 R13 -.9903 LSA 4056.3 MSA 245.9 SSA 3.9
BDE 3.9515 BRA .6856 BC3 1.0258 FSP -782 SG1 4459.0 SG2 702.5 THA 139.27 EL1 3716.8 EL2 236.2 ALF 133.66

LAUNCH DATE AUG 20 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 438.172
RL 151.37 LAL -.00 LOL 326.57 VL 26.901 GAL -.57 AZL 99.78 HCA 200.40 SMA 128.87 ECC .17489 INC 9.7801 V1 29.435
RP 107.61 LAP 3.39 LOP 166.70 VP 37.903 GAP 3.38 AZP 80.82 TAL 182.70 TAP 23.10 RCA 106.33 APO 151.40 V2 35.215
RC 103.196 GL -57.38 GP 63.64 ZAL 89.18 ZAP 108.12 ETS 35.38 ZAE 112.22 ETE 131.44 ZAC 157.41 ETC 233.93 CLP-134.48
PLANETOCENTRIC CONIC
C3 29.434 VHL 5.425 DLA -72.71 RAL 196.58 RAD 6568.2 VEL 12.280 PTH 2.21 VHP 6.746 DPA 47.59 RAP 241.34 ECC 1.4844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.73	3 14 53	1871.53	36.61	68.61	93.20	158.27	3 46 4	1271.5	43.97	64.92
160.27	13 55 57	5390.59	36.61	253.22	93.22	158.26	15 25 48	4790.6	43.98	249.53
19.73	3 14 53	1871.53	36.61	68.61	93.20	158.27	3 46 4	1271.5	43.97	64.92
160.27	13 55 57	5390.59	36.61	253.22	93.22	158.26	15 25 48	4790.6	43.98	249.53
19.73	3 14 53	1871.53	36.61	68.61	93.20	158.27	3 46 4	1271.5	43.97	64.92
160.27	13 55 57	5390.59	36.61	253.22	93.22	158.26	15 25 48	4790.6	43.98	249.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.7669 TRA -.4517 TC3-1.2707 BAU .5811 SGT 3607.6 SGR 2796.5 SG3 297.7 ST 2961.8 SR 2622.2 SS 1809.9
RDE 2.4778 RRA .1557 RC3 .7526 FAU .04152 RRT -.9575 RRF -.9950 RTF .9683 CRT -.9950 CRS 1.0000 CST -.9956
FDE-2.9328 FRA -.2031 FC3-1.2212 BSP 14380 SGB 4564.6 R23 .1285 R13 -.9881 LSA 4344.9 MSA 212.6 SSA 4.8
BDE 3.7142 BRA .4778 BC3 1.4768 FSP -952 SG1 4518.9 SG2 643.8 THA 142.52 EL1 3950.8 EL2 196.3 ALF 138.50

LAUNCH DATE AUG 20 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 444.321

RL 151.37 LAL -.00 LOL 326.57 VL 26.880 GAL -.41 AZL 98.49 HCA 203.60 SMA 128.73 ECC .17602 INC 8.4880 V1 29.435
RP 107.64 LAP 3.39 LOP 169.94 VP 37.881 GAP 3.74 AZP 82.21 TAL 181.90 TAP 25.50 RCA 106.07 APO 151.39 V2 35.207
RC 105.482 GL -54.29 GP 58.53 ZAL 88.16 ZAP 112.14 ETS 36.55 ZAE 115.44 ETE 134.58 ZAC 153.20 ETC 240.01 CLP-136.21

PLANETOCENTRIC CONIC

C3 23.873 VHL 4.886 DLA -71.00 RAL 205.34 RAD 6568.0 VEL 12.052 PTH 2.15 VHP 6.164 DPA 42.87 RAP 238.36 ECC 1.3929

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.71	3 53 56	1814.90	39.41	64.74	98.89	155.08	4 24 11	1214.9	46.57	60.27
158.29	14 26 46	5343.42	39.42	251.38	98.91	155.07	15 55 49	4743.4	46.58	246.91
21.71	3 53 56	1814.90	39.41	64.74	98.89	155.08	4 24 11	1214.9	46.57	60.27
158.29	14 26 46	5343.42	39.42	251.38	98.91	155.07	15 55 49	4743.4	46.58	246.91
21.71	3 53 56	1814.90	39.41	64.74	98.89	155.08	4 24 11	1214.9	46.57	60.27
158.29	14 26 46	5343.42	39.42	251.38	98.91	155.07	15 55 49	4743.4	46.58	246.91

DIFFERENTIAL CORRECTIONS
TDE-2.7655 TRA -.3059 TC3-1.7302 BAU .6208
RDE 2.0846 RRA .0400 RC3 .8890 FAU .04919
FDE-3.0766 FRA -.0601 FC3-1.7840 BSP 14596
BDE 3.4632 BRA .3085 BC3 1.9452 FSP -1111

MID-COURSE EXECUTION ACCURACY
SGT 3819.6 SGR 2598.4 SG3 346.7
RRT -.9628 RRF -.9941 RTF .9712
SGB 4619.6 R23 .1347 R13 -.9863
SG1 4582.4 SG2 585.3 THA 146.15

ORBIT DETERMINATION ACCURACY
ST 3260.2 SR 2445.1 SS 1921.9
CRT -.9965 CRS 1.0000 CST -.9965
LSA 4501.7 MSA 188.6 SSA 5.8
EL1 4071.9 EL2 164.2 ALF 143.16

LAUNCH DATE AUG 20 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 450.459

RL 151.37 LAL -.00 LOL 326.57 VL 26.858 GAL -.23 AZL 97.49 HCA 206.81 SMA 128.58 ECC .17729 INC 7.4901 V1 29.435
RP 107.66 LAP 3.37 LOP 173.18 VP 37.857 GAP 4.10 AZP 83.31 TAL 181.06 TAP 27.87 RCA 105.78 APO 151.37 V2 35.198
RC 107.765 GL -51.21 GP 53.78 ZAL 86.94 ZAP 116.15 ETS 37.55 ZAE 118.07 ETE 137.91 ZAC 149.10 ETC 244.08 CLP-138.23

PLANETOCENTRIC CONIC

C3 20.176 VHL 4.492 DLA -69.08 RAL 213.07 RAD 6567.8 VEL 11.898 PTH 2.11 VHP 5.778 DPA 38.39 RAP 236.10 ECC 1.3320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.93	4 29 32	1768.24	41.29	60.56	103.43	151.62	4 59 0	1168.2	48.20	55.28
156.07	14 52 50	5308.73	41.30	249.54	103.45	151.62	16 21 19	4708.7	48.21	244.26
23.93	4 29 32	1768.24	41.29	60.56	103.43	151.62	4 59 0	1168.2	48.20	55.28
156.07	14 52 50	5308.73	41.30	249.54	103.45	151.62	16 21 19	4708.7	48.21	244.26
23.93	4 29 32	1768.24	41.29	60.56	103.43	151.62	4 59 0	1168.2	48.20	55.28
156.07	14 52 50	5308.73	41.30	249.54	103.45	151.62	16 21 19	4708.7	48.21	244.26

DIFFERENTIAL CORRECTIONS
TDE-2.7080 TRA -.1692 TC3-2.2147 BAU .6529
RDE 1.7332 RRA -.0434 RC3 .9769 FAU .05534
FDE-3.0782 FRA .0969 FC3-2.3748 BSP 14796
BDE 3.2152 BRA .1747 BC3 2.4206 FSP -1243

MID-COURSE EXECUTION ACCURACY
SGT 4031.8 SGR 2383.7 SG3 387.2
RRT -.9665 RRF -.9928 RTF .9739
SGB 4683.8 R23 .1361 R13 -.9850
SG1 4653.7 SG2 529.8 THA 149.82

ORBIT DETERMINATION ACCURACY
ST 3459.5 SR 2211.5 SS 1961.2
CRT -.9973 CRS 1.0000 CST -.9969
LSA 4547.1 MSA 170.8 SSA 6.8
EL1 4103.7 EL2 137.2 ALF 147.44

LAUNCH DATE AUG 20 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 456.582

RL 151.37 LAL -.00 LOL 326.57 VL 26.835 GAL -.04 AZL 96.69 HCA 210.03 SMA 128.42 ECC .17868 INC 6.6920 V1 29.435
RP 107.69 LAP 3.34 LOP 176.42 VP 37.832 GAP 4.45 AZP 84.20 TAL 180.18 TAP 30.20 RCA 105.48 APO 151.37 V2 35.189
RC 110.046 GL -48.16 GP 49.41 ZAL 85.51 ZAP 120.05 ETS 38.32 ZAE 120.18 ETE 141.26 ZAC 145.23 ETC 246.94 CLP-140.33

PLANETOCENTRIC CONIC

C3 17.618 VHL 4.197 DLA -67.02 RAL 219.88 RAD 6567.7 VEL 11.790 PTH 2.08 VHP 5.527 DPA 34.17 RAP 234.42 ECC 1.2900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.33	5 2 1	1729.07	42.42	56.22	107.07	148.06	5 30 50	1129.1	49.05	50.18
153.67	15 14 45	5284.10	42.43	247.78	107.08	148.06	16 42 49	4684.1	49.05	241.74
26.33	5 2 1	1729.07	42.42	56.22	107.07	148.06	5 30 50	1129.1	49.05	50.18
153.67	15 14 45	5284.10	42.43	247.78	107.08	148.06	16 42 49	4684.1	49.05	241.74
26.33	5 2 1	1729.07	42.42	56.22	107.07	148.06	5 30 50	1129.1	49.05	50.18
153.67	15 14 45	5284.10	42.43	247.78	107.08	148.06	16 42 49	4684.1	49.05	241.74

DIFFERENTIAL CORRECTIONS
TDE-2.6167 TRA -.0300 TC3-2.7394 BAU .6911
RDE 1.4367 RRA -.1096 RC3 1.0511 FAU .06124
FDE-2.9719 FRA .2725 FC3-3.0090 BSP 15531
BDE 2.9852 BRA .1136 BC3 2.9341 FSP -1413

MID-COURSE EXECUTION ACCURACY
SGT 4249.5 SGR 2184.4 SG3 421.0
RRT -.9689 RRF -.9911 RTF .9755
SGB 4778.0 R23 .1356 R13 -.9837
SG1 4753.5 SG2 483.0 THA 153.23

ORBIT DETERMINATION ACCURACY
ST 3572.7 SR 1964.7 SS 1942.5
CRT -.9977 CRS .9999 CST -.9969
LSA 4513.5 MSA 160.8 SSA 7.8
EL1 4075.6 EL2 116.3 ALF 151.22

LAUNCH DATE AUG 20 1970 FLIGHT TIME 164.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 462.687

RL 151.37 LAL -.00 LOL 326.57 VL 26.810 GAL .16 AZL 96.04 HCA 213.24 SMA 128.26 ECC .18021 INC 6.0356 V1 29.435
RP 107.72 LAP 3.30 LOP 179.66 VP 37.806 GAP 4.81 AZP 84.95 TAL 179.27 TAP 32.51 RCA 105.15 APO 151.37 V2 35.179
RC 112.324 GL -45.16 GP 45.42 ZAL 83.90 ZAP 123.80 ETS 38.90 ZAE 121.81 ETE 144.51 ZAC 141.67 ETC 249.02 CLP-142.43

PLANETOCENTRIC CONIC

C3 15.804 VHL 3.975 DLA -64.86 RAL 225.95 RAD 6567.6 VEL 11.713 PTH 2.06 VHP 5.373 DPA 30.24 RAP 233.22 ECC 1.2601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.85	5 31 56	1695.56	42.95	51.83	110.04	144.53	6 0 11	1095.6	49.26	45.14
151.15	15 33 13	5267.76	42.96	246.19	110.05	144.52	17 1 0	4667.8	49.27	239.49
28.85	5 31 56	1695.56	42.95	51.83	110.04	144.53	6 0 11	1095.6	49.26	45.14
151.15	15 33 13	5267.76	42.96	246.19	110.05	144.52	17 1 0	4667.8	49.27	239.49
28.85	5 31 56	1695.56	42.95	51.83	110.04	144.53	6 0 11	1095.6	49.26	45.14
151.15	15 33 13	5267.76	42.96	246.19	110.05	144.52	17 1 0	4667.8	49.27	239.49

DIFFERENTIAL CORRECTIONS
TDE-2.4884 TRA .1112 TC3-3.1844 BAU .7063
RDE 1.1777 RRA -.1584 RC3 1.0173 FAU .06251
FDE-2.7510 FRA .4492 FC3-3.4240 BSP 15217
BDE 2.7530 BRA .1935 BC3 3.3429 FSP -1407

MID-COURSE EXECUTION ACCURACY
SGT 4406.2 SGR 1955.4 SG3 435.9
RRT -.9677 RRF -.9883 RTF .9756
SGB 4820.7 R23 .1355 R13 -.9819
SG1 4799.4 SG2 452.7 THA 156.54

ORBIT DETERMINATION ACCURACY
ST 3589.0 SR 1705.1 SS 1853.2
CRT -.9980 CRS .9998 CST -.9965
LSA 4381.6 MSA 154.7 SSA 8.9
EL1 3972.3 EL2 97.8 ALF 154.62

LAUNCH DATE AUG 20 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 468.774
RL 151.37 LAL -.00 LOL 326.57 VL 26.785 GAL .37 AZL 95.48 HCA 216.46 SMA 128.09 ECC .18187 INC 5.4833 V1 29.435
RP 107.75 LAP 3.26 LOP 182.90 VP 37.778 GAP 5.16 AZP 85.59 TAL 178.32 TAP 34.78 RCA 104.79 APO 151.38 V2 35.169
RC 114.599 GL -42.23 GP 41.80 ZAL 82.13 ZAP 127.35 ETS 39.33 ZAE 123.03 ETE 147.59 ZAC 138.44 ETC 250.59 CLP-144.47
PLANETOCENTRIC CONIC
C3 14.502 VHL 3.808 DLA -62.65 RAL 231.40 RAO 6567.6 VEL 11.657 PTH 2.05 VHP 5.290 DPA 26.58 RAP 232.45 ECC 1.2387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.46	5 59 49	1666.30	42.98	47.50	112.58	141.10	6 27 35	1066.3	48.97	40.27
148.54	15 48 50	5258.45	42.99	244.85	112.59	141.10	17 16 29	4658.4	48.97	237.61
31.46	5 59 49	1666.30	42.98	47.50	112.58	141.10	6 27 35	1066.3	48.97	40.27
148.54	15 48 50	5258.45	42.99	244.85	112.59	141.10	17 16 29	4658.4	48.97	237.61
31.46	5 59 49	1666.30	42.98	47.50	112.58	141.10	6 27 35	1066.3	48.97	40.27
148.54	15 48 50	5258.45	42.99	244.85	112.59	141.10	17 16 29	4658.4	48.97	237.61

DIFFERENTIAL CORRECTIONS
TDE-2.3604 TRA .2543 TC3-3.6403 BAU .7313
RDE .9791 RRA -.1942 RC3 .9876 FAU .06385
FDE-2.5102 FRA .6200 FC3-3.8118 BSP 15534
BDE 2.5554 BRA .3200 BC3 3.7719 FSP -1456

MID-COURSE EXECUTION ACCURACY
SGT 4581.7 SGR 1772.2 SG3 447.4
RRT -.9664 RRF -.9850 RTF .9758
SGB 4912.5 R23 .1310 R13 -.9807
SG1 4893.9 SG2 426.4 THA 159.34

ORBIT DETERMINATION ACCURACY
ST 3561.0 SR 1485.6 SS 1748.8
CRT -.9983 CRS .9995 CST -.9960
LSA 4233.6 MSA 151.9 SSA 10.1
EL1 3857.6 EL2 81.1 ALF 157.38

LAUNCH DATE AUG 20 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 474.841
RL 151.37 LAL -.00 LOL 326.57 VL 26.758 GAL .60 AZL 95.01 HCA 219.67 SMA 127.91 ECC .18368 INC 5.0093 V1 29.435
RP 107.79 LAP 3.20 LOP 186.14 VP 37.749 GAP 5.51 AZP 86.14 TAL 177.34 TAP 37.01 RCA 104.42 APO 151.41 V2 35.158
RC 116.871 GL -39.36 GP 38.54 ZAL 80.21 ZAP 130.68 ETS 39.63 ZAE 123.92 ETE 150.45 ZAC 135.55 ETC 251.82 CLP-146.45
PLANETOCENTRIC CONIC
C3 13.571 VHL 3.684 DLA -60.41 RAL 236.36 RAO 6567.5 VEL 11.617 PTH 2.04 VHP 5.260 DPA 23.20 RAP 232.03 ECC 1.2233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.12	6 26 7	1640.26	42.60	43.30	114.86	137.86	6 53 27	1040.3	48.27	35.65
145.88	16 2 6	5255.30	42.61	243.82	114.87	137.85	17 29 41	4655.3	48.28	236.17
34.12	6 26 7	1640.26	42.60	43.30	114.86	137.86	6 53 27	1040.3	48.27	35.65
145.88	16 2 6	5255.30	42.61	243.82	114.87	137.85	17 29 41	4655.3	48.28	236.17
34.12	6 26 7	1640.26	42.60	43.30	114.86	137.86	6 53 27	1040.3	48.27	35.65
145.88	16 2 6	5255.30	42.61	243.82	114.87	137.85	17 29 41	4655.3	48.28	236.17

DIFFERENTIAL CORRECTIONS
TDE-2.2203 TRA .4032 TC3-4.0513 BAU .7543
RDE .8176 RRA -.2210 RC3 .9336 FAU .06388
FDE-2.2359 FRA .7818 FC3-4.0751 BSP 15721
BDE 2.3661 BRA .4598 BC3 4.1575 FSP -1461

MID-COURSE EXECUTION ACCURACY
SGT 4737.9 SGR 1604.5 SG3 450.4
RRT -.9640 RRF -.9806 RTF .9758
SGB 5002.2 R23 .1240 R13 -.9794
SG1 4985.7 SG2 405.4 THA 161.80

ORBIT DETERMINATION ACCURACY
ST 3475.4 SR 1288.7 SS 1616.2
CRT -.9986 CRS .9989 CST -.9951
LSA 4040.8 MSA 151.8 SSA 11.2
EL1 3706.1 EL2 64.9 ALF 159.67

LAUNCH DATE AUG 20 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 480.888
RL 151.37 LAL -.00 LOL 326.57 VL 26.730 GAL .84 AZL 94.60 HCA 222.89 SMA 127.73 ECC .18563 INC 4.5957 V1 29.435
RP 107.82 LAP 3.13 LOP 189.37 VP 37.719 GAP 5.86 AZP 86.63 TAL 176.32 TAP 39.21 RCA 104.02 APO 151.44 V2 35.147
RC 119.138 GL -36.57 GP 35.61 ZAL 78.16 ZAP 133.79 ETS 39.86 ZAE 124.53 ETE 153.06 ZAC 132.97 ETC 252.81 CLP-148.34
PLANETOCENTRIC CONIC
C3 12.921 VHL 3.595 DLA -58.14 RAL 240.91 RAO 6567.5 VEL 11.589 PTH 2.03 VHP 5.272 DPA 20.08 RAP 231.92 ECC 1.2126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.84	6 51 12	1616.57	41.90	39.25	117.00	134.83	7 18 9	1016.6	47.26	31.30
143.16	16 13 18	5257.73	41.92	243.14	117.02	134.82	17 40 55	4657.7	47.27	235.20
36.84	6 51 12	1616.57	41.90	39.25	117.00	134.83	7 18 9	1016.6	47.26	31.30
143.16	16 13 18	5257.73	41.92	243.14	117.02	134.82	17 40 55	4657.7	47.27	235.20
36.84	6 51 12	1616.57	41.90	39.25	117.00	134.83	7 18 9	1016.6	47.26	31.30
143.16	16 13 18	5257.73	41.92	243.14	117.02	134.82	17 40 55	4657.7	47.27	235.20

DIFFERENTIAL CORRECTIONS
TDE-2.0793 TRA .5529 TC3-4.4163 BAU .7774
RDE .6906 RRA -.2389 RC3 .8662 FAU .06298
FDE-1.9595 FRA .9241 FC3-4.2201 BSP 16038
BDE 2.1910 BRA .6023 BC3 4.5005 FSP -1462

MID-COURSE EXECUTION ACCURACY
SGT 4884.0 SGR 1456.0 SG3 446.9
RRT -.9605 RRF -.9748 RTF .9756
SGB 5096.4 R23 .1140 R13 -.9784
SG1 5081.5 SG2 389.5 THA 163.92

ORBIT DETERMINATION ACCURACY
ST 3353.4 SR 1122.0 SS 1473.6
CRT -.9990 CRS .9976 CST -.9938
LSA 3827.8 MSA 153.3 SSA 12.3
EL1 3535.8 EL2 48.6 ALF 161.51

LAUNCH DATE AUG 20 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 486.914
RL 151.37 LAL -.00 LOL 326.57 VL 26.702 GAL 1.09 AZL 94.23 HCA 226.11 SMA 127.54 ECC .18774 INC 4.2296 V1 29.435
RP 107.86 LAP 3.05 LOP 192.60 VP 37.688 GAP 6.21 AZP 87.06 TAL 175.28 TAP 41.39 RCA 103.60 APO 151.49 V2 35.136
RC 121.402 GL -33.85 GP 32.99 ZAL 76.02 ZAP 136.67 ETS 40.06 ZAE 124.93 ETE 155.42 ZAC 130.69 ETC 253.63 CLP-150.14
PLANETOCENTRIC CONIC
C3 12.494 VHL 3.535 DLA -55.88 RAL 245.11 RAO 6567.5 VEL 11.571 PTH 2.02 VHP 5.317 DPA 17.22 RAP 232.08 ECC 1.2056

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.58	7 15 22	1594.54	40.94	35.37	119.09	132.04	7 41 57	994.5	46.00	27.24
140.42	16 22 40	5265.35	40.95	242.85	119.11	132.03	17 50 26	4665.3	46.01	234.71
39.58	7 15 22	1594.54	40.94	35.37	119.09	132.04	7 41 57	994.5	46.00	27.24
140.42	16 22 40	5265.35	40.95	242.85	119.11	132.03	17 50 26	4665.3	46.01	234.71
39.58	7 15 22	1594.54	40.94	35.37	119.09	132.04	7 41 57	994.5	46.00	27.24
140.42	16 22 40	5265.35	40.95	242.85	119.11	132.03	17 50 26	4665.3	46.01	234.71

DIFFERENTIAL CORRECTIONS
TDE-1.9376 TRA .7083 TC3-4.7229 BAU .7998
RDE .5914 RRA -.2523 RC3 .7908 FAU .06135
FDE-1.6926 FRA 1.0531 FC3-4.2515 BSP 16350
BDE 2.0259 BRA .7519 BC3 4.7886 FSP -1446

MID-COURSE EXECUTION ACCURACY
SGT 5020.1 SGR 1327.8 SG3 439.0
RRT -.9556 RRF -.9677 RTF .9754
SGB 5192.8 R23 .1027 R13 -.9774
SG1 5178.9 SG2 379.3 THA 165.74

ORBIT DETERMINATION ACCURACY
ST 3201.9 SR 983.5 SS 1329.0
CRT -.9994 CRS .9952 CST -.9918
LSA 3600.1 MSA 157.4 SSA 13.5
EL1 3349.4 EL2 32.3 ALF 162.93

LAUNCH DATE AUG 20 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 492.915

RL 151.37 LAL -.00 LOL 326.57 VL 26.673 GAL 1.35 AZL 93.90 HCA 229.32 SMA 127.35 ECC .19000 INC 3.9012 VI 29.435
RP 107.89 LAP 2.96 LOP 195.83 VP 37.657 GAP 6.56 AZP 87.45 TAL 174.21 TAP 43.53 RCA 103.15 APO 151.55 V2 35.124
RC 123.660 GL -31.22 GP 30.64 ZAL 73.79 ZAP 139.35 ETS 40.24 ZAE 125.16 ETE 157.53 ZAC 128.68 ETC 254.33 CLP-151.87

PLANETOCENTRIC CONIC

C3 12.251 VHL 3.500 DLA -53.62 RAL 249.02 RAD 6567.5 VEL 11.560 PTH 2.02 VHP 5.389 DPA 14.57 RAP 232.46 ECC 1.2016

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.36	7 38 49	1573.64	39.77	31.67	121.18	129.49	8 5 3	973.6	44.55	23.42
137.64	16 30 23	5277.90	39.78	242.95	121.19	129.48	17 58 20	4677.9	44.56	234.70
42.36	7 38 49	1573.64	39.77	31.67	121.18	129.49	8 5 3	973.6	44.55	23.42
137.64	16 30 23	5277.90	39.78	242.95	121.19	129.48	17 58 20	4677.9	44.56	234.70
42.36	7 38 49	1573.64	39.77	31.67	121.18	129.49	8 5 3	973.6	44.55	23.42
137.64	16 30 23	5277.90	39.78	242.95	121.19	129.48	17 58 20	4677.9	44.56	234.70

DIFFERENTIAL CORRECTIONS
TDE-1.8120 TRA .8524 TC3-5.0202 BAU .8309
RDE .5200 RRA -.2567 RC3 .7325 FAU .06033
FDE-1.4648 FRA 1.1439 FC3-4.2636 BSP 17099
BDE 1.8852 BRA .8902 BC3 5.0733 FSP -1470

MID-COURSE EXECUTION ACCURACY
SGT 5165.5 SGR 1220.4 SG3 428.7
RRT -.9507 RRF -.9591 RTF .9764
SGB 5307.7 R23 .0838 R13 -.9778
SG1 5294.9 SG2 369.0 THA 167.28

ORBIT DETERMINATION ACCURACY
ST 3050.9 SR 877.4 SS 1201.1
CRT -.9998 CRS .9912 CST -.9899
LSA 3390.4 MSA 159.1 SSA 14.5
EL1 3174.5 EL2 17.1 ALF 163.96

LAUNCH DATE AUG 20 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 498.897

RL 151.37 LAL -.00 LOL 326.57 VL 26.643 GAL 1.63 AZL 93.60 HCA 232.54 SMA 127.16 ECC .19244 INC 3.6032 VI 29.435
RP 107.93 LAP 2.86 LOP 199.05 VP 37.624 GAP 6.92 AZP 87.81 TAL 173.11 TAP 45.65 RCA 102.69 APO 151.63 V2 35.112
RC 125.912 GL -28.67 GP 28.55 ZAL 71.50 ZAP 141.83 ETS 40.44 ZAE 125.27 ETE 159.40 ZAC 126.91 ETC 254.95 CLP-153.51

PLANETOCENTRIC CONIC

C3 12.167 VHL 3.488 DLA -51.38 RAL 252.67 RAD 6567.5 VEL 11.557 PTH 2.02 VHP 5.482 DPA 12.14 RAP 233.06 ECC 1.2002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.15	8 1 47	1553.38	38.44	28.13	123.31	127.18	8 27 40	953.4	42.96	19.84
134.85	16 36 33	5295.27	38.45	243.46	123.32	127.17	18 4 49	4695.3	42.97	235.16
45.15	8 1 47	1553.38	38.44	28.13	123.31	127.18	8 27 40	953.4	42.96	19.84
134.85	16 36 33	5295.27	38.45	243.46	123.32	127.17	18 4 49	4695.3	42.97	235.16
45.15	8 1 47	1553.38	38.44	28.13	123.31	127.18	8 27 40	953.4	42.96	19.84
134.85	16 36 33	5295.27	38.45	243.46	123.32	127.17	18 4 49	4695.3	42.97	235.16

DIFFERENTIAL CORRECTIONS
TDE-1.6568 TRA 1.0339 TC3-5.1478 BAU .8438
RDE .4549 RRA -.2691 RC3 .6376 FAU .05679
FDE-1.2119 FRA 1.2634 FC3-4.0411 BSP 17059
BDE 1.7182 BRA 1.0684 BC3 5.1872 FSP -1392

MID-COURSE EXECUTION ACCURACY
SGT 5264.0 SGR 1121.6 SG3 414.1
RRT -.9415 RRF -.9482 RTF .9748
SGB 5382.1 R23 .0768 R13 -.9759
SG1 5369.3 SG2 370.6 THA 168.60

ORBIT DETERMINATION ACCURACY
ST 2843.3 SR 777.0 SS 1055.4
CRT -.9997 CRS .9823 CST -.9851
LSA 3126.0 MSA 172.7 SSA 15.4
EL1 2947.5 EL2 18.9 ALF 164.72

LAUNCH DATE AUG 20 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 504.854

RL 151.37 LAL -.00 LOL 326.57 VL 26.612 GAL 1.93 AZL 93.33 HCA 235.75 SMA 126.96 ECC .19506 INC 3.3301 VI 29.435
RP 107.97 LAP 2.75 LOP 202.27 VP 37.591 GAP 7.27 AZP 88.12 TAL 171.99 TAP 47.74 RCA 102.20 APO 151.73 V2 35.099
RC 128.158 GL -26.22 GP 26.68 ZAL 69.18 ZAP 144.14 ETS 40.67 ZAE 125.28 ETE 161.05 ZAC 125.37 ETC 255.51 CLP-155.09

PLANETOCENTRIC CONIC

C3 12.227 VHL 3.497 DLA -49.18 RAL 256.09 RAD 6567.5 VEL 11.559 PTH 2.02 VHP 5.595 DPA 9.89 RAP 233.84 ECC 1.2012

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.95	8 24 23	1533.32	36.98	24.73	125.50	125.08	8 49 56	933.3	41.27	16.44
132.05	16 41 13	5317.40	36.99	244.38	125.51	125.07	18 9 51	4717.4	41.28	236.08
47.95	8 24 23	1533.32	36.98	24.73	125.50	125.08	8 49 56	933.3	41.27	16.44
132.05	16 41 13	5317.40	36.99	244.38	125.51	125.07	18 9 51	4717.4	41.28	236.08
47.95	8 24 23	1533.32	36.98	24.73	125.50	125.08	8 49 56	933.3	41.27	16.44
132.05	16 41 13	5317.40	36.99	244.38	125.51	125.07	18 9 51	4717.4	41.28	236.08

DIFFERENTIAL CORRECTIONS
TDE-1.5135 TRA 1.2115 TC3-5.2422 BAU .8618
RDE .4081 RRA -.2766 RC3 .5600 FAU .05378
FDE -.9973 FRA 1.3558 FC3-3.8078 BSP 17288
BDE 1.5676 BRA 1.2427 BC3 5.2720 FSP -1342

MID-COURSE EXECUTION ACCURACY
SGT 5367.7 SGR 1039.8 SG3 398.9
RRT -.9316 RRF -.9358 RTF .9740
SGB 5467.5 R23 .0660 R13 -.9749
SG1 5454.8 SG2 372.0 THA 169.72

ORBIT DETERMINATION ACCURACY
ST 2644.3 SR 700.4 SS 931.8
CRT -.9984 CRS .9671 CST -.9789
LSA 2883.7 MSA 186.5 SSA 16.1
EL1 2735.2 EL2 38.1 ALF 165.18

LAUNCH DATE AUG 20 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 510.785

RL 151.37 LAL -.00 LOL 326.57 VL 26.582 GAL 2.24 AZL 93.08 HCA 238.96 SMA 126.76 ECC .19786 INC 3.0772 VI 29.435
RP 108.01 LAP 2.64 LOP 205.49 VP 37.558 GAP 7.63 AZP 88.41 TAL 170.85 TAP 49.80 RCA 101.68 APO 151.84 V2 35.086
RC 130.397 GL -23.87 GP 25.00 ZAL 66.84 ZAP 146.28 ETS 40.96 ZAE 125.23 ETE 162.51 ZAC 124.01 ETC 256.03 CLP-156.60

PLANETOCENTRIC CONIC

C3 12.420 VHL 3.524 DLA -47.01 RAL 259.30 RAD 6567.5 VEL 11.568 PTH 2.02 VHP 5.723 DPA 7.82 RAP 234.78 ECC 1.2044

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.76	8 46 46	1513.05	35.43	21.45	127.74	123.20	9 11 59	913.0	39.51	13.19
129.24	16 44 25	5344.33	35.44	245.71	127.75	123.19	18 13 29	4744.3	39.52	237.45
50.76	8 46 46	1513.05	35.43	21.45	127.74	123.20	9 11 59	913.0	39.51	13.19
129.24	16 44 25	5344.33	35.44	245.71	127.75	123.19	18 13 29	4744.3	39.52	237.45
50.76	8 46 46	1513.05	35.43	21.45	127.74	123.20	9 11 59	913.0	39.51	13.19
129.24	16 44 25	5344.33	35.44	245.71	127.75	123.19	18 13 29	4744.3	39.52	237.45

DIFFERENTIAL CORRECTIONS
TDE-1.3729 TRA 1.3947 TC3-5.2770 BAU .8800
RDE .3731 RRA -.2829 RC3 .4904 FAU .05078
FDE -.8070 FRA 1.4352 FC3-3.5394 BSP 17572
BDE 1.4227 BRA 1.4231 BC3 5.2998 FSP -1296

MID-COURSE EXECUTION ACCURACY
SGT 5465.9 SGR 970.8 SG3 383.1
RRT -.9202 RRF -.9216 RTF .9734
SGB 5551.4 R23 .0553 R13 -.9741
SG1 5538.7 SG2 375.0 THA 170.67

ORBIT DETERMINATION ACCURACY
ST 2447.4 SR 639.5 SS 824.7
CRT -.9947 CRS .9418 CST -.9705
LSA 2652.7 MSA 203.6 SSA 16.7
EL1 2528.7 EL2 63.4 ALF 165.42

LAUNCH DATE AUG 20 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 516.690

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RL  151.37 LAL   -.00 LOL 326.57 VL  26.550 GAL   2.57 AZL  92.84 HCA 242.17 SMA 126.56 ECC .20087 INC 2.8410 V1  29.435
RP  108.05 LAP   2.51 LOP 208.71 VP  37.523 GAP   8.00 AZP  88.67 TAL 169.68 TAP  51.85 RCA 101.14 APO 151.98 V2  35.074
RC 132.627 GL  -21.61 GP   23.50 ZAL  64.50 ZAP 148.27 ETS  41.32 ZAE 125.13 ETE 163.79 ZAC 122.83 ETC 256.52 CLP-158.04
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PLANETOCENTRIC CONIC

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C3  12.742 VHL  3.570 DLA -44.90 RAL 262.31 RAD 6567.5 VEL 11.581 PTH   2.03 VHP  5.867 DPA   5.89 RAP 235.86 ECC 1.2097
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.58	9 9 7	1492.09	33.82	18.24	130.05	121.50	9 33 59	892.1	37.70	10.04
126.42	16 46 7	5376.22	33.83	247.46	130.06	121.49	18 15 44	4776.2	37.71	239.25
53.58	9 9 7	1492.09	33.82	18.24	130.05	121.50	9 33 59	892.1	37.70	10.04
126.42	16 46 7	5376.22	33.83	247.46	130.06	121.49	18 15 44	4776.2	37.71	239.25
53.58	9 9 7	1492.09	33.82	18.24	130.05	121.50	9 33 59	892.1	37.70	10.04
126.42	16 46 7	5376.22	33.83	247.46	130.06	121.49	18 15 44	4776.2	37.71	239.25

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.2342 TRA 1.5851 TC3-5.2517 BAU  .8976   SGT 5557.2 SGR  912.2 SG3  366.9     ST  2257.9 SR   590.9 SS   734.8
RDE  .3472 RRA -.2888 RC3  .4280 FAU .04777   RRT -.9074 RRF -.9059 RTF  .9729     CRT -.9867 CRS  .9021 CST -.9595
FDE -.6388 FRA 1.5040 FC3-3.2457 BSP  17841   SGB 5631.5 R23  .0452 R13 -.9734     LSA 2436.6 MSA  224.2 SSA   17.0
BDE 1.2821 BRA 1.6112 BC3 5.2691 FSP  -1246   SG1 5618.8 SG2  379.2 THA 171.49     EL1 2332.1 EL2   92.9 ALF 165.50
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 522.567

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RL  151.37 LAL   -.00 LOL 326.57 VL  26.519 GAL   2.91 AZL  92.62 HCA 245.37 SMA 126.36 ECC .20410 INC 2.6185 V1  29.435
RP  108.09 LAP   2.38 LOP 211.92 VP  37.489 GAP   8.37 AZP  88.91 TAL 168.49 TAP  53.87 RCA 100.57 APO 152.15 V2  35.061
RC 134.850 GL  -19.46 GP   22.16 ZAL  62.19 ZAP 150.12 ETS  41.76 ZAE 124.99 ETE 164.92 ZAC 121.79 ETC 257.00 CLP-159.43
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PLANETOCENTRIC CONIC

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C3  13.192 VHL  3.632 DLA -42.84 RAL 265.15 RAD 6567.5 VEL 11.601 PTH   2.03 VHP  6.023 DPA   4.11 RAP 237.07 ECC 1.2171
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.40	9 31 34	1470.00	32.17	15.08	132.42	119.98	9 56 4	870.0	35.88	6.94
123.60	16 46 18	5413.26	32.18	249.63	132.43	119.96	18 16 31	4813.3	35.89	241.49
56.40	9 31 34	1470.00	32.17	15.08	132.42	119.98	9 56 4	870.0	35.88	6.94
123.60	16 46 18	5413.26	32.18	249.63	132.43	119.96	18 16 31	4813.3	35.89	241.49
56.40	9 31 34	1470.00	32.17	15.08	132.42	119.98	9 56 4	870.0	35.88	6.94
123.60	16 46 18	5413.26	32.18	249.63	132.43	119.96	18 16 31	4813.3	35.89	241.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.0964 TRA 1.7844 TC3-5.1681 BAU  .9138   SGT 5641.1 SGR  862.7 SG3  350.8     ST  2081.0 SR   552.0 SS   662.8
RDE  .3284 RRA -.2950 RC3  .3717 FAU .04472   RRT -.8931 RRF -.8890 RTF  .9723     CRT -.9717 CRS  .8437 CST -.9460
FDE -.4897 FRA 1.5658 FC3-2.9348 BSP  18109   SGB 5706.7 R23  .0368 R13 -.9726     LSA 2238.8 MSA  249.0 SSA   17.1
BDE 1.1446 BRA 1.8086 BC3 5.1815 FSP  -1197   SG1 5693.7 SG2  384.4 THA 172.19     EL1 2149.2 EL2  126.2 ALF 165.49
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 528.414

```
RL  151.37 LAL   -.00 LOL 326.57 VL  26.487 GAL   3.28 AZL  92.41 HCA 248.58 SMA 126.16 ECC .20756 INC 2.4074 V1  29.435
RP  108.13 LAP   2.24 LOP 215.13 VP  37.454 GAP   8.75 AZP  89.12 TAL 167.29 TAP  55.87 RCA  99.97 APO 152.34 V2  35.047
RC 137.063 GL  -17.42 GP   20.95 ZAL  59.91 ZAP 151.86 ETS  42.31 ZAE 124.84 ETE 165.91 ZAC 120.88 ETC 257.46 CLP-160.77
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PLANETOCENTRIC CONIC

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C3  13.773 VHL  3.711 DLA -40.85 RAL 267.82 RAD 6567.5 VEL 11.626 PTH   2.04 VHP  6.193 DPA   2.45 RAP 238.39 ECC 1.2267
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.24	9 54 19	1446.23	30.50	11.91	134.86	118.60	10 18 25	846.2	34.06	3.85
120.76	16 44 53	5455.78	30.51	252.25	134.87	118.59	18 15 49	4855.8	34.06	244.18
59.24	9 54 19	1446.23	30.50	11.91	134.86	118.60	10 18 25	846.2	34.06	3.85
120.76	16 44 53	5455.78	30.51	252.25	134.87	118.59	18 15 49	4855.8	34.06	244.18
59.24	9 54 19	1446.23	30.50	11.91	134.86	118.60	10 18 25	846.2	34.06	3.85
120.76	16 44 53	5455.78	30.51	252.25	134.87	118.59	18 15 49	4855.8	34.06	244.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.9591 TRA 1.9928 TC3-5.0341 BAU  .9288   SGT 5718.0 SGR  820.5 SG3  335.0     ST  1921.9 SR   520.7 SS   608.6
RDE  .3153 RRA -.3017 RC3  .3221 FAU .04171   RRT -.8778 RRF -.8710 RTF  .9717     CRT -.9463 CRS  .7646 CST -.9313
FDE -.3580 FRA 1.6208 FC3-2.6217 BSP  18363   SGB 5776.6 R23  .0294 R13 -.9720     LSA 2063.6 MSA  277.0 SSA   17.1
BDE 1.0096 BRA 2.0155 BC3 5.0444 FSP  -1149   SG1 5763.4 SG2  390.0 THA 172.79     EL1 1984.5 EL2  163.1 ALF 165.52
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 534.229

```
RL  151.37 LAL   -.00 LOL 326.57 VL  26.454 GAL   3.66 AZL  92.21 HCA 251.78 SMA 125.95 ECC .21128 INC 2.2054 V1  29.435
RP  108.17 LAP   2.09 LOP 218.34 VP  37.419 GAP   9.14 AZP  89.31 TAL 166.07 TAP  57.85 RCA  99.34 APO 152.56 V2  35.034
RC 139.266 GL  -15.48 GP   19.86 ZAL  57.67 ZAP 153.48 ETS  42.96 ZAE 124.67 ETE 166.79 ZAC 120.08 ETC 257.92 CLP-162.06
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PLANETOCENTRIC CONIC

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C3  14.489 VHL  3.806 DLA -38.92 RAL 270.34 RAD 6567.6 VEL 11.657 PTH   2.05 VHP  6.375 DPA    .91 RAP 239.82 ECC 1.2385
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.10	10 17 30	1420.24	28.83	8.70	137.35	117.37	10 41 10	820.2	32.25	.71
117.90	16 41 46	5504.12	28.84	255.31	137.35	117.35	18 13 30	4904.1	32.26	247.33
62.10	10 17 30	1420.24	28.83	8.70	137.35	117.37	10 41 10	820.2	32.25	.71
117.90	16 41 46	5504.12	28.84	255.31	137.35	117.35	18 13 30	4904.1	32.26	247.33
62.10	10 17 30	1420.24	28.83	8.70	137.35	117.37	10 41 10	820.2	32.25	.71
117.90	16 41 46	5504.12	28.84	255.31	137.35	117.35	18 13 30	4904.1	32.26	247.33

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.8356 TRA 2.1973 TC3-4.8946 BAU  .9497   SGT 5791.4 SGR  784.9 SG3  319.2     ST  1794.7 SR   498.3 SS   571.4
RDE  .3091 RRA -.3068 RC3  .2854 FAU .03935   RRT -.8620 RRF -.8525 RTF  .9719     CRT -.9093 CRS  .6773 CST -.9215
FDE -.2547 FRA 1.6584 FC3-2.3513 BSP  18919   SGB 5844.3 R23  .0214 R13 -.9721     LSA 1924.5 MSA  303.0 SSA   16.9
BDE  .8910 BRA 2.2186 BC3 4.9029 FSP  -1126   SG1 5830.9 SG2  395.2 THA 173.31     EL1 1851.7 EL2  201.0 ALF 165.66
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LAUNCH DATE AUG 20 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 540.012

RL	151.37	LAL	-.00	LOL	326.57	VL	26.422	GAL	4.06	AZL	92.01	HCA	254.98	SMA	125.75	ECC	.21526	INC	2.0109	V1	29.435		
RP	108.21	LAP	1.94	LOP	221.54	VP	37.383	GAP	9.53	AZP	89.48	TAL	164.84	TAP	59.82	RCA	98.68	APO	152.81	V2	35.021		
RC	141.459	GL	-13.65	GP	18.88	ZAL	55.50	ZAP	155.00	ETS	43.74	ZAE	124.50	ETE	167.56	ZAC	119.38	ETC	258.38	CLP	-163.30		

PLANETOCENTRIC CONIC

C3	15.351	VHL	3.918	DLA	-37.08	RAL	272.71	RAD	6567.6	VEL	11.693	PTH	2.06	VHP	6.569	DPA	-.53	RAP	241.34	ECC	1.2526		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.00	10 41 28	1391.08	27.18	5.36	139.89	116.25	11 4 39	791.1	30.47	357.45
115.00	16 36 45	5559.08	27.19	258.89	139.90	116.24	18 9 24	4959.1	30.48	250.97
65.00	10 41 28	1391.08	27.18	5.36	139.89	116.25	11 4 39	791.1	30.47	357.45
115.00	16 36 45	5559.08	27.19	258.89	139.90	116.24	18 9 24	4959.1	30.48	250.97
65.00	10 41 28	1391.08	27.18	5.36	139.89	116.25	11 4 39	791.1	30.47	357.45
115.00	16 36 45	5559.08	27.19	258.89	139.90	116.24	18 9 24	4959.1	30.48	250.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.6887	TRA	2.4359	TC3	-4.6551	BAU	.9566	SGT	5852.7	SGR	753.9	SG3	304.6	ST	1679.4	SR	475.3	SS	548.1
RDE	.3024	RRA	-.3166	RC3	.2424	FAU	.03603	RRT	-.8451	RRF	-.8337	RTF	.9708	CRT	-.8509	CRS	.5588	CST	-.9106
FDE	-.1427	FRA	1.7127	FC3	-2.0318	BSP	18886	SGB	5901.1	R23	.0177	R13	-.9709	LSA	1798.0	MSA	336.6	SSA	16.8
BDE	.7521	BRA	2.4564	BC3	4.6614	FSP	-1058	SG1	5887.5	SG2	400.6	THA	173.76	EL1	1728.4	EL2	242.6	ALF	166.18

LAUNCH DATE AUG 20 1970 FLIGHT TIME 192.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 545.758

RL	151.37	LAL	-.00	LOL	326.57	VL	26.389	GAL	4.49	AZL	91.82	HCA	258.18	SMA	125.54	ECC	.21954	INC	1.8223	V1	29.435		
RP	108.25	LAP	1.78	LOP	224.74	VP	37.348	GAP	9.94	AZP	89.63	TAL	163.60	TAP	61.78	RCA	97.98	APO	153.10	V2	35.008		
RC	143.643	GL	-11.93	GP	17.99	ZAL	53.39	ZAP	156.43	ETS	44.67	ZAE	124.32	ETE	168.24	ZAC	118.77	ETC	258.84	CLP	-164.51		

PLANETOCENTRIC CONIC

C3	16.367	VHL	4.046	DLA	-35.31	RAL	274.95	RAD	6567.7	VEL	11.737	PTH	2.07	VHP	6.775	DPA	-1.87	RAP	242.94	ECC	1.2694		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.97	11 6 33	1357.61	25.55	1.80	142.48	115.24	11 29 11	757.6	28.73	353.96
112.03	16 29 31	5621.63	25.56	263.02	142.48	115.23	18 3 13	5021.6	28.74	255.19
67.97	11 6 33	1357.61	25.55	1.80	142.48	115.24	11 29 11	757.6	28.73	353.96
112.03	16 29 31	5621.63	25.56	263.02	142.48	115.23	18 3 13	5021.6	28.74	255.19
67.97	11 6 33	1357.61	25.55	1.80	142.48	115.24	11 29 11	757.6	28.73	353.96
112.03	16 29 31	5621.63	25.56	263.02	142.48	115.23	18 3 13	5021.6	28.74	255.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5490	TRA	2.6776	TC3	-4.4099	BAU	.9660	SGT	5910.0	SGR	727.1	SG3	290.5	ST	1599.8	SR	457.6	SS	537.4
RDE	.3001	RRA	-.3257	RC3	.2085	FAU	.03313	RRT	-.8283	RRF	-.8151	RTF	.9701	CRT	-.7750	CRS	.4418	CST	-.9087
FDE	-.0504	FRA	1.7561	FC3	-1.7526	BSP	19032	SGB	5954.6	R23	.0137	R13	-.9703	LSA	1709.8	MSA	365.5	SSA	16.5
BDE	.6256	BRA	2.6973	BC3	4.4148	FSP	-1007	SG1	5940.8	SG2	405.3	THA	174.15	EL1	1639.8	EL2	282.1	ALF	167.11

LAUNCH DATE AUG 20 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 551.465

RL	151.37	LAL	-.00	LOL	326.57	VL	26.356	GAL	4.94	AZL	91.64	HCA	261.37	SMA	125.33	ECC	.22414	INC	1.6382	V1	29.435		
RP	108.29	LAP	1.62	LOP	227.94	VP	37.312	GAP	10.36	AZP	89.75	TAL	162.35	TAP	63.72	RCA	97.24	APO	153.43	V2	34.995		
RC	145.816	GL	-10.32	GP	17.19	ZAL	51.36	ZAP	157.77	ETS	45.74	ZAE	124.14	ETE	168.84	ZAC	118.22	ETC	259.31	CLP	-165.69		

PLANETOCENTRIC CONIC

C3	17.553	VHL	4.190	DLA	-33.62	RAL	277.06	RAD	6567.7	VEL	11.787	PTH	2.08	VHP	6.995	DPA	-3.12	RAP	244.62	ECC	1.2889		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.07	11 33 19	1317.99	23.96	357.88	145.11	114.32	11 55 17	718.0	27.03	350.11
108.93	16 19 36	5693.46	23.97	267.84	145.11	114.31	17 54 29	5093.5	27.04	260.07
71.07	11 33 19	1317.99	23.96	357.88	145.11	114.32	11 55 17	718.0	27.03	350.11
108.93	16 19 36	5693.46	23.97	267.84	145.11	114.31	17 54 29	5093.5	27.04	260.07
110.00	15 39 5	5817.45	19.95	275.34	142.97	118.35	17 16 2	5217.4	23.58	268.08
110.00	17 13 1	5530.04	28.10	257.02	147.00	110.32	18 45 11	4930.0	30.60	248.72

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4108	TRA	2.9284	TC3	-4.1513	BAU	.9751	SGT	5961.9	SGR	703.6	SG3	276.9	ST	1551.8	SR	443.0	SS	535.4
RDE	.3006	RRA	-.3354	RC3	.1801	FAU	.03044	RRT	-.8116	RRF	-.7968	RTF	.9697	CRT	-.6833	CRS	.3307	CST	-.9144
FDE	.0293	FRA	1.7948	FC3	-1.5014	BSP	19207	SGB	6003.2	R23	.0103	R13	-.9698	LSA	1655.1	MSA	388.9	SSA	16.2
BDE	.5090	BRA	2.9476	BC3	4.1552	FSP	-962	SG1	5989.3	SG2	409.1	THA	174.50	EL1	1582.3	EL2	317.2	ALF	168.49

LAUNCH DATE AUG 20 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 557.128

RL	151.37	LAL	-.00	LOL	326.57	VL	26.323	GAL	5.42	AZL	91.46	HCA	264.57	SMA	125.13	ECC	.22910	INC	1.4573	V1	29.435		
RP	108.33	LAP	1.45	LOP	231.13	VP	37.277	GAP	10.80	AZP	89.86	TAL	161.09	TAP	65.66	RCA	96.46	APO	153.80	V2	34.982		
RC	147.979	GL	-8.81	GP	16.46	ZAL	49.40	ZAP	159.04	ETS	46.99	ZAE	123.97	ETE	169.37	ZAC	117.74	ETC	259.79	CLP	-166.84		

PLANETOCENTRIC CONIC

C3	18.926	VHL	4.350	DLA	-32.01	RAL	279.05	RAD	6567.8	VEL	11.845	PTH	2.10	VHP	7.228	DPA	-4.29	RAP	246.36	ECC	1.3115		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.41	12 2 46	1269.02	22.40	353.37	147.78	113.49	12 23 55	669.0	25.38	345.67
105.59	16 6 2	5777.63	22.42	273.56	147.78	113.47	17 42 19	5177.6	25.40	265.85
74.41	12 2 46	1269.02	22.40	353.37	147.78	113.49	12 23 55	669.0	25.38	345.67
105.59	16 6 2	5777.63	22.42	273.56	147.78	113.47	17 42 19	5177.6	25.40	265.85
110.00	15 2 14	687.52	14.59	306.55	143.52	121.26	15 13 42	87.5	18.62	299.76
110.00	18 5 44	5407.13	30.70	248.40	151.09	105.82	19 35 51	4807.1	32.56	239.68

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2723	TRA	3.1909	TC3	-3.8810	BAU	.9828	SGT	6008.0	SGR	682.6	SG3	264.0	ST	1532.9	SR	430.5	SS	539.3
RDE	.3031	RRA	-.3456	RC3	.1557	FAU	.02787	RRT	-.7953	RRF	-.7791	RTF	.9694	CRT	-.5805	CRS	.2295	CST	-.9252
FDE	.0993	FRA	1.8307	FC3	-1.2751	BSP	19382	SGB	6046.6	R23	.0074	R13	-.9694	LSA	1631.3	MSA	405.4	SSA	15.8
BDE	.4075	BRA	3.2096	BC3	3.8841	FSP	-919	SG1	6032.5	SG2	412.1	THA	174.81	EL1	1554.2	EL2	345.7	ALF	170.25

LAUNCH DATE AUG 20 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 562.743

RL 151.37 LAL -.00 LOL 326.57 VL 26.290 GAL 5.92 AZL 91.28 HCA 267.76 SMA 124.93 ECC .23443 INC 1.2785 V1 29.435
RP 108.37 LAP 1.28 LOP 234.33 VP 37.241 GAP 11.25 AZP 89.95 TAL 159.83 TAP 67.58 RCA 95.64 APO 154.21 V2 34.969
RC 150.132 GL -7.40 GP 15.80 ZAL 47.53 ZAP 160.23 ETS 48.44 ZAE 123.79 ETE 169.84 ZAC 117.31 ETC 260.27 CLP-167.96

PLANETOCENTRIC CONIC

C3 20.506 VHL 4.528 DLA -30.49 RAL 280.93 RAD 6567.8 VEL 11.912 PTH 2.12 VHP 7.476 DPA -5.37 RAP 248.17 ECC 1.3375

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.20	12 37 1	1203.78	20.90	347.76	150.48	112.72	12 57 5	603.8	23.79	340.11
101.80	15 46 45	5880.94	20.91	280.66	150.48	112.71	17 24 46	5280.9	23.80	273.01
78.20	12 37 1	1203.78	20.90	347.76	150.48	112.72	12 57 5	603.8	23.79	340.11
101.80	15 46 45	5880.94	20.91	280.66	150.48	112.71	17 24 46	5280.9	23.80	273.01
110.00	14 42 11	796.05	10.67	312.52	144.91	122.67	14 55 28	196.1	14.91	305.97
110.00	18 40 45	5336.66	31.90	243.26	154.43	103.00	20 9 42	4736.7	33.36	234.33

DIFFERENTIAL CORRECTIONS
TDE -.1325 TRA 3.4661 TC3-3.6041 BAU .9887
RDE .3072 RRA -.3566 RC3 .1345 FAU .02541
FDE .1615 FRA 1.8650 FC3-1.0727 BSP 19551
BDE .3346 BRA 3.4844 BC3 3.6066 FSP -878

MID-COURSE EXECUTION ACCURACY
SGT 6048.3 SGR 663.4 SG3 251.7
RRT -.7794 RRF -.7621 RTF .9691
SGB 6084.6 R23 .0051 R13 -.9691
SG1 6070.5 SG2 414.1 THA 175.09

ORBIT DETERMINATION ACCURACY
ST 1539.1 SR 419.3 SS 547.1
CRT -.4732 CRS .1400 CST -.9380
LSA 1634.5 MSA 414.6 SSA 15.5
EL1 1552.5 EL2 366.2 ALF 172.22

LAUNCH DATE AUG 20 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 568.306

RL 151.37 LAL -.00 LOL 326.57 VL 26.257 GAL 6.45 AZL 91.10 HCA 270.95 SMA 124.72 ECC .24019 INC 1.1006 V1 29.435
RP 108.41 LAP 1.10 LOP 237.52 VP 37.206 GAP 11.72 AZP 90.02 TAL 158.56 TAP 69.51 RCA 94.77 APO 154.68 V2 34.956
RC 152.275 GL -6.09 GP 15.20 ZAL 45.74 ZAP 161.35 ETS 50.09 ZAE 123.61 ETE 170.27 ZAC 116.92 ETC 260.76 CLP-169.05

PLANETOCENTRIC CONIC

C3 22.318 VHL 4.724 DLA -29.04 RAL 282.70 RAD 6567.9 VEL 11.987 PTH 2.14 VHP 7.739 DPA -6.38 RAP 250.03 ECC 1.3673

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.26	13 23 4	1099.46	19.44	339.38	153.21	112.01	13 41 24	499.5	22.26	331.79
96.74	15 14 50	738.00	19.45	312.88	153.22	112.00	15 27 8	138.0	22.27	305.29
100.00	14 40 30	848.30	14.53	318.72	150.90	116.41	14 54 38	248.3	17.96	311.60
100.00	16 40 5	5752.44	24.52	272.53	155.18	107.66	18 15 57	5152.4	26.70	264.41
110.00	14 28 18	886.68	7.30	317.38	146.67	123.49	14 43 5	286.7	11.66	310.99
110.00	19 8 46	5286.82	32.60	239.54	157.52	100.90	20 36 53	4686.8	33.76	230.50

DIFFERENTIAL CORRECTIONS
TDE .0086 TRA 3.7545 TC3-3.3257 BAU .9929
RDE .3128 RRA -.3681 RC3 .1162 FAU .02307
FDE .2162 FRA 1.8976 FC3 -.8949 BSP 19707
BDE .3129 BRA 3.7725 BC3 3.3277 FSP -839

MID-COURSE EXECUTION ACCURACY
SGT 6082.9 SGR 645.5 SG3 240.0
RRT -.7642 RRF -.7460 RTF .9690
SGB 6117.0 R23 .0033 R13 -.9690
SG1 6102.9 SG2 415.0 THA 175.34

ORBIT DETERMINATION ACCURACY
ST 1565.4 SR 409.1 SS 556.7
CRT -.3680 CRS .0633 CST -.9508
LSA 1659.5 MSA 416.9 SSA 15.1
EL1 1573.1 EL2 378.6 ALF 174.17

LAUNCH DATE AUG 20 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 573.810

RL 151.37 LAL -.00 LOL 326.57 VL 26.225 GAL 7.02 AZL 90.92 HCA 274.13 SMA 124.52 ECC .24641 INC .9224 V1 29.435
RP 108.45 LAP .92 LOP 240.70 VP 37.171 GAP 12.22 AZP 90.07 TAL 157.30 TAP 71.43 RCA 93.84 APO 155.20 V2 34.943
RC 154.408 GL -4.87 GP 14.65 ZAL 44.04 ZAP 162.40 ETS 51.99 ZAE 123.43 ETE 170.65 ZAC 116.57 ETC 261.27 CLP-170.13

PLANETOCENTRIC CONIC

C3 24.392 VHL 4.939 DLA -27.68 RAL 284.37 RAD 6568.0 VEL 12.074 PTH 2.16 VHP 8.020 DPA -7.31 RAP 251.94 ECC 1.4014

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 32 48	1112.29	13.77	337.75	154.07	114.99	13 51 20	512.3	17.03	330.59
90.00	15 18 25	768.55	22.42	316.27	157.63	107.76	15 31 14	168.5	24.64	308.30
100.00	14 10 35	990.16	10.09	326.90	152.18	118.29	14 27 5	390.2	13.79	320.07
100.00	17 23 19	5653.96	26.38	265.81	158.89	104.59	18 57 33	5054.0	28.13	257.44
110.00	14 17 52	967.30	4.26	321.63	148.64	123.95	14 33 59	367.3	8.68	315.34
110.00	19 32 32	5249.58	33.04	236.73	160.51	99.29	21 0 1	4649.6	33.97	227.61

DIFFERENTIAL CORRECTIONS
TDE .1514 TRA 4.0573 TC3-3.0496 BAU .9950
RDE .3195 RRA -.3801 RC3 .1002 FAU .02083
FDE .2649 FRA 1.9296 FC3 -.7392 BSP 19864
BDE .3536 BRA 4.0750 BC3 3.0512 FSP -802

MID-COURSE EXECUTION ACCURACY
SGT 6111.8 SGR 628.6 SG3 228.9
RRT -.7495 RRF -.7308 RTF .9690
SGB 6144.0 R23 .0018 R13 -.9690
SG1 6130.0 SG2 414.9 THA 175.57

ORBIT DETERMINATION ACCURACY
ST 1606.7 SR 399.6 SS 567.2
CRT -.2700 CRS -.0018 CST -.9620
LSA 1700.4 MSA 413.7 SSA 14.7
EL1 1610.5 EL2 383.9 ALF 175.93

LAUNCH DATE AUG 20 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 579.247

RL 151.37 LAL -.00 LOL 326.57 VL 26.192 GAL 7.62 AZL 90.74 HCA 277.32 SMA 124.32 ECC .25313 INC .7429 V1 29.435
RP 108.49 LAP .74 LOP 243.89 VP 37.136 GAP 12.74 AZP 90.09 TAL 156.04 TAP 73.36 RCA 92.85 APO 155.79 V2 34.931
RC 156.530 GL -3.73 GP 14.15 ZAL 42.43 ZAP 163.38 ETS 54.16 ZAE 123.25 ETE 170.99 ZAC 116.25 ETC 261.78 CLP-171.20

PLANETOCENTRIC CONIC

C3 26.764 VHL 5.173 DLA -26.39 RAL 285.94 RAD 6568.1 VEL 12.171 PTH 2.18 VHP 8.319 DPA -8.18 RAP 253.89 ECC 1.4405

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 0 18	1263.74	9.25	346.58	155.38	116.88	13 21 22	663.7	12.79	339.68
90.00	16 3 27	662.93	24.44	309.19	161.40	104.77	16 14 30	62.9	26.23	300.98
100.00	13 52 13	1096.07	6.62	332.85	153.97	119.22	14 10 29	496.1	10.46	326.17
100.00	17 54 14	5593.87	27.34	261.60	162.18	102.58	19 27 27	4993.9	28.80	253.10
110.00	14 9 39	1041.33	1.43	325.50	150.76	124.16	14 27 1	441.3	5.90	319.27
110.00	19 53 16	5221.38	33.33	234.58	163.44	98.05	21 20 18	4621.4	34.09	225.42

DIFFERENTIAL CORRECTIONS
TDE .2959 TRA 4.3748 TC3-2.7804 BAU .9953
RDE .3273 RRA -.3924 RC3 .0862 FAU .01872
FDE .3080 FRA 1.9608 FC3 -.6055 BSP 20039
BDE .4412 BRA 4.3924 BC3 2.7817 FSP -768

MID-COURSE EXECUTION ACCURACY
SGT 6134.9 SGR 612.1 SG3 218.3
RRT -.7354 RRF -.7165 RTF .9692
SGB 6165.4 R23 .0007 R13 -.9692
SG1 6151.5 SG2 413.6 THA 175.78

ORBIT DETERMINATION ACCURACY
ST 1657.6 SR 390.6 SS 577.5
CRT -.1817 CRS -.0565 CST -.9711
LSA 1751.6 MSA 406.7 SSA 14.4
EL1 1659.2 EL2 383.7 ALF 177.41

LAUNCH DATE AUG 20 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 584.610
RL 151.37 LAL -.00 LOL 326.57 VL 26.159 GAL 8.26 AZL 90.56 HCA 280.50 SMA 124.12 ECC .26043 INC .5611 V1 29.435
RP 108.53 LAP .55 LOP 247.07 VP 37.102 GAP 13.29 AZP 90.10 TAL 154.79 TAP 75.29 RCA 91.80 APO 156.44 V2 34.919
RC 158.641 GL -2.68 GP 13.69 ZAL 40.90 ZAP 164.30 ETS 56.62 ZAE 123.07 ETE 171.29 ZAC 115.95 ETC 262.29 CLP-172.25
PLANETOCENTRIC CONIC
C3 29.476 VHL 5.429 DLA -25.17 RAL 287.42 RAD 6568.2 VEL 12.282 PTH 2.21 VHP 8.639 DPA -8.98 RAP 255.87 ECC 1.4851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 40 59	1373.27	5.83	352.80	157.23	117.76	13 3 53	773.3	9.50	346.05
90.00	16 34 34	601.53	25.44	304.97	164.72	102.88	16 44 36	1.5	26.96	296.63
100.00	13 38 53	1186.34	3.59	337.84	156.00	119.70	13 58 40	586.3	7.52	331.25
100.00	18 19 21	5551.73	27.93	258.61	165.31	101.11	19 51 53	4951.7	29.18	250.03
110.00	14 3 2	1110.60	-1.22	329.11	153.00	124.16	14 21 33	510.6	3.27	322.90
110.00	20 11 42	5200.24	33.52	232.96	166.35	97.11	21 38 22	4600.2	34.14	223.77

DIFFERENTIAL CORRECTIONS
TDE .4425 TRA 4.7082 TC3-2.5203 BAU .9936
RDE .3358 RRA -.4048 RC3 .0739 FAU .01672
FDE .3464 FRA 1.9919 FC3 -.4912 BSP 20231
BDE .5555 BRA 4.7255 BC3 2.5213 FSP -738

MID-COURSE EXECUTION ACCURACY
SGT 6152.1 SGR 595.7 SG3 208.3
RRT -.7219 RRF -.7030 RTF .9696
SGB 6180.9 R23 -.0002 R13 -.9696
SG1 6167.2 SG2 411.2 THA 175.98

ORBIT DETERMINATION ACCURACY
ST 1713.9 SR 381.7 SS 587.5
CRT -.1039 CRS -.1027 CST -.9783
LSA 1808.4 MSA 397.2 SSA 14.0
EL1 1714.4 EL2 379.5 ALF 178.61

LAUNCH DATE AUG 20 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 589.887
RL 151.37 LAL -.00 LOL 326.57 VL 26.126 GAL 8.94 AZL 90.38 HCA 283.68 SMA 123.92 ECC .26834 INC .3755 V1 29.435
RP 108.56 LAP .37 LOP 250.25 VP 37.068 GAP 13.88 AZP 90.09 TAL 153.56 TAP 77.23 RCA 90.67 APO 157.18 V2 34.907
RC 160.740 GL -1.70 GP 13.27 ZAL 39.47 ZAP 165.16 ETS 59.41 ZAE 122.88 ETE 171.57 ZAC 115.68 ETC 262.82 CLP-173.30
PLANETOCENTRIC CONIC
C3 32.579 VHL 5.708 DLA -24.03 RAL 288.81 RAD 6568.3 VEL 12.408 PTH 2.24 VHP 8.983 DPA -9.71 RAP 257.89 ECC 1.5362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 27 3	1465.77	2.87	357.99	159.31	118.18	12 51 29	865.8	6.62	351.32
90.00	16 59 36	5847.36	26.05	279.93	167.88	101.52	18 37 3	5247.4	27.37	271.51
100.00	13 28 33	1267.30	.85	342.29	158.19	119.88	13 49 40	667.3	4.82	335.75
100.00	18 40 48	5521.07	28.31	256.41	168.36	100.01	20 12 49	4921.1	29.41	247.78
110.00	13 57 35	1176.23	-3.72	332.54	155.34	124.00	14 17 11	576.2	.77	326.33
110.00	20 28 15	5184.90	33.65	231.77	169.26	96.42	21 54 40	4584.9	34.17	222.57

DIFFERENTIAL CORRECTIONS
TDE .5919 TRA 5.0595 TC3-2.2697 BAU .9890
RDE .3452 RRA -.4173 RC3 .0630 FAU .01481
FDE .3809 FRA 2.0236 FC3 -.3936 BSP 20430
BDE .6852 BRA 5.0767 BC3 2.2706 FSP -709

MID-COURSE EXECUTION ACCURACY
SGT 6163.4 SGR 579.3 SG3 198.8
RRT -.7088 RRF -.6901 RTF .9702
SGB 6190.6 R23 -.0008 R13 -.9702
SG1 6177.2 SG2 407.7 THA 176.17

ORBIT DETERMINATION ACCURACY
ST 1772.6 SR 372.8 SS 596.9
CRT -.0361 CRS -.1417 CST -.9838
LSA 1867.6 MSA 386.1 SSA 13.6
EL1 1772.6 EL2 372.6 ALF 179.54

LAUNCH DATE AUG 20 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 595.066
RL 151.37 LAL -.00 LOL 326.57 VL 26.094 GAL 9.67 AZL 90.19 HCA 286.85 SMA 123.73 ECC .27696 INC .1845 V1 29.435
RP 108.60 LAP .18 LOP 253.42 VP 37.034 GAP 14.50 AZP 90.05 TAL 152.34 TAP 79.19 RCA 89.46 APO 158.00 V2 34.896
RC 162.826 GL -.79 GP 12.89 ZAL 38.11 ZAP 165.94 ETS 62.58 ZAE 122.68 ETE 171.83 ZAC 115.42 ETC 263.35 CLP-174.34
PLANETOCENTRIC CONIC
C3 36.135 VHL 6.011 DLA -22.96 RAL 290.12 RAD 6568.4 VEL 12.550 PTH 2.27 VHP 9.352 DPA -10.38 RAP 259.93 ECC 1.5947

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 16 14	1548.30	.21	2.60	161.55	118.32	12 42 2	948.3	3.99	355.96
90.00	17 20 50	5817.11	26.44	277.80	170.95	100.53	18 57 48	5217.1	27.63	269.34
100.00	13 20 11	1341.88	-1.68	346.38	160.50	119.85	13 42 33	741.9	2.31	339.86
100.00	18 59 34	5498.77	28.57	254.80	171.36	99.20	20 31 13	4898.8	29.54	246.13
110.00	13 53 1	1238.95	-6.10	335.84	157.75	123.70	14 13 40	638.9	-1.63	329.60
110.00	20 43 14	5174.46	33.72	230.97	172.16	95.95	22 9 28	4574.5	34.18	221.76

DIFFERENTIAL CORRECTIONS
TDE .7459 TRA 5.4313 TC3-2.0298 BAU .9809
RDE .3550 RRA -.4298 RC3 .0531 FAU .01297
FDE .4127 FRA 2.0569 FC3 -.3107 BSP 20613
BDE .8260 BRA 5.4483 BC3 2.0305 FSP -681

MID-COURSE EXECUTION ACCURACY
SGT 6169.9 SGR 562.6 SG3 189.8
RRT -.6961 RRF -.6779 RTF .9709
SGB 6195.5 R23 -.0012 R13 -.9709
SG1 6182.4 SG2 403.1 THA 176.35

ORBIT DETERMINATION ACCURACY
ST 1831.8 SR 363.8 SS 606.2
CRT .0230 CRS -.1753 CST -.9880
LSA 1927.5 MSA 374.0 SSA 13.2
EL1 1831.8 EL2 363.7 ALF .27

LAUNCH DATE AUG 20 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 600.133
RL 151.37 LAL -.00 LOL 326.57 VL 26.062 GAL 10.45 AZL 89.99 HCA 290.03 SMA 123.54 ECC .28636 INC .0000 V1 29.435
RP 108.63 LAP -.01 LOP 256.60 VP 37.002 GAP 15.17 AZP 90.00 TAL 151.14 TAP 81.17 RCA 88.16 APO 158.91 V2 34.885
RC 164.900 GL .05 GP 12.54 ZAL 36.85 ZAP 166.65 ETS 66.14 ZAE 122.47 ETE 172.06 ZAC 115.18 ETC 263.89 CLP-175.38
PLANETOCENTRIC CONIC
C3 40.218 VHL 6.342 DLA -21.95 RAL 291.34 RAD 6568.5 VEL 12.712 PTH 2.31 VHP 9.750 DPA -10.99 RAP 261.99 ECC 1.6619

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 7 28	1624.07	-2.24	6.83	163.89	118.24	12 34 32	1024.1	1.56	.20
90.00	17 39 21	5795.45	26.70	276.27	173.96	99.80	19 15 56	5195.4	27.78	267.77
100.00	13 13 16	1411.72	-4.04	350.22	162.89	119.64	13 36 47	811.7	-.06	343.69
100.00	19 16 15	5483.03	28.73	253.66	174.34	98.62	20 47 38	4883.0	29.63	244.97
110.00	13 49 9	1299.24	-8.37	339.03	160.23	123.26	14 10 48	699.2	-3.93	332.75
110.00	20 56 51	5168.27	33.77	230.49	175.07	95.67	22 22 59	4568.3	34.18	221.27

DIFFERENTIAL CORRECTIONS
TDE .9050 TRA 5.8256 TC3-1.8008 BAU .9685
RDE .3654 RRA -.4419 RC3 .0442 FAU .01118
FDE .4424 FRA 2.0923 FC3 -.2407 BSP 20788
BDE .9760 BRA 5.8424 BC3 1.8013 FSP -654

MID-COURSE EXECUTION ACCURACY
SGT 6171.3 SGR 545.4 SG3 181.4
RRT -.6836 RRF -.6661 RTF .9718
SGB 6195.3 R23 -.0014 R13 -.9718
SG1 6182.6 SG2 397.3 THA 176.53

ORBIT DETERMINATION ACCURACY
ST 1889.8 SR 354.5 SS 615.4
CRT .0746 CRS -.2045 CST -.9911
LSA 1986.2 MSA 361.3 SSA 12.9
EL1 1890.0 EL2 353.4 ALF .83

LAUNCH DATE AUG 20 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 605.068

RL	151.37	LAL	-.00	LOL	326.57	VL	26.031	GAL	11.29	AZL	89.78	HCA	293.20	SMA	123.35	ECC	.29663	INC	.2161	V1	29.435
RP	108.66	LAP	-.20	LOP	259.77	VP	36.969	GAP	15.88	AZP	89.91	TAL	149.97	TAP	83.18	RCA	86.76	APO	159.94	V2	34.874
RC	166.961	GL	.82	GP	12.22	ZAL	35.66	ZAP	167.28	ETS	70.14	ZAE	122.25	ETE	172.28	ZAC	114.94	ETC	264.43	CLP	-176.43

PLANETOCENTRIC CONIC

C3	44.919	VHL	6.702	DLA	-21.00	RAL	292.48	RAD	6568.7	VEL	12.895	PTH	2.35	VHP	10.181	DPA	-11.53	RAP	264.07	ECC	1.7393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 0 11	1694.80	-4.51	10.78	166.32	117.99	12 28 26	1094.8	-.73	4.14
90.00	17 55 44	5780.44	26.87	275.20	176.94	99.29	19 32 4	5180.4	27.88	266.68
100.00	13 7 25	1477.81	-6.25	353.88	165.36	119.29	13 32 3	877.8	-2.30	347.32
100.00	19 31 11	5472.66	28.84	252.91	177.28	98.24	21 2 24	4872.7	29.68	244.20
110.00	13 45 49	1357.43	-10.52	342.16	162.77	122.71	14 8 27	757.4	-6.14	335.81
110.00	21 9 16	5165.80	33.78	230.30	177.98	95.56	22 35 22	4565.8	34.18	221.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	1.0713	TRA	6.2460	TC3	-1.5826	BAU	.9506	SGT	6168.6	SGR	527.5	SG3	173.4	ST	1946.0
RDE	.3761	RRA	-.4537	RC3	.0360	FAU	.00941	RRT	-.6711	RRF	-.6545	RTF	.9728	CRT	.1200
FDE	.4708	FRA	2.1307	FC3	-.1813	BSP	20916	SGB	6191.1	R23	-.0014	R13	-.9728	LSA	2043.2
BDE	1.1354	BRA	6.2624	BC3	1.5830	FSP	-627	SG1	6178.8	SG2	390.4	THA	176.70	EL1	1946.5

SR	344.8	SS	624.9		
CRS	-.2304	CST	-.9935		
MSA	348.2	SSA	12.5		
EL2	342.2	ALF	1.26		

LAUNCH DATE AUG 20 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 609.848

RL	151.37	LAL	-.00	LOL	326.57	VL	25.999	GAL	12.20	AZL	89.57	HCA	296.37	SMA	123.16	ECC	.30789	INC	.4311	V1	29.435
RP	108.69	LAP	-.39	LOP	262.94	VP	36.938	GAP	16.65	AZP	89.81	TAL	148.84	TAP	85.22	RCA	85.24	APO	161.08	V2	34.864
RC	169.007	GL	1.54	GP	11.92	ZAL	34.57	ZAP	167.82	ETS	74.60	ZAE	122.01	ETE	172.48	ZAC	114.71	ETC	264.97	CLP	-177.49

PLANETOCENTRIC CONIC

C3	50.349	VHL	7.096	DLA	-20.12	RAL	293.54	RAD	6568.9	VEL	13.104	PTH	2.39	VHP	10.649	DPA	-12.02	RAP	266.14	ECC	1.8286

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 53 59	1761.54	-6.62	14.54	168.81	117.59	12 23 21	1161.5	-2.88	7.87
90.00	18 10 22	5770.83	26.97	274.52	179.89	98.96	19 46 33	5170.8	27.94	265.99
100.00	13 2 24	1540.80	-8.34	357.39	167.88	118.81	13 28 4	940.8	-4.43	350.79
100.00	19 44 39	5466.80	28.89	252.48	180.21	98.02	21 15 46	4866.8	29.70	243.77
110.00	13 42 56	1413.75	-12.58	345.23	165.35	122.05	14 6 30	813.7	-8.25	338.80
110.00	21 20 36	5166.62	33.78	230.36	180.89	95.59	22 46 43	4566.6	34.18	221.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	1.2465	TRA	6.6957	TC3	-1.3753	BAU	.9259	SGT	6162.4	SGR	508.9	SG3	165.9	ST	2000.1
RDE	.3871	RRA	-.4647	RC3	.0285	FAU	.00764	RRT	-.6585	RRF	-.6428	RTF	.9740	CRT	.1605
FDE	.4988	FRA	2.1730	FC3	-.1313	BSP	20992	SGB	6183.4	R23	-.0014	R13	-.9740	LSA	2098.4
BDE	1.3052	BRA	6.7118	BC3	1.3756	FSP	-600	SG1	6171.5	SG2	382.4	THA	176.88	EL1	2000.8

SR	334.7	SS	635.1		
CRS	-.2539	CST	-.9952		
MSA	334.8	SSA	12.1		
EL2	330.3	ALF	1.58		

LAUNCH DATE AUG 20 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 614.446

RL	151.37	LAL	-.00	LOL	326.57	VL	25.969	GAL	13.19	AZL	89.34	HCA	299.54	SMA	122.98	ECC	.32027	INC	.6579	V1	29.435
RP	108.72	LAP	-.57	LOP	266.11	VP	36.907	GAP	17.49	AZP	89.68	TAL	147.76	TAP	87.30	RCA	83.59	APO	162.36	V2	34.855
RC	171.039	GL	2.21	GP	11.65	ZAL	33.56	ZAP	168.26	ETS	79.53	ZAE	121.75	ETE	172.67	ZAC	114.49	ETC	265.51	CLP	-178.56

PLANETOCENTRIC CONIC

C3	56.645	VHL	7.526	DLA	-19.29	RAL	294.51	RAD	6569.0	VEL	13.342	PTH	2.44	VHP	11.159	DPA	-12.46	RAP	268.22	ECC	1.9322

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 48 39	1824.95	-8.61	18.15	171.34	117.08	12 19 4	1224.9	-4.91	11.42
90.00	18 23 30	5765.73	27.03	274.16	182.79	98.79	19 59 36	5165.7	27.96	265.62
100.00	12 58 1	1601.09	-10.30	.80	170.44	118.22	13 24 42	1001.1	-6.44	354.13
100.00	19 56 49	5464.82	28.91	252.34	183.11	97.95	21 27 54	4864.8	29.71	243.62
110.00	13 40 23	1468.33	-14.53	348.25	167.96	121.29	14 4 52	868.3	-10.28	341.73
110.00	21 30 56	5170.35	33.75	230.65	183.79	95.76	22 57 7	4570.4	34.18	221.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	1.4321	TRA	7.1792	TC3	-1.1788	BAU	.8928	SGT	6153.6	SGR	489.5	SG3	159.0	ST	2051.6
RDE	.3984	RRA	-.4747	RC3	.0217	FAU	.00584	RRT	-.6454	RRF	-.6309	RTF	.9755	CRT	.1970
FDE	.5269	FRA	2.2203	FC3	-.0892	BSP	20975	SGB	6173.0	R23	-.0012	R13	-.9755	LSA	2151.5
BDE	1.4865	BRA	7.1949	BC3	1.1790	FSP	-572	SG1	6161.7	SG2	373.4	THA	177.05	EL1	2052.6

SR	324.3	SS	646.5		
CRS	-.2757	CST	-.9965		
MSA	321.2	SSA	11.7		
EL2	317.8	ALF	1.83		

LAUNCH DATE AUG 20 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 618.827

RL	151.37	LAL	-.00	LOL	326.57	VL	25.938	GAL	14.26	AZL	89.10	HCA	302.71	SMA	122.80	ECC	.33391	INC	.8993	V1	29.435
RP	108.75	LAP	-.76	LOP	269.28	VP	36.877	GAP	18.41	AZP	89.51	TAL	146.73	TAP	89.44	RCA	81.80	APO	163.81	V2	34.846
RC	173.056	GL	2.83	GP	11.40	ZAL	32.64	ZAP	168.60	ETS	84.91	ZAE	121.46	ETE	172.85	ZAC	114.27	ETC	266.05	CLP	-179.66

PLANETOCENTRIC CONIC

C3	63.978	VHL	7.999	DLA	-18.52	RAL	295.41	RAD	6569.2	VEL	13.614	PTH	2.49	VHP	11.718	DPA	-12.84	RAP	270.29	ECC	2.0529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 43 58	1885.43	-10.46	21.62	173.89	116.46	12 15 24	1285.4	-6.83	14.83
90.00	18 35 19	5764.48	27.04	274.07	185.66	98.75	20 11 24	5164.5	27.97	265.52
100.00	12 54 9	1658.95	-12.14	4.10	173.02	117.53	13 21 48	1059.0	-8.36	357.36
100.00	20 7 49	5466.19	28.90	252.44	185.97	98.00	21 38 55	4866.2	29.70	243.72
110.00	13 38 6	1521.24	-16.38	351.24	170.60	120.43	14 3 28	921.2	-12.21	344.61
110.00	21 40 21	5176.67	33.71	231.14	186.66	96.05	23 6 38	4576.7	34.18	221.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	1.6301	TRA	7.7007	TC3	-.9938	BAU	.8501	SGT	6142.7	SGR	469.2	SG3	152.5	ST	2100.4
RDE	.4101	RRA	-.4832	RC3	.0155	FAU	.00400	RRT	-.6315	RRF	-.6184	RTF	.9770	CRT	.2306
FDE	.5557	FRA	2.2733	FC3	-.0541	BSP	20847	SGB	6160.6	R23	-.0010	R13	-.9770	LSA	2202.2
BDE	1.6809	BRA	7.7158	BC3	.9939	FSP	-543	SG1	6149.9	SG2	363.4	THA	177.23	EL1	2101.7

SR	313.5	SS	659.2		
CRS	-.2965	CST	-.9975		
MSA	307.4	SSA	11.3		
EL2	304.9	ALF	2.01		

LAUNCH DATE AUG 21 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 30 1970

HELIOCENTRIC CONIC DISTANCE 156.438

RL	151.34	LAL	-.00	LOL	327.53	VL	21.912	GAL	2.73	AZL	92.82	HCA	61.85	SMA	104.19	ECC	.45447	INC	2.8199	VI	29.440
RP	108.36	LAP	-2.49	LOP	29.35	VP	34.291	GAP	-26.94	AZP	91.33	TAL	176.71	TAP	238.56	RCA	56.84	APO	151.55	V2	34.974
RC	43.276	GL	-7.96	GP	-6.95	ZAL	79.66	ZAP	17.65	ETS	154.56	ZAE	171.76	ETE	172.36	ZAC	91.98	ETC	257.77	CLP	16.27

PLANETOCENTRIC CONIC

C3	60.532	VHL	7.780	DLA	-29.49	RAL	244.75	RAD	6569.1	VEL	13.487	PTH	2.47	VHP	16.060	DPA	-21.38	RAP	221.17	ECC	1.9962

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.41	10 33 5	1395.38	12.62	357.97	131.41	116.87	10 56 20	795.4	16.12	350.96
98.59	12 54 10	939.70	12.63	324.52	131.41	116.87	13 9 50	339.7	16.14	317.51
100.00	12 23 40	1037.37	8.55	329.57	129.23	118.75	12 40 57	437.4	12.33	322.81
100.00	13 46 16	772.94	16.76	314.23	133.50	115.12	13 59 9	172.9	20.01	306.94
110.00	11 59 3	1114.91	-1.38	329.33	123.15	124.16	12 17 38	514.9	3.11	323.13
110.00	16 27 22	5556.20	27.47	258.79	138.43	111.19	17 59 58	4956.2	30.09	250.59

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1830	TRA	-.9275	TC3	-.0435	BAU	.0354	SGT	799.0	SGR	443.7	SG3	47.2	ST	271.3	SR	443.4	SS	208.7
RDE	-.6021	RRA	-.0153	RC3	.0047	FAU	.01715	RRT	-.1413	RRF	.1474	RTF	-.6514	CRT	-.4893	CRS	-.6446	CST	.9782
FDE	-.1330	FRA	.4475	FC3	-.2453	BSP	2073	SGB	913.9	R23	-.0161	R13	.6536	LSA	499.0	MSA	254.2	SSA	14.3
BDE	.6293	BRA	.9276	BC3	.0438	FSP	-101	SG1	802.5	SG2	437.3	THA	173.61	EL1	469.3	EL2	223.5	ALF	111.86

LAUNCH DATE AUG 21 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 162.937

RL	151.34	LAL	-.00	LOL	327.53	VL	22.364	GAL	2.54	AZL	92.60	HCA	65.04	SMA	105.86	ECC	.43150	INC	2.5960	VI	29.440
RP	108.32	LAP	-2.35	LOP	32.55	VP	34.595	GAP	-25.53	AZP	91.10	TAL	176.64	TAP	241.69	RCA	60.18	APO	151.54	V2	34.987
RC	42.355	GL	-7.95	GP	-7.25	ZAL	79.41	ZAP	16.28	ETS	151.22	ZAE	174.13	ETE	175.30	ZAC	91.93	ETC	257.97	CLP	14.62

PLANETOCENTRIC CONIC

C3	53.508	VHL	7.315	DLA	-29.53	RAL	245.02	RAD	6568.9	VEL	13.224	PTH	2.42	VHP	15.289	DPA	-22.20	RAP	222.61	ECC	1.8806

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.27	10 33 4	1368.71	13.56	356.48	129.80	116.48	10 55 52	768.7	17.01	349.41
98.73	12 56 24	905.84	13.58	322.49	129.81	116.47	13 11 29	305.8	17.02	315.43
100.00	12 26 46	1000.66	9.75	327.50	127.78	118.40	12 43 27	400.7	13.47	320.68
100.00	13 45 22	749.12	17.45	312.79	131.73	114.66	13 57 51	149.1	20.63	305.44
110.00	12 0 42	1082.84	-.15	327.66	121.75	124.18	12 18 44	482.8	4.33	321.45
110.00	16 27 56	5527.75	28.15	256.86	136.52	110.24	18 0 4	4927.7	30.64	248.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1829	TRA	-.9124	TC3	-.0310	BAU	.0222	SGT	835.0	SGR	448.3	SG3	51.9	ST	285.0	SR	448.3	SS	216.7
RDE	-.5723	RRA	-.0071	RC3	.0007	FAU	.01780	RRT	-.1577	RRF	.1650	RTF	-.6717	CRT	-.4990	CRS	-.6430	CST	.9808
FDE	-.1353	FRA	.4612	FC3	-.2880	BSP	2213	SGB	947.7	R23	-.0183	R13	.6741	LSA	510.2	MSA	262.0	SSA	14.6
BDE	.6008	BRA	.9124	BC3	.0311	FSP	-114	SG1	839.1	SG2	440.5	THA	173.31	EL1	478.1	EL2	231.6	ALF	113.40

LAUNCH DATE AUG 21 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 169.483

RL	151.34	LAL	-.00	LOL	327.53	VL	22.783	GAL	2.33	AZL	92.38	HCA	68.24	SMA	107.48	ECC	.40978	INC	2.3832	VI	29.440
RP	108.27	LAP	-2.21	LOP	35.75	VP	34.881	GAP	-24.19	AZP	90.88	TAL	176.63	TAP	244.87	RCA	63.44	APO	151.52	V2	35.000
RC	41.583	GL	-7.91	GP	-7.58	ZAL	79.28	ZAP	14.99	ETS	147.19	ZAE	176.59	ETE	183.49	ZAC	91.84	ETC	258.17	CLP	12.98

PLANETOCENTRIC CONIC

C3	47.341	VHL	6.880	DLA	-29.51	RAL	245.18	RAD	6568.8	VEL	12.989	PTH	2.37	VHP	14.550	DPA	-23.03	RAP	224.06	ECC	1.7791

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.35	10 34 19	1336.23	14.47	354.54	128.04	116.00	10 56 35	736.2	17.85	347.41
98.65	12 56 24	877.32	14.48	320.84	128.04	115.99	13 11 2	277.3	17.86	313.71
100.00	12 26 17	973.74	10.62	325.97	126.02	118.11	12 42 31	373.7	14.29	319.11
100.00	13 47 7	715.05	18.40	310.71	129.95	113.98	13 59 2	115.0	21.49	303.28
110.00	12 1 2	1053.33	.97	326.12	120.18	124.17	12 18 35	453.3	5.45	319.90
110.00	16 28 52	5496.25	28.88	254.70	134.46	109.14	18 0 28	4896.3	31.21	246.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1834	TRA	-.8971	TC3	-.0143	BAU	.0096	SGT	872.1	SGR	452.5	SG3	57.1	ST	299.4	SR	452.5	SS	224.6
RDE	-.5433	RRA	.0006	RC3	-.0048	FAU	.01852	RRT	-.1760	RRF	.1845	RTF	-.6913	CRT	-.5104	CRS	-.6416	CST	.9835
FDE	-.1376	FRA	.4751	FC3	-.3387	BSP	2352	SGB	982.5	R23	-.0208	R13	.6939	LSA	521.6	MSA	269.2	SSA	14.9
BDE	.5734	BRA	.8971	BC3	.0151	FSP	-127	SG1	877.0	SG2	443.0	THA	172.98	EL1	486.9	EL2	239.2	ALF	115.11

LAUNCH DATE AUG 21 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 176.071

RL	151.34	LAL	-.00	LOL	327.53	VL	23.170	GAL	2.11	AZL	92.18	HCA	71.43	SMA	109.05	ECC	.38928	INC	2.1796	VI	29.440
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.148	GAP	-22.91	AZP	90.69	TAL	176.68	TAP	248.11	RCA	66.60	APO	151.50	V2	35.013
RC	40.971	GL	-7.82	GP	-7.94	ZAL	79.26	ZAP	13.80	ETS	142.33	ZAE	178.71	ETE	228.83	ZAC	91.71	ETC	258.39	CLP	11.33

PLANETOCENTRIC CONIC

C3	41.927	VHL	6.475	DLA	-29.42	RAL	245.22	RAD	6568.6	VEL	12.779	PTH	2.32	VHP	13.843	DPA	-23.89	RAP	225.50	ECC	1.6900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.67	10 37 2	1297.46	15.33	352.10	126.12	115.42	10 58 40	697.5	18.63	344.89
98.33	12 54 0	855.02	15.34	319.62	126.12	115.41	13 8 15	255.0	18.64	312.42
100.00	12 22 9	957.01	11.15	325.01	123.96	117.91	12 38 6	357.0	14.80	318.12
100.00	13 51 34	670.69	19.61	307.97	128.13	113.03	14 2 44	70.7	22.56	300.42
110.00	11 59 59	1026.88	1.98	324.74	118.42	124.13	12 17 5	426.9	6.45	318.50
110.00	16 30 14	5461.63	29.63	252.28	132.24	107.89	18 1 15	4861.6	31.78	243.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1841	TRA	-.8816	TC3	.0072	BAU	.0080	SGT	910.3	SGR	456.3	SG3	62.9	ST	314.2	SR	456.0	SS	232.4
RDE	-.5153	RRA	.0077	RC3	-.0123	FAU	.01932	RRT	-.1961	RRF	.2062	RTF	-.7098	CRT	-.5229	CRS	-.6402	CST	.9861
FDE	-.1397	FRA	.4893	FC3	-.3990	BSP	2500	SGB	1018.3	R23	-.0239	R13	.7127	LSA	533.4	MSA	275.6	SSA	15.2
BDE	.5472	BRA	.8817	BC3	.0142	FSP	-143	SG1	916.1	SG2	444.6	THA	172.64	EL1	496.0	EL2	246.2	ALF	116.96

LAUNCH DATE AUG 21 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 182.697

RL	151.34	LAL	-.00	LOL	327.53	VL	23.529	GAL	1.89	AZL	91.98	HCA	74.63	SMA	110.57	ECC	.36999	INC	1.9833	V1	29.440
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.398	GAP	-21.68	AZP	90.53	TAL	176.78	TAP	251.41	RCA	69.66	APO	151.48	V2	35.027
RC	40.525	GL	-7.67	GP	-8.35	ZAL	79.35	ZAP	12.75	ETS	136.46	ZAE	177.46	ETE	314.76	ZAC	91.54	ETC	258.61	CLP	9.67

PLANETOCENTRIC CONIC

C3	37.175	VHL	6.097	DLA	-29.26	RAL	245.14	RAD	6568.4	VEL	12.591	PTH	2.28	VHP	13.165	DPA	-24.77	RAP	226.95	ECC	1.6118		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.31	10 41 44	1250.94	16.12	349.05	124.05	114.75	11 2 35	650.9	19.33	341.77
97.69	12 48 39	840.77	16.14	318.96	124.06	114.74	13 2 39	240.8	19.34	311.67
100.00	12 14 51	949.15	11.40	324.56	121.65	117.82	12 30 40	349.2	15.04	317.66
100.00	13 58 13	617.79	20.98	304.64	126.25	111.79	14 8 31	17.8	23.75	296.94
110.00	11 57 27	1003.95	2.86	323.55	116.49	124.08	12 14 11	403.9	7.31	317.29
110.00	16 32 6	5423.80	30.39	249.60	129.87	106.47	18 2 30	4823.8	32.34	240.93

DIFFERENTIAL CORRECTIONS

TDE	.1854	TRA	-.8654	TC3	.0346	BAU	.0204
RDE	-.4883	RRA	.0144	RC3	-.0221	FAU	.02021
FDE	-.1417	FRA	.5037	FC3	-.4706	BSP	2652
BDE	.5223	BRA	.8655	BC3	.0411	FSP	-160

MID-COURSE EXECUTION ACCURACY

SGT	949.2	SGR	459.9	SG3	69.2		
RRT	-.2188	RRF	.2307	RTF	-.7276		
SGB	1054.8	R23	-.0271	R13	.7308		
SG1	956.0	SG2	445.5	THA	172.26		

ORBIT DETERMINATION ACCURACY

ST	329.5	SR	458.9	SS	240.0
CRT	-.5373	CRS	-.6390	CST	.9887
LSA	545.5	MSA	280.9	SSA	15.5
EL1	505.4	EL2	252.3	ALF	118.94

LAUNCH DATE AUG 21 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 189.355

RL	151.34	LAL	-.00	LOL	327.53	VL	23.859	GAL	1.65	AZL	91.79	HCA	77.83	SMA	112.03	ECC	.35188	INC	1.7928	V1	29.440		
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.632	GAP	-20.51	AZP	90.38	TAL	176.95	TAP	254.78	RCA	72.61	APO	151.46	V2	35.040		
RC	40.252	GL	-7.46	GP	-8.79	ZAL	79.56	ZAP	11.86	ETS	129.44	ZAE	174.76	ETE	328.80	ZAC	91.31	ETC	258.83	CLP	8.00		

PLANETOCENTRIC CONIC

C3	33.006	VHL	5.745	DLA	-29.02	RAL	244.94	RAD	6568.3	VEL	12.425	PTH	2.25	VHP	12.515	DPA	-25.68	RAP	228.38	ECC	1.5432		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.39	10 49 31	1193.32	16.84	345.14	121.85	113.98	11 9 24	593.3	19.94	337.78
96.61	12 39 16	838.33	16.85	319.11	121.85	113.97	12 53 14	238.3	19.95	311.76
100.00	12 5 1	948.37	11.43	324.52	119.14	117.81	12 20 50	348.4	15.06	317.61
100.00	14 6 26	5846.55	22.43	278.74	124.26	110.29	15 43 53	5246.5	24.99	270.88
110.00	11 53 23	984.97	3.58	322.55	114.41	124.02	12 9 48	385.0	8.02	316.28
110.00	16 34 34	5382.71	31.14	246.64	127.35	104.86	18 4 16	4782.7	32.87	237.84

DIFFERENTIAL CORRECTIONS

TDE	.1867	TRA	-.8492	TC3	.0688	BAU	.0340
RDE	-.4623	RRA	.0207	RC3	-.0349	FAU	.02121
FDE	-.1435	FRA	.5184	FC3	-.5563	BSP	2806
BDE	.4986	BRA	.8494	BC3	.0772	FSP	-180

MID-COURSE EXECUTION ACCURACY

SGT	989.3	SGR	463.4	SG3	76.2		
RRT	-.2440	RRF	.2582	RTF	-.7443		
SGB	1092.5	R23	-.0313	R13	.7478		
SG1	997.4	SG2	445.7	THA	171.84		

ORBIT DETERMINATION ACCURACY

ST	345.1	SR	461.1	SS	247.3
CRT	-.5525	CRS	-.6379	CST	.9911
LSA	557.9	MSA	285.3	SSA	15.9
EL1	515.2	EL2	257.4	ALF	121.00

LAUNCH DATE AUG 21 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 196.040

RL	151.34	LAL	-.00	LOL	327.53	VL	24.165	GAL	1.42	AZL	91.61	HCA	81.03	SMA	113.44	ECC	.33493	INC	1.6068	V1	29.440		
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.850	GAP	-19.39	AZP	90.25	TAL	177.18	TAP	258.21	RCA	75.44	APO	151.43	V2	35.053		
RC	40.156	GL	-7.18	GP	-9.28	ZAL	79.88	ZAP	11.21	ETS	121.24	ZAE	171.93	ETE	332.81	ZAC	91.03	ETC	259.06	CLP	6.31		

PLANETOCENTRIC CONIC

C3	29.351	VHL	5.418	DLA	-28.68	RAL	244.62	RAD	6568.2	VEL	12.277	PTH	2.21	VHP	11.893	DPA	-26.62	RAP	229.79	ECC	1.4831		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.22	11 3 11	1115.64	17.46	339.70	119.52	113.13	11 21 47	515.6	20.44	332.27
94.78	12 23 3	857.04	17.47	320.77	119.52	113.12	12 37 20	257.0	20.45	313.34
100.00	11 53 11	953.32	11.27	324.80	116.47	117.87	12 9 4	353.3	14.91	317.91
100.00	14 15 44	5782.63	23.88	274.54	122.13	108.54	15 52 7	5182.6	26.19	266.51
110.00	11 47 46	970.36	4.14	321.79	112.17	123.96	12 3 56	370.4	8.57	315.50
110.00	16 37 39	5338.36	31.87	243.38	124.68	103.07	18 6 37	4738.4	33.34	234.46

DIFFERENTIAL CORRECTIONS

TDE	.1879	TRA	-.8324	TC3	.1110	BAU	.0480
RDE	-.4373	RRA	.0267	RC3	-.0514	FAU	.02232
FDE	-.1447	FRA	.5338	FC3	-.6583	BSP	2960
BDE	.4759	BRA	.8328	BC3	.1224	FSP	-201

MID-COURSE EXECUTION ACCURACY

SGT	1030.0	SGR	466.9	SG3	84.0		
RRT	-.2722	RRF	.2889	RTF	-.7605		
SGB	1130.9	R23	-.0356	R13	.7644		
SG1	1039.6	SG2	445.1	THA	171.37		

ORBIT DETERMINATION ACCURACY

ST	360.7	SR	462.6	SS	254.1
CRT	-.5682	CRS	-.6353	CST	.9933
LSA	570.1	MSA	288.7	SSA	16.3
EL1	525.1	EL2	261.5	ALF	123.07

LAUNCH DATE AUG 21 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 202.749

RL	151.34	LAL	-.00	LOL	327.53	VL	24.447	GAL	1.19	AZL	91.42	HCA	84.24	SMA	114.78	ECC	.31909	INC	1.4238	V1	29.440		
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.054	GAP	-18.31	AZP	90.14	TAL	177.46	TAP	261.71	RCA	78.16	APO	151.41	V2	35.066		
RC	40.238	GL	-6.82	GP	-9.82	ZAL	80.33	ZAP	10.83	ETS	112.02	ZAE	169.07	ETE	334.36	ZAC	90.69	ETC	259.30	CLP	4.60		

PLANETOCENTRIC CONIC

C3	26.151	VHL	5.114	DLA	-28.25	RAL	244.19	RAD	6568.1	VEL	12.146	PTH	2.18	VHP	11.297	DPA	-27.59	RAP	231.18	ECC	1.4304		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 24 16	1013.13	16.54	331.78	116.45	113.32	11 41 9	413.1	19.55	324.41
90.00	11 58 31	902.04	19.40	324.89	117.68	111.04	12 13 33	302.0	22.09	317.25
100.00	11 39 41	963.22	10.95	325.37	113.69	117.99	11 55 44	363.2	14.61	318.49
100.00	14 25 47	5715.23	25.26	270.02	119.84	106.54	16 1 2	5115.2	27.29	261.80
110.00	11 40 34	960.47	4.52	321.27	109.80	123.92	11 56 34	360.5	8.94	314.97
110.00	16 41 24	5290.75	32.55	239.84	121.88	101.07	18 9 35	4690.7	33.73	230.80

DIFFERENTIAL CORRECTIONS

TDE	.1890	TRA	-.8154	TC3	.1621	BAU	.0621
RDE	-.4133	RRA	.0325	RC3	-.0724	FAU	.02355
FDE	-.1451	FRA	.5497	FC3	-.7796	BSP	3117
BDE	.4545	BRA	.8160	BC3	.1775	FSP	-226

MID-COURSE EXECUTION ACCURACY

SGT	1071.4	SGR	470.8	SG3	92.7		
RRT	-.3038	RRF	.3232	RTF	-.7757		
SGB	1170.2	R23	-.0406	R13	.7801		
SG1	1082.8	SG2	443.8	THA	170.85		

ORBIT DETERMINATION ACCURACY

ST	376.4	SR	463.2	SS	260.0
CRT	-.5846	CRS	-.6314	CST	.9952
LSA	582.1	MSA	291.1	SSA	16.7
EL1	535.1	EL2	264.3	ALF	125.16

LAUNCH DATE AUG 21 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 209.476

RL	151.34	LAL	-.00	LOL	327.53	VL	24.706	GAL	.96	AZL	91.24	HCA	87.45	SMA	116.06	ECC	.30435	INC	1.2428	V1	29.440
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.243	GAP	-17.28	AZP	90.06	TAL	177.81	TAP	265.26	RCA	80.74	APO	151.39	V2	35.079
RC	40.497	GL	-6.37	GP	-10.42	ZAL	80.88	ZAP	10.80	ETS	102.18	ZAE	166.23	ETE	334.92	ZAC	90.28	ETC	259.54	CLP	2.86

PLANETOCENTRIC CONIC

C3	23.352	VHL	4.832	DLA	-27.70	RAL	243.65	RAD	6567.9	VEL	12.030	PTH	2.15	VHP	10.727	DPA	-28.61	RAP	232.55	ECC	1.3843

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 47 28	1098.21	14.18	336.91	112.72	114.77	11 5 47	498.2	17.40	329.72
90.00	12 31 0	761.30	22.57	315.79	116.14	107.57	12 43 42	161.3	24.77	307.80
100.00	11 24 46	977.68	10.49	326.19	110.84	118.15	11 41 3	377.7	14.17	319.34
100.00	14 36 24	5645.09	26.53	265.19	117.38	104.30	16 10 29	5045.1	28.24	256.80
110.00	11 31 47	955.60	4.70	321.01	107.33	123.90	11 47 43	355.6	9.12	314.71
110.00	16 45 52	5239.94	33.15	235.99	118.94	98.87	18 13 12	4639.9	34.02	226.86

DIFFERENTIAL CORRECTIONS

TOE	.1894	TRA	-.7977	TC3	.2221	BAU	.0759
RDE	-.3903	RRA	.0383	RC3	-.0989	FAU	.02492
FDE	-.1443	FRA	.5664	FC3	-.9239	BSP	3288
BDE	.4339	BRA	.7986	BC3	.2431	FSP	-253

MID-COURSE EXECUTION ACCURACY

SGT	1112.5	SGR	475.3	SG3	102.3		
RRT	-.3389	RRF	.3615	RTF	-.7898		
SGB	1209.8	R23	-.0463	R13	.7947		
SG1	1126.2	SG2	441.7	THA	170.24		

ORBIT DETERMINATION ACCURACY

ST	391.4	SR	463.1	SS	265.0
CRT	-.6008	CRS	-.6251	CST	.9965
LSA	593.3	MSA	292.5	SSA	17.1
EL1	544.9	EL2	265.9	ALF	127.15

LAUNCH DATE AUG 21 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 216.217

RL	151.34	LAL	-.00	LOL	327.53	VL	24.945	GAL	.73	AZL	91.06	HCA	90.66	SMA	117.28	ECC	.29066	INC	1.0625	V1	29.440
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.419	GAP	-16.29	AZP	89.99	TAL	178.21	TAP	268.87	RCA	83.19	APO	151.37	V2	35.092
RC	40.930	GL	-5.81	GP	-11.09	ZAL	81.55	ZAP	11.14	ETS	92.36	ZAE	163.46	ETE	334.95	ZAC	89.80	ETC	259.77	CLP	1.09

PLANETOCENTRIC CONIC

C3	20.908	VHL	4.573	DLA	-27.03	RAL	243.01	RAD	6567.8	VEL	11.928	PTH	2.12	VHP	10.182	DPA	-29.67	RAP	233.87	ECC	1.3441

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 21 49	1147.63	12.75	339.84	109.42	115.50	10 40 57	547.6	16.08	332.75
90.00	12 51 34	658.36	24.52	308.87	113.94	104.63	13 2 32	58.4	26.29	300.65
100.00	11 8 34	996.60	9.88	327.27	107.93	118.36	11 25 11	396.6	13.59	320.44
100.00	14 47 30	5572.66	27.65	260.10	114.76	101.84	16 20 22	4972.7	29.00	251.56
110.00	11 21 30	956.02	4.68	321.03	104.77	123.90	11 37 26	356.0	9.10	314.73
110.00	16 51 3	5186.01	33.64	231.86	115.89	96.47	18 17 29	4586.0	34.17	222.66

DIFFERENTIAL CORRECTIONS

TOE	.1888	TRA	-.7804	TC3	.2910	BAU	.0893
RDE	-.3683	RRA	.0442	RC3	-.1318	FAU	.02641
FDE	-.1423	FRA	.5846	FC3	-1.0935	BSP	3440
BDE	.4139	BRA	.7817	BC3	.3194	FSP	-282

MID-COURSE EXECUTION ACCURACY

SGT	1154.1	SGR	481.0	SG3	112.9		
RRT	-.3773	RRF	.4038	RTF	-.8029		
SGB	1250.4	R23	-.0534	R13	.8085		
SG1	1170.7	SG2	439.2	THA	169.58		

ORBIT DETERMINATION ACCURACY

ST	405.6	SR	461.9	SS	269.1
CRT	-.6158	CRS	-.6158	CST	.9969
LSA	603.3	MSA	293.4	SSA	17.6
EL1	554.0	EL2	266.5	ALF	129.02

LAUNCH DATE AUG 21 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 222.968

RL	151.34	LAL	-.00	LOL	327.53	VL	25.165	GAL	.51	AZL	90.88	HCA	93.87	SMA	118.43	ECC	.27798	INC	.8818	V1	29.440
RP	107.95	LAP	-.88	LOP	61.41	VP	36.581	GAP	-15.34	AZP	89.94	TAL	178.67	TAP	272.54	RCA	85.51	APO	151.35	V2	35.105
RC	41.530	GL	-5.13	GP	-11.83	ZAL	82.33	ZAP	11.85	ETS	83.17	ZAE	160.78	ETE	334.63	ZAC	89.22	ETC	260.01	CLP	-.72

PLANETOCENTRIC CONIC

C3	18.779	VHL	4.333	DLA	-26.22	RAL	242.28	RAD	6567.8	VEL	11.839	PTH	2.10	VHP	9.661	DPA	-30.78	RAP	235.15	ECC	1.3091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 58 17	1191.08	11.46	342.38	106.24	116.07	10 18 8	591.1	14.87	335.37
90.00	13 9 18	5851.90	25.98	280.25	111.46	101.67	14 46 50	5251.9	27.33	271.84
100.00	10 51 15	1020.01	9.12	328.59	105.01	118.59	11 8 15	420.0	12.87	321.81
100.00	14 59 1	5498.21	28.57	254.76	112.00	99.18	16 30 39	4898.2	29.55	246.09
110.00	11 9 46	961.93	4.46	321.34	102.16	123.93	11 25 48	361.9	8.88	315.05
110.00	16 57 0	5129.05	33.99	227.45	112.73	93.88	18 22 29	4529.0	34.15	218.21

DIFFERENTIAL CORRECTIONS

TOE	.1871	TRA	-.7625	TC3	.3757	BAU	.1039
RDE	-.3470	RRA	.0502	RC3	-.1730	FAU	.02813
FDE	-.1370	FRA	.6036	FC3	-1.2966	BSP	3631
BDE	.3942	BRA	.7641	BC3	.4137	FSP	-318

MID-COURSE EXECUTION ACCURACY

SGT	1195.9	SGR	488.3	SG3	124.8		
RRT	-.4203	RRF	.4499	RTF	-.8164		
SGB	1291.7	R23	-.0596	R13	.8227		
SG1	1216.0	SG2	435.7	THA	168.81		

ORBIT DETERMINATION ACCURACY

ST	418.3	SR	459.3	SS	270.7
CRT	-.6299	CRS	-.5986	CST	.9961
LSA	610.5	MSA	293.7	SSA	18.1
EL1	561.5	EL2	265.7	ALF	130.77

LAUNCH DATE AUG 21 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 229.726

RL	151.34	LAL	-.00	LOL	327.53	VL	25.367	GAL	.30	AZL	90.70	HCA	97.09	SMA	119.52	ECC	.26627	INC	.6997	V1	29.440
RP	107.91	LAP	-.69	LOP	64.62	VP	36.732	GAP	-14.42	AZP	89.91	TAL	179.17	TAP	276.26	RCA	87.69	APO	151.34	V2	35.117
RC	42.291	GL	-4.32	GP	-12.66	ZAL	83.21	ZAP	12.91	ETS	75.06	ZAE	158.22	ETE	334.06	ZAC	88.55	ETC	260.24	CLP	-2.57

PLANETOCENTRIC CONIC

C3	16.928	VHL	4.114	DLA	-25.26	RAL	241.48	RAD	6567.7	VEL	11.761	PTH	2.08	VHP	9.164	DPA	-31.95	RAP	236.38	ECC	1.2786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 21	1233.93	10.17	344.86	103.15	116.57	9 55 55	633.9	13.65	337.92
90.00	13 25 51	5760.76	27.08	273.80	108.79	98.62	15 1 52	5160.8	27.99	265.25
100.00	10 32 56	1048.01	8.20	330.16	102.11	118.85	10 50 24	448.0	11.99	323.42
100.00	15 10 57	5421.90	29.28	249.20	109.11	96.33	16 41 19	4821.9	29.84	240.44
110.00	10 56 40	973.52	4.02	321.95	99.54	123.97	11 12 54	373.5	8.45	315.67
110.00	17 3 42	5069.16	34.17	222.78	109.49	91.13	18 28 11	4469.2	33.95	213.54

DIFFERENTIAL CORRECTIONS

TOE	.1837	TRA	-.7443	TC3	.4646	BAU	.1166
RDE	-.3264	RRA	.0565	RC3	-.2230	FAU	.02994
FDE	-.1292	FRA	.6244	FC3	-1.5314	BSP	3762
BDE	.3745	BRA	.7465	BC3	.5153	FSP	-354

MID-COURSE EXECUTION ACCURACY

SGT	1235.0	SGR	497.9	SG3	137.8		
RRT	-.4654	RRF	.4995	RTF	-.8272		
SGB	1331.5	R23	-.0685	R13	.8345		
SG1	1259.5	SG2	432.1	THA	167.93		

ORBIT DETERMINATION ACCURACY

ST	428.7	SR	455.3	SS	270.8
CRT	-.6419	CRS	-.5748	CST	.9931
LSA	614.7	MSA	293.8	SSA	18.7
EL1	566.9	EL2	264.0	ALF	132.31

LAUNCH DATE AUG 21 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 236.487

RL	151.34	LAL	-.00	LOL	327.53	VL	25.552	GAL	.10	AZL	90.51	HCA	100.31	SMA	120.54	ECC	.25550	INC	.5147	V1	29.440
RP	107.88	LAP	-.51	LOP	67.84	VP	36.872	GAP	-13.54	AZP	89.91	TAL	179.71	TAP	280.02	RCA	89.74	APO	151.34	V2	35.129
RC	43.202	GL	-3.36	GP	-13.58	ZAL	84.19	ZAP	14.29	ETS	68.16	ZAE	155.80	ETE	333.26	ZAC	87.77	ETC	260.46	CLP	-4.48

PLANETOCENTRIC CONIC

C3	15.324	VHL	3.915	DLA	-24.13	RAL	240.62	RAD	6567.6	VEL	11.692	PTH	2.06	VHP	8.692	DPA	-33.19	RAP	237.53	ECC	1.2522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 28	1278.41	8.80	347.42	100.16	117.02	9 33 47	678.4	12.36	340.55
90.00	13 41 52	5670.98	27.83	267.34	105.97	95.46	15 16 23	5071.0	28.29	258.71
100.00	10 13 42	1080.79	7.12	332.00	99.26	119.11	10 31 42	480.8	10.95	325.30
100.00	15 23 20	5343.83	29.72	243.44	106.13	93.33	16 52 24	4743.8	29.87	234.64
110.00	10 42 21	990.92	3.36	322.86	96.93	124.04	10 58 52	390.9	7.80	316.60
110.00	17 11 10	5006.46	34.14	217.89	106.20	88.23	18 34 37	4406.5	33.52	208.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .1754	TRA -.7310	TC3 .5607	BAU .1287			SGT 1277.9	SGR 510.0	SG3 152.4	ST 435.7	SR 448.6	SS 268.9
RDE -.3058	RRA .0643	RC3 -.2834	FAU .03188			RRT -.5112	RRF .5509	RTF -.8377	CRT -.6441	CRS -.5281	CST .9863
FDE -.1143	FRA .6521	FC3-1.8012	BSP 3859			SGB 1375.9	R23 -.0794	R13 .8461	LSA 612.2	MSA 296.9	SSA 19.4
BDE .3525	BRA .7338	BC3 .6282	FSP -389			SG1 1307.5	SG2 428.4	THA 167.05	EL1 567.1	EL2 263.7	ALF 133.70

LAUNCH DATE AUG 21 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 243.248

RL	151.34	LAL	-.00	LOL	327.53	VL	25.721	GAL	-.10	AZL	90.33	HCA	103.53	SMA	121.50	ECC	.24561	INC	.3259	V1	29.440
RP	107.84	LAP	-.32	LOP	71.06	VP	37.000	GAP	-12.70	AZP	89.92	TAL	180.30	TAP	283.82	RCA	91.66	APO	151.34	V2	35.141
RC	44.254	GL	-2.25	GP	-14.62	ZAL	85.25	ZAP	15.95	ETS	62.45	ZAE	153.52	ETE	332.26	ZAC	86.87	ETC	260.67	CLP	-6.45

PLANETOCENTRIC CONIC

C3	13.941	VHL	3.734	DLA	-22.82	RAL	239.72	RAD	6567.5	VEL	11.633	PTH	2.04	VHP	8.243	DPA	-34.52	RAP	238.61	ECC	1.2294

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 49 27	1325.78	7.32	350.12	97.28	117.43	9 11 33	725.8	10.94	343.31
90.00	13 57 44	5581.54	28.24	260.83	103.06	92.22	15 30 46	4981.5	28.25	252.17
100.00	9 53 40	1118.51	5.87	334.09	96.49	119.36	10 12 18	518.5	9.74	327.44
100.00	15 36 12	5264.04	29.89	237.51	103.10	90.22	17 3 56	4664.0	29.60	228.72
110.00	10 26 55	1014.27	2.47	324.08	94.38	124.10	10 43 49	414.3	6.93	317.84
110.00	17 19 27	4941.05	33.89	212.79	102.91	85.23	18 41 48	4341.0	32.86	203.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .1761	TRA -.6980	TC3 .6968	BAU .1464			SGT 1301.7	SGR 530.1	SG3 168.4	ST 441.4	SR 442.6	SS 263.5
RDE -.2875	RRA .0685	RC3 -.3627	FAU .03459			RRT -.5690	RRF .6110	RTF -.8480	CRT -.6720	CRS -.5107	CST .9761
FDE -.1064	FRA .6579	FC3-2.1481	BSP 4181			SGB 1405.5	R23 -.0864	R13 .8580	LSA 613.3	MSA 289.1	SSA 20.2
BDE .3372	BRA .7014	BC3 .7856	FSP -451			SG1 1340.2	SG2 423.4	THA 165.47	EL1 571.5	EL2 253.1	ALF 134.88

LAUNCH DATE AUG 1 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 250.005

RL	151.34	LAL	-.00	LOL	327.53	VL	25.875	GAL	-.28	AZL	90.13	HCA	106.75	SMA	122.39	ECC	.23657	INC	.1314	V1	29.440
RP	107.81	LAP	-.13	LOP	74.28	VP	37.118	GAP	-11.88	AZP	89.96	TAL	180.91	TAP	287.66	RCA	93.44	APO	151.34	V2	35.152
RC	45.436	GL	-.96	GP	-15.77	ZAL	86.38	ZAP	17.86	ETS	57.79	ZAE	151.39	ETE	331.05	ZAC	85.84	ETC	260.87	CLP	-8.48

PLANETOCENTRIC CONIC

C3	12.753	VHL	3.571	DLA	-21.33	RAL	238.81	RAD	6567.5	VEL	11.582	PTH	2.03	VHP	7.818	DPA	-35.95	RAP	239.58	ECC	1.2099

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 12	1376.85	5.71	353.00	94.56	117.78	8 49 9	776.9	9.39	346.25
90.00	14 13 41	5491.83	28.30	254.27	100.12	88.94	15 45 13	4891.8	27.85	245.63
100.00	9 32 57	1161.40	4.43	336.47	93.85	119.59	9 52 19	561.4	8.34	329.86
100.00	15 49 37	5182.52	29.76	231.46	100.07	87.04	17 15 59	4582.5	29.03	222.73
110.00	10 10 31	1043.67	1.34	325.62	91.93	124.16	10 27 55	443.7	5.82	319.39
110.00	17 28 33	4873.01	33.38	207.55	99.66	82.16	18 49 46	4273.0	31.94	198.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .1642	TRA -.6901	TC3 .8109	BAU .1583			SGT 1348.2	SGR 553.8	SG3 186.9	ST 443.7	SR 430.8	SS 261.2
RDE -.2673	RRA .0791	RC3 -.4521	FAU .03704			RRT -.6187	RRF .6671	RTF -.8573	CRT -.6681	CRS -.4278	CST .9542
FDE -.0815	FRA .6967	FC3-2.5143	BSP 4295			SGB 1457.5	R23 -.1010	R13 .8689	LSA 602.8	MSA 294.8	SSA 21.0
BDE .3137	BRA .6946	BC3 .9284	FSP -505			SG1 1395.6	SG2 420.3	THA 164.28	EL1 564.9	EL2 251.8	ALF 136.26

LAUNCH DATE AUG 21 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 256.756

RL	151.34	LAL	-.00	LOL	327.53	VL	26.016	GAL	-.46	AZL	89.93	HCA	109.97	SMA	123.22	ECC	.22833	INC	.0667	V1	29.440
RP	107.77	LAP	.06	LOP	77.50	VP	37.227	GAP	-11.09	AZP	90.02	TAL	181.54	TAP	291.52	RCA	95.09	APO	151.36	V2	35.163
RC	46.738	GL	.52	GP	-17.07	ZAL	87.56	ZAP	20.01	ETS	53.99	ZAE	149.41	ETE	329.61	ZAC	84.65	ETC	261.05	CLP	-10.60

PLANETOCENTRIC CONIC

C3	11.741	VHL	3.427	DLA	-19.64	RAL	237.90	RAD	6567.4	VEL	11.538	PTH	2.01	VHP	7.417	DPA	-37.48	RAP	240.43	ECC	1.1932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 2 42	1432.25	3.95	356.12	92.01	118.06	8 26 35	832.2	7.67	349.42
90.00	14 29 56	5401.41	28.01	247.67	97.22	85.64	15 59 57	4801.4	27.11	239.12
100.00	9 11 41	1209.66	2.80	339.12	91.38	119.77	9 31 51	609.7	6.75	332.55
100.00	16 3 38	5099.23	29.31	225.31	97.08	83.83	17 28 38	4499.2	28.14	216.70
110.00	9 53 18	1079.23	-.02	327.47	89.62	124.18	10 11 17	479.2	4.47	321.26
110.00	17 38 30	4802.42	32.60	202.19	96.51	79.08	18 58 33	4202.4	30.75	193.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .1485	TRA -.6752	TC3 .9309	BAU .1704			SGT 1380.5	SGR 584.3	SG3 206.5	ST 437.4	SR 414.7	SS 257.1
RDE -.2463	RRA .0894	RC3 -.5587	FAU .03973			RRT -.6655	RRF .7211	RTF -.8646	CRT -.6593	CRS -.3132	CST .9158
FDE -.0478	FRA .7295	FC3-2.9291	BSP 4449			SGB 1499.0	R23 -.1168	R13 .8787	LSA 581.6	MSA 301.3	SSA 21.9
BDE .2876	BRA .6811	BC3 1.0857	FSP -565			SG1 1439.5	SG2 418.2	THA 162.77	EL1 549.2	EL2 248.4	ALF 137.31

LAUNCH DATE AUG 21 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 263.498

RL	151.34	LAL	-.00	LOL	327.53	VL	26.144	GAL	-.62	AZL	89.72	HCA	113.20	SMA	123.99	ECC	.22085	INC	.2780	V1	29.440
RP	107.74	LAP	.26	LOP	80.73	VP	37.326	GAP	-10.33	AZP	90.11	TAL	182.19	TAP	295.39	RCA	96.60	APO	151.37	V2	35.174
RC	48.150	GL	2.21	GP	-18.54	ZAL	88.79	ZAP	22.40	ETS	50.90	ZAE	147.55	ETE	327.95	ZAC	83.28	ETC	261.21	CLP	-12.81

PLANETOCENTRIC CONIC

C3	10.888	VHL	3.300	DLA	-17.73	RAL	237.02	RAD	6567.4	VEL	11.501	PTH	2.00	VHP	7.041	DPA	-39.15	RAP	241.14	ECC	1.1792

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 0	1492.46	2.01	359.48	89.69	118.25	8 3 52	892.5	5.77	352.82
90.00	14 46 38	5309.96	27.36	241.06	94.42	82.39	16 15 8	4710.0	26.02	232.65
100.00	8 49 57	1263.51	.98	342.08	89.11	119.88	9 11 1	663.5	4.95	335.54
100.00	16 18 22	5014.14	28.52	219.11	94.22	80.66	17 41 56	4414.1	26.94	210.66
110.00	9 35 25	1121.05	-1.62	329.65	87.49	124.15	9 54 6	521.0	2.88	323.45
110.00	17 49 23	4729.37	31.52	196.76	93.51	76.04	19 8 13	4129.4	29.28	188.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TOE	.1261	TRA	-.6635	TC3	1.0337	BAU	.1803	SGT	1405.9	SGR	622.5	SG3	227.4	ST	424.3	SR	392.2	SS	258.4
RDE	-.2235	RRA	.1015	RC3	-.6821	FAU	.04250	RRT	-.7039	RRF	.7710	RTF	-.8682	CRT	-.6333	CRS	-.1485	CST	.8538
FDE	-.0008	FRA	.7669	FC3	-3.3795	BSP	4414	SGB	1537.5	R23	-.1400	R13	.8859	LSA	549.3	MSA	313.6	SSA	23.0
BDE	.2566	BRA	.6713	BC3	1.2384	FSP	-616	SG1	1478.9	SG2	420.3	THA	161.11	EL1	522.6	EL2	246.4	ALF	138.55

LAUNCH DATE AUG 21 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 270.229

RL	151.34	LAL	-.00	LOL	327.53	VL	26.260	GAL	-.77	AZL	89.50	HCA	116.43	SMA	124.70	ECC	.21408	INC	.4981	V1	29.440
RP	107.71	LAP	.45	LOP	83.96	VP	37.417	GAP	-9.60	AZP	90.22	TAL	182.84	TAP	299.26	RCA	98.00	APO	151.39	V2	35.184
RC	49.661	GL	4.10	GP	-20.18	ZAL	90.03	ZAP	25.02	ETS	48.36	ZAE	145.81	ETE	326.02	ZAC	81.73	ETC	261.34	CLP	-15.12

PLANETOCENTRIC CONIC

C3	10.179	VHL	3.190	DLA	-15.61	RAL	236.20	RAD	6567.4	VEL	11.470	PTH	1.99	VHP	6.691	DPA	-40.96	RAP	241.68	ECC	1.1675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 15 4	1558.00	-.10	3.14	87.61	118.32	7 41 2	958.0	3.68	356.51
90.00	15 3 58	5217.12	26.35	234.46	91.77	79.23	16 30 55	4617.1	24.59	226.23
100.00	8 27 49	1323.25	-1.05	345.36	87.09	119.88	8 49 52	723.2	2.94	338.84
100.00	16 33 54	4927.10	27.40	212.88	91.52	77.56	17 56 1	4327.1	25.41	204.64
110.00	9 16 58	1169.29	-3.46	332.18	85.59	124.03	9 36 27	569.3	1.03	325.97
110.00	18 1 15	4653.82	30.15	191.31	90.70	73.08	19 18 48	4053.8	27.54	183.09

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TOE	.1168	TRA	-.6390	TC3	1.1904	BAU	.1979	SGT	1428.5	SGR	677.7	SG3	251.4	ST	415.1	SR	366.8	SS	266.6
RDE	-.2010	RRA	.1140	RC3	-.8349	FAU	.04603	RRT	-.7579	RRF	.8202	RTF	-.8794	CRT	-.6493	CRS	.0026	CST	.7525
FDE	.0465	FRA	.7995	FC3	-3.9151	BSP	4796	SGB	1581.1	R23	-.1411	R13	.8994	LSA	524.8	MSA	319.2	SSA	23.6
BDE	.2324	BRA	.6491	BC3	1.4540	FSP	-704	SG1	1526.0	SG2	413.9	THA	158.57	EL1	504.1	EL2	229.7	ALF	140.40

LAUNCH DATE AUG 21 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 276.947

RL	151.34	LAL	-.00	LOL	327.53	VL	26.364	GAL	-.91	AZL	89.27	HCA	119.65	SMA	125.34	ECC	.20798	INC	.7308	V1	29.440
RP	107.68	LAP	.64	LOP	87.19	VP	37.499	GAP	-8.89	AZP	90.36	TAL	183.49	TAP	303.14	RCA	99.27	APO	151.41	V2	35.193
RC	51.263	GL	6.23	GP	-22.03	ZAL	91.25	ZAP	27.89	ETS	46.25	ZAE	144.14	ETE	323.82	ZAC	79.95	ETC	261.43	CLP	-17.54

PLANETOCENTRIC CONIC

C3	9.602	VHL	3.099	DLA	-13.26	RAL	235.45	RAD	6567.3	VEL	11.445	PTH	1.99	VHP	6.368	DPA	-42.95	RAP	242.00	ECC	1.1580

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 50 58	1629.26	-2.40	7.12	85.85	118.22	7 18 7	1029.3	1.39	.49
90.00	15 22 7	5122.71	24.98	227.88	89.35	76.21	16 47 30	4522.7	22.83	219.87
100.00	8 5 24	1389.12	-3.28	348.98	85.36	119.73	8 28 33	789.1	.71	342.45
100.00	16 50 23	4838.08	25.94	206.67	89.07	74.61	18 11 1	4238.1	23.58	198.67
110.00	8 58 6	1224.08	-5.54	335.05	83.96	123.79	9 18 30	624.1	-1.06	328.83
110.00	18 14 10	4575.88	28.48	185.85	88.17	70.24	19 30 26	3975.9	25.52	177.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TOE	.0949	TRA	-.6229	TC3	1.3028	BAU	.2112	SGT	1443.2	SGR	743.5	SG3	276.4	ST	396.7	SR	330.5	SS	293.0
RDE	-.1739	RRA	.1302	RC3	-1.0053	FAU	.04944	RRT	-.7941	RRF	.8608	RTF	-.8848	CRT	-.6344	CRS	.1826	CST	.6370
FDE	.1165	FRA	.8419	FC3	-4.4573	BSP	4943	SGB	1623.4	R23	-.1547	R13	.9092	LSA	487.4	MSA	338.1	SSA	24.2
BDE	.1981	BRA	.6364	BC3	1.6456	FSP	-781	SG1	1569.3	SG2	415.5	THA	155.96	EL1	468.9	EL2	216.1	ALF	143.07

LAUNCH DATE AUG 21 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 283.649

RL	151.34	LAL	-.00	LOL	327.53	VL	26.458	GAL	-1.04	AZL	89.02	HCA	122.88	SMA	125.94	ECC	.20251	INC	.9791	V1	29.440
RP	107.65	LAP	.82	LOP	90.42	VP	37.574	GAP	-8.20	AZP	90.53	TAL	184.12	TAP	307.00	RCA	100.43	APO	151.44	V2	35.202
RC	52.948	GL	8.60	GP	-24.11	ZAL	92.45	ZAP	31.00	ETS	44.46	ZAE	142.52	ETE	321.32	ZAC	77.93	ETC	261.48	CLP	-20.10

PLANETOCENTRIC CONIC

C3	9.151	VHL	3.025	DLA	-10.68	RAL	234.81	RAD	6567.3	VEL	11.425	PTH	1.98	VHP	6.074	DPA	-45.12	RAP	242.08	ECC	1.1506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 26 42	1706.75	-4.89	11.46	84.43	117.93	6 55 9	1106.7	-1.11	4.81
90.00	15 41 17	5026.42	23.26	221.35	87.22	73.37	17 5 3	4426.4	20.76	213.57
100.00	7 42 43	1461.51	-5.71	352.97	83.98	119.39	8 7 4	861.5	-1.75	346.42
100.00	17 7 57	4746.89	24.15	200.49	86.91	71.83	18 27 4	4146.9	21.44	192.74
110.00	8 38 52	1285.65	-7.86	338.31	82.66	123.38	9 0 18	685.7	-3.41	332.04
110.00	18 28 17	4495.51	26.51	180.44	85.95	67.59	19 43 12	3895.5	23.24	172.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TOE	.0711	TRA	-.6085	TC3	1.3951	BAU	.2249	SGT	1451.3	SGR	825.7	SG3	302.8	ST	377.6	SR	284.5	SS	340.9
RDE	-.1426	RRA	.1502	RC3	-1.1977	FAU	.05294	RRT	-.8240	RRF	.8947	RTF	-.8889	CRT	-.6279	CRS	.3093	CST	.5378
FDE	.2031	FRA	.8915	FC3	-5.0087	BSP	5114	SGB	1669.7	R23	-.1667	R13	.9189	LSA	458.9	MSA	358.6	SSA	24.4
BDE	.1593	BRA	.6268	BC3	1.8387	FSP	-865	SG1	1616.0	SG2	420.1	THA	152.90	EL1	431.2	EL2	193.9	ALF	147.27

LAUNCH DATE AUG 21 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 290.336

RL	151.34	LAL	-.00	LOL	327.53	VL	26.543	GAL	-1.16	AZL	88.75	HCA	126.11	SMA	126.47	ECC	.19762	INC	1.2465	V1	29.440
RP	107.63	LAP	1.01	LOP	93.65	VP	37.641	GAP	-7.54	AZP	90.73	TAL	184.72	TAP	310.84	RCA	101.48	APO	151.47	V2	35.210
RC	54.707	GL	11.21	GP	-26.45	ZAL	93.57	ZAP	34.37	ETS	42.90	ZAE	140.88	ETE	318.49	ZAC	75.64	ETC	261.48	CLP	-22.80

PLANETOCENTRIC CONIC

C3	8.820	VHL	2.970	DLA	-7.87	RAL	234.30	RAD	6567.3	VEL	11.411	PTH	1.98	VHP	5.811	DPA	-47.50	RAP	241.85	ECC	1.1451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 2 13	1791.04	-7.55	16.22	83.40	117.37	6 32 4	1191.0	-3.82	9.52
90.00	16 1 40	4927.96	21.19	214.88	85.44	70.76	17 23 48	4328.0	18.37	207.34
100.00	7 19 46	1540.86	-8.34	357.40	82.98	118.81	7 45 27	940.9	-4.43	350.79
100.00	17 26 48	4653.37	22.03	194.35	85.11	69.26	18 44 21	4053.4	19.01	186.86
110.00	8 19 22	1354.29	-10.41	341.99	81.73	122.75	8 41 56	754.3	-6.02	335.65
110.00	18 43 42	4412.71	24.25	175.07	84.10	65.13	19 57 15	3812.7	20.69	167.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0449	TRA	-.5940	TC3	1.4574	BAU	.2391	SGT	1447.5	SGR	926.1	SG3	329.7	ST	358.6	SR	228.3	SS	411.0
RDE	-.1052	RRA	.1739	RC3	-1.4103	FAU	.05643	RRT	-.8464	RRF	.9219	RTF	-.8913	CRT	-.6534	CRS	.3348	CST	.4845
FDE	.3094	FRA	.9439	FC3	-5.5392	BSP	5269	SGB	1718.4	R23	-.1759	R13	.9286	LSA	472.6	MSA	354.6	SSA	24.0
BDE	.1144	BRA	.6189	BC3	2.0281	FSP	-950	SG1	1663.9	SG2	429.0	THA	149.30	EL1	395.2	EL2	156.9	ALF	152.78

LAUNCH DATE AUG 21 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 297.004

RL	151.34	LAL	-.00	LOL	327.53	VL	26.618	GAL	-1.27	AZL	88.46	HCA	129.35	SMA	126.96	ECC	.19327	INC	1.5369	V1	29.440
RP	107.60	LAP	1.19	LOP	96.89	VP	37.702	GAP	-6.90	AZP	90.97	TAL	185.30	TAP	314.65	RCA	102.42	APO	151.49	V2	35.218
RC	56.533	GL	14.08	GP	-29.07	ZAL	94.60	ZAP	38.01	ETS	41.47	ZAE	139.18	ETE	315.34	ZAC	73.06	ETC	261.40	CLP	-25.66

PLANETOCENTRIC CONIC

C3	8.609	VHL	2.934	DLA	-4.83	RAL	233.94	RAD	6567.3	VEL	11.402	PTH	1.97	VHP	5.582	DPA	-50.11	RAP	241.24	ECC	1.1417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 37 26	1882.83	-10.38	21.47	82.83	116.49	6 8 49	1282.8	-6.74	14.68
90.00	16 23 33	4826.97	18.79	208.44	84.07	68.42	17 44 0	4227.0	15.69	201.13
100.00	6 56 31	1627.75	-11.15	2.32	82.43	117.92	7 23 39	1027.8	-7.33	355.61
100.00	17 47 10	4557.28	19.58	188.26	83.73	66.96	19 3 7	3957.3	16.30	181.01
110.00	7 59 33	1430.39	-13.18	346.15	81.24	121.83	8 23 24	830.4	-8.87	339.69
110.00	19 0 37	4327.40	21.70	169.75	82.67	62.92	20 12 44	3727.4	17.90	162.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0182	TRA	-.5799	TC3	1.4881	BAU	.2549	SGT	1433.6	SGR	1048.3	SG3	356.7	ST	343.8	SR	169.2	SS	502.6
RDE	-.0595	RRA	.2034	RC3	-1.6405	FAU	.05981	RRT	-.8634	RRF	.9430	RTF	-.8928	CRT	-.7846	CRS	.1451	CST	.4842
FDE	.4368	FRA	1.0025	FC3	-6.0150	BSP	5459	SGB	1776.0	R23	-.1790	R13	.9389	LSA	541.3	MSA	325.4	SSA	22.7
BDE	.0622	BRA	.6145	BC3	2.2149	FSP	-1037	SG1	1720.5	SG2	440.7	THA	145.11	EL1	370.6	EL2	97.3	ALF	157.23

LAUNCH DATE AUG 21 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 303.652

RL	151.34	LAL	-.00	LOL	327.53	VL	26.685	GAL	-1.36	AZL	88.14	HCA	132.58	SMA	127.39	ECC	.18942	INC	1.8556	V1	29.440
RP	107.58	LAP	1.37	LOP	100.12	VP	37.756	GAP	-6.28	AZP	91.26	TAL	185.84	TAP	318.41	RCA	103.26	APO	151.52	V2	35.225
RC	58.419	GL	17.21	GP	-31.99	ZAL	95.51	ZAP	41.93	ETS	40.09	ZAE	137.34	ETE	311.87	ZAC	70.16	ETC	261.25	CLP	-28.69

PLANETOCENTRIC CONIC

C3	8.524	VHL	2.920	DLA	-1.55	RAL	233.74	RAD	6567.3	VEL	11.398	PTH	1.97	VHP	5.390	DPA	-52.96	RAP	240.14	ECC	1.1403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 12 12	1983.01	-13.36	27.33	82.77	115.20	5 45 15	1383.0	-9.86	20.40
90.00	16 47 16	4723.03	16.06	202.03	83.17	66.36	18 5 59	4123.0	12.73	194.94
100.00	6 32 49	1722.94	-14.12	7.82	82.39	116.62	7 1 32	1122.9	-10.44	.97
100.00	18 9 20	4458.33	16.84	182.20	82.81	64.93	19 23 38	3858.3	13.32	175.17
110.00	7 39 24	1514.49	-16.14	350.86	81.25	120.55	8 4 39	914.5	-11.97	344.24
110.00	19 19 14	4239.54	18.89	164.49	81.71	60.96	20 29 54	3639.5	14.87	157.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0092	TRA	-.5666	TC3	1.4704	BAU	.2717	SGT	1405.3	SGR	1193.0	SG3	382.0	ST	335.2	SR	145.2	SS	613.5
RDE	-.0024	RRA	.2399	RC3	-1.8771	FAU	.06274	RRT	-.8738	RRF	.9589	RTF	-.8921	CRT	-.9848	CRS	-.4545	CST	.5283
FDE	.5873	FRA	1.0662	FC3	-6.3716	BSP	5668	SGB	1843.4	R23	-.1758	R13	.9492	LSA	650.2	MSA	294.4	SSA	20.6
BDE	.0095	BRA	.6153	BC3	2.3844	FSP	-1120	SG1	1786.0	SG2	456.5	THA	140.33	EL1	364.5	EL2	23.2	ALF	156.81

LAUNCH DATE AUG 21 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 310.280

RL	151.34	LAL	-.00	LOL	327.53	VL	26.744	GAL	-1.44	AZL	87.79	HCA	135.81	SMA	127.78	ECC	.18603	INC	2.2094	V1	29.440
RP	107.56	LAP	1.54	LOP	103.36	VP	37.804	GAP	-5.69	AZP	91.58	TAL	186.32	TAP	322.13	RCA	104.01	APO	151.55	V2	35.232
RC	60.358	GL	20.61	GP	-35.23	ZAL	96.26	ZAP	46.10	ETS	38.67	ZAE	135.30	ETE	308.10	ZAC	66.94	ETC	261.00	CLP	-31.92

PLANETOCENTRIC CONIC

C3	8.577	VHL	2.929	DLA	1.96	RAL	233.74	RAD	6567.3	VEL	11.400	PTH	1.97	VHP	5.242	DPA	-56.04	RAP	238.43	ECC	1.1412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 46 13	2092.80	-16.44	33.92	83.31	113.39	5 21 6	1492.8	-13.14	26.80
90.00	17 13 15	4615.57	13.03	195.60	82.81	64.63	18 30 10	4015.6	9.50	188.69
100.00	6 8 28	1827.49	-17.21	14.04	82.95	114.82	6 38 56	1227.5	-13.72	6.99
100.00	18 33 41	4356.11	13.79	176.14	82.42	63.21	19 46 17	3756.1	10.09	169.31
110.00	7 18 48	1607.33	-19.28	356.23	81.85	118.79	7 45 35	1007.3	-15.29	349.39
110.00	19 39 50	4149.02	15.81	159.27	81.27	59.29	20 48 59	3549.0	11.62	152.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0338	TRA	-.5517	TC3	1.4039	BAU	.2907	SGT	1359.0	SGR	1362.3	SG3	403.9	ST	331.6	SR	217.4	SS	736.2
RDE	.0687	RRA	.2841	RC3	-2.1109	FAU	.06503	RRT	-.8783	RRF	.9706	RTF	-.8887	CRT	-.8858	CRS	-.8876	CST	.5853
FDE	.7563	FRA	1.1288	FC3	-6.5641	BSP	5926	SGB	1924.3	R23	-.1654	R13	.9594	LSA	791.4	MSA	269.6	SSA	18.1
BDE	.0765	BRA	.6205	BC3	2.5351	FSP	-1196	SG1	1864.8	SG2	474.7	THA	134.92	EL1	387.0	EL2	86.4	ALF	148.08

LAUNCH DATE AUG 21 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 316.887

RL	151.34	LAL	-.00	LOL	327.53	VL	26.796	GAL	-1.51	AZL	87.39	HCA	139.04	SMA	128.12	ECC	.18307	INC	2.6068	V1	29.440
RP	107.54	LAP	1.71	LOP	106.60	VP	37.846	GAP	-5.11	AZP	91.97	TAL	186.76	TAP	325.80	RCA	104.66	APO	151.57	V2	35.238
RC	62.346	GL	24.26	GP	-38.79	ZAL	96.83	ZAP	50.52	ETS	37.13	ZAE	132.98	ETE	304.06	ZAC	63.38	ETC	260.62	CLP	-35.35

PLANETOCENTRIC CONIC

C3	8.789	VHL	2.965	DLA	5.68	RAL	233.95	RAD	6567.3	VEL	11.410	PTH	1.97	VHP	5.144	DPA	-59.34	RAP	235.90	ECC	1.1446

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 19 5	2213.86	-19.55	41.44	84.54	110.90	4 55 59	1613.9	-16.54	34.06
90.00	17 42 3	4503.80	9.68	189.10	83.06	63.26	18 57 7	3903.8	6.02	182.34
100.00	5 43 7	1942.83	-20.36	21.16	84.19	112.37	6 15 30	1342.8	-17.15	13.84
100.00	19 0 42	4250.06	10.45	170.03	82.65	61.84	20 11 32	3650.1	6.61	163.35
110.00	6 57 31	1709.97	-22.52	2.43	83.14	116.43	7 26 1	1110.0	-18.79	355.29
110.00	20 2 47	4055.69	12.50	154.07	81.43	57.92	21 10 23	3455.7	8.18	147.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0548	TRA	-.5362	TC3	1.2824	BAU	.3117	SGT	1293.8	SGR	1556.8	SG3	420.3	ST	330.7	SR	367.7	SS	868.3
RDE	.1590	RRA	.3391	RC3	-2.3220	FAU	.06627	RRT	-.8764	RRF	.9790	RTF	-.8813	CRT	-.7831	CRS	-.9773	CST	.6386
FDE	.9430	FRA	1.1918	FC3	-6.5281	BSP	6222	SGB	2024.3	R23	-.1481	R13	.9689	LSA	967.1	MSA	250.9	SSA	15.4
BDE	.1682	BRA	.6345	BC3	2.6525	FSP	-1254	SG1	1963.0	SG2	494.1	THA	129.01	EL1	467.3	EL2	161.8	ALF	131.14

LAUNCH DATE AUG 21 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 323.470

RL	151.34	LAL	-.00	LOL	327.53	VL	26.841	GAL	-1.56	AZL	86.94	HCA	142.27	SMA	128.42	ECC	.18050	INC	3.0598	V1	29.440
RP	107.53	LAP	1.87	LOP	109.85	VP	37.882	GAP	-4.55	AZP	92.42	TAL	187.13	TAP	329.41	RCA	105.24	APO	151.60	V2	35.243
RC	64.375	GL	28.18	GP	-42.66	ZAL	97.20	ZAP	55.15	ETS	35.36	ZAE	130.33	ETE	299.81	ZAC	59.49	ETC	260.08	CLP	-39.00

PLANETOCENTRIC CONIC

C3	9.197	VHL	3.033	DLA	9.62	RAL	234.39	RAD	6567.3	VEL	11.427	PTH	1.98	VHP	5.103	DPA	-62.81	RAP	232.27	ECC	1.1514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 50 8	2348.66	-22.58	50.16	86.56	107.56	4 29 16	1748.7	-19.97	42.46
90.00	18 14 29	4386.48	6.02	182.42	84.02	62.28	19 27 35	3786.5	2.26	175.76
100.00	5 16 12	2071.05	-23.46	29.42	86.25	109.08	5 50 43	1471.0	-20.64	21.76
100.00	19 31 6	4139.32	6.83	163.80	83.58	60.83	20 40 5	3539.3	2.89	157.23
110.00	6 35 13	1823.81	-25.78	9.66	85.26	113.27	7 5 36	1223.8	-22.41	2.13
110.00	20 28 35	3959.32	8.96	148.85	82.28	56.87	21 34 34	3359.3	4.54	142.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0681	TRA	-.5182	TC3	1.1093	BAU	.3351	SGT	1206.3	SGR	1775.6	SG3	428.6	ST	325.1	SR	568.3	SS	1000.1
RDE	.2731	RRA	.4067	RC3	-2.4890	FAU	.06616	RRT	-.8665	RRF	.9850	RTF	-.8678	CRT	-.7411	CRS	-.9943	CST	.6677
FDE	1.1374	FRA	1.2479	FC3	-6.2279	BSP	6591	SGB	2146.6	R23	-.1255	R13	.9774	LSA	1171.4	MSA	237.5	SSA	12.9
BDE	.2815	BRA	.6587	BC3	2.7250	FSP	-1289	SG1	2084.4	SG2	513.0	THA	122.71	EL1	623.8	EL2	198.8	ALF	115.78

LAUNCH DATE AUG 21 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 330.030

RL	151.34	LAL	-.00	LOL	327.53	VL	26.879	GAL	-1.61	AZL	86.42	HCA	145.51	SMA	128.67	ECC	.17829	INC	3.5842	V1	29.440
RP	107.51	LAP	2.03	LOP	113.09	VP	37.913	GAP	-4.00	AZP	92.96	TAL	187.45	TAP	332.95	RCA	105.73	APO	151.62	V2	35.247
RC	66.441	GL	32.34	GP	-46.83	ZAL	97.34	ZAP	59.90	ETS	33.26	ZAE	127.30	ETE	295.41	ZAC	55.30	ETC	259.34	CLP	-42.87

PLANETOCENTRIC CONIC

C3	9.860	VHL	3.140	DLA	13.75	RAL	235.07	RAD	6567.4	VEL	11.456	PTH	1.99	VHP	5.131	DPA	-66.37	RAP	227.10	ECC	1.1623

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 18 14	2501.03	-25.33	60.47	89.52	103.10	3 59 55	1901.0	-23.28	52.40
90.00	18 51 48	4261.41	2.02	175.41	85.84	61.75	20 2 50	3661.4	-1.77	168.78
100.00	4 46 49	2215.33	-26.32	39.18	89.24	104.71	5 23 45	1615.3	-24.04	31.13
100.00	20 5 54	4022.34	2.91	157.34	85.34	60.24	21 12 56	3422.3	-1.07	150.81
110.00	6 11 20	1950.92	-28.91	18.22	88.36	109.09	6 43 51	1350.9	-26.04	10.22
110.00	20 57 53	3859.52	5.21	143.55	83.91	56.17	22 2 13	3259.5	.73	137.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0686	TRA	-.4967	TC3	.8891	BAU	.3600	SGT	1094.6	SGR	2014.6	SG3	426.3	ST	307.1	SR	810.9	SS	1122.4
RDE	.4169	RRA	.4908	RC3	-2.5822	FAU	.06427	RRT	-.8439	RRF	.9892	RTF	-.8428	CRT	-.6964	CRS	-.9983	CST	.6548
FDE	1.3275	FRA	1.2951	FC3	-5.6432	BSP	7024	SGB	2292.8	R23	-.1003	R13	.9842	LSA	1399.8	MSA	228.7	SSA	10.6
BDE	.4225	BRA	.6983	BC3	2.7310	FSP	-1291	SG1	2230.6	SG2	530.4	THA	116.23	EL1	840.6	EL2	212.6	ALF	105.81

LAUNCH DATE AUG 21 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 336.565

RL	151.34	LAL	-.00	LOL	327.53	VL	26.911	GAL	-1.64	AZL	85.80	HCA	148.73	SMA	128.89	ECC	.17641	INC	4.2026	V1	29.440
RP	107.50	LAP	2.18	LOP	116.33	VP	37.940	GAP	-3.48	AZP	93.59	TAL	187.69	TAP	336.42	RCA	106.16	APO	151.63	V2	35.251
RC	68.539	GL	36.72	GP	-51.25	ZAL	97.26	ZAP	64.71	ETS	30.74	ZAE	123.88	ETE	290.91	ZAC	50.84	ETC	258.33	CLP	-46.96

PLANETOCENTRIC CONIC

C3	10.873	VHL	3.297	DLA	18.05	RAL	236.01	RAD	6567.4	VEL	11.501	PTH	2.00	VHP	5.242	DPA	-69.88	RAP	219.71	ECC	1.1789

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 41 20	2677.85	-27.46	72.97	93.50	97.19	3 25 58	2077.8	-26.18	64.53
90.00	19 36 12	4124.01	-2.41	167.74	88.73	61.78	20 44 56	3524.0	-6.17	161.07
100.00	4 13 22	2381.07	-28.64	50.95	93.31	98.94	4 53 3	1781.1	-27.11	42.48
100.00	20 46 52	3896.01	-1.37	150.40	88.15	60.14	21 51 48	3296.0	-5.33	143.86
110.00	5 44 59	2094.43	-31.67	28.48	92.61	103.59	6 19 54	1494.4	-29.48	19.96
110.00	21 31 44	3755.42	1.25	138.10	86.51	55.84	22 34 19	3155.4	-3.24	131.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0488	TRA	-.4684	TC3	.6416	BAU	.3865	SGT	958.6	SGR	2269.1	SG3	411.9	ST	270.7	SR	1087.7	SS	1223.9
RDE	.5965	RRA	.5942	RC3	-2.5801	FAU	.06052	RRT	-.7987	RRF	.9922	RTF	-.7959	CRT	-.5850	CRS	-.9994	CST	.5582
FDE	1.4971	FRA	1.3243	FC3	-4.8189	BSP	7531	SGB	2463.3	R23	-.0746	R13	.9894	LSA	1644.6	MSA	223.0	SSA	8.7
BDE	.5985	BRA	.7566	BC3	2.6587	FSP	-1256	SG1	2402.3	SG2	544.8	THA	109.70	EL1	1099.7	EL2	217.2	ALF	98.62

LAUNCH DATE AUG 21 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 343.074

RL	151.34	LAL	-.00	LOL	327.53	VL	26.938	GAL	-1.66	AZL	85.05	HCA	151.96	SMA	129.08	ECC	.17482	INC	4.9478
RP	107.49	LAP	2.32	LOP	119.58	VP	37.962	GAP	-2.97	AZP	94.37	TAL	187.86	TAP	339.82	RCA	106.51	APO	151.64
RC	70.666	GL	41.27	GP	-55.88	ZAL	96.95	ZAP	69.44	ETS	27.71	ZAE	120.05	ETE	286.33	ZAC	46.17	ETC	256.98

V1	29.440	V2	35.254	CLP	-51.24														

PLANETOCENTRIC CONIC

C3	12.395	VHL	3.521	DLA	22.46	RAL	237.23	RAD	6567.5	VEL	11.566	PTH	2.02	VHP	5.458	DPA	-73.11	RAP	209.02
ECC	1.2040																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 54 43	2894.37	-28.31	88.72	98.48	89.36	2 42 57	2294.4	-28.10	80.06
90.00	20 32 32	3962.15	-7.56	158.64	93.07	62.63	21 38 34	3362.1	-11.17	151.82
100.00	3 32 30	2579.07	-29.86	65.52	98.46	91.38	4 15 29	1979.1	-29.35	56.75
100.00	21 37 26	3752.68	-6.20	142.50	92.33	60.70	22 39 59	3152.7	-10.06	135.84
110.00	5 14 37	2259.60	-33.64	40.95	98.16	96.47	5 52 17	1659.6	-32.38	31.94
110.00	22 11 49	3644.91	-2.98	132.34	90.33	55.93	23 12 34	3044.9	-7.43	126.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0015	TRA	-.4291	TC3	.3865	BAU	.4128	SGT	803.1	SGR	2528.6	SG3	384.5	ST	226.8	SR	1387.9
RDE	.8195	RRA	.7212	RC3	-2.4609	FAU	.05485	RRT	-.7032	RRF	.9942	RTF	-.6990	CRT	-.2656	CRS	-.9998
FDE	1.6299	FRA	1.3303	FC3	-3.8311	BSP	8110	SGB	2653.1	R23	-.0502	R13	.9930	LSA	1898.7	MSA	219.9
BDE	.8195	BRA	.8392	BC3	2.4910	FSP	-1184	SG1	2594.1	SG2	556.6	THA	103.21	EL1	1389.3	EL2	218.5

SS	1294.5	CST	.2468	SSA	7.0
ALF	92.55				

LAUNCH DATE AUG 21 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 349.555

RL	151.34	LAL	-.00	LOL	327.53	VL	26.960	GAL	-1.66	AZL	84.13	HCA	155.18	SMA	129.22	ECC	.17351	INC	5.8694
RP	107.48	LAP	2.46	LOP	122.83	VP	37.980	GAP	-2.47	AZP	95.33	TAL	187.96	TAP	343.14	RCA	106.80	APO	151.64
RC	72.818	GL	45.96	GP	-60.69	ZAL	96.42	ZAP	73.97	ETS	24.06	ZAE	115.86	ETE	281.67	ZAC	41.33	ETC	255.14

V1	29.440	V2	35.256	CLP	-55.67														

PLANETOCENTRIC CONIC

C3	14.699	VHL	3.834	DLA	26.94	RAL	238.73	RAD	6567.6	VEL	11.665	PTH	2.05	VHP	5.808	DPA	-75.71	RAP	193.72
ECC	1.2419																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 3	3212.18	-25.92	111.60	103.71	78.19	1 32 35	2612.2	-27.29	103.20
90.00	22 0 14	3718.55	-14.85	144.45	99.85	65.61	23 2 12	3118.6	-18.02	137.21
100.00	2 34 6	2841.26	-28.71	84.87	104.27	81.30	3 21 27	2241.3	-29.62	76.18
100.00	22 47 51	3564.71	-12.30	131.88	98.58	62.54	23 47 16	2964.7	-15.88	124.92
110.00	4 36 59	2456.77	-34.10	56.30	104.90	87.42	5 17 55	1856.8	-34.08	47.05
110.00	23 1 28	3521.96	-7.63	125.86	95.79	56.58	24 0 10	2922.0	-11.98	119.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0982	TRA	-.3733	TC3	.1478	BAU	.4363	SGT	652.7	SGR	2779.7	SG3	345.1	ST	238.3	SR	1693.9
RDE	1.0937	RRA	.8789	RC3	-2.2151	FAU	.04742	RRT	-.4821	RRF	.9956	RTF	-.4767	CRT	.3881	CRS	-.9999
FDE	1.7111	FRA	1.3111	FC3	-2.7928	BSP	8725	SGB	2855.3	R23	-.0276	R13	.9953	LSA	2153.0	MSA	219.3
BDE	1.0981	BRA	.9549	BC3	2.2200	FSP	-1072	SG1	2798.3	SG2	568.0	THA	96.74	EL1	1696.5	EL2	219.3

SS	1325.7	CST	-.3991	SSA	5.7
ALF	86.82				

LAUNCH DATE AUG 21 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 356.005

RL	151.34	LAL	-.00	LOL	327.53	VL	26.977	GAL	-1.65	AZL	82.95	HCA	158.40	SMA	129.34	ECC	.17245	INC	7.0461
RP	107.48	LAP	2.59	LOP	126.08	VP	37.993	GAP	-1.99	AZP	96.56	TAL	187.98	TAP	346.37	RCA	107.04	APO	151.64
RC	74.992	GL	50.68	GP	-65.64	ZAL	95.71	ZAP	78.17	ETS	19.70	ZAE	111.31	ETE	276.86	ZAC	36.35	ETC	252.61

V1	29.440	V2	35.258	CLP	-60.19														

PLANETOCENTRIC CONIC

C3	18.283	VHL	4.276	DLA	31.40	RAL	240.54	RAD	6567.7	VEL	11.818	PTH	2.09	VHP	6.343	DPA	-77.17	RAP	173.26
ECC	1.3009																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.84	21 33 12	3873.69	-22.22	159.26	108.53	67.23	22 37 46	3273.7	-25.11	151.53
104.16	1 20 27	3156.74	-22.21	106.27	108.52	67.22	2 13 4	2556.7	-25.10	98.54
75.84	21 33 12	3873.69	-22.22	159.26	108.53	67.23	22 37 46	3273.7	-25.11	151.53
104.16	1 20 27	3156.74	-22.21	106.27	108.52	67.22	2 13 4	2556.7	-25.10	98.54
110.00	3 42 11	2716.16	-31.52	76.04	111.99	76.04	4 27 27	2116.2	-33.12	67.18
110.00	0 14 35	3362.26	-13.50	117.21	103.82	58.29	1 10 37	2762.3	-17.59	110.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2678	TRA	-.2895	TC3	-.0431	BAU	.4548	SGT	580.3	SGR	3008.1	SG3	296.9	ST	383.9	SR	1981.0
RDE	1.4288	RRA	1.0759	RC3	-1.8601	FAU	.03883	RRT	-.0126	RRF	.9966	RTF	-.0058	CRT	.8127	CRS	-1.0000
FDE	1.7324	FRA	1.2650	FC3	-1.8388	BSP	9379	SGB	3063.6	R23	-.0072	R13	.9966	LSA	2397.6	MSA	221.2
BDE	1.4537	BRA	1.1142	BC3	1.8606	FSP	-933	SG1	3008.1	SG2	580.2	THA	90.14	EL1	2005.8	EL2	221.0

SS	1313.6	CST	-.8171
ALF	80.94		

LAUNCH DATE AUG 21 1970 FLIGHT TIME 132.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 362.421

RL	151.34	LAL	-.00	LOL	327.53	VL	26.990	GAL	-1.63	AZL	81.39	HCA	161.60	SMA	129.43	ECC	.17161	INC	8.6111
RP	107.48	LAP	2.71	LOP	129.33	VP	38.003	GAP	-1.53	AZP	98.18	TAL	187.91	TAP	349.51	RCA	107.21	APO	151.64
RC	77.186	GL	55.33	GP	-70.75	ZAL	94.85	ZAP	81.89	ETS	14.43	ZAE	106.42	ETE	271.72	ZAC	31.23	ETC	248.96

V1	29.440	V2	35.259	CLP	-64.65														

PLANETOCENTRIC CONIC

C3	24.126	VHL	4.912	DLA	35.71	RAL	242.63	RAD	6568.0	VEL	12.062	PTH	2.16	VHP	7.142	DPA	-77.01	RAP	150.14
ECC	1.3970																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.27	20 47 55	4105.18	-23.00	177.57	116.46	61.89	21 56 20	3505.2	-26.57	170.10
112.73	2 22 27	3058.30	-22.99	99.06	116.45	61.88	3 13 25	2458.3	-26.56	91.59
67.27	20 47 55	4105.18	-23.00	177.57	116.46	61.89	21 56 20	3505.2	-26.57	170.10
112.73	2 22 27	3058.30	-22.99	99.06	116.45	61.88	3 13 25	2458.3	-26.56	91.59
67.27	20 47 55	4105.18	-23.00	177.57	116.46	61.89	21 56 20	3505.2	-26.57	170.10
112.73	2 22 27	3058.30	-22.99	99.06	116.45	61.88	3 13 25	2458.3	-26.56	91.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5572	TRA	-.1578	TC3	-.1693	BAU	.4618	SGT	708.2	SGR	3190.5	SG3	243.7	ST	653.5	SR	2216.7
RDE	1.8354	RRA	1.3289	RC3	-1.4216	FAU	.02956	RRT	.5271	RRF	.9972	RTF	.5347	CRT	.9338	CRS	-1.0000
FDE	1.6951	FRA	1.1980	FC3	-1.0609	BSP	10015	SGB	3268.1	R23	.0118	R13	.9971	LSA	2623.0	MSA	226.5
BDE	1.9181	BRA	1.3382	BC3	1.4316	FSP	-774	SG1	3213.0	SG2	597.6	THA	83.09	EL1	2300.0	EL2	225.3

SS	1261.2	CST	-.9360
ALF	74.45		

LAUNCH DATE AUG 21 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 368.794

RL	151.34	LAL	-.00	LOL	327.53	VL	26.999	GAL	-1.59	AZL	79.19	HCA	164.79	SMA	129.48	ECC	.17098	INC	10.8070	V1	29.440
RP	107.48	LAP	2.82	LOP	132.58	VP	38.009	GAP	-1.09	AZP	100.44	TAL	187.76	TAP	352.54	RCA	107.35	APO	151.62	V2	35.259
RC	79.396	GL	59.71	GP	-76.13	ZAL	93.89	ZAP	85.01	ETS	7.78	ZAE	101.11	ETE	265.68	ZAC	25.94	ETC	243.17	CLP	-68.73

PLANETOCENTRIC CONIC

C3	34.343	VHL	5.860	DLA	39.72	RAL	244.97	RAD	6568.4	VEL	12.479	PTH	2.26	VHP	8.357	DPA	-75.15	RAP	129.01	ECC	1.5652		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.90	20 24 55	4287.58	-22.07	191.88	125.77	56.11	21 36 23	3687.6	-26.36	184.89
119.10	3 4 6	3052.14	-22.06	97.95	125.75	56.10	3 54 58	2452.1	-26.35	90.96
60.90	20 24 55	4287.58	-22.07	191.88	125.77	56.11	21 36 23	3687.6	-26.36	184.89
119.10	3 4 6	3052.14	-22.06	97.95	125.75	56.10	3 54 58	2452.1	-26.35	90.96
60.90	20 24 55	4287.58	-22.07	191.88	125.77	56.11	21 36 23	3687.6	-26.36	184.89
119.10	3 4 6	3052.14	-22.06	97.95	125.75	56.10	3 54 58	2452.1	-26.35	90.96

DIFFERENTIAL CORRECTIONS

TDE	1.0719	TRA	.0730	TC3	-.2203	BAU	.4465
RDE	2.3126	RRA	1.6634	RC3	-.9472	FAU	.02025
FDE	1.6121	FRA	1.1204	FC3	-.5105	BSP	10601
BDE	2.5489	BRA	1.6650	BC3	.9725	FSP	-611

MID-COURSE EXECUTION ACCURACY

SGT	1083.4	SGR	3288.6	SG3	190.7		
RRT	.8007	RRF	.9974	RTF	.8108		
SGB	3462.4	R23	.0298	R13	.9972		
SG1	3405.2	SG2	626.8	THA	74.69		

ORBIT DETERMINATION ACCURACY

ST	1048.4	SR	2348.5	SS	1179.2		
CRT	.9696	CRS	-1.0000	CST	-.9718		
LSA	2819.4	MSA	237.4	SSA	3.2		
EL1	2561.1	EL2	235.1	ALF	66.38		

LAUNCH DATE AUG 21 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 375.111

RL	151.34	LAL	-.00	LOL	327.53	VL	27.004	GAL	-1.54	AZL	75.87	HCA	167.94	SMA	129.52	ECC	.17054	INC	14.1255	V1	29.440
RP	107.48	LAP	2.92	LOP	135.83	VP	38.012	GAP	-.66	AZP	103.83	TAL	187.50	TAP	355.44	RCA	107.43	APO	151.61	V2	35.258
RC	81.621	GL	63.52	GP	-81.98	ZAL	92.89	ZAP	87.44	ETS	357.55	ZAE	95.21	ETE	256.48	ZAC	20.33	ETC	231.81	CLP	-71.32

PLANETOCENTRIC CONIC

C3	54.168	VHL	7.360	DLA	43.10	RAL	247.43	RAD	6569.0	VEL	13.249	PTH	2.42	VHP	10.292	DPA	-71.80	RAP	111.97	ECC	1.8915		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.04	20 13 39	4460.32	-18.86	204.26	136.04	50.50	21 27 59	3860.3	-23.82	197.94
123.96	3 34 59	3108.33	-18.84	100.24	136.02	50.49	4 26 47	2508.3	-23.80	93.92
56.04	20 13 39	4460.32	-18.86	204.26	136.04	50.50	21 27 59	3860.3	-23.82	197.94
123.96	3 34 59	3108.33	-18.84	100.24	136.02	50.49	4 26 47	2508.3	-23.80	93.92
56.04	20 13 39	4460.32	-18.86	204.26	136.04	50.50	21 27 59	3860.3	-23.82	197.94
123.96	3 34 59	3108.33	-18.84	100.24	136.02	50.49	4 26 47	2508.3	-23.80	93.92

DIFFERENTIAL CORRECTIONS

TDE	2.1418	TRA	.5886	TC3	-.2026	BAU	.3803
RDE	2.7282	RRA	2.0991	RC3	-.4845	FAU	.01114
FDE	1.5169	FRA	1.0542	FC3	-.1781	BSP	10907
BDE	3.4684	BRA	2.1801	BC3	.5251	FSP	-449

MID-COURSE EXECUTION ACCURACY

SGT	1806.3	SGR	3166.7	SG3	142.7		
RRT	.9018	RRF	.9965	RTF	.9228		
SGB	3645.6	R23	.0475	R13	.9969		
SG1	3579.6	SG2	690.6	THA	61.63		

ORBIT DETERMINATION ACCURACY

ST	1678.0	SR	2227.5	SS	1092.0		
CRT	.9813	CRS	-.9996	CST	-.9863		
LSA	2983.5	MSA	262.7	SSA	2.6		
EL1	2776.7	EL2	259.2	ALF	53.15		

LAUNCH DATE AUG 21 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 381.331

RL	151.34	LAL	-.00	LOL	327.53	VL	27.005	GAL	-1.45	AZL	70.29	HCA	171.03	SMA	129.53	ECC	.17024	INC	19.7139	V1	29.440
RP	107.48	LAP	3.02	LOP	139.08	VP	38.011	GAP	-.27	AZP	109.49	TAL	187.11	TAP	358.14	RCA	107.48	APO	151.58	V2	35.256
RC	83.861	GL	66.09	GP	-88.72	ZAL	91.91	ZAP	89.11	ETS	319.29	ZAE	88.20	ETE	219.51	ZAC	14.16	ETC	186.26	CLP	-45.76

PLANETOCENTRIC CONIC

C3	99.235	VHL	9.962	DLA	45.25	RAL	249.63	RAD	6569.9	VEL	14.852	PTH	2.68	VHP	13.656	DPA	-66.82	RAP	98.22	ECC	2.6332		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.10	20 10 58	4631.63	-13.11	214.47	146.30	46.29	21 28 10	4031.6	-18.56	208.80
126.90	3 55 16	3218.97	-13.10	104.95	146.28	46.29	4 48 55	2619.0	-18.55	99.28
53.10	20 10 58	4631.63	-13.11	214.47	146.30	46.29	21 28 10	4031.6	-18.56	208.80
126.90	3 55 16	3218.97	-13.10	104.95	146.28	46.29	4 48 55	2619.0	-18.55	99.28
53.10	20 10 58	4631.63	-13.11	214.47	146.30	46.29	21 28 10	4031.6	-18.56	208.80
126.90	3 55 16	3218.97	-13.10	104.95	146.28	46.29	4 48 55	2619.0	-18.55	99.28

DIFFERENTIAL CORRECTIONS

TDE	4.9097	TRA	2.6342	TC3	-.1317	BAU	.2050
RDE	.2966	RRA	1.5305	RC3	-.0809	FAU	.00257
FDE	1.4577	FRA	1.0274	FC3	-.0224	BSP	11450
BDE	4.9186	BRA	3.0465	BC3	.1545	FSP	-329

MID-COURSE EXECUTION ACCURACY

SGT	3560.2	SGR	1272.3	SG3	102.6		
RRT	.7098	RRF	.7944	RTF	.9903		
SGB	3780.7	R23	.0667	R13	.9965		
SG1	3679.9	SG2	867.0	THA	15.09		

ORBIT DETERMINATION ACCURACY

ST	2896.7	SR	412.1	SS	1032.9		
CRT	.6065	CRS	-.6583	CST	-.9978		
LSA	3085.2	MSA	331.2	SSA	2.0		
EL1	2907.6	EL2	326.5	ALF	4.99		

LAUNCH DATE AUG 21 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 387.343

RL	151.34	LAL	-.00	LOL	327.53	VL	27.003	GAL	-1.32	AZL	59.17	HCA	173.94	SMA	129.51	ECC	.17005	INC	30.8343	V1	29.440
RP	107.49	LAP	3.10	LOP	142.33	VP	38.008	GAP	.06	AZP	120.69	TAL	186.49	TAP	.43	RCA	107.49	APO	151.54	V2	35.254
RC	86.111	GL	65.64	GP	-81.41	ZAL	91.02	ZAP	89.99	ETS	203.27	ZAE	78.55	ETE	104.81	ZAC	8.31	ETC	32.86	CLP	89.92

PLANETOCENTRIC CONIC

C3	230.701	VHL	15.189	DLA	44.53	RAL	250.64	RAD	6571.3	VEL	18.762	PTH	3.06	VHP	20.415	DPA	-58.92	RAP	86.18	ECC	4.7968		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.07	20 18 42	4773.06	-5.84	220.34	154.69	45.77	21 38 16	4173.1	-11.38	214.92
125.93	3 55 36	3379.75	-5.82	112.59	154.67	45.77	4 51 55	2779.7	-11.37	107.17
54.07	20 18 42	4773.06	-5.84	220.34	154.69	45.77	21 38 16	4173.1	-11.38	214.92
125.93	3 55 36	3379.75	-5.82	112.59	154.67	45.77	4 51 55	2779.7	-11.37	107.17
54.07	20 18 42	4773.06	-5.84	220.34	154.69	45.77	21 38 16	4173.1	-11.38	214.92
125.93	3 55 36	3379.75	-5.82	112.59	154.67	45.77	4 51 55	2779.7	-11.37	107.17

DIFFERENTIAL CORRECTIONS

TDE	.4028	TRA	1.5280	TC3	-.0045	BAU	.3584
RDE	-7.5671	RRA	-4.5607	RC3	-.1161	FAU	-.00908
FDE	1.5832	FRA	1.1574	FC3	.0341	BSP	11704
BDE	7.5779	BRA	4.8098	BC3	.1162	FSP	-240

MID-COURSE EXECUTION ACCURACY

SGT	822.8	SGR	3754.6	SG3	74.4		
RRT	-.7705	RRF	-.9951	RTF	.8244		
SGB	3843.7	R23	-.0673	R13	-.9969		
SG1	3808.8	SG2	517.1	THA	99.77		

ORBIT DETERMINATION ACCURACY

ST	286.2	SR	2944.9	SS	1102.1		
CRT	-.7229	CRS	.9987	CST	-.7565		
LSA	3150.9	MSA	202.8	SSA	1.7		
EL1	2952.2	EL2	197.3	ALF	94.04		

LAUNCH DATE AUG 21 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 392.687

RL	151.34	LAL	-.00	LOL	327.53	VL	26.998	GAL	-1.06	AZL	31.59	HCA	176.27	SMA	129.48	ECC	.16980	INC	58.4099	V1	29.440		
RP	107.50	LAP	3.17	LOP	145.58	VP	38.002	GAP	.21	AZP	148.36	TAL	185.21	TAP	1.48	RCA	107.50	APO	151.47	V2	35.251		
RC	88.372	GL	56.36	GP	-63.97	ZAL	90.31	ZAP	90.13	ETS	187.80	ZAE	61.11	ETE	90.00	ZAC	17.26	ETC	303.83	CLP	90.30		

PLANETOCENTRIC CONIC

C3	762.764	VHL	27.618	DLA	35.38	RAL	248.27	RAD	6572.8	VEL	29.733	PTH	3.45	VHP	36.463	DPA	-42.98	RAP	74.62	ECC	13.5532		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.84	21 13 36	4704.86	-.32	210.01	157.84	54.62	22 32 1	4104.9	-4.94	203.89
112.16	2 41 44	3677.14	-.30	133.02	157.83	54.62	3 43 2	3077.1	-4.92	126.90
67.84	21 13 36	4704.86	-.32	210.01	157.84	54.62	22 32 1	4104.9	-4.94	203.89
112.16	2 41 44	3677.14	-.30	133.02	157.83	54.62	3 43 2	3077.1	-4.92	126.90
67.84	21 13 36	4704.86	-.32	210.01	157.84	54.62	22 32 1	4104.9	-4.94	203.89
112.16	2 41 44	3677.14	-.30	133.02	157.83	54.62	3 43 2	3077.1	-4.92	126.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.7329	TRA	.1255	TC3	-.0683	BAU	2.5070	SGT	861.9	SGR	3527.4	SG3	60.1	ST	774.6	SR	2493.5	SS	1482.3
RD	-11.5772	RRA	-8.7628	RC3	-.2362	FAU	-.04231	RRT	.7501	RRF	-.9989	RTF	-.7233	CRT	.9599	CRS	.9997	CST	.9524
FDE	2.1682	FRA	1.8060	FC3	.0480	BSP	10755	SGB	3631.1	R23	-.0686	R13	-.9974	LSA	2994.6	MSA	217.5	SSA	1.5
BDE	12.1641	BRA	8.7637	BC3	.2458	FSP	-187	SG1	3587.6	SG2	560.4	THA	79.35	EL1	2602.7	EL2	207.9	ALF	73.29

LAUNCH DATE AUG 21 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 403.359

RL	151.34	LAL	-.00	LOL	327.53	VL	26.991	GAL	-1.80	AZL	158.18	HCA	183.49	SMA	129.43	ECC	.17210	INC	68.1801	V1	29.440		
RP	107.51	LAP	3.24	LOP	148.83	VP	37.993	GAP	1.79	AZP	21.86	TAL	188.73	TAP	12.22	RCA	107.15	APO	151.70	V2	35.247		
RC	90.641	GL	-52.21	GP	59.62	ZAL	90.90	ZAP	91.57	ETS	183.64	ZAE	62.78	ETE	279.02	ZAC	138.02	ETC	285.93	CLP	93.11		

PLANETOCENTRIC CONIC

C3	1004.269	VHL	31.690	DLA	-68.02	RAL	203.96	RAD	6573.0	VEL	33.549	PTH	3.50	VHP	40.556	DPA	72.95	RAP	11.61	ECC	17.5277		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.16	3 51 59	2431.24	-.40	76.90	114.11	158.02	4 32 30	1831.2	7.01	74.31
154.84	14 9 53	690.95	-.39	289.29	114.13	158.02	14 21 24	90.9	7.02	286.70
25.16	3 51 59	2431.24	-.40	76.90	114.11	158.02	4 32 30	1831.2	7.01	74.31
154.84	14 9 53	690.95	-.39	289.29	114.13	158.02	14 21 24	90.9	7.02	286.70
25.16	3 51 59	2431.24	-.40	76.90	114.11	158.02	4 32 30	1831.2	7.01	74.31
154.84	14 9 53	690.95	-.39	289.29	114.13	158.02	14 21 24	90.9	7.02	286.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	6.5144	TRA	1.5251	TC3	-.1160	BAU	3.5288	SGT	1571.8	SGR	3217.9	SG3	61.5	ST	1198.6	SR	2828.0	SS	2226.1
RD	-15.6273	RRA	-.7683	RC3	.2358	FAU	-.05671	RRT	-.9293	RRF	.9995	RTF	-.9295	CRT	-.9893	CRS	-1.0000	CST	.9896
FDE	-3.5105	FRA	-.1811	FC3	.0489	BSP	10984	SGB	3581.3	R23	-.0671	R13	.9972	LSA	3789.8	MSA	164.9	SSA	2.3
BDE	16.9308	BRA	1.7077	BC3	.2628	FSP	-193	SG1	3542.2	SG2	527.4	THA	115.01	EL1	3067.3	EL2	160.9	ALF	112.82

LAUNCH DATE AUG 21 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 408.444

RL	151.34	LAL	-.00	LOL	327.53	VL	26.980	GAL	-1.47	AZL	125.93	HCA	185.61	SMA	129.36	ECC	.17179	INC	35.9346	V1	29.440		
RP	107.53	LAP	3.29	LOP	152.08	VP	37.981	GAP	1.86	AZP	54.20	TAL	187.14	TAP	12.75	RCA	107.14	APO	151.58	V2	35.243		
RC	92.917	GL	-64.33	GP	78.85	ZAL	91.11	ZAP	92.97	ETS	181.90	ZAE	82.28	ETE	275.71	ZAC	156.16	ETC	295.03	CLP	105.52		

PLANETOCENTRIC CONIC

C3	308.417	VHL	17.562	DLA	-75.47	RAL	172.40	RAD	6571.8	VEL	20.730	PTH	3.18	VHP	22.173	DPA	75.58	RAP	293.16	ECC	6.0758		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.56	1 28 0	2361.03	5.58	80.11	80.94	165.40	2 7 21	1761.0	13.32	78.46
163.44	12 22 4	5866.97	5.59	261.52	80.96	165.40	13 59 51	5267.0	13.33	259.87
16.56	1 28 0	2361.03	5.58	80.11	80.94	165.40	2 7 21	1761.0	13.32	78.46
163.44	12 22 4	5866.97	5.59	261.52	80.96	165.40	13 59 51	5267.0	13.33	259.87
16.56	1 28 0	2361.03	5.58	80.11	80.94	165.40	2 7 21	1761.0	13.32	78.46
163.44	12 22 4	5866.97	5.59	261.52	80.96	165.40	13 59 51	5267.0	13.33	259.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.6172	TRA	1.0581	TC3	-.0697	BAU	.7789	SGT	1637.6	SGR	3777.9	SG3	77.5	ST	948.4	SR	2855.1	SS	1324.2
RDE	-8.4408	RRA	-1.9318	RC3	.1756	FAU	-.01181	RRT	-.9630	RRF	.9993	RTF	-.9576	CRT	-.9833	CRS	-1.0000	CST	.9815
FDE	-2.0487	FRA	-.4516	FC3	.0332	BSP	12828	SGB	4117.6	R23	-.0594	R13	.9976	LSA	3282.8	MSA	167.5	SSA	1.7
BDE	8.8372	BRA	2.2026	BC3	.1889	FSP	-246	SG1	4097.4	SG2	406.8	THA	112.90	EL1	3004.0	EL2	164.2	ALF	108.14

LAUNCH DATE AUG 21 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 414.315

RL	151.34	LAL	-.00	LOL	327.53	VL	26.968	GAL	-1.29	AZL	113.22	HCA	188.47	SMA	129.27	ECC	.17211	INC	23.2208	V1	29.440		
RP	107.54	LAP	3.33	LOP	155.33	VP	37.968	GAP	2.14	AZP	67.01	TAL	186.22	TAP	14.70	RCA	107.02	APO	151.52	V2	35.238		
RC	95.197	GL	-66.29	GP	84.73	ZAL	91.25	ZAP	95.24	ETS	122.69	ZAE	92.44	ETE	215.80	ZAC	163.65	ETC	254.75	CLP	173.77		

PLANETOCENTRIC CONIC

C3	134.793	VHL	11.610	DLA	-75.96	RAL	164.64	RAD	6570.4	VEL	16.004	PTH	2.82	VHP	14.483	DPA	68.43	RAP	266.66	ECC	3.2183		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.00	0 55 55	2235.30	13.96	78.81	71.07	165.52	1 33 10	1635.3	21.70	77.08
164.00	11 52 16	5739.19	13.97	259.66	71.09	165.52	13 27 55	5139.2	21.70	257.93
16.00	0 55 55	2235.30	13.96	78.81	71.07	165.52	1 33 10	1635.3	21.70	77.08
164.00	11 52 16	5739.19	13.97	259.66	71.09	165.52	13 27 55	5139.2	21.70	257.93
16.00	0 55 55	2235.30	13.96	78.81	71.07	165.52	1 33 10	1635.3	21.70	77.08
164.00	11 52 16	5739.19	13.97	259.66	71.09	165.52	13 27 55	5139.2	21.70	257.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.3690	TRA	-.8808	TC3	-.0125	BAU	.0356	SGT	2139.3	SGR	3729.3	SG3	107.1	ST	1286.7	SR	2466.8	SS	1072.6
RDE	-4.6701	RRA	-1.4415	RC3	-.0153	FAU	.00428	RRT	.9961	RRF	.9980	RTF	.9902	CRT	.9978	CRS	-.9995	CST	-.9953
FDE	-1.6411	FRA	-.4602	FC3	-.0275	BSP	13482	SGB	4299.3	R23	.0668	R13	.9968	LSA	2980.6	MSA	88.0	SSA	1.7
BDE	5.2366	BRA	1.6893	BC3	.0198	FSP	-343	SG1	4296.2	SG2	163.3	THA	60.21	EL1	2781.2	EL2	75.6	ALF	62.48

LAUNCH DATE AUG 21 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 420.385
RL 151.34 LAL -.00 LOL 327.53 VL 26.953 GAL -1.13 AZL 107.05 HCA 191.54 SMA 129.18 ECC .17269 INC17.0492 V1 29.440
RP 107.56 LAP 3.36 LOP 158.58 VP 37.952 GAP 2.48 AZP 73.28 TAL 185.45 TAP 16.99 RCA 106.87 APO 151.48 V2 35.232
RC 97.481 GL -65.03 GP 79.71 ZAL 91.19 ZAP 98.16 ETS 39.37 ZAE 99.29 ETE 132.36 ZAC 165.63 ETC 196.43 CLP-142.69
PLANETOCENTRIC CONIC
C3 75.962 VHL 8.716 DLA -75.65 RAL 169.66 RAD 6569.5 VEL 14.047 PTH 2.56 VHP 10.790 DPA 62.21 RAP 255.74 ECC 2.2501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.35	1 16 38	2112.97	21.94	76.79	73.73	164.50	1 51 51	1513.0	29.63	74.76
163.65	12 11 32	5618.17	21.94	257.99	73.75	164.50	13 45 10	5018.2	29.63	255.96
16.35	1 16 38	2112.97	21.94	76.79	73.73	164.50	1 51 51	1513.0	29.63	74.76
163.65	12 11 32	5618.17	21.94	257.99	73.75	164.50	13 45 10	5018.2	29.63	255.96
16.35	1 16 38	2112.97	21.94	76.79	73.73	164.50	1 51 51	1513.0	29.63	74.76
163.65	12 11 32	5618.17	21.94	257.99	73.75	164.50	13 45 10	5018.2	29.63	255.96

DIFFERENTIAL CORRECTIONS
TDE-2.6934 TRA-1.0700 TC3 -.2765 BAU .3287
RDE 3.4210 RRA .6231 RC3 .1682 FAU .01510
FDE-1.8612 FRA -.4374 FC3 -.1722 BSP 13774
BDE 4.3541 BRA 1.2382 BC3 .3237 FSP -475

MID-COURSE EXECUTION ACCURACY
SGT 3379.6 SGR 2806.3 SG3 148.0
RRT -.9293 RRF -.9898 RTF .9682
SGB 4392.8 R23 .0939 R13 -.9940
SG1 4317.2 SG2 811.2 THA 140.69

ORBIT DETERMINATION ACCURACY
ST 1964.7 SR 2303.0 SS 1186.0
CRT -.9734 CRS .9982 CST -.9854
LSA 3232.6 MSA 347.2 SSA 2.6
EL1 3007.5 EL2 344.8 ALF 130.35

LAUNCH DATE AUG 21 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 426.517
RL 151.34 LAL -.00 LOL 327.53 VL 26.937 GAL -.98 AZL 103.47 HCA 194.68 SMA 129.06 ECC .17343 INC13.4663 V1 29.440
RP 107.58 LAP 3.38 LOP 161.83 VP 37.934 GAP 2.83 AZP 76.96 TAL 184.69 TAP 19.38 RCA 106.68 APO 151.45 V2 35.226
RC 99.767 GL -62.62 GP 73.64 ZAL 90.89 ZAP 101.58 ETS 35.17 ZAE 104.66 ETE 128.64 ZAC 164.00 ETC 213.46 CLP-135.44
PLANETOCENTRIC CONIC
C3 49.887 VHL 7.063 DLA -74.94 RAL 178.87 RAD 6568.8 VEL 13.086 PTH 2.39 VHP 8.728 DPA 56.65 RAP 249.03 ECC 1.8210

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.17	1 55 1	2009.76	28.49	74.32	80.45	162.80	2 28 30	1409.8	36.10	71.82
162.83	12 46 38	5518.01	28.50	256.34	80.48	162.80	14 18 36	4918.0	36.11	253.84
17.17	1 55 1	2009.76	28.49	74.32	80.45	162.80	2 28 30	1409.8	36.10	71.82
162.83	12 46 38	5518.01	28.50	256.34	80.48	162.80	14 18 36	4918.0	36.11	253.84
17.17	1 55 1	2009.76	28.49	74.32	80.45	162.80	2 28 30	1409.8	36.10	71.82
162.83	12 46 38	5518.01	28.50	256.34	80.48	162.80	14 18 36	4918.0	36.11	253.84

DIFFERENTIAL CORRECTIONS
TDE-2.6378 TRA -.7860 TC3 -.5781 BAU .4668
RDE 3.0956 RRA .4556 RC3 .3946 FAU .02499
FDE-2.2618 FRA -.3876 FC3 -.4337 BSP 14014
BDE 4.0670 BRA .9085 BC3 .6999 FSP -633

MID-COURSE EXECUTION ACCURACY
SGT 3356.7 SGR 2939.3 SG3 197.1
RRT -.9445 RRF -.9946 RTF .9656
SGB 4461.7 R23 .1095 R13 -.9917
SG1 4400.5 SG2 736.6 THA 139.01

ORBIT DETERMINATION ACCURACY
ST 2263.0 SR 2547.2 SS 1410.5
CRT -.9867 CRS .9996 CST -.9908
LSA 3676.9 MSA 281.7 SSA 3.3
EL1 3396.1 EL2 275.6 ALF 131.57

LAUNCH DATE AUG 21 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 432.667
RL 151.34 LAL -.00 LOL 327.53 VL 26.918 GAL -.83 AZL 101.13 HCA 197.86 SMA 128.94 ECC .17432 INC11.1303 V1 29.440
RP 107.60 LAP 3.39 LOP 165.07 VP 37.914 GAP 3.19 AZP 79.39 TAL 183.93 TAP 21.78 RCA 106.46 APO 151.41 V2 35.218
RC 102.053 GL -59.75 GP 67.88 ZAL 90.34 ZAP 105.34 ETS 35.48 ZAE 109.09 ETE 130.01 ZAC 160.56 ETC 226.92 CLP-134.63
PLANETOCENTRIC CONIC
C3 36.174 VHL 6.015 DLA -73.81 RAL 188.92 RAD 6568.4 VEL 12.552 PTH 2.27 VHP 7.465 DPA 51.45 RAP 244.24 ECC 1.5953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.47	2 37 46	1926.23	33.53	71.32	87.82	160.46	3 9 52	1326.2	41.02	68.20
161.53	13 24 4	5439.74	33.54	254.64	87.84	160.46	14 54 43	4839.7	41.03	251.52
18.47	2 37 46	1926.23	33.53	71.32	87.82	160.46	3 9 52	1326.2	41.02	68.20
161.53	13 24 4	5439.74	33.54	254.64	87.84	160.46	14 54 43	4839.7	41.03	251.52
18.47	2 37 46	1926.23	33.53	71.32	87.82	160.46	3 9 52	1326.2	41.02	68.20
161.53	13 24 4	5439.74	33.54	254.64	87.84	160.46	14 54 43	4839.7	41.03	251.52

DIFFERENTIAL CORRECTIONS
TDE-2.7350 TRA -.5972 TC3 -.9514 BAU .5442
RDE 2.7178 RRA .2755 RC3 .6010 FAU .03433
FDE-2.6387 FRA -.3024 FC3 -.8215 BSP 14219
BDE 3.8558 BRA .6577 BC3 1.1253 FSP -803

MID-COURSE EXECUTION ACCURACY
SGT 3501.5 SGR 2848.1 SG3 249.9
RRT -.9519 RRF -.9950 RTF .9667
SGB 4513.6 R23 .1238 R13 -.9893
SG1 4461.4 SG2 684.8 THA 141.16

ORBIT DETERMINATION ACCURACY
ST 2676.6 SR 2604.5 SS 1633.7
CRT -.9925 CRS .9999 CST -.9942
LSA 4069.3 MSA 239.2 SSA 4.1
EL1 3727.7 EL2 227.9 ALF 135.79

LAUNCH DATE AUG 21 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 438.817
RL 151.34 LAL -.00 LOL 327.53 VL 26.898 GAL -.66 AZL 99.48 HCA 201.05 SMA 128.80 ECC .17535 INC 9.4829 V1 29.440
RP 107.63 LAP 3.39 LOP 168.32 VP 37.893 GAP 3.54 AZP 81.14 TAL 183.13 TAP 24.18 RCA 106.22 APO 151.39 V2 35.211
RC 104.339 GL -56.71 GP 62.48 ZAL 89.56 ZAP 109.30 ETS 36.49 ZAE 112.81 ETE 132.64 ZAC 156.49 ETC 235.50 CLP-135.67
PLANETOCENTRIC CONIC
C3 28.105 VHL 5.301 DLA -72.31 RAL 198.44 RAD 6568.1 VEL 12.226 PTH 2.20 VHP 6.651 DPA 46.51 RAP 240.64 ECC 1.4625

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.19	3 19 18	1858.95	37.24	67.77	94.40	157.57	3 50 17	1259.0	44.56	63.91
159.81	13 58 31	5380.08	37.25	252.84	94.42	157.57	15 28 11	4780.1	44.57	248.98
20.19	3 19 18	1858.95	37.24	67.77	94.40	157.57	3 50 17	1259.0	44.56	63.91
159.81	13 58 31	5380.08	37.25	252.84	94.42	157.57	15 28 11	4780.1	44.57	248.98
20.19	3 19 18	1858.95	37.24	67.77	94.40	157.57	3 50 17	1259.0	44.56	63.91
159.81	13 58 31	5380.08	37.25	252.84	94.42	157.57	15 28 11	4780.1	44.57	248.98

DIFFERENTIAL CORRECTIONS
TDE-2.7805 TRA -.4395 TC3-1.3830 BAU .5952
RDE 2.3263 RRA .1341 RC3 .7724 FAU .04283
FDE-2.8954 FRA -.1850 FC3-1.3194 BSP 14373
BDE 3.6254 BRA .4595 BC3 1.5841 FSP -965

MID-COURSE EXECUTION ACCURACY
SGT 3691.3 SGR 2686.9 SG3 301.6
RRT -.9581 RRF -.9946 RTF .9690
SGB 4565.7 R23 .1337 R13 -.9871
SG1 4522.3 SG2 628.4 THA 144.31

ORBIT DETERMINATION ACCURACY
ST 3041.8 SR 2518.4 SS 1802.0
CRT -.9952 CRS 1.0000 CST -.9958
LSA 4335.8 MSA 208.3 SSA 5.0
EL1 3944.5 EL2 190.2 ALF 140.40

LAUNCH DATE AUG 21 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 444.958

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RL  151.34 LAL   -.00 LOL 327.53 VL  26.876 GAL   -.49 AZL  98.25 HCA 204.25 SMA 128.66 ECC .17651 INC 8.2539 V1  29.440
RP  107.65 LAP   3.38 LOP 171.56 VP  37.870 GAP   3.90 AZP  82.47 TAL 182.30 TAP  26.55 RCA 105.95 APO 151.37 V2  35.202
RC 106.624 GL  -53.60 GP   57.44 ZAL  88.54 ZAP 113.33 ETS  37.52 ZAE 115.90 ETE 135.73 ZAC 152.31 ETC 241.06 CLP-137.38
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PLANETOCENTRIC CONIC

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C3  22.975 VHL  4.793 DLA -70.54 RAL 206.99 RAD 6567.9 VEL 12.015 PTH   2.14 VHP  6.113 DPA  41.81 RAP 237.90 ECC 1.3781
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.23	3 57 42	1804.19	39.86	63.79	99.82	154.28	4 27 46	1204.2	46.96	59.14
157.77	14 28 17	5335.41	39.86	250.98	99.84	154.28	15 57 13	4735.4	46.97	246.32
22.23	3 57 42	1804.19	39.86	63.79	99.82	154.28	4 27 46	1204.2	46.96	59.14
157.77	14 28 17	5335.41	39.86	250.98	99.84	154.28	15 57 13	4735.4	46.97	246.32
22.23	3 57 42	1804.19	39.86	63.79	99.82	154.28	4 27 46	1204.2	46.96	59.14
157.77	14 28 17	5335.41	39.86	250.98	99.84	154.28	15 57 13	4735.4	46.97	246.32

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7603 TRA -.2962 TC3-1.8582 BAU  .6344   SGT 3897.6 SGR 2493.9 SG3  348.1     ST  3315.4 SR  2337.5 SS  1898.5
RDE 1.9552 RRA  .0280 RC3  .9017 FAU .05021   RRT -.9628 RRF -.9936 RTF  .9714     CRT -.9965 CRS 1.0000 CST -.9965
FDE-3.0066 FRA -.0429 FC3-1.8919 BSP  14638   SGB 4627.2 R23  .1392 R13 -.9853     LSA 4475.0 MSA  186.2 SSA    6.0
BDE 3.3827 BRA  .2976 BC3 2.0655 FSP  -1119   SG1 4591.6 SG2  572.3 THA 147.80     EL1 4053.4 EL2  159.7 ALF 144.85
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LAUNCH DATE AUG 21 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 451.087

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RL  151.34 LAL   -.00 LOL 327.53 VL  26.853 GAL   -.31 AZL  97.30 HCA 207.46 SMA 128.50 ECC .17780 INC 7.2971 V1  29.440
RP  107.68 LAP   3.36 LOP 174.80 VP  37.845 GAP   4.25 AZP  83.52 TAL 181.43 TAP  28.90 RCA 105.65 APO 151.35 V2  35.193
RC 108.906 GL  -50.51 GP   52.78 ZAL  87.31 ZAP 117.32 ETS  38.38 ZAE 118.42 ETE 138.99 ZAC 148.27 ETC 244.82 CLP-139.35
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PLANETOCENTRIC CONIC

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C3  19.533 VHL  4.420 DLA -68.58 RAL 214.53 RAD 6567.8 VEL 11.871 PTH   2.11 VHP  5.757 DPA  37.36 RAP 235.84 ECC 1.3215
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.51	4 32 43	1758.87	41.58	59.54	104.15	150.78	5 2 2	1158.9	48.42	54.08
155.49	14 53 30	5302.71	41.59	249.13	104.17	150.77	16 21 52	4702.7	48.43	243.67
24.51	4 32 43	1758.87	41.58	59.54	104.15	150.78	5 2 2	1158.9	48.42	54.08
155.49	14 53 30	5302.71	41.59	249.13	104.17	150.77	16 21 52	4702.7	48.43	243.67
24.51	4 32 43	1758.87	41.58	59.54	104.15	150.78	5 2 2	1158.9	48.42	54.08
155.49	14 53 30	5302.71	41.59	249.13	104.17	150.77	16 21 52	4702.7	48.43	243.67

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6878 TRA -.1554 TC3-2.3505 BAU  .6649   SGT 4094.1 SGR 2283.8 SG3  385.3     ST  3488.9 SR  2105.7 SS  1922.5
RDE 1.6236 RRA -.0539 RC3  .9791 FAU .05585   RRT -.9654 RRF -.9921 RTF  .9731     CRT -.9972 CRS 1.0000 CST -.9967
FDE-2.9796 FRA  .1207 FC3-2.4755 BSP  14830   SGB 4688.0 R23  .1420 R13 -.9837     LSA 4502.6 MSA  171.3 SSA    7.0
BDE 3.1401 BRA  .1644 BC3 2.5462 FSP  -1240   SG1 4658.7 SG2  523.4 THA 151.30     EL1 4072.9 EL2  135.0 ALF 148.92
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LAUNCH DATE AUG 21 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 457.201

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RL  151.34 LAL   -.00 LOL 327.53 VL  26.829 GAL   -.12 AZL  96.53 HCA 210.68 SMA 128.34 ECC .17922 INC 6.5273 V1  29.440
RP  107.71 LAP   3.32 LOP 178.04 VP  37.819 GAP   4.60 AZP  84.38 TAL 180.53 TAP  31.21 RCA 105.34 APO 151.34 V2  35.184
RC 111.186 GL  -47.45 GP   48.49 ZAL  85.87 ZAP 121.19 ETS  39.05 ZAE 120.43 ETE 142.25 ZAC 144.48 ETC 247.48 CLP-141.39
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PLANETOCENTRIC CONIC

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C3  17.138 VHL  4.140 DLA -66.49 RAL 221.22 RAD 6567.7 VEL 11.770 PTH   2.08 VHP  5.527 DPA  33.19 RAP 234.33 ECC 1.2821
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.95	5 4 47	1720.66	42.58	55.14	107.63	147.19	5 33 27	1120.7	49.13	48.94
153.05	15 14 44	5279.71	42.59	247.38	107.65	147.19	16 42 44	4679.7	49.14	241.18
26.95	5 4 47	1720.66	42.58	55.14	107.63	147.19	5 33 27	1120.7	49.13	48.94
153.05	15 14 44	5279.71	42.59	247.38	107.65	147.19	16 42 44	4679.7	49.14	241.18
26.95	5 4 47	1720.66	42.58	55.14	107.63	147.19	5 33 27	1120.7	49.13	48.94
153.05	15 14 44	5279.71	42.59	247.38	107.65	147.19	16 42 44	4679.7	49.14	241.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5885 TRA -.0219 TC3-2.8661 BAU  .6978   SGT 4297.9 SGR 2086.1 SG3  414.7     ST  3583.4 SR  1869.0 SS  1894.7
RDE 1.3478 RRA -.1099 RC3 1.0298 FAU .06062   RRT -.9678 RRF -.9902 RTF  .9752     CRT -.9977 CRS  .9999 CST -.9968
FDE-2.8585 FRA  .2814 FC3-3.0624 BSP  15059   SGB 4777.4 R23  .1378 R13 -.9829     LSA 4460.7 MSA  159.1 SSA    8.0
BDE 2.9184 BRA  .1121 BC3 3.0455 FSP  -1333   SG1 4753.7 SG2  474.9 THA 154.57     EL1 4039.9 EL2  112.5 ALF 152.49
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LAUNCH DATE AUG 21 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 463.296

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RL  151.34 LAL   -.00 LOL 327.53 VL  26.803 GAL    .09 AZL  95.89 HCA 213.89 SMA 128.17 ECC .18077 INC 5.8909 V1  29.440
RP  107.74 LAP   3.28 LOP 181.28 VP  37.792 GAP   4.95 AZP  85.10 TAL 179.59 TAP  33.49 RCA 105.00 APO 151.34 V2  35.174
RC 113.462 GL  -44.45 GP   44.59 ZAL  84.23 ZAP 124.88 ETS  39.54 ZAE 121.98 ETE 145.40 ZAC 141.01 ETC 249.44 CLP-143.42
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PLANETOCENTRIC CONIC

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C3  15.433 VHL  3.929 DLA -64.31 RAL 227.18 RAD 6567.6 VEL 11.697 PTH   2.06 VHP  5.387 DPA  29.29 RAP 233.30 ECC 1.2540
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.50	5 34 26	1687.79	43.00	50.73	110.52	143.65	6 2 34	1087.8	49.23	43.89
150.50	15 32 41	5264.78	43.01	245.82	110.53	143.64	17 0 26	4664.8	49.24	238.98
29.50	5 34 26	1687.79	43.00	50.73	110.52	143.65	6 2 34	1087.8	49.23	43.89
150.50	15 32 41	5264.78	43.01	245.82	110.53	143.64	17 0 26	4664.8	49.24	238.98
29.50	5 34 26	1687.79	43.00	50.73	110.52	143.65	6 2 34	1087.8	49.23	43.89
150.50	15 32 41	5264.78	43.01	245.82	110.53	143.64	17 0 26	4664.8	49.24	238.98

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4512 TRA  .1258 TC3-3.3300 BAU  .7178   SGT 4450.3 SGR 1873.3 SG3  428.8     ST  3578.1 SR  1616.5 SS  1793.4
RDE 1.1026 RRA -.1618 RC3 1.0077 FAU .06227   RRT -.9657 RRF -.9872 RTF  .9740     CRT -.9978 CRS  .9997 CST  .9962
FDE-2.6210 FRA  .4689 FC3-3.4932 BSP  15315   SGB 4828.5 R23  .1419 R13 -.9802     LSA 4313.6 MSA  158.0 SSA    9.1
BDE 2.6878 BRA  .2050 BC3 3.4792 FSP  -1396   SG1 4807.5 SG2  450.3 THA 157.67     EL1 3925.1 EL2   97.4 ALF 155.72
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LAUNCH DATE AUG 21 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 469.374

RL 151.34 LAL -.00 LOL 327.53 VL 26.777 GAL .31 AZL 95.35 HCA 217.11 SMA 127.99 ECC .18247 INC 5.3531 V1 29.440
RP 107.77 LAP 3.23 LOP 184.52 VP 37.763 GAP 5.30 AZP 85.73 TAL 178.62 TAP 35.73 RCA 104.64 APO 151.35 V2 35.164
RC 115.736 GL -41.51 GP 41.05 ZAL 82.43 ZAP 128.37 ETS 39.90 ZAE 123.13 ETE 148.39 ZAC 137.86 ETC 250.93 CLP-145.40

PLANETOCENTRIC CONIC

C3 14.208 VHL 3.769 DLA -62.08 RAL 232.57 RAD 6567.6 VEL 11.644 PTH 2.04 VHP 5.315 DPA 25.69 RAP 232.65 ECC 1.2338

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.13	6 2 10	1658.98	42.94	46.39	113.01	140.24	6 29 49	1059.0	48.84	39.03
147.87	15 47 55	5256.71	42.95	244.53	113.03	140.23	17 15 32	4656.7	48.85	237.17
32.13	6 2 10	1658.98	42.94	46.39	113.01	140.24	6 29 49	1059.0	48.84	39.03
147.87	15 47 55	5256.71	42.95	244.53	113.03	140.23	17 15 32	4656.7	48.85	237.17
32.13	6 2 10	1658.98	42.94	46.39	113.01	140.24	6 29 49	1059.0	48.84	39.03
147.87	15 47 55	5256.71	42.95	244.53	113.03	140.23	17 15 32	4656.7	48.85	237.17

DIFFERENTIAL CORRECTIONS
TDE-2.3250 TRA .2661 TC3-3.7925 BAU .7440
RDE .9235 RRA -.1927 RC3 .9790 FAU .06353
FDE-2.3928 FRA .6272 FC3-3.8713 BSP 15558
BDE 2.5016 BRA .3285 BC3 3.9169 FSP -1428

MID-COURSE EXECUTION ACCURACY
SGT 4627.1 SGR 1704.8 SG3 439.6
RRT -.9649 RRF -.9837 RTF .9750
SGB 4931.1 R23 .1331 R13 -.9796
SG1 4913.1 SG2 421.8 THA 160.28

ORBIT DETERMINATION ACCURACY
ST 3544.5 SR 1416.4 SS 1694.2
CRT -.9982 CRS .9994 CST -.9957
LSA 4173.3 MSA 153.2 SSA 10.3
EL1 3816.2 EL2 79.3 ALF 158.24

LAUNCH DATE AUG 21 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 475.429

RL 151.34 LAL -.00 LOL 327.53 VL 26.749 GAL .54 AZL 94.89 HCA 220.32 SMA 127.81 ECC .18430 INC 4.8900 V1 29.440
RP 107.80 LAP 3.16 LOP 187.75 VP 37.733 GAP 5.65 AZP 86.27 TAL 177.62 TAP 37.94 RCA 104.26 APO 151.37 V2 35.153
RC 118.005 GL -38.64 GP 37.87 ZAL 80.48 ZAP 131.63 ETS 40.16 ZAE 123.97 ETE 151.15 ZAC 135.05 ETC 252.10 CLP-147.31

PLANETOCENTRIC CONIC

C3 13.334 VHL 3.652 DLA -59.82 RAL 237.47 RAD 6567.5 VEL 11.607 PTH 2.03 VHP 5.294 DPA 22.36 RAP 232.35 ECC 1.2194

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.83	6 28 24	1633.19	42.48	42.18	115.27	137.02	6 55 37	1033.2	48.06	34.44
145.17	16 0 50	5254.71	42.50	243.57	115.29	137.01	17 28 25	4654.7	48.08	235.82
34.83	6 28 24	1633.19	42.48	42.18	115.27	137.02	6 55 37	1033.2	48.06	34.44
145.17	16 0 50	5254.71	42.50	243.57	115.29	137.01	17 28 25	4654.7	48.08	235.82
34.83	6 28 24	1633.19	42.48	42.18	115.27	137.02	6 55 37	1033.2	48.06	34.44
145.17	16 0 50	5254.71	42.50	243.57	115.29	137.01	17 28 25	4654.7	48.08	235.82

DIFFERENTIAL CORRECTIONS
TDE-2.1993 TRA .3958 TC3-4.2500 BAU .7762
RDE .7820 RRA -.2087 RC3 .9470 FAU .06453
FDE-2.1503 FRA .7531 FC3-4.1897 BSP 16235
BDE 2.3342 BRA .4474 BC3 4.3542 FSP -1489

MID-COURSE EXECUTION ACCURACY
SGT 4802.9 SGR 1551.8 SG3 442.8
RRT -.9641 RRF -.9790 RTF .9767
SGB 5047.3 R23 .1169 R13 -.9799
SG1 5032.0 SG2 393.4 THA 162.59

ORBIT DETERMINATION ACCURACY
ST 3471.9 SR 1242.7 SS 1577.2
CRT -.9987 CRS .9988 CST -.9951
LSA 4008.0 MSA 147.7 SSA 11.4
EL1 3687.1 EL2 60.7 ALF 160.33

LAUNCH DATE AUG 21 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 481.469

RL 151.34 LAL -.00 LOL 327.53 VL 26.721 GAL .78 AZL 94.48 HCA 223.54 SMA 127.63 ECC .18628 INC 4.4846 V1 29.440
RP 107.84 LAP 3.09 LOP 190.98 VP 37.703 GAP 6.00 AZP 86.75 TAL 176.58 TAP 40.12 RCA 103.85 APO 151.40 V2 35.141
RC 120.271 GL -35.84 GP 35.02 ZAL 78.40 ZAP 134.67 ETS 40.35 ZAE 124.55 ETE 153.66 ZAC 132.55 ETC 253.06 CLP-149.14

PLANETOCENTRIC CONIC

C3 12.728 VHL 3.568 DLA -57.54 RAL 242.00 RAD 6567.5 VEL 11.581 PTH 2.03 VHP 5.313 DPA 19.30 RAP 232.34 ECC 1.2095

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.57	6 53 33	1609.67	41.72	38.14	117.44	134.02	7 20 23	1009.7	46.99	30.12
142.43	16 11 47	5258.29	41.73	242.97	117.45	134.01	17 39 25	4658.3	47.00	234.95
37.57	6 53 33	1609.67	41.72	38.14	117.44	134.02	7 20 23	1009.7	46.99	30.12
142.43	16 11 47	5258.29	41.73	242.97	117.45	134.01	17 39 25	4658.3	47.00	234.95
37.57	6 53 33	1609.67	41.72	38.14	117.44	134.02	7 20 23	1009.7	46.99	30.12
142.43	16 11 47	5258.29	41.73	242.97	117.45	134.01	17 39 25	4658.3	47.00	234.95

DIFFERENTIAL CORRECTIONS
TDE-2.0395 TRA .5646 TC3-4.5565 BAU .7888
RDE .6554 RRA -.2345 RC3 .8515 FAU .06212
FDE-1.8524 FRA .9193 FC3-4.2251 BSP 16099
BDE 2.1422 BRA .6114 BC3 4.6354 FSP -1431

MID-COURSE EXECUTION ACCURACY
SGT 4914.5 SGR 1403.4 SG3 436.4
RRT -.9582 RRF -.9726 RTF .9747
SGB 5111.0 R23 .1146 R13 -.9773
SG1 5096.3 SG2 387.4 THA 164.61

ORBIT DETERMINATION ACCURACY
ST 3315.8 SR 1073.6 SS 1417.7
CRT -.9990 CRS .9972 CST -.9932
LSA 3759.4 MSA 154.7 SSA 12.6
EL1 3485.0 EL2 46.6 ALF 162.07

LAUNCH DATE AUG 21 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 487.485

RL 151.34 LAL -.00 LOL 327.53 VL 26.692 GAL 1.04 AZL 94.12 HCA 226.76 SMA 127.44 ECC .18841 INC 4.1247 V1 29.440
RP 107.87 LAP 3.00 LOP 194.21 VP 37.671 GAP 6.35 AZP 87.17 TAL 175.52 TAP 42.28 RCA 103.43 APO 151.45 V2 35.130
RC 122.531 GL -33.13 GP 32.47 ZAL 76.22 ZAP 137.49 ETS 40.52 ZAE 124.92 ETE 155.93 ZAC 130.34 ETC 253.86 CLP-150.90

PLANETOCENTRIC CONIC

C3 12.337 VHL 3.512 DLA -55.26 RAL 246.18 RAD 6567.5 VEL 11.564 PTH 2.02 VHP 5.363 DPA 16.48 RAP 232.59 ECC 1.2030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.34	7 17 49	1587.46	40.70	34.27	119.55	131.27	7 44 16	987.5	45.67	26.07
139.66	16 20 54	5267.04	40.71	242.76	119.57	131.26	17 48 41	4667.0	45.68	234.57
40.34	7 17 49	1587.46	40.70	34.27	119.55	131.27	7 44 16	987.5	45.67	26.07
139.66	16 20 54	5267.04	40.71	242.76	119.57	131.26	17 48 41	4667.0	45.68	234.57
40.34	7 17 49	1587.46	40.70	34.27	119.55	131.27	7 44 16	987.5	45.67	26.07
139.66	16 20 54	5267.04	40.71	242.76	119.57	131.26	17 48 41	4667.0	45.68	234.57

DIFFERENTIAL CORRECTIONS
TDE-1.8961 TRA .7206 TC3-4.8554 BAU .8110
RDE .5635 RRA -.2474 RC3 .7768 FAU .06041
FDE-1.5939 FRA 1.0430 FC3-4.2391 BSP 16398
BDE 1.9781 BRA .7619 BC3 4.9172 FSP -1412

MID-COURSE EXECUTION ACCURACY
SGT 5045.4 SGR 1282.2 SG3 428.0
RRT -.9530 RRF -.9649 RTF .9745
SGB 5205.7 R23 .1022 R13 -.9765
SG1 5192.0 SG2 377.6 THA 166.31

ORBIT DETERMINATION ACCURACY
ST 3156.0 SR 943.5 SS 1274.8
CRT -.9994 CRS .9944 CST -.9910
LSA 3528.5 MSA 158.7 SSA 13.7
EL1 3293.9 EL2 30.1 ALF 163.36

LAUNCH DATE AUG 21 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 493.477

RL	151.34	LAL	-.00	LOL	327.53	VL	26.662	GAL	1.31	AZL	93.80	HCA	229.97	SMA	127.24	ECC	.19070	INC	3.8011
RP	107.91	LAP	2.91	LOP	197.44	VP	37.639	GAP	6.70	AZP	87.55	TAL	174.43	TAP	44.40	RCA	102.98	APO	151.51
RC	124.786	GL	-30.50	GP	30.19	ZAL	73.96	ZAP	140.11	ETS	40.69	ZAE	125.14	ETE	157.96	ZAC	128.40	ETC	254.54

PLANETOCENTRIC CONIC

C3	12.124	VHL	3.482	DLA	-52.99	RAL	250.08	RAD	6567.5	VEL	11.555	PTH	2.02	VHP	5.438	DPA	13.88	RAP	233.06

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.14	7 41 25	1566.37	39.48	30.57	121.68	128.75	8 7 31	966.4	44.18	22.28
136.86	16 28 22	5280.77	39.49	242.96	121.69	128.74	17 56 23	4680.8	44.18	234.67
43.14	7 41 25	1566.37	39.48	30.57	121.68	128.75	8 7 31	966.4	44.18	22.28
136.86	16 28 22	5280.77	39.49	242.96	121.69	128.74	17 56 23	4680.8	44.18	234.67
43.14	7 41 25	1566.37	39.48	30.57	121.68	128.75	8 7 31	966.4	44.18	22.28
136.86	16 28 22	5280.77	39.49	242.96	121.69	128.74	17 56 23	4680.8	44.18	234.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.7668	TRA	.8683	TC3	-5.1344	BAU	.8403	SGT	5183.8	SGR	1180.9	SG3	417.6	ST	2995.2	SR	843.3	SS	1147.5
RDE	.4967	RRA	-.2528	RC3	.7161	FAU	.05913	RRT	-.9475	RRF	-.9557	RTF	.9754	CRT	-.9998	CRS	.9897	CST	-.9886
FDE	-1.3712	FRA	1.1347	FC3	-4.2222	BSP	17072	SGB	5316.6	R23	.0840	R13	-.9767	LSA	3312.6	MSA	161.5	SSA	14.8
BDE	1.8353	BRA	.9044	BC3	5.1841	FSP	-1425	SG1	5303.8	SG2	369.1	THA	167.76	EL1	3111.7	EL2	16.1	ALF	164.28

LAUNCH DATE AUG 21 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 499.449

RL	151.34	LAL	-.00	LOL	327.53	VL	26.632	GAL	1.59	AZL	93.51	HCA	233.18	SMA	127.04	ECC	.19317	INC	3.5069
RP	107.95	LAP	2.81	LOP	200.66	VP	37.606	GAP	7.05	AZP	87.90	TAL	173.31	TAP	46.49	RCA	102.50	APO	151.59
RC	127.036	GL	-27.95	GP	28.15	ZAL	71.65	ZAP	142.53	ETS	40.89	ZAE	125.24	ETE	159.76	ZAC	126.69	ETC	255.16

PLANETOCENTRIC CONIC

C3	12.067	VHL	3.474	DLA	-50.75	RAL	253.72	RAD	6567.5	VEL	11.552	PTH	2.02	VHP	5.535	DPA	11.49	RAP	233.73

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.95	8 4 34	1545.80	38.10	27.02	123.86	126.47	8 30 20	945.8	42.55	18.70
134.05	16 34 18	5299.35	38.11	243.57	123.87	126.46	18 2 37	4699.4	42.55	235.25
45.95	8 4 34	1545.80	38.10	27.02	123.86	126.47	8 30 20	945.8	42.55	18.70
134.05	16 34 18	5299.35	38.11	243.57	123.87	126.46	18 2 37	4699.4	42.55	235.25
45.95	8 4 34	1545.80	38.10	27.02	123.86	126.47	8 30 20	945.8	42.55	18.70
134.05	16 34 18	5299.35	38.11	243.57	123.87	126.46	18 2 37	4699.4	42.55	235.25

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.6125	TRA	1.0486	TC3	-5.2581	BAU	.8542	SGT	5281.0	SGR	1088.3	SG3	403.2	ST	2785.4	SR	750.0	SS	1007.2
RDE	.4370	RRA	-.2646	RC3	.6258	FAU	.05576	RRT	-.9379	RRF	-.9443	RTF	.9739	CRT	-.9996	CRS	.9793	CST	-.9833
FDE	-1.1305	FRA	1.2480	FC3	-4.0003	BSP	17093	SGB	5392.0	R23	.0759	R13	-.9750	LSA	3050.3	MSA	175.1	SSA	15.7
BDE	1.6707	BRA	1.0814	BC3	5.2952	FSP	-1357	SG1	5379.3	SG2	370.5	THA	169.01	EL1	2884.5	EL2	21.2	ALF	164.94

LAUNCH DATE AUG 21 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 505.395

RL	151.34	LAL	-.00	LOL	327.53	VL	26.601	GAL	1.90	AZL	93.24	HCA	236.39	SMA	126.84	ECC	.19581	INC	3.2366
RP	107.99	LAP	2.70	LOP	203.88	VP	37.572	GAP	7.40	AZP	88.21	TAL	172.17	TAP	48.56	RCA	102.01	APO	151.68
RC	129.278	GL	-25.51	GP	26.33	ZAL	69.29	ZAP	144.78	ETS	41.12	ZAE	125.25	ETE	161.35	ZAC	125.19	ETC	255.71

PLANETOCENTRIC CONIC

C3	12.151	VHL	3.486	DLA	-48.53	RAL	257.14	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	5.650	DPA	9.28	RAP	234.57

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.78	8 27 24	1525.27	36.61	23.61	126.08	124.42	8 52 50	925.3	40.82	15.30
131.22	16 38 41	5322.81	36.62	244.60	126.09	124.40	18 7 24	4722.8	40.83	236.29
48.78	8 27 24	1525.27	36.61	23.61	126.08	124.42	8 52 50	925.3	40.82	15.30
131.22	16 38 41	5322.81	36.62	244.60	126.09	124.40	18 7 24	4722.8	40.83	236.29
48.78	8 27 24	1525.27	36.61	23.61	126.08	124.42	8 52 50	925.3	40.82	15.30
131.22	16 38 41	5322.81	36.62	244.60	126.09	124.40	18 7 24	4722.8	40.83	236.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.4682	TRA	1.2275	TC3	-5.3415	BAU	.8723	SGT	5382.8	SGR	1012.0	SG3	388.6	ST	2583.0	SR	678.5	SS	888.4
RDE	.3939	RRA	-.2725	RC3	.5508	FAU	.05281	RRT	-.9276	RRF	-.9313	RTF	.9731	CRT	-.9980	CRS	.9617	CST	-.9763
FDE	-.9252	FRA	1.3386	FC3	-3.7628	BSP	17327	SGB	5477.1	R23	.0649	R13	-.9740	LSA	2808.0	MSA	189.7	SSA	16.4
BDE	1.5201	BRA	1.2574	BC3	5.3698	FSP	-1308	SG1	5464.4	SG2	372.3	THA	170.06	EL1	2670.3	EL2	41.9	ALF	165.31

LAUNCH DATE AUG 21 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 511.317

RL	151.34	LAL	-.00	LOL	327.53	VL	26.569	GAL	2.21	AZL	92.99	HCA	239.60	SMA	126.64	ECC	.19865	INC	2.9859
RP	108.03	LAP	2.58	LOP	207.10	VP	37.538	GAP	7.76	AZP	88.49	TAL	171.01	TAP	50.61	RCA	101.49	APO	151.80
RC	131.513	GL	-23.16	GP	24.70	ZAL	66.92	ZAP	146.81	ETS	41.42	ZAE	125.20	ETE	162.76	ZAC	123.88	ETC	256.23

PLANETOCENTRIC CONIC

C3	12.367	VHL	3.517	DLA	-46.36	RAL	260.34	RAD	6567.5	VEL	11.565	PTH	2.02	VHP	5.780	DPA	7.24	RAP	235.57

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.62	8 50 7	1504.29	35.03	20.30	128.38	122.56	9 15 11	904.3	39.03	12.03
128.38	16 41 33	5351.27	35.04	246.05	128.39	122.55	18 10 44	4751.3	39.04	237.78
51.62	8 50 7	1504.29	35.03	20.30	128.38	122.56	9 15 11	904.3	39.03	12.03
128.38	16 41 33	5351.27	35.04	246.05	128.39	122.55	18 10 44	4751.3	39.04	237.78
51.62	8 50 7	1504.29	35.03	20.30	128.38	122.56	9 15 11	904.3	39.03	12.03
128.38	16 41 33	5351.27	35.04	246.05	128.39	122.55	18 10 44	4751.3	39.04	237.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3269	TRA	1.4116	TC3	-5.3634	BAU	.8904	SGT	5478.0	SGR	946.9	SG3	373.2	ST	2384.4	SR	621.6	SS	785.9
RDE	.3617	RRA	-.2791	RC3	.4830	FAU	.04985	RRT	-.9159	RRF	-.9165	RTF	.9726	CRT	-.9935	CRS	.9327	CST	-.9669
FDE	-.7431	FRA	1.4155	FC3	-3.4898	BSP	17604	SGB	5559.2	R23	.0538	R13	-.9732	LSA	2578.0	MSA	207.5	SSA	16.9
BDE	1.3753	BRA	1.4389	BC3	5.3851	FSP	-1262	SG1	5546.5	SG2	375.5	THA	170.96	EL1	2463.2	EL2	68.3	ALF	165.47

LAUNCH DATE AUG 21 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 517.211
RL 151.34 LAL -.00 LOL 327.53 VL 26.538 GAL 2.55 AZL 92.75 HCA 242.81 SMA 126.44 ECC .20169 INC 2.7513 V1 29.440
RP 108.07 LAP 2.45 LOP 210.31 VP 37.504 GAP 8.13 AZP 88.74 TAL 169.82 TAP 52.63 RCA 100.94 APO 151.94 V2 35.067
RC 133.740 GL -20.91 GP 23.24 ZAL 64.56 ZAP 148.81 ETS 41.80 ZAE 125.10 ETE 163.99 ZAC 122.73 ETC 256.73 CLP-158.60
PLANETOCENTRIC CONIC
C3 12.712 VHL 3.565 DLA -44.24 RAL 263.35 RAD 6567.5 VEL 11.580 PTH 2.03 VHP 5.925 DPA 5.35 RAP 236.71 ECC 1.2092

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.47	9 12 48	1482.53	33.39	17.06	130.74	120.90	9 37 31	882.5	37.20	8.86
125.53	16 42 54	5384.77	33.40	247.93	130.74	120.89	18 12 39	4784.8	37.21	239.72
54.47	9 12 48	1482.53	33.39	17.06	130.74	120.90	9 37 31	882.5	37.20	8.86
125.53	16 42 54	5384.77	33.40	247.93	130.74	120.89	18 12 39	4784.8	37.21	239.72
54.47	9 12 48	1482.53	33.39	17.06	130.74	120.90	9 37 31	882.5	37.20	8.86
125.53	16 42 54	5384.77	33.40	247.93	130.74	120.89	18 12 39	4784.8	37.21	239.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.1867 TRA 1.6040 TC3-5.3216 BAU .9072 SGT 5566.0 SGR 891.9 SG3 357.6 ST 2194.3 SR 576.1 SS 701.2
RDE .3379 RRA -.2856 RC3 .4212 FAU .04682 RRT -.9025 RRF -.9004 RTF .9720 CRT -.9841 CRS .8874 CST -.9545
FDE -.5818 FRA 1.4841 FC3-3.1889 BSP 17869 SGB 5637.0 R23 .0443 R13 -.9724 LSA 2363.4 MSA 229.4 SSA 17.2
BDE 1.2339 BRA 1.6292 BC3 5.3382 FSP -1215 SG1 5624.1 SG2 380.3 THA 171.73 EL1 2266.5 EL2 99.0 ALF 165.48

LAUNCH DATE AUG 21 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 523.078
RL 151.34 LAL -.00 LOL 327.53 VL 26.505 GAL 2.90 AZL 92.53 HCA 246.01 SMA 126.23 ECC .20495 INC 2.5301 V1 29.440
RP 108.11 LAP 2.31 LOP 213.53 VP 37.469 GAP 8.50 AZP 88.97 TAL 168.62 TAP 54.64 RCA 100.36 APO 152.11 V2 35.054
RC 135.957 GL -18.77 GP 21.93 ZAL 62.22 ZAP 150.63 ETS 42.26 ZAE 124.98 ETE 165.08 ZAC 121.73 ETC 257.20 CLP-159.95
PLANETOCENTRIC CONIC
C3 13.185 VHL 3.631 DLA -42.18 RAL 266.19 RAD 6567.5 VEL 11.600 PTH 2.03 VHP 6.084 DPA 3.60 RAP 237.96 ECC 1.2170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.33	9 35 40	1459.39	31.72	13.85	133.16	119.40	9 59 59	859.4	35.36	5.71
122.67	16 42 40	5423.64	31.73	250.25	133.16	119.39	18 13 3	4823.6	35.37	242.11
57.33	9 35 40	1459.39	31.72	13.85	133.16	119.40	9 59 59	859.4	35.36	5.71
122.67	16 42 40	5423.64	31.73	250.25	133.16	119.39	18 13 3	4823.6	35.37	242.11
57.33	9 35 40	1459.39	31.72	13.85	133.16	119.40	9 59 59	859.4	35.36	5.71
122.67	16 42 40	5423.64	31.73	250.25	133.16	119.39	18 13 3	4823.6	35.37	242.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.0477 TRA 1.8047 TC3-5.2241 BAU .9231 SGT 5647.3 SGR 845.3 SG3 342.0 ST 2018.6 SR 539.7 SS 634.7
RDE .3209 RRA -.2923 RC3 .3663 FAU .04382 RRT -.8878 RRF -.8830 RTF .9714 CRT -.9667 CRS .8219 CST -.9397
FDE -.4391 FRA 1.5449 FC3-2.8772 BSP 18122 SGB 5710.2 R23 .0359 R13 -.9717 LSA 2168.7 MSA 255.3 SSA 17.3
BDE 1.0957 BRA 1.8282 BC3 5.2370 FSP -1167 SG1 5697.2 SG2 385.6 THA 172.40 EL1 2085.2 EL2 133.7 ALF 165.45

LAUNCH DATE AUG 21 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 528.915
RL 151.34 LAL -.00 LOL 327.53 VL 26.473 GAL 3.27 AZL 92.32 HCA 249.22 SMA 126.03 ECC .20845 INC 2.3197 V1 29.440
RP 108.15 LAP 2.17 LOP 216.73 VP 37.433 GAP 8.88 AZP 89.18 TAL 167.40 TAP 56.62 RCA 99.76 APO 152.30 V2 35.041
RC 138.166 GL -16.74 GP 20.75 ZAL 59.92 ZAP 152.32 ETS 42.83 ZAE 124.84 ETE 166.04 ZAC 120.84 ETC 257.68 CLP-161.26
PLANETOCENTRIC CONIC
C3 13.790 VHL 3.713 DLA -40.18 RAL 268.86 RAD 6567.5 VEL 11.627 PTH 2.04 VHP 6.254 DPA 1.97 RAP 239.33 ECC 1.2269

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.21	9 58 52	1434.36	30.04	10.61	135.63	118.05	10 22 46	834.4	33.53	2.56
119.79	16 40 46	5468.19	30.05	253.02	135.64	118.04	18 11 54	4868.2	33.54	244.96
60.21	9 58 52	1434.36	30.04	10.61	135.63	118.05	10 22 46	834.4	33.53	2.56
119.79	16 40 46	5468.19	30.05	253.02	135.64	118.04	18 11 54	4868.2	33.54	244.96
60.21	9 58 52	1434.36	30.04	10.61	135.63	118.05	10 22 46	834.4	33.53	2.56
119.79	16 40 46	5468.19	30.05	253.02	135.64	118.04	18 11 54	4868.2	33.54	244.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.9090 TRA 2.0146 TC3-5.0762 BAU .9377 SGT 5721.4 SGR 805.5 SG3 326.6 ST 1862.7 SR 510.2 SS 585.8
RDE .3090 RRA -.2995 RC3 .3177 FAU .04084 RRT -.8721 RRF -.8647 RTF .9708 CRT -.9375 CRS .7346 CST -.9241
FDE -.3127 FRA 1.5993 FC3-2.5640 BSP 18368 SGB 5777.8 R23 .0287 R13 -.9711 LSA 1997.9 MSA 284.5 SSA 17.3
BDE .9601 BRA 2.0368 BC3 5.0861 FSP -1120 SG1 5764.6 SG2 391.2 THA 172.97 EL1 1923.6 EL2 171.9 ALF 165.48

LAUNCH DATE AUG 21 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 534.719
RL 151.34 LAL -.00 LOL 327.53 VL 26.440 GAL 3.66 AZL 92.12 HCA 252.42 SMA 125.82 ECC .21221 INC 2.1183 V1 29.440
RP 108.19 LAP 2.02 LOP 219.94 VP 37.398 GAP 9.26 AZP 89.36 TAL 166.17 TAP 58.59 RCA 99.12 APO 152.52 V2 35.028
RC 140.364 GL -14.82 GP 19.69 ZAL 57.67 ZAP 153.91 ETS 43.52 ZAE 124.68 ETE 166.88 ZAC 120.07 ETC 258.14 CLP-162.53
PLANETOCENTRIC CONIC
C3 14.532 VHL 3.812 DLA -38.26 RAL 271.37 RAD 6567.6 VEL 11.658 PTH 2.05 VHP 6.438 DPA .45 RAP 240.80 ECC 1.2392

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.12	10 22 41	1406.60	28.36	7.29	138.17	116.84	10 46 7	806.6	31.71	359.32
116.88	16 37 1	5519.07	28.37	256.28	138.17	116.83	18 9 0	4919.1	31.72	248.30
63.12	10 22 41	1406.60	28.36	7.29	138.17	116.84	10 46 7	806.6	31.71	359.32
116.88	16 37 1	5519.07	28.37	256.28	138.17	116.83	18 9 0	4919.1	31.72	248.30
63.12	10 22 41	1406.60	28.36	7.29	138.17	116.84	10 46 7	806.6	31.71	359.32
116.88	16 37 1	5519.07	28.37	256.28	138.17	116.83	18 9 0	4919.1	31.72	248.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE -.7827 TRA 2.2222 TC3-4.9204 BAU .9575 SGT 5792.3 SGR 771.9 SG3 311.4 ST 1739.2 SR 488.9 SS 553.4
RDE .3036 RRA -.3054 RC3 .2813 FAU .03847 RRT -.8561 RRF -.8459 RTF .9710 CRT -.8953 CRS .6394 CST -.9143
FDE -.2124 FRA 1.6383 FC3-2.2917 BSP 18885 SGB 5843.5 R23 .0209 R13 -.9712 LSA 1863.5 MSA 311.8 SSA 17.0
BDE .8395 BRA 2.2431 BC3 4.9285 FSP -1095 SG1 5830.1 SG2 396.4 THA 173.46 EL1 1794.3 EL2 211.1 ALF 165.67

LAUNCH DATE AUG 21 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 540.492

RL	151.34	LAL	-.00	LOL	327.53	VL	26.407	GAL	4.07	AZL	91.92	HCA	255.62	SMA	125.61	ECC	.21624	INC	1.9240	V1	29.440		
RP	108.23	LAP	1.86	LOP	223.14	VP	37.362	GAP	9.66	AZP	89.52	TAL	164.92	TAP	60.54	RCA	98.45	APO	152.78	V2	35.014		
RC	142.552	GL	-13.02	GP	18.73	ZAL	55.48	ZAP	155.40	ETS	44.33	ZAE	124.51	ETE	167.63	ZAC	119.39	ETC	258.61	CLP	-163.75		

PLANETOCENTRIC CONIC

C3	15.421	VHL	3.927	DLA	-36.42	RAL	273.75	RAD	6567.6	VEL	11.696	PTH	2.06	VHP	6.633	DPA	-.96	RAP	242.35	ECC	1.2538		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.08	10 47 24	1375.23	26.70	3.81	140.75	115.74	11 10 19	775.2	29.93	355.91
113.92	16 31 14	5576.99	26.71	260.07	140.76	115.73	18 4 11	4977.0	29.94	252.17
66.08	10 47 24	1375.23	26.70	3.81	140.75	115.74	11 10 19	775.2	29.93	355.91
113.92	16 31 14	5576.99	26.71	260.07	140.76	115.73	18 4 11	4977.0	29.94	252.17
66.08	10 47 24	1375.23	26.70	3.81	140.75	115.74	11 10 19	775.2	29.93	355.91
113.92	16 31 14	5576.99	26.71	260.07	140.76	115.73	18 4 11	4977.0	29.94	252.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6354	TRA	2.4616	TC3	-4.6730	BAU	.9647	SGT	5852.3	SGR	742.6	SG3	297.4	ST	1632.3	SR	467.4	SS	535.4				
RDE	.2980	RRA	-.3154	RC3	.2399	FAU	.03526	RRT	-.8391	RRF	-.8270	RTF	.9699	CRT	-.8301	CRS	.5163	CST	-.9055				
FDE	-.1062	FRA	1.6914	FC3	-1.9794	BSP	18875	SGB	5899.2	R23	.0172	R13	-.9701	LSA	1746.4	MSA	345.3	SSA	16.9				
BDE	.7018	BRA	2.4817	BC3	4.6791	FSP	-1031	SG1	5885.5	SG2	401.7	THA	173.89	EL1	1678.9	EL2	253.4	ALF	166.31				

LAUNCH DATE AUG 21 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 546.226

RL	151.34	LAL	-.00	LOL	327.53	VL	26.374	GAL	4.50	AZL	91.74	HCA	258.81	SMA	125.41	ECC	.22057	INC	1.7353	V1	29.440		
RP	108.27	LAP	1.70	LOP	226.34	VP	37.326	GAP	10.07	AZP	89.66	TAL	163.67	TAP	62.48	RCA	97.74	APO	153.07	V2	35.001		
RC	144.730	GL	-11.32	GP	17.86	ZAL	53.36	ZAP	156.80	ETS	45.29	ZAE	124.35	ETE	168.28	ZAC	118.78	ETC	259.08	CLP	-164.94		

PLANETOCENTRIC CONIC

C3	16.468	VHL	4.058	DLA	-34.65	RAL	275.98	RAD	6567.7	VEL	11.741	PTH	2.07	VHP	6.841	DPA	-2.27	RAP	243.99	ECC	1.2710		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.13	11 13 26	1338.82	25.07	.07	143.38	114.75	11 35 45	738.8	28.19	352.24
110.87	16 23 2	5643.22	25.08	264.48	143.39	114.74	17 57 5	5043.2	28.20	256.65
69.13	11 13 26	1338.82	25.07	.07	143.38	114.75	11 35 45	738.8	28.19	352.24
110.87	16 23 2	5643.22	25.08	264.48	143.39	114.74	17 57 5	5043.2	28.20	256.65
69.13	11 13 26	1338.82	25.07	.07	143.38	114.75	11 35 45	738.8	28.19	352.24
110.87	16 23 2	5643.22	25.08	264.48	143.39	114.74	17 57 5	5043.2	28.20	256.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4948	TRA	2.7045	TC3	-4.4193	BAU	.9740	SGT	5907.8	SGR	717.2	SG3	283.7	ST	1561.7	SR	450.8	SS	528.7				
RDE	.2964	RRA	-.3249	RC3	.2069	FAU	.03244	RRT	-.8222	RRF	-.8083	RTF	.9694	CRT	-.7471	CRS	.3974	CST	-.9062				
FDE	-.0179	FRA	1.7347	FC3	-1.7055	BSP	19028	SGB	5951.1	R23	.0132	R13	-.9695	LSA	1668.0	MSA	373.4	SSA	16.6				
BDE	.5768	BRA	2.7240	BC3	4.4242	FSP	-984	SG1	5937.2	SG2	406.2	THA	174.27	EL1	1598.9	EL2	292.7	ALF	167.40				

LAUNCH DATE AUG 21 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 551.921

RL	151.34	LAL	-.00	LOL	327.53	VL	26.341	GAL	4.96	AZL	91.55	HCA	262.01	SMA	125.20	ECC	.22523	INC	1.5509	V1	29.440		
RP	108.31	LAP	1.54	LOP	229.54	VP	37.291	GAP	10.49	AZP	89.78	TAL	162.40	TAP	64.41	RCA	97.00	APO	153.40	V2	34.988		
RC	146.899	GL	-9.72	GP	17.08	ZAL	51.32	ZAP	158.11	ETS	46.41	ZAE	124.18	ETE	168.87	ZAC	118.25	ETC	259.56	CLP	-166.10		

PLANETOCENTRIC CONIC

C3	17.687	VHL	4.206	DLA	-32.97	RAL	278.09	RAD	6567.7	VEL	11.793	PTH	2.09	VHP	7.062	DPA	-3.50	RAP	245.70	ECC	1.2911		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.36	11 41 33	1294.98	23.47	355.87	146.05	113.85	12 3 8	695.0	26.49	348.11
107.64	16 11 44	5719.99	23.49	269.66	146.06	113.83	17 47 4	5120.0	26.50	261.90
72.36	11 41 33	1294.98	23.47	355.87	146.05	113.85	12 3 8	695.0	26.49	348.11
107.64	16 11 44	5719.99	23.49	269.66	146.06	113.83	17 47 4	5120.0	26.50	261.90
110.00	15 17 34	5886.67	17.66	279.40	142.92	119.75	16 55 40	5286.7	21.49	272.36
110.00	17 34 54	5464.34	29.57	252.47	148.65	107.99	19 5 58	4864.3	31.74	243.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3551	TRA	2.9573	TC3	-4.1522	BAU	.9827	SGT	5957.9	SGR	694.8	SG3	270.6	ST	1523.4	SR	436.9	SS	530.0				
RDE	.2974	RRA	-.3349	RC3	.1790	FAU	.02980	RRT	-.8055	RRF	-.7900	RTF	.9689	CRT	-.6485	CRS	.2866	CST	-.9145				
FDE	.0587	FRA	1.7738	FC3	-1.4587	BSP	19202	SGB	5998.2	R23	.0099	R13	-.9690	LSA	1623.6	MSA	395.2	SSA	16.2				
BDE	.4632	BRA	2.9762	BC3	4.1561	FSP	-940	SG1	5984.2	SG2	409.9	THA	174.61	EL1	1550.8	EL2	326.7	ALF	168.97				

LAUNCH DATE AUG 21 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 557.571

RL	151.34	LAL	-.00	LOL	327.53	VL	26.308	GAL	5.44	AZL	91.37	HCA	265.20	SMA	124.99	ECC	.23024	INC	1.3695	V1	29.440		
RP	108.35	LAP	1.36	LOP	232.73	VP	37.255	GAP	10.93	AZP	89.89	TAL	161.13	TAP	66.33	RCA	96.21	APO	153.77	V2	34.975		
RC	149.057	GL	-8.24	GP	16.37	ZAL	49.36	ZAP	159.35	ETS	47.71	ZAE	124.01	ETE	169.38	ZAC	117.77	ETC	260.04	CLP	-167.23		

PLANETOCENTRIC CONIC

C3	19.097	VHL	4.370	DLA	-31.38	RAL	280.08	RAD	6567.8	VEL	11.852	PTH	2.10	VHP	7.297	DPA	-4.64	RAP	247.47	ECC	1.3143		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.89	12 13 7	1239.25	21.93	350.89	148.75	113.02	12 33 47	639.2	24.85	343.20
104.11	15 56 1	5811.65	21.94	275.92	148.76	113.01	17 32 53	5211.7	24.86	268.22
75.89	12 13 7	1239.25	21.93	350.89	148.75	113.02	12 33 47	639.2	24.85	343.20
104.11	15 56 1	5811.65	21.94	275.92	148.76	113.01	17 32 53	5211.7	24.86	268.22
110.00	14 49 58	729.75	13.08	308.90	143.95	121.86	15 2 7	129.7	17.20	302.21
110.00	18 18 21	5369.15	31.37	245.65	152.32	104.32	19 47 51	4769.1	33.02	236.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2149	TRA	3.2218	TC3	-3.8746	BAU	.9900	SGT	6002.2	SGR	674.6	SG3	258.1	ST	1514.2	SR	424.8	SS	536.4				
RDE	.3004	RRA	-.3456	RC3	.1549	FAU	.02727	RRT	-.7891	RRF	-.7724	RTF	.9686	CRT	-.5405	CRS	.1874	CST	-.9272				
FDE	.1262	FRA	1.8102	FC3	-1.2364	BSP	19376	SGB	6040.0	R23	.0071	R13	-.9687	LSA	1610.3	MSA	409.5	SSA	15.9				
BDE	.3694	BRA	3.2403	BC3	3.8777	FSP	-898	SG1	6025.8	SG2	412.7	THA	174.91	EL1	1532.5	EL2	353.1	ALF	170.89				

LAUNCH DATE AUG 21 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 563.173

RL 151.34 LAL -.00 LOL 327.53 VL 26.274 GAL 5.95 AZL 91.19 HCA 268.39 SMA 124.79 ECC .23565 INC 1.1899 V1 29.440
RP 108.39 LAP 1.19 LOP 235.92 VP 37.219 GAP 11.38 AZP 89.97 TAL 159.86 TAP 68.25 RCA 95.38 APO 154.19 V2 34.962
RC 151.205 GL -6.85 GP 15.72 ZAL 47.49 ZAP 160.51 ETS 49.20 ZAE 123.84 ETE 169.85 ZAC 117.35 ETC 260.54 CLP-168.34

PLANETOCENTRIC CONIC

C3 20.719 VHL 4.552 DLA -29.86 RAL 281.95 RAD 6567.8 VEL 11.921 PTH 2.12 VHP 7.547 DPA -5.70 RAP 249.30 ECC 1.3410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.11	12 51 28	1160.76	20.43	344.34	151.49	112.26	13 10 49	560.8	23.27	336.70
99.89	15 32 38	640.86	20.44	306.12	151.50	112.26	15 43 19	40.9	23.28	298.48
100.00	15 21 34	676.19	19.46	308.31	151.06	113.15	15 32 50	76.2	22.43	300.77
100.00	15 45 13	600.66	21.41	303.55	151.91	111.37	15 55 14	.7	24.12	295.80
110.00	14 32 48	830.33	9.41	314.37	145.53	123.02	14 46 38	230.3	13.69	307.89
110.00	18 50 29	5307.33	32.33	241.08	155.55	101.77	20 18 56	4707.3	33.61	232.08

DIFFERENTIAL CORRECTIONS
TDE -.0736 TRA 3.4990 TC3-3.5923 BAU .9957
RDE .3049 RRA -.3568 RC3 .1341 FAU .02487
FDE .1858 FRA 1.8450 FC3-1.0392 BSP 19539
BDE .3137 BRA 3.5171 BC3 3.5948 FSP -859

MID-COURSE EXECUTION ACCURACY
SGT 6041.1 SGR 656.1 SG3 246.2
RRT -.7733 RRF -.7555 RTF .9684
SGB 6076.6 R23 .0049 R13 -.9685
SG1 6062.5 SG2 414.5 THA 175.18

ORBIT DETERMINATION ACCURACY
ST 1529.5 SR 414.1 SS 545.9
CRT -.4304 CRS .1013 CST -.9411
LSA 1623.4 MSA 416.2 SSA 15.5
EL1 1540.5 EL2 371.1 ALF 172.94

LAUNCH DATE AUG 21 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 568.721

RL 151.34 LAL -.00 LOL 327.53 VL 26.241 GAL 6.49 AZL 91.01 HCA 271.58 SMA 124.58 ECC .24148 INC 1.0110 V1 29.440
RP 108.43 LAP 1.01 LOP 239.11 VP 37.184 GAP 11.86 AZP 90.03 TAL 158.58 TAP 70.16 RCA 94.50 APO 154.67 V2 34.949
RC 153.343 GL -5.56 GP 15.13 ZAL 45.70 ZAP 161.61 ETS 50.91 ZAE 123.67 ETE 170.26 ZAC 116.97 ETC 261.04 CLP-169.42

PLANETOCENTRIC CONIC

C3 22.578 VHL 4.752 DLA -28.43 RAL 283.72 RAD 6567.9 VEL 11.998 PTH 2.14 VHP 7.813 DPA -6.68 RAP 251.19 ECC 1.3716

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.41	13 57 19	992.14	18.98	331.31	154.26	111.57	14 13 51	392.1	21.74	323.71
92.59	14 40 53	850.95	18.99	320.98	154.26	111.55	14 55 4	251.0	21.75	313.39
100.00	14 21 56	912.25	12.56	322.44	151.23	117.35	14 37 8	312.3	16.13	315.47
100.00	16 58 57	5694.11	25.66	268.57	156.70	105.88	18 33 52	5094.1	27.59	260.31
110.00	14 20 27	916.89	6.17	318.97	147.41	123.69	14 35 44	316.9	10.55	312.63
110.00	19 16 55	5262.24	32.90	237.69	158.60	99.84	20 44 38	4662.2	33.91	228.59

DIFFERENTIAL CORRECTIONS
TDE .0695 TRA 3.7898 TC3-3.3090 BAU .9994
RDE .3108 RRA -.3686 RC3 .1159 FAU .02257
FDE .2387 FRA 1.8783 FC3 -.8653 BSP 19694
BDE .3184 BRA 3.8076 BC3 3.3110 FSP -821

MID-COURSE EXECUTION ACCURACY
SGT 6074.2 SGR 638.7 SG3 234.9
RRT -.7580 RRF -.7395 RTF .9684
SGB 6107.7 R23 .0031 R13 -.9684
SG1 6093.5 SG2 415.2 THA 175.42

ORBIT DETERMINATION ACCURACY
ST 1563.9 SR 404.3 SS 556.8
CRT -.3246 CRS .0280 CST -.9541
LSA 1657.1 MSA 416.2 SSA 15.1
EL1 1569.8 EL2 380.9 ALF 174.90

LAUNCH DATE AUG 21 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 574.210

RL 151.34 LAL -.00 LOL 327.53 VL 26.208 GAL 7.06 AZL 90.83 HCA 274.76 SMA 124.38 ECC .24778 INC .8317 V1 29.440
RP 108.47 LAP .83 LOP 242.29 VP 37.149 GAP 12.35 AZP 90.07 TAL 157.31 TAP 72.07 RCA 93.56 APO 155.20 V2 34.937
RC 155.470 GL -4.36 GP 14.59 ZAL 44.00 ZAP 162.64 ETS 52.87 ZAE 123.50 ETE 170.63 ZAC 116.62 ETC 261.55 CLP-170.49

PLANETOCENTRIC CONIC

C3 24.707 VHL 4.971 DLA -27.07 RAL 285.39 RAD 6568.0 VEL 12.087 PTH 2.16 VHP 8.096 DPA -7.59 RAP 253.12 ECC 1.4066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 12 4	1184.25	11.66	341.98	154.39	115.99	13 31 48	584.3	15.06	334.96
90.00	15 39 25	702.88	23.72	311.89	159.23	105.94	15 51 8	102.9	25.68	303.77
100.00	13 58 24	1034.56	8.64	329.41	152.81	118.73	14 15 39	434.6	12.41	322.65
100.00	17 35 46	5615.85	27.01	263.15	160.18	103.33	19 9 22	5015.8	28.57	254.70
110.00	14 11 0	994.98	3.20	323.08	149.47	124.05	14 27 35	395.0	7.65	316.81
110.00	19 39 39	5228.19	33.27	235.10	161.56	98.35	21 6 47	4628.2	34.06	225.95

DIFFERENTIAL CORRECTIONS
TDE .2143 TRA 4.0950 TC3-3.0294 BAU 1.0012
RDE .3177 RRA -.3808 RC3 .0999 FAU .02037
FDE .2859 FRA 1.9112 FC3 -.7138 BSP 19850
BDE .3832 BRA 4.1127 BC3 3.0310 FSP -786

MID-COURSE EXECUTION ACCURACY
SGT 6101.8 SGR 622.1 SG3 224.2
RRT -.7434 RRF -.7244 RTF .9684
SGB 6133.4 R23 .0017 R13 -.9685
SG1 6119.4 SG2 414.9 THA 175.65

ORBIT DETERMINATION ACCURACY
ST 1611.9 SR 395.0 SS 568.2
CRT -.2277 CRS -.0339 CST -.9650
LSA 1705.3 MSA 411.2 SSA 14.7
EL1 1614.6 EL2 384.0 ALF 176.61

LAUNCH DATE AUG 21 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 579.631

RL 151.34 LAL -.00 LOL 327.53 VL 26.175 GAL 7.67 AZL 90.65 HCA 277.94 SMA 124.18 ECC .25460 INC .6508 V1 29.440
RP 108.51 LAP .64 LOP 245.48 VP 37.114 GAP 12.88 AZP 90.09 TAL 156.04 TAP 73.99 RCA 92.56 APO 155.79 V2 34.925
RC 157.587 GL -3.24 GP 14.10 ZAL 42.39 ZAP 163.60 ETS 55.10 ZAE 123.32 ETE 170.96 ZAC 116.30 ETC 262.07 CLP-171.54

PLANETOCENTRIC CONIC

C3 27.140 VHL 5.210 DLA -25.79 RAL 286.95 RAD 6568.1 VEL 12.187 PTH 2.19 VHP 8.398 DPA -8.43 RAP 255.09 ECC 1.4467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 47 17	1311.49	7.77	349.31	156.03	117.31	13 9 9	711.5	11.37	342.48
90.00	16 16 42	622.11	25.12	306.39	162.73	103.52	16 27 4	22.1	26.73	298.09
100.00	13 42 33	1133.06	5.38	334.90	154.74	119.45	14 1 26	533.1	9.26	328.26
100.00	18 4 8	5563.81	27.77	259.47	163.39	101.53	19 36 52	4963.8	29.08	250.91
110.00	14 3 31	1067.26	.44	326.85	151.67	124.18	14 21 18	467.3	4.92	320.63
110.00	19 59 39	5202.38	33.51	233.12	164.49	97.20	21 26 21	4602.4	34.14	223.93

DIFFERENTIAL CORRECTIONS
TDE .3608 TRA 4.4151 TC3-2.7576 BAU 1.0010
RDE .3257 RRA -.3932 RC3 .0860 FAU .01830
FDE .3277 FRA 1.9431 FC3 -.5837 BSP 20022
BDE .4861 BRA 4.4326 BC3 2.7589 FSP -753

MID-COURSE EXECUTION ACCURACY
SGT 6123.5 SGR 605.8 SG3 214.0
RRT -.7293 RRF -.7101 RTF .9687
SGB 6153.4 R23 .0006 R13 -.9687
SG1 6139.5 SG2 413.4 THA 175.85

ORBIT DETERMINATION ACCURACY
ST 1668.1 SR 386.1 SS 579.2
CRT -.1416 CRS -.0858 CST -.9738
LSA 1762.0 MSA 402.8 SSA 14.4
EL1 1669.0 EL2 382.0 ALF 178.02

LAUNCH DATE AUG 21 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 584.975

RL	151.34	LAL	-.00	LOL	327.53	VL	26.142	GAL	8.32	AZL	90.47	HCA	281.13	SMA	123.98	ECC	.26199	INC	.4672
RP	108.54	LAP	.46	LOP	248.66	VP	37.080	GAP	13.43	AZP	90.09	TAL	154.78	TAP	75.91	RCA	91.50	APO	156.46
RC	159.692	GL	-2.21	GP	13.66	ZAL	40.86	ZAP	164.49	ETS	57.64	ZAE	123.14	ETE	171.26	ZAC	116.00	ETC	262.59

V1	29.440	V2	34.913	CLP	-172.58														

PLANETOCENTRIC CONIC

C3	29.923	VHL	5.470	DLA	-24.59	RAL	288.43	RAD	6568.2	VEL	12.300	PTH	2.22	VHP	8.722	DPA	-9.20	RAP	257.09

ECC	1.4925	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	12 30 47	1412.56	4.58	355.01	158.02	117.98	12 54 19	812.6	8.28	348.30			
		90.00	16 44 59	5857.83	25.90	280.66	165.97	101.86	18 22 37	5257.8	27.28	272.27			
		100.00	13 30 40	1219.22	2.48	339.65	156.87	119.80	13 50 59	619.2	6.43	333.09			
		100.00	18 27 47	5526.40	28.25	256.79	166.49	100.20	19 59 54	4926.4	29.37	248.17			
		110.00	13 57 26	1135.25	-2.16	330.40	153.97	124.12	14 16 21	535.2	2.33	324.19			
		110.00	20 17 30	5183.14	33.66	231.64	167.41	96.34	21 43 53	4583.1	34.17	222.43			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5098	TRA	4.7515	TC3	-2.4951	BAU	.9986	SGT	6139.4	SGR	589.6	SG3	204.3	ST	1728.5	SR	377.3	SS	589.6
RDE	.3345	RRA	-.4057	RC3	.0737	FAU	.01633	RRT	-.7157	RRF	-.6966	RTF	.9692	CRT	-.0664	CRS	-.1293	CST	-.9805
FDE	.3649	FRA	1.9752	FC3	-.4725	BSP	20210	SGB	6167.6	R23	-.0002	R13	-.9692	LSA	1823.1	MSA	392.4	SSA	14.0
BDE	.6097	BRA	4.7688	BC3	2.4962	FSP	-723	SG1	6153.9	SG2	410.8	THA	176.05	EL1	1728.7	EL2	376.5	ALF	179.13

LAUNCH DATE AUG 21 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 590.232

RL	151.34	LAL	-.00	LOL	327.53	VL	26.109	GAL	9.02	AZL	90.28	HCA	284.30	SMA	123.78	ECC	.27003	INC	.2795
RP	108.58	LAP	.27	LOP	251.84	VP	37.046	GAP	14.02	AZP	90.07	TAL	153.54	TAP	77.84	RCA	90.36	APO	157.20
RC	161.784	GL	-1.25	GP	13.25	ZAL	39.42	ZAP	165.32	ETS	60.51	ZAE	122.96	ETE	171.54	ZAC	115.73	ETC	263.13

V1	29.440	V2	34.901	CLP	-173.62														

PLANETOCENTRIC CONIC

C3	33.109	VHL	5.754	DLA	-23.46	RAL	289.82	RAD	6568.3	VEL	12.429	PTH	2.25	VHP	9.069	DPA	-9.91	RAP	259.13

ECC	1.5449	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	12 18 24	1500.45	1.75	359.93	160.21	118.27	12 43 25	900.5	5.52	353.27			
		90.00	17 8 25	5820.81	26.39	278.06	169.10	100.65	18 45 26	5220.8	27.60	269.60			
		100.00	13 21 17	1297.50	-.17	343.95	159.14	119.89	13 42 54	697.5	3.81	337.42			
		100.00	18 48 14	5498.99	28.56	254.82	169.52	99.21	20 19 53	4899.0	29.54	246.15			
		110.00	13 52 25	1199.88	-4.62	333.78	156.37	123.91	14 12 25	599.9	-.14	327.56			
		110.00	20 33 36	5169.37	33.76	230.58	170.32	95.72	21 59 45	4569.4	34.18	221.36			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6617	TRA	5.1058	TC3	-2.2438	BAU	.9936	SGT	6149.6	SGR	573.2	SG3	195.1	ST	1790.1	SR	368.6	SS	599.4
RDE	.3440	RRA	-.4182	RC3	.0627	FAU	.01446	RRT	-.7025	RRF	-.6837	RTF	.9698	CRT	-.0014	CRS	-.1662	CST	-.9855
FDE	.3986	FRA	2.0078	FC3	-.3780	BSP	20407	SGB	6176.2	R23	-.0008	R13	-.9698	LSA	1885.4	MSA	380.7	SSA	13.7
BDE	.7458	BRA	5.1229	BC3	2.2446	FSP	-696	SG1	6162.8	SG2	407.1	THA	176.24	EL1	1790.1	EL2	368.6	ALF	179.98

LAUNCH DATE AUG 21 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 595.389

RL	151.34	LAL	-.00	LOL	327.53	VL	26.077	GAL	9.76	AZL	90.09	HCA	287.48	SMA	123.58	ECC	.27878	INC	.0857
RP	108.61	LAP	.08	LOP	255.01	VP	37.012	GAP	14.65	AZP	90.03	TAL	152.31	TAP	79.79	RCA	89.13	APO	158.04
RC	163.865	GL	-.37	GP	12.87	ZAL	38.08	ZAP	166.08	ETS	63.75	ZAE	122.77	ETE	171.79	ZAC	115.47	ETC	263.66

V1	29.440	V2	34.890	CLP	-174.66														

PLANETOCENTRIC CONIC

C3	36.761	VHL	6.063	DLA	-22.40	RAL	291.12	RAD	6568.4	VEL	12.575	PTH	2.28	VHP	9.442	DPA	-10.56	RAP	261.18

ECC	1.6050	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	12 8 37	1580.01	-.81	4.37	162.52	118.31	12 34 57	980.0	2.98	357.74			
		90.00	17 28 36	5794.08	26.72	276.17	172.15	99.75	19 5 10	5194.1	27.79	267.67			
		100.00	13 13 38	1370.16	-2.64	347.93	161.51	119.79	13 36 28	770.2	1.35	341.41			
		100.00	19 6 16	5479.16	28.77	253.38	172.52	98.48	20 37 35	4879.2	29.65	244.68			
		110.00	13 48 12	1261.79	-6.96	337.04	158.83	123.55	14 9 14	661.8	-2.50	330.79			
		110.00	20 48 11	5160.29	33.82	229.87	173.24	95.31	22 14 11	4560.3	34.18	220.65			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8185	TRA	5.4809	TC3	-2.0029	BAU	.9847	SGT	6154.6	SGR	556.5	SG3	186.3	ST	1851.5	SR	359.6	SS	608.9
RDE	.3540	RRA	-.4305	RC3	.0528	FAU	.01264	RRT	-.6896	RRF	-.6714	RTF	.9706	CRT	.0551	CRS	-.1981	CST	-.9893
FDE	.4298	FRA	2.0421	FC3	-.2976	BSP	20594	SGB	6179.7	R23	-.0012	R13	-.9706	LSA	1947.4	MSA	368.3	SSA	13.2
BDE	.8917	BRA	5.4977	BC3	2.0036	FSP	-669	SG1	6166.6	SG2	402.2	THA	176.42	EL1	1851.6	EL2	359.1	ALF	.64

LAUNCH DATE AUG 21 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 600.429

RL	151.34	LAL	-.00	LOL	327.53	VL	26.045	GAL	10.55	AZL	89.89	HCA	290.65	SMA	123.39	ECC	.28832	INC	.1115
RP	108.65	LAP	-.11	LOP	258.18	VP	36.980	GAP	15.32	AZP	89.96	TAL	151.11	TAP	81.76	RCA	87.82	APO	158.97
RC	165.932	GL	.45	GP	12.53	ZAL	36.81	ZAP	166.77	ETS	67.40	ZAE	122.56	ETE	172.02	ZAC	115.22	ETC	264.21

V1	29.440	V2	34.880	CLP	-175.69														

PLANETOCENTRIC CONIC

C3	40.956	VHL	6.400	DLA	-21.40	RAL	292.33	RAD	6568.6	VEL	12.741	PTH	2.32	VHP	9.845	DPA	-11.14	RAP	263.26

ECC	1.6740	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	12 0 36	1653.65	-3.19	8.48	164.93	118.15	12 28 9	1053.7	.60	1.85			
		90.00	17 46 19	5775.04	26.93	274.82	175.16	99.11	19 22 34	5175.0	27.91	266.29			
		100.00	13 7 15	1438.54	-4.94	351.70	163.96	119.52	13 31 13	838.5	-.97	345.16			
		100.00	19 22 21	5465.38	28.91	252.38	175.50	97.97	20 53 26	4865.4	29.71	243.66			
		110.00	13 44 37	1321.40	-9.19	340.22	161.36	123.07	14 6 38	721.4	-4.77	333.92			
		110.00	21 1 28	5155.29	33.85	229.49	176.16	95.08	22 27 23	4555.3	34.18	220.26			

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9809	TRA	5.8791	TC3	-1.7735	BAU	.9714	SGT	6155.0	SGR	539.2	SG3	178.1	ST	1911.1	SR.	350.4	SS	618.5
RDE	.3645	RRA	-.4425	RC3	.0437	FAU	.01087	RRT	-.6769	RRF	-.6593	RTF	.9715	CRT	.1044	CRS	-.2260	CST	-.9922
FDE	.4592	FRA	2.0787	FC3	-.2297	BSP	20756	SGB	6178.6	R23	-.0014	R13	-.9715	LSA	2007.7	MSA	355.4	SSA	12.8
BDE	1.0464	BRA	5.8957	BC3	1.7741	FSP	-643	SG1	6165.9	SG2	396.2	THA	176.59	EL1	1911.4	EL2	348.4	ALF	1.13

LAUNCH DATE AUG 21 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 605.335

RL	151.34	LAL	-.00	LOL	327.53	VL	26.013	GAL	11.41	AZL	89.68	HCA	293.82	SMA	123.20	ECC	.29876	INC	.3199
RP	108.68	LAP	-.29	LOP	261.36	VP	36.947	GAP	16.05	AZP	89.87	TAL	149.94	TAP	83.77	RCA	86.39	APO	160.01
RC	167.985	GL	1.21	GP	12.21	ZAL	35.64	ZAP	167.37	ETS	71.48	ZAE	122.34	ETE	172.23	ZAC	114.98	ETC	264.75

V1 29.440 V2 34.869 CLP-176.74

PLANETOCENTRIC CONIC

C3 45.789 VHL 6.767 DLA -20.47 RAL 293.47 RAD 6568.7 VEL 12.929 PTH 2.36 VHP 10.282 DPA -11.66 RAP 265.34 ECC 1.7536

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 53 52	1722.77	-5.40	12.36	167.41	117.84	12 22 35	1122.8	-1.63	5.70
90.00	18 2 5	5762.11	27.06	273.90	178.14	98.66	19 38 7	5162.1	27.98	265.35
100.00	13 1 50	1503.47	-7.10	355.31	166.48	119.11	13 26 53	903.5	-3.17	348.73
100.00	19 36 49	5456.64	28.99	251.74	178.45	97.64	21 7 46	4856.6	29.74	243.02
110.00	13 41 33	1379.00	-11.31	343.33	163.94	122.47	14 4 32	779.0	-6.95	336.95
110.00	21 13 35	5153.87	33.86	229.38	179.08	95.02	22 39 29	4553.9	34.18	220.15

DIFFERENTIAL CORRECTIONS

TDE	1.1507	TRA	6.3036	TC3	-1.5553	BAU	.9524
RDE	.3753	RRA	-.4540	RC3	.0355	FAU	.00911
FDE	.4874	FRA	2.1184	FC3	-.1723	BSP	20881
BDE	1.2103	BRA	6.3199	BC3	1.5557	FSP	-617

MID-COURSE EXECUTION ACCURACY

SGT	6151.2	SGR	521.2	SG3	170.4		
RRT	-.6641	RRF	-.6475	RTF	.9726		
SGB	6173.2	R23	-.0014	R13	-.9726		
SG1	6160.9	SG2	389.1	THA	176.77		

ORBIT DETERMINATION ACCURACY

ST	1968.3	SR	340.8	SS	628.3
CRT	.1478	CRS	-.2508	CST	-.9943
LSA	2065.9	MSA	342.3	SSA	12.4
EL1	1969.0	EL2	336.9	ALF	1.51

LAUNCH DATE AUG 21 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 610.081

RL	151.34	LAL	-.00	LOL	327.53	VL	25.981	GAL	12.34	AZL	89.46	HCA	296.99	SMA	123.02	ECC	.31022	INC	.5380
RP	108.71	LAP	-.48	LOP	264.53	VP	36.916	GAP	16.83	AZP	89.76	TAL	148.81	TAP	85.80	RCA	84.85	APO	161.18
RC	170.025	GL	1.91	GP	11.92	ZAL	34.55	ZAP	167.88	ETS	76.01	ZAE	122.10	ETE	172.43	ZAC	114.74	ETC	265.30

V1 29.440 V2 34.859 CLP-177.79

PLANETOCENTRIC CONIC

C3 51.376 VHL 7.168 DLA -19.60 RAL 294.52 RAD 6568.9 VEL 13.143 PTH 2.40 VHP 10.756 DPA -12.13 RAP 267.43 ECC 1.8455

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 48 8	1788.21	-7.46	16.06	169.95	117.39	12 17 57	1188.2	-3.73	9.36
90.00	18 16 13	5754.21	27.14	273.33	181.08	98.39	19 52 7	5154.2	28.03	264.78
100.00	12 57 10	1565.47	-9.14	358.78	169.05	118.58	13 23 15	965.5	-5.26	352.15
100.00	19 49 53	5452.18	29.03	251.41	181.38	97.47	21 20 45	4852.2	29.76	242.69
110.00	13 38 52	1434.78	-13.33	346.39	166.56	121.77	14 2 47	834.8	-9.04	339.93
110.00	21 24 40	5155.64	33.85	229.51	182.00	95.10	22 50 35	4555.6	34.18	220.28

DIFFERENTIAL CORRECTIONS

TDE	1.3299	TRA	6.7585	TC3	-1.3484	BAU	.9263
RDE	.3865	RRA	-.4646	RC3	.0280	FAU	.00735
FDE	.5155	FRA	2.1622	FC3	-.1239	BSP	20942
BDE	1.3849	BRA	6.7745	BC3	1.3487	FSP	-590

MID-COURSE EXECUTION ACCURACY

SGT	6144.4	SGR	502.5	SG3	163.2		
RRT	-.6510	RRF	-.6355	RTF	.9739		
SGB	6164.9	R23	-.0013	R13	-.9739		
SG1	6153.1	SG2	380.9	THA	176.94		

ORBIT DETERMINATION ACCURACY

ST	2023.2	SR	330.8	SS	639.0
CRT	.1866	CRS	-.2735	CST	-.9958
LSA	2121.9	MSA	328.9	SSA	12.0
EL1	2024.1	EL2	324.9	ALF	1.79

LAUNCH DATE AUG 21 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 614.640

RL	151.34	LAL	-.00	LOL	327.53	VL	25.951	GAL	13.34	AZL	89.23	HCA	300.16	SMA	122.83	ECC	.32281	INC	.7688
RP	108.74	LAP	-.66	LOP	267.70	VP	36.886	GAP	17.68	AZP	89.61	TAL	147.72	TAP	87.89	RCA	83.18	APO	162.49
RC	172.049	GL	2.55	GP	11.65	ZAL	33.55	ZAP	168.29	ETS	81.00	ZAE	121.84	ETE	172.62	ZAC	114.51	ETC	265.85

V1 29.440 V2 34.850 CLP-178.86

PLANETOCENTRIC CONIC

C3 57.859 VHL 7.607 DLA -18.78 RAL 295.49 RAD 6569.1 VEL 13.387 PTH 2.45 VHP 11.275 DPA -12.54 RAP 269.51 ECC 1.9522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 43 10	1850.52	-9.40	19.61	172.52	116.84	12 14 1	1250.5	-5.72	12.86
90.00	18 28 55	5750.57	27.18	273.07	183.99	98.27	20 4 46	5150.6	28.04	264.51
100.00	12 53 5	1624.91	-11.06	2.15	171.64	117.95	13 20 10	1024.9	-7.23	355.45
100.00	20 1 42	5451.41	29.03	251.36	184.28	97.44	21 32 33	4851.4	29.76	242.63
110.00	13 36 30	1488.86	-15.25	349.41	169.21	120.97	14 1 19	888.9	-11.03	342.84
110.00	21 34 46	5160.22	33.82	229.87	184.91	95.30	23 0 46	4560.2	34.18	220.64

DIFFERENTIAL CORRECTIONS

TDE	1.5198	TRA	7.2474	TC3	-1.1528	BAU	.8919
RDE	.3980	RRA	-.4741	RC3	.0212	FAU	.00556
FDE	.5437	FRA	2.2109	FC3	-.0832	BSP	20915
BDE	1.5711	BRA	7.2629	BC3	1.1530	FSP	-562

MID-COURSE EXECUTION ACCURACY

SGT	6134.8	SGR	482.9	SG3	156.4		
RRT	-.6374	RRF	-.6231	RTF	.9754		
SGB	6153.7	R23	-.0011	R13	-.9754		
SG1	6142.5	SG2	371.7	THA	177.12		

ORBIT DETERMINATION ACCURACY

ST	2075.0	SR	320.5	SS	650.7
CRT	.2217	CRS	-.2946	CST	-.9970
LSA	2175.4	MSA	315.3	SSA	11.6
EL1	2076.3	EL2	312.3	ALF	2.01

LAUNCH DATE AUG 21 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 618.973

RL	151.34	LAL	-.00	LOL	327.53	VL	25.920	GAL	14.43	AZL	88.99	HCA	303.33	SMA	122.66	ECC	.33671	INC	1.0147
RP	108.77	LAP	-.85	LOP	270.86	VP	36.856	GAP	18.61	AZP	89.44	TAL	146.70	TAP	90.02	RCA	81.36	APO	163.95
RC	174.060	GL	3.15	GP	11.41	ZAL	32.64	ZAP	168.59	ETS	86.43	ZAE	121.54	ETE	172.81	ZAC	114.28	ETC	266.39

V1 29.440 V2 34.841 CLP-179.96

PLANETOCENTRIC CONIC

C3 65.418 VHL 8.088 DLA -18.03 RAL 296.38 RAD 6569.2 VEL 13.666 PTH 2.50 VHP 11.843 DPA -12.90 RAP 271.58 ECC 2.0766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 38 48	1910.04	-11.21	23.05	175.11	116.18	12 10 38	1310.0	-7.60	16.23
90.00	18 40 22	5750.57	27.18	273.07	186.86	98.27	20 16 12	5150.6	28.04	264.51
100.00	12 49 28	1681.99	-12.86	5.44	174.26	117.22	13 17 30	1082.0	-9.11	358.65
100.00	20 12 23	5453.85	29.01	251.53	187.15	97.54	21 43 16	4853.8	29.75	242.81
110.00	13 34 23	1541.29	-17.06	352.39	171.88	120.08	14 0 4	941.3	-12.94	345.71
110.00	21 43 57	5167.31	33.77	230.42	187.79	95.63	23 10 5	4567.3	34.18	221.20

DIFFERENTIAL CORRECTIONS

TDE	1.7216	TRA	7.7754	TC3	-.9667	BAU	.8455
RDE	.4100	RRA	-.4820	RC3	.0150	FAU	.00371
FDE	.5728	FRA	2.2656	FC3	-.0491	BSP	20717
BDE	1.7698	BRA	7.7903	BC3	.9668	FSP	-533

MID-COURSE EXECUTION ACCURACY

SGT	6122.5	SGR	462.5	SG3	150.1		
RRT	-.6229	RRF	-.6099	RTF	.9771		
SGB	6139.9	R23	-.0011	R13	-.9771		
SG1	6129.3	SG2	361.4	THA	177.30		

ORBIT DETERMINATION ACCURACY

ST	2123.5	SR	309.8	SS	663.9
CRT	.2538	CRS	-.3149	CST	-.9978
LSA	2226.0	MSA	301.7	SSA	11.2
EL1	2125.0	EL2	299.4	ALF	2.16

LAUNCH DATE AUG 22 1970 FLIGHT TIME 70.00 ARRIVAL DATE OCT 31 1970

HELIOCENTRIC CONIC DISTANCE 157.243

RL	151.31	LAL	-.00	LOL	328.49	VL	22.069	GAL	2.31	AZL	92.73	HCA	62.48	SMA	104.73	ECC	.44619	INC	2.7297	V1	29.446
RP	108.34	LAP	-2.42	LOP	30.95	VP	34.393	GAP	-26.43	AZP	91.26	TAL	177.12	TAP	239.61	RCA	58.00	APO	151.46	V2	34.980
RC	42.797	GL	-7.95	GP	-7.12	ZAL	80.54	ZAP	17.22	ETS	153.28	ZAE	173.20	ETE	173.63	ZAC	91.98	ETC	257.90	CLP	15.72

PLANETOCENTRIC CONIC

C3	57.690	VHL	7.595	DLA	-29.49	RAL	244.83	RAD	6569.0	VEL	13.381	PTH	2.45	VHP	15.783	DPA	-21.90	RAP	222.16	ECC	1.9494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.39	10 29 21	1384.08	12.98	357.32	130.76	116.72	10 52 25	784.1	16.46	350.29
98.61	12 50 42	927.53	13.00	323.80	130.77	116.71	13 6 10	327.5	16.48	316.77
100.00	12 20 18	1024.87	8.96	328.86	128.61	118.64	12 37 23	424.9	12.72	322.09
100.00	13 42 26	761.98	17.08	313.57	132.81	114.91	13 55 8	162.0	20.30	306.25
110.00	11 55 31	1102.96	-.92	328.71	122.58	124.17	12 13 54	503.0	3.56	322.50
110.00	16 23 42	5544.69	27.75	258.02	137.67	110.81	17 56 7	4944.7	30.32	249.77

DIFFERENTIAL CORRECTIONS

TDE	.1804	TRA	-.9049	TC3	-.0352	BAU	.0272
RDE	-.5875	RRA	-.0133	RC3	.0025	FAU	.01738
FDE	-.1303	FRA	.4389	FC3	-.2609	BSP	2071
BDE	.6146	BRA	.9050	BC3	.0353	FSP	-103

MID-COURSE EXECUTION ACCURACY

SGT	797.7	SGR	443.3	SG3	48.2		
RRT	-.1456	RRF	.1522	RTF	-.6526		
SGB	912.6	R23	-.0167	R13	.6550		
SG1	801.4	SG2	436.6	THA	173.41		

ORBIT DETERMINATION ACCURACY

ST	271.8	SR	443.2	SS	206.0
CRT	-.4940	CRS	-.6447	CST	.9791
LSA	498.5	MSA	253.0	SSA	14.4
EL1	469.6	EL2	223.0	ALF	112.08

LAUNCH DATE AUG 22 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 163.759

RL	151.31	LAL	-.00	LOL	328.49	VL	22.513	GAL	2.13	AZL	92.51	HCA	65.68	SMA	106.39	ECC	.42352	INC	2.5069	V1	29.446
RP	108.29	LAP	-2.28	LOP	34.15	VP	34.693	GAP	-25.04	AZP	91.03	TAL	177.09	TAP	242.77	RCA	61.33	APO	151.45	V2	34.993
RC	41.950	GL	-7.92	GP	-7.43	ZAL	80.36	ZAP	15.88	ETS	149.69	ZAE	175.62	ETE	178.61	ZAC	91.91	ETC	258.10	CLP	14.07

PLANETOCENTRIC CONIC

C3	50.961	VHL	7.139	DLA	-29.50	RAL	245.04	RAD	6568.9	VEL	13.127	PTH	2.40	VHP	15.019	DPA	-22.72	RAP	223.60	ECC	1.8387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.37	10 29 58	1354.09	13.91	355.58	129.05	116.28	10 52 32	754.1	17.33	348.49
98.63	12 51 44	896.25	13.93	321.96	129.06	116.27	13 6 40	296.3	17.35	314.87
100.00	12 21 28	993.16	9.99	327.07	126.98	118.32	12 38 1	393.2	13.70	320.24
100.00	13 42 56	732.42	17.92	311.78	131.02	114.33	13 55 8	132.4	21.05	304.38
110.00	11 56 26	1072.02	.26	327.10	121.06	124.18	12 14 18	472.0	4.74	320.88
110.00	16 24 27	5514.36	28.47	255.95	135.66	109.78	17 56 21	4914.4	30.89	247.59

DIFFERENTIAL CORRECTIONS

TDE	.1810	TRA	-.8895	TC3	-.0206	BAU	.0141
RDE	-.5581	RRA	-.0055	RC3	-.0021	FAU	.01807
FDE	-.1326	FRA	.4521	FC3	-.3070	BSP	2217
BDE	.5867	BRA	.8896	BC3	.0207	FSP	-116

MID-COURSE EXECUTION ACCURACY

SGT	833.6	SGR	448.0	SG3	53.1		
RRT	-.1629	RRF	.1704	RTF	-.6730		
SGB	946.3	R23	-.0188	R13	.6756		
SG1	838.0	SG2	439.7	THA	173.09		

ORBIT DETERMINATION ACCURACY

ST	285.8	SR	447.9	SS	213.8
CRT	-.5054	CRS	-.6434	CST	.9819
LSA	509.9	MSA	260.5	SSA	14.7
EL1	478.6	EL2	230.8	ALF	113.70

LAUNCH DATE AUG 22 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 170.321

RL	151.31	LAL	-.00	LOL	328.49	VL	22.923	GAL	1.93	AZL	92.29	HCA	68.87	SMA	108.01	ECC	.40211	INC	2.2949	V1	29.446
RP	108.25	LAP	-2.14	LOP	37.35	VP	34.974	GAP	-23.71	AZP	90.83	TAL	177.12	TAP	245.99	RCA	64.58	APO	151.44	V2	35.007
RC	41.257	GL	-7.85	GP	-7.78	ZAL	80.29	ZAP	14.61	ETS	145.36	ZAE	178.02	ETE	198.08	ZAC	91.80	ETC	258.31	CLP	12.41

PLANETOCENTRIC CONIC

C3	45.061	VHL	6.713	DLA	-29.44	RAL	245.12	RAD	6568.7	VEL	12.901	PTH	2.35	VHP	14.288	DPA	-23.56	RAP	225.04	ECC	1.7416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.58	10 32 0	1317.93	14.81	353.35	127.18	115.74	10 53 57	717.9	18.15	346.19
98.42	12 50 24	870.85	14.82	320.53	127.19	115.73	13 4 55	270.8	18.16	313.37
100.00	12 18 59	971.46	10.69	325.84	125.04	118.08	12 35 11	371.5	14.36	318.97
100.00	13 46 5	692.55	19.02	309.33	129.20	113.51	13 57 38	92.6	22.04	301.83
110.00	11 56 0	1043.90	1.33	325.63	119.37	124.16	12 13 23	443.9	5.81	319.40
110.00	16 25 34	5480.92	29.21	253.63	133.49	108.59	17 56 55	4880.9	31.47	245.15

DIFFERENTIAL CORRECTIONS

TDE	.1813	TRA	-.8739	TC3	-.0017	BAU	.0052
RDE	-.5296	RRA	.0017	RC3	-.0085	FAU	.01882
FDE	-.1347	FRA	.4655	FC3	-.3615	BSP	2357
BDE	.5598	BRA	.8739	BC3	.0086	FSP	-131

MID-COURSE EXECUTION ACCURACY

SGT	870.4	SGR	452.2	SG3	58.4		
RRT	-.1813	RRF	.1906	RTF	-.6926		
SGB	980.9	R23	-.0217	R13	.6954		
SG1	875.6	SG2	442.1	THA	172.77		

ORBIT DETERMINATION ACCURACY

ST	300.0	SR	452.1	SS	221.4
CRT	-.5168	CRS	-.6420	CST	.9845
LSA	521.2	MSA	267.4	SSA	15.0
EL1	487.5	EL2	238.1	ALF	115.39

LAUNCH DATE AUG 22 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 176.923

RL	151.31	LAL	-.00	LOL	328.49	VL	23.302	GAL	1.72	AZL	92.09	HCA	72.07	SMA	109.57	ECC	.38194	INC	2.0917	V1	29.446
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.237	GAP	-22.44	AZP	90.64	TAL	177.21	TAP	249.27	RCA	67.72	APO	151.42	V2	35.020
RC	40.727	GL	-7.74	GP	-8.16	ZAL	80.34	ZAP	13.46	ETS	140.13	ZAE	178.42	ETE	296.72	ZAC	91.65	ETC	258.53	CLP	10.75

PLANETOCENTRIC CONIC

C3	39.889	VHL	6.316	DLA	-29.32	RAL	245.09	RAD	6568.5	VEL	12.699	PTH	2.31	VHP	13.588	DPA	-24.43	RAP	226.48	ECC	1.6565

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.08	10 35 44	1274.75	15.64	350.57	125.15	115.11	10 56 58	674.7	18.90	343.34
97.92	12 46 22	852.58	15.66	319.60	125.16	115.10	13 0 35	252.6	18.91	312.36
100.00	12 13 7	959.20	11.08	325.14	122.81	117.94	12 29 6	359.2	14.73	318.25
100.00	13 51 40	643.36	20.33	306.26	127.32	112.40	14 2 24	43.4	23.19	298.63
110.00	11 54 6	1019.08	2.28	324.34	117.49	124.12	12 11 5	419.1	6.74	318.09
110.00	16 27 10	5444.28	29.98	251.06	131.16	107.24	17 57 55	4844.3	32.05	242.45

DIFFERENTIAL CORRECTIONS

TDE	.1828	TRA	-.8580	TC3	.0230	BAU	.0152
RDE	-.5021	RRA	.0084	RC3	-.0170	FAU	.01967
FDE	-.1368	FRA	.4789	FC3	-.4269	BSP	2500
BDE	.5344	BRA	.8580	BC3	.0286	FSP	-147

MID-COURSE EXECUTION ACCURACY

SGT	908.4	SGR	456.1	SG3	64.3		
RRT	-.2025	RRF	.2134	RTF	-.7111		
SGB	1016.5	R23	-.0247	R13	.7142		
SG1	914.6	SG2	443.7	THA	172.39		

ORBIT DETERMINATION ACCURACY

ST	315.0	SR	455.5	SS	228.9
CRT	-.5312	CRS	-.6411	CST	.9872
LSA	533.1	MSA	273.3	SSA	15.3
EL1	496.9	EL2	244.7	ALF	117.30

LAUNCH DATE AUG 22 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 183.561

RL	151.31	LAL	-.00	LOL	328.49	VL	23.653	GAL	1.51	AZL	91.90	HCA	75.27	SMA	111.08	ECC	.36299	INC	1.8955	V1	29.446
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.483	GAP	-21.23	AZP	90.48	TAL	177.35	TAP	252.62	RCA	70.76	APO	151.40	V2	35.033
RC	40.367	GL	-7.56	GP	-8.58	ZAL	80.51	ZAP	12.46	ETS	133.83	ZAE	175.94	ETE	325.97	ZAC	91.45	ETC	258.75	CLP	9.08

PLANETOCENTRIC CONIC

C3	35.358	VHL	5.946	DLA	-29.11	RAL	244.93	RAD	6568.4	VEL	12.519	PTH	2.27	VHP	12.918	DPA	-25.31	RAP	227.91	ECC	1.5819		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
82.95		10 42 0		1222.05		16.41		347.05		122.98		114.39		11 2 22		622.1		19.56		339.74			
97.05		12 38 49		844.33		16.42		319.35		122.99		114.38		12 52 53		244.3		19.58		312.04			
100.00		12 4 25		954.78		11.22		324.89		120.36		117.89		12 20 20		354.8		14.87		317.99			
100.00		13 59 5		5874.88		21.75		280.57		125.35		111.03		15 37 0		5274.9		24.41		272.79			
110.00		11 50 41		998.02		3.09		323.24		115.45		124.06		12 7 19		398.0		7.54		316.97			
110.00		16 29 19		5404.40		30.75		248.21		128.68		105.72		17 59 23		4804.4		32.60		239.47			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1839	TRA	-.8415	TC3	.0534	BAU	.0285	SGT	946.9	SGR	459.8	SG3	70.9	ST	330.0	SR	458.3	SS	236.0
RDE	-.4756	RRA	.0146	RC3	-.0281	FAU	.02060	RRT	-.2257	RRF	.2386	RTF	-.7287	CRT	-.5457	CRS	-.6395	CST	.9898
FDE	-.1385	FRA	.4927	FC3	-.5043	BSP	2646	SGB	1052.6	R23	-.0283	R13	.7322	LSA	544.9	MSA	278.4	SSA	15.7
BDE	.5099	BRA	.8416	BC3	.0603	FSP	-165	SG1	954.2	SG2	444.5	THA	172.00	EL1	506.2	EL2	250.3	ALF	119.25

LAUNCH DATE AUG 22 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 190.230

RL	151.31	LAL	-.00	LOL	328.49	VL	23.976	GAL	1.28	AZL	91.70	HCA	78.47	SMA	112.53	ECC	.34523	INC	1.7049	V1	29.446		
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.712	GAP	-20.08	AZP	90.34	TAL	177.56	TAP	256.03	RCA	73.68	APO	151.38	V2	35.046		
RC	40.182	GL	-7.31	GP	-9.04	ZAL	80.80	ZAP	11.65	ETS	126.36	ZAE	173.14	ETE	332.08	ZAC	91.20	ETC	258.98	CLP	7.39		

PLANETOCENTRIC CONIC

C3	31.389	VHL	5.603	DLA	-28.82	RAL	244.64	RAD	6568.3	VEL	12.360	PTH	2.23	VHP	12.276	DPA	-26.23	RAP	229.33	ECC	1.5166		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
84.40		10 52 37		1154.22		17.08		342.37		120.68		113.57		11 11 51		554.2		20.12		334.98			
95.60		12 25 57		852.14		17.09		320.24		120.69		113.56		12 40 9		252.1		20.13		312.85			
100.00		11 53 29		956.67		11.16		324.99		117.74		117.91		12 9 26		356.7		14.81		318.10			
100.00		14 7 46		5812.97		23.21		276.55		123.25		109.39		15 44 39		5213.0		25.64		268.59			
110.00		11 45 42		981.14		3.73		322.35		113.25		124.00		12 2 3		381.1		8.17		316.08			
110.00		16 32 3		5361.26		31.51		245.07		126.05		104.00		18 1 24		4781.3		33.11		236.21			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1851	TRA	-.8250	TC3	.0911	BAU	.0422	SGT	986.7	SGR	463.4	SG3	78.1	ST	345.4	SR	460.4	SS	242.7
RDE	-.4501	RRA	.0205	RC3	-.0426	FAU	.02164	RRT	-.2517	RRF	.2670	RTF	-.7454	CRT	-.5611	CRS	-.6373	CST	.9921
FDE	-.1398	FRA	.5069	FC3	-.5968	BSP	2798	SGB	1090.1	R23	-.0326	R13	.7492	LSA	556.9	MSA	282.5	SSA	16.1
BDE	.4867	BRA	.8252	BC3	.1006	FSP	-185	SG1	995.3	SG2	444.6	THA	171.56	EL1	515.9	EL2	255.1	ALF	121.28

LAUNCH DATE AUG 22 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 196.925

RL	151.31	LAL	-.00	LOL	328.49	VL	24.275	GAL	1.06	AZL	91.52	HCA	81.67	SMA	113.92	ECC	.32862	INC	1.5184	V1	29.446		
RP	108.09	LAP	-1.50	LOP	50.17	VP	35.926	GAP	-18.97	AZP	90.22	TAL	177.83	TAP	259.51	RCA	76.49	APO	151.36	V2	35.060		
RC	40.174	GL	-6.99	GP	-9.55	ZAL	81.20	ZAP	11.10	ETS	117.74	ZAE	170.29	ETE	334.28	ZAC	90.90	ETC	259.22	CLP	5.68		

PLANETOCENTRIC CONIC

C3	27.917	VHL	5.284	DLA	-28.43	RAL	244.24	RAD	6568.1	VEL	12.219	PTH	2.20	VHP	11.661	DPA	-27.18	RAP	230.73	ECC	1.4594		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
87.32		11 15 10		1046.84		17.64		334.74		118.25		112.66		11 32 36		446.8		20.56		327.27			
92.68		12 0 13		900.81		17.66		324.06		118.26		112.65		12 15 14		300.8		20.57		316.59			
100.00		11 40 43		963.85		10.93		325.40		114.98		118.00		11 56 47		363.9		14.59		318.53			
100.00		14 17 21		5747.07		24.63		272.17		120.99		107.50		15 53 8		5147.1		26.79		264.03			
110.00		11 39 8		968.83		4.20		321.71		110.91		123.96		11 55 17		368.8		8.63		315.42			
110.00		16 35 25		5314.85		32.22		241.64		123.27		102.09		18 4 0		4714.9		33.55		232.66			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1863	TRA	-.8083	TC3	.1375	BAU	.0561	SGT	1027.3	SGR	467.2	SG3	86.2	ST	360.9	SR	461.7	SS	248.8
RDE	-.4257	RRA	.0262	RC3	-.0610	FAU	.02280	RRT	-.2809	RRF	.2989	RTF	-.7616	CRT	-.5771	CRS	-.6339	CST	.9941
FDE	-.1406	FRA	.5217	FC3	-.7069	BSP	2956	SGB	1128.5	R23	-.0372	R13	.7659	LSA	568.7	MSA	285.7	SSA	16.5
BDE	.4647	BRA	.8087	BC3	.1504	FSP	-207	SG1	1037.6	SG2	444.0	THA	171.07	EL1	525.8	EL2	258.8	ALF	123.34

LAUNCH DATE AUG 22 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 203.641

RL	151.31	LAL	-.00	LOL	328.49	VL	24.550	GAL	.84	AZL	91.33	HCA	84.88	SMA	115.25	ECC	.31314	INC	1.3349	V1	29.446		
RP	108.05	LAP	-1.33	LOP	53.38	VP	36.126	GAP	-17.91	AZP	90.12	TAL	178.16	TAP	263.04	RCA	79.16	APO	151.34	V2	35.073		
RC	40.345	GL	-6.58	GP	-10.11	ZAL	81.73	ZAP	10.85	ETS	108.23	ZAE	167.44	ETE	335.13	ZAC	90.53	ETC	259.45	CLP	3.95		

PLANETOCENTRIC CONIC

C3	24.882	VHL	4.988	DLA	-27.94	RAL	243.73	RAD	6568.0	VEL	12.094	PTH	2.16	VHP	11.072	DPA	-28.16	RAP	232.10	ECC	1.4095		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		10 54 56		1077.60		14.76		335.68		114.25		114.44		11 12 53		477.6		17.94		328.45			
90.00		12 16 21		813.02		21.47		319.18		117.06		108.92		12 29 54		213.0		23.86		311.32			
100.00		11 26 25		975.80		10.55		326.09		112.12		118.13		11 42 41		375.8		14.23		319.23			
100.00		14 27 33		5678.09		25.96		267.47		118.57		105.37		16 2 12		5078.1		27.81		259.17			
110.00		11 30 59		961.41		4.48		321.32		108.44		123.92		11 47 1		361.4		8.90		315.02			
110.00		16 39 28		5265.24		32.87		237.91		120.35		99.97		18 7 13		4665.2		33.89		228.83			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1876	TRA	-.7907	TC3	.1923	BAU	.0699	SGT	1067.8	SGR	471.5	SG3	95.1	ST	376.3	SR	462.3	SS	254.3
RDE	-.4023	RRA	.0317	RC3	-.0844	FAU	.02408	RRT	-.3139	RRF	.3350	RTF	-.7765	CRT	-.5943	CRS	-.6302	CST	.9957
FDE	-.1409	FRA	.5368	FC3	-.8379	BSP	3110	SGB	1167.3	R23	-.0428	R13	.7812	LSA	580.5	MSA	287.5	SSA	16.9
BDE	.4439	BRA	.7914	BC3	.2100	FSP	-233	SG1	1080.1	SG2	442.6	THA	170.50	EL1	535.9	EL2	261.1	ALF	125.38

LAUNCH DATE AUG 22 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 210.374

RL	151.31	LAL	-.00	LOL	328.49	VL	24.804	GAL	.62	AZL	91.15	HCA	88.09	SMA	116.52	ECC	.29875	INC	1.1531	V1	29.446
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.311	GAP	-16.89	AZP	90.04	TAL	178.55	TAP	266.64	RCA	81.71	APO	151.33	V2	35.086
RC	40.692	GL	-6.08	GP	-10.74	ZAL	82.37	ZAP	10.96	ETS	98.32	ZAE	164.64	ETE	335.33	ZAC	90.08	ETC	259.69	CLP	2.19

PLANETOCENTRIC CONIC

C3	22.234	VHL	4.715	DLA	-27.32	RAL	243.11	RAD	6567.9	VEL	11.984	PTH	2.14	VHP	10.510	DPA	-29.18	RAP	233.45	ECC	1.3659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 27 19	1132.59	13.19	338.95	110.83	115.29	10 46 12	532.6	16.48	331.83
90.00	12 39 1	703.04	23.72	311.90	115.00	105.94	12 50 44	103.0	25.68	303.78
100.00	11 10 45	992.27	10.02	327.02	109.20	118.31	11 27 17	392.3	13.73	320.19
100.00	14 38 17	5606.63	27.15	262.50	115.98	103.01	16 11 43	5006.6	28.67	254.03
110.00	11 21 18	959.17	4.56	321.20	105.88	123.91	11 37 17	359.2	8.99	314.90
110.00	16 44 13	5212.49	33.42	233.90	117.31	97.66	18 11 6	4612.5	34.11	224.72

DIFFERENTIAL CORRECTIONS

TDE	.1868	TRA	-.7725	TC3	.2594	BAU	.0842
RDE	-.3797	RRA	.0370	RC3	-.1138	FAU	.02553
FDE	-.1386	FRA	.5525	FC3	-.9943	BSP	3280
BDE	.4232	BRA	.7734	BC3	.2832	FSP	-261

MID-COURSE EXECUTION ACCURACY

SGT	1108.0	SGR	476.5	SG3	105.1		
RRT	-.3495	RRF	.3739	RTF	-.7912		
SGB	1206.1	R23	-.0484	R13	.7965		
SG1	1122.8	SG2	440.5	THA	169.88		

ORBIT DETERMINATION ACCURACY

ST	389.9	SR	461.7	SS	257.7		
CRT	-.6086	CRS	-.6199	CST	.9966		
LSA	589.7	MSA	289.1	SSA	17.4		
EL1	544.4	EL2	262.4	ALF	127.21		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 217.120

RL	151.31	LAL	-.00	LOL	328.49	VL	25.037	GAL	.40	AZL	90.97	HCA	91.30	SMA	117.72	ECC	.28541	INC	.9717	V1	29.446
RP	107.97	LAP	-.97	LOP	59.80	VP	36.483	GAP	-15.91	AZP	89.98	TAL	178.99	TAP	270.30	RCA	84.12	APO	151.32	V2	35.098
RC	41.209	GL	-5.46	GP	-11.44	ZAL	83.13	ZAP	11.44	ETS	88.69	ZAE	161.92	ETE	335.14	ZAC	89.56	ETC	259.93	CLP	.40

PLANETOCENTRIC CONIC

C3	19.927	VHL	4.464	DLA	-26.57	RAL	242.40	RAD	6567.8	VEL	11.887	PTH	2.11	VHP	9.972	DPA	-30.26	RAP	234.75	ECC	1.3279

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 3 15	1176.77	11.89	341.55	107.58	115.89	10 22 52	576.8	15.27	334.51
90.00	12 57 23	606.24	25.37	305.29	112.59	103.03	13 7 29	6.2	26.91	296.96
100.00	10 53 53	1013.24	9.34	328.21	106.25	118.52	11 10 46	413.2	13.08	321.41
100.00	14 49 26	5533.04	28.17	257.27	113.24	100.44	16 21 39	4933.0	29.32	248.66
110.00	11 10 6	962.33	4.44	321.37	103.26	123.93	11 26 9	362.3	8.87	315.07
110.00	16 49 42	5156.71	33.84	229.60	114.15	95.14	18 15 39	4556.7	34.18	220.37

DIFFERENTIAL CORRECTIONS

TDE	.1882	TRA	-.7502	TC3	.3343	BAU	.0976
RDE	-.3580	RRA	.0425	RC3	-.1500	FAU	.02708
FDE	-.1341	FRA	.5695	FC3	-1.1764	BSP	3477
BDE	.4044	BRA	.7514	BC3	.3665	FSP	-293

MID-COURSE EXECUTION ACCURACY

SGT	1143.0	SGR	482.5	SG3	115.9		
RRT	-.3930	RRF	.4165	RTF	-.8052		
SGB	1240.7	R23	-.0499	R13	.8110		
SG1	1161.3	SG2	436.7	THA	169.01		

ORBIT DETERMINATION ACCURACY

ST	403.4	SR	459.9	SS	259.5		
CRT	-.6304	CRS	-.6042	CST	.9961		
LSA	598.6	MSA	288.1	SSA	17.8		
EL1	553.7	EL2	260.1	ALF	129.12		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 223.875

RL	151.31	LAL	-.00	LOL	328.49	VL	25.251	GAL	.19	AZL	90.79	HCA	94.52	SMA	118.86	ECC	.27307	INC	.7898	V1	29.446
RP	107.93	LAP	-.79	LOP	63.01	VP	36.642	GAP	-14.97	AZP	89.94	TAL	179.49	TAP	274.01	RCA	86.40	APO	151.31	V2	35.111
RC	41.891	GL	-4.72	GP	-12.21	ZAL	83.99	ZAP	12.29	ETS	79.88	ZAE	159.31	ETE	334.67	ZAC	88.95	ETC	260.16	CLP	-1.44

PLANETOCENTRIC CONIC

C3	17.921	VHL	4.233	DLA	-25.68	RAL	241.60	RAD	6567.7	VEL	11.803	PTH	2.09	VHP	9.459	DPA	-31.39	RAP	236.00	ECC	1.2949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 10	1218.87	10.62	343.99	104.41	116.40	10 0 29	618.9	14.09	337.03
90.00	13 14 6	5802.23	26.62	276.75	109.95	100.03	14 50 48	5202.2	27.73	268.26
100.00	10 35 57	1038.76	8.51	329.64	103.29	118.76	10 53 16	438.8	12.28	322.89
100.00	15 1 0	5457.57	28.98	251.81	110.36	97.67	16 31 58	4857.6	29.74	243.08
110.00	10 57 31	971.08	4.11	321.82	100.60	123.96	11 13 42	371.1	8.54	315.54
110.00	16 55 55	5098.01	34.11	225.03	110.90	92.46	18 20 53	4498.0	34.07	215.79

DIFFERENTIAL CORRECTIONS

TDE	.1839	TRA	-.7374	TC3	.4151	BAU	.1099
RDE	-.3374	RRA	.0484	RC3	-.1947	FAU	.02879
FDE	-.1291	FRA	.5886	FC3	-1.3909	BSP	3617
BDE	.3842	BRA	.7390	BC3	.4585	FSP	-328

MID-COURSE EXECUTION ACCURACY

SGT	1188.2	SGR	490.8	SG3	128.1		
RRT	-.4322	RRF	.4646	RTF	-.8152		
SGB	1285.6	R23	-.0639	R13	.8222		
SG1	1209.9	SG2	434.7	THA	168.35		

ORBIT DETERMINATION ACCURACY

ST	415.3	SR	457.1	SS	261.1		
CRT	-.6371	CRS	-.5869	CST	.9945		
LSA	604.2	MSA	290.1	SSA	18.5		
EL1	559.5	EL2	261.5	ALF	130.71		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 230.636

RL	151.31	LAL	-.00	LOL	328.49	VL	25.447	GAL	-.01	AZL	90.61	HCA	97.74	SMA	119.92	ECC	.26171	INC	.6061	V1	29.446
RP	107.89	LAP	-.60	LOP	66.23	VP	36.789	GAP	-14.06	AZP	89.92	TAL	180.03	TAP	277.77	RCA	88.54	APO	151.31	V2	35.123
RC	42.728	GL	-3.84	GP	-13.07	ZAL	84.96	ZAP	13.48	ETS	72.22	ZAE	156.83	ETE	333.97	ZAC	88.23	ETC	260.39	CLP	-3.32

PLANETOCENTRIC CONIC

C3	16.184	VHL	4.023	DLA	-24.63	RAL	240.73	RAD	6567.6	VEL	11.729	PTH	2.07	VHP	8.970	DPA	-32.58	RAP	237.19	ECC	1.2663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 18	1261.88	9.31	346.47	101.34	116.86	9 38 20	661.9	12.84	339.57
90.00	13 30 3	5712.21	27.53	270.32	107.14	96.93	15 5 15	5112.2	28.20	261.72
100.00	10 17 3	1068.98	7.51	331.34	100.38	119.02	10 34 52	469.0	11.33	324.62
100.00	15 12 59	5380.35	29.55	246.14	107.38	94.74	16 42 39	4780.3	29.89	237.35
110.00	10 43 39	985.58	3.56	322.58	97.94	124.02	11 0 4	385.6	8.00	316.31
110.00	17 2 53	5036.51	34.18	220.23	107.58	89.62	18 26 50	4436.5	33.75	211.01

DIFFERENTIAL CORRECTIONS

TDE	.2027	TRA	-.7242	TC3	.6040	BAU	.1427
RDE	-.3211	RRA	.0575	RC3	-.2647	FAU	.03231
FDE	-.1420	FRA	.6254	FC3	-1.7284	BSP	4352
BDE	.3797	BRA	.7265	BC3	.6594	FSP	-429

MID-COURSE EXECUTION ACCURACY

SGT	1267.7	SGR	512.5	SG3	148.0		
RRT	-.5199	RRF	.5432	RTF	-.8500		
SGB	1367.4	R23	-.0522	R13	.8567		
SG1	1298.9	SG2	427.3	THA	166.66		

ORBIT DETERMINATION ACCURACY

ST	446.6	SR	458.2	SS	278.4		
CRT	-.6906	CRS	-.6119	CST	.9915		
LSA	638.4	MSA	280.9	SSA	19.0		
EL1	588.3	EL2	251.5	ALF	133.93		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 237.396

RL	151.31	LAL	-.00	LOL	328.49	VL	25.627	GAL	-.21	AZL	90.42	HCA	100.95	SMA	120.93	ECC	.25127	INC	.4195	V1	29.446
RP	107.86	LAP	-.41	LOP	69.45	VP	36.925	GAP	-13.19	AZP	89.92	TAL	180.61	TAP	281.57	RCA	90.54	APO	151.31	V2	35.135
RC	43.711	GL	-2.81	GP	-14.04	ZAL	86.01	ZAP	14.97	ETS	65.78	ZAE	154.49	ETE	333.07	ZAC	87.41	ETC	260.60	CLP	-5.27

PLANETOCENTRIC CONIC

C3	14.683	VHL	3.832	DLA	-23.41	RAL	239.82	RAD	6567.6	VEL	11.665	PTH	2.05	VHP	8.505	DPA	-33.85	RAP	238.31	ECC	1.2416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 21	1307.32	7.90	349.07	98.37	117.28	9 16 8	707.3	11.50	342.23
90.00	13 45 42	5622.94	28.09	263.85	104.22	93.73	15 19 25	5022.9	28.31	255.19
100.00	9 57 19	1104.04	6.35	333.29	97.53	119.27	10 15 43	504.0	10.20	326.62
100.00	15 25 25	5301.46	29.85	240.29	104.32	91.68	16 53 46	4701.5	29.76	231.49
110.00	10 28 37	1005.93	2.78	323.65	95.32	124.08	10 45 23	405.9	7.24	317.39
110.00	17 10 37	4972.33	34.04	215.23	104.25	86.66	18 33 29	4372.3	33.20	206.09

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1754	TRA	-.6986	TC3	.6307	BAU	.1387	SGT	1264.2	SGR	516.9	SG3	156.9	ST	430.8	SR	445.8	SS	255.5
RDE	-.2975	RRA	.0604	RC3	-.3187	FAU	.03307	RRT	-.5305	RRF	.5711	RTF	-.8383	CRT	-.6603	CRS	-.5173	CST	.9804
FDE	-.1065	FRA	.6257	FC3	-1.9501	BSP	3966	SGB	1365.7	R23	-.0813	R13	.8476	LSA	604.6	MSA	289.4	SSA	19.9
BDE	.3453	BRA	.7012	BC3	.7066	FSP	-415	SG1	1297.3	SG2	427.0	THA	166.24	EL1	564.9	EL2	255.3	ALF	133.51

LAUNCH DATE AUG 22 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 244.156

RL	151.31	LAL	-.00	LOL	328.49	VL	25.791	GAL	-.39	AZL	90.23	HCA	104.17	SMA	121.86	ECC	.24171	INC	.2284	V1	29.446
RP	107.82	LAP	-.22	LOP	72.67	VP	37.050	GAP	-12.35	AZP	89.94	TAL	181.23	TAP	285.40	RCA	92.41	APO	151.32	V2	35.146
RC	44.829	GL	-1.61	GP	-15.12	ZAL	87.15	ZAP	16.74	ETS	60.48	ZAE	152.30	ETE	331.97	ZAC	86.45	ETC	260.81	CLP	-7.27

PLANETOCENTRIC CONIC

C3	13.393	VHL	3.660	DLA	-22.01	RAL	238.87	RAD	6567.5	VEL	11.609	PTH	2.03	VHP	8.064	DPA	-35.21	RAP	239.33	ECC	1.2204

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 31 11	1356.11	6.37	351.83	95.53	117.65	8 53 47	756.1	10.02	345.06
90.00	14 1 20	5533.71	28.31	257.33	101.25	90.47	15 33 34	4933.7	28.08	248.68
100.00	9 36 52	1144.12	5.01	335.51	94.79	119.51	9 55 56	544.1	8.90	328.89
100.00	15 38 20	5220.93	29.86	234.31	101.24	88.53	17 5 21	4620.9	29.34	225.54
110.00	10 12 33	1032.23	1.78	325.02	92.78	124.14	10 29 46	432.2	6.25	318.79
110.00	17 19 8	4905.59	33.65	210.05	100.93	83.62	18 40 54	4305.6	32.40	201.04

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1663	TRA	-.6816	TC3	.7516	BAU	.1525	SGT	1302.1	SGR	537.0	SG3	174.0	ST	432.8	SR	436.3	SS	251.1
RDE	-.2778	RRA	.0680	RC3	-.4009	FAU	.03555	RRT	-.5818	RRF	.6279	RTF	-.8489	CRT	-.6633	CRS	-.4523	CST	.9631
FDE	-.0871	FRA	.6508	FC3	-2.2979	BSP	4148	SGB	1408.5	R23	-.0927	R13	.8597	LSA	596.1	MSA	291.4	SSA	20.8
BDE	.3237	BRA	.6850	BC3	.8518	FSP	-467	SG1	1343.3	SG2	423.4	THA	164.98	EL1	560.4	EL2	252.1	ALF	134.65

LAUNCH DATE AUG 22 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 250.911

RL	151.31	LAL	-.00	LOL	328.49	VL	25.941	GAL	-.57	AZL	90.03	HCA	107.40	SMA	122.74	ECC	.23298	INC	.0297	V1	29.446
RP	107.79	LAP	-.03	LOP	75.89	VP	37.165	GAP	-11.54	AZP	89.99	TAL	181.87	TAP	289.27	RCA	94.14	APO	151.33	V2	35.158
RC	46.073	GL	-.24	GP	-16.33	ZAL	88.34	ZAP	18.75	ETS	56.16	ZAE	150.26	ETE	330.66	ZAC	85.36	ETC	261.00	CLP	-9.35

PLANETOCENTRIC CONIC

C3	12.291	VHL	3.506	DLA	-20.42	RAL	237.92	RAD	6567.5	VEL	11.562	PTH	2.02	VHP	7.647	DPA	-36.67	RAP	240.25	ECC	1.2023

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 47	1408.92	4.69	354.81	92.86	117.96	8 31 16	808.9	8.40	348.09
90.00	14 17 9	5444.03	28.19	250.78	98.28	87.19	15 47 53	4844.0	27.50	242.18
100.00	9 15 48	1189.41	3.49	338.01	92.20	119.71	9 35 38	589.4	7.42	331.43
100.00	15 51 49	5138.77	29.56	228.22	98.18	85.34	17 17 28	4538.8	28.60	219.55
110.00	9 55 38	1064.58	.54	326.71	90.36	124.18	10 13 23	464.6	5.02	320.49
110.00	17 28 28	4836.37	33.00	204.75	97.68	80.55	18 49 5	4236.4	31.35	195.92

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1550	TRA	-.6649	TC3	.8749	BAU	.1655	SGT	1336.1	SGR	563.1	SG3	192.6	ST	430.7	SR	422.9	SS	246.0
RDE	-.2576	RRA	.0766	RC3	-.4984	FAU	.03820	RRT	-.6324	RRF	.6838	RTF	-.8575	CRT	-.6627	CRS	-.3546	CST	.9303
FDE	-.0596	FRA	.6782	FC3	-2.6905	BSP	4299	SGB	1449.9	R23	-.1055	R13	.8704	LSA	580.8	MSA	295.1	SSA	21.7
BDE	.3006	BRA	.6693	BC3	1.0069	FSP	-522	SG1	1387.7	SG2	420.0	THA	163.52	EL1	550.4	EL2	247.8	ALF	135.78

LAUNCH DATE AUG 22 1970 FLIGHT TIME 100.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 257.659

RL	151.31	LAL	-.00	LOL	328.49	VL	26.077	GAL	-.73	AZL	89.83	HCA	110.62	SMA	123.55	ECC	.22505	INC	.1705	V1	29.446
RP	107.76	LAP	.16	LOP	79.12	VP	37.270	GAP	-10.76	AZP	90.06	TAL	182.53	TAP	293.15	RCA	95.74	APO	151.35	V2	35.168
RC	47.431	GL	1.33	GP	-17.69	ZAL	89.59	ZAP	21.00	ETS	52.63	ZAE	148.36	ETE	329.13	ZAC	84.10	ETC	261.17	CLP	-11.52

PLANETOCENTRIC CONIC

C3	11.358	VHL	3.370	DLA	-18.63	RAL	236.99	RAD	6567.4	VEL	11.522	PTH	2.01	VHP	7.255	DPA	-38.25	RAP	241.04	ECC	1.1869

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 44 11	1466.23	2.86	358.02	90.40	118.18	8 8 37	866.2	6.60	351.34
90.00	14 33 19	5353.59	27.71	244.21	95.39	83.93	16 2 33	4753.6	26.58	235.72
100.00	8 54 16	1240.09	1.77	340.80	89.80	119.84	9 14 56	640.1	5.73	334.25
100.00	16 5 55	5054.96	28.94	222.07	95.22	82.16	17 30 10	4455.0	27.55	213.54
110.00	9 38 0	1103.04	-.93	328.72	88.11	124.17	9 56 23	503.0	3.56	322.51
110.00	17 38 40	4764.78	32.07	199.38	94.57	77.49	18 58 5	4164.8	30.02	190.77

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1407	TRA	-.6478	TC3	.9986	BAU	.1779	SGT	1364.1	SGR	597.0	SG3	212.6	ST	423.3	SR	405.0	SS	243.1
RDE	-.2365	RRA	.0862	RC3	-.6131	FAU	.04104	RRT	-.6803	RRF	.7374	RTF	-.8647	CRT	-.6569	CRS	-.2190	CST	.8739
FDE	-.0233	FRA	.7071	FC3	-3.1282	BSP	4422	SGB	1489.0	R23	-.1199	R13	.8802	LSA	557.7	MSA	301.3	SSA	22.6
BDE	.2752	BRA	.6535	BC3	1.1718	FSP	-583	SG1	1429.3	SG2	417.6	THA	161.81	EL1	533.3	EL2	242.3	ALF	136.92

LAUNCH DATE AUG 22 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 264.398

RL	151.31	LAL	-.00	LOL	328.49	VL	26.201	GAL	-.89	AZL	89.62	HCA	113.85	SMA	124.30	ECC	.21787	INC	.3837
RP	107.72	LAP	.35	LOP	82.34	VP	37.367	GAP	-10.01	AZP	90.16	TAL	183.20	TAP	297.05	RCA	97.22	APO	151.37
RC	48.893	GL	3.09	GP	-19.21	ZAL	90.85	ZAP	23.49	ETS	49.75	ZAE	146.59	ETE	327.36	ZAC	82.67	ETC	261.32

PLANETOCENTRIC CONIC

C3	10.577	VHL	3.252	DLA	-16.62	RAL	236.10	RAD	6567.4	VEL	11.488	PTH	2.00	VHP	6.889	DPA	-39.96	RAP	241.67

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 20 24	1528.48	.85	1.49	88.17	118.31	7 45 53	928.5	4.63	354.85
90.00	14 50 1	5262.10	26.88	237.64	92.63	80.74	16 17 43	4662.1	25.32	229.32
100.00	8 32 20	1296.36	-.13	343.88	87.62	119.89	8 53 57	696.4	3.84	337.36
100.00	16 20 46	4969.45	27.99	215.89	92.40	79.05	17 43 35	4369.5	26.19	207.55
110.00	9 19 48	1147.69	-2.63	331.05	86.06	124.09	9 38 55	547.7	1.86	324.84
110.00	17 49 48	4690.89	30.86	193.96	91.63	74.50	19 7 58	4090.9	28.42	185.61

DIFFERENTIAL CORRECTIONS

TDE	.1196	TRA	-.6346	TC3	1.1129	BAU	.1895
RDE	-.2133	RRA	.0982	RC3	-.7469	FAU	.04407
FDE	.0278	FRA	.7433	FC3	-3.6077	BSP	4510
BDE	.2445	BRA	.6421	BC3	1.3402	FSP	-646

MID-COURSE EXECUTION ACCURACY

SGT	1389.1	SGR	640.1	SG3	234.7		
RRT	-.7214	RRF	.7871	RTF	-.8701		
SGB	1529.5	R23	-.1388	R13	.8893		
SG1	1471.1	SG2	418.6	THA	159.91		

ORBIT DETERMINATION ACCURACY

ST	409.1	SR	379.9	SS	249.3
CRT	-.6333	CRS	-.0305	CST	.7863
LSA	523.5	MSA	315.0	SSA	23.7
EL1	504.9	EL2	238.2	ALF	138.34

LAUNCH DATE AUG 22 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 271.124

RL	151.31	LAL	-.00	LOL	328.49	VL	26.313	GAL	-1.03	AZL	89.39	HCA	117.08	SMA	124.98	ECC	.21138	INC	.6073
RP	107.69	LAP	.54	LOP	85.57	VP	37.454	GAP	-9.29	AZP	90.28	TAL	183.87	TAP	300.94	RCA	98.56	APO	151.40
RC	50.451	GL	5.08	GP	-20.93	ZAL	92.12	ZAP	26.21	ETS	47.37	ZAE	144.91	ETE	325.32	ZAC	81.03	ETC	261.43

PLANETOCENTRIC CONIC

C3	9.934	VHL	3.152	DLA	-14.40	RAL	235.28	RAD	6567.4	VEL	11.460	PTH	1.99	VHP	6.548	DPA	-41.83	RAP	242.12

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 56 28	1596.10	-1.33	5.26	86.22	118.29	7 23 4	996.1	2.46	358.64
90.00	15 7 23	5169.29	25.69	231.11	90.06	77.67	16 33 33	4569.3	23.74	222.98
100.00	8 10 7	1358.48	-2.24	347.29	85.72	119.82	8 32 45	758.5	1.74	340.77
100.00	16 36 26	4882.14	26.70	209.72	89.80	76.04	17 57 48	4282.1	24.52	201.60
110.00	9 1 8	1198.67	-4.57	333.72	84.26	123.91	9 21 6	598.7	-.09	327.50
110.00	18 1 54	4614.72	29.34	188.55	88.93	71.63	19 18 49	4014.7	26.55	180.47

DIFFERENTIAL CORRECTIONS

TDE	.1044	TRA	-.6140	TC3	1.2486	BAU	.2049
RDE	-.1889	RRA	.1111	RC3	-.9058	FAU	.04756
FDE	.0853	FRA	.7770	FC3	-4.1451	BSP	4763
BDE	.2158	BRA	.6239	BC3	1.5426	FSP	-726

MID-COURSE EXECUTION ACCURACY

SGT	1408.3	SGR	698.2	SG3	258.9		
RRT	-.7678	RRF	.8331	RTF	-.8786		
SGB	1571.9	R23	-.1460	R13	.9010		
SG1	1515.9	SG2	415.6	THA	157.37		

ORBIT DETERMINATION ACCURACY

ST	395.1	SR	349.5	SS	266.3
CRT	-.6316	CRS	.1493	CST	.6649
LSA	491.1	MSA	327.7	SSA	24.4
EL1	477.4	EL2	224.2	ALF	140.51

LAUNCH DATE AUG 22 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 277.836

RL	151.31	LAL	-.00	LOL	328.49	VL	26.414	GAL	-1.17	AZL	89.16	HCA	120.31	SMA	125.61	ECC	.20555	INC	.8444
RP	107.67	LAP	.73	LOP	88.80	VP	37.534	GAP	-8.59	AZP	90.43	TAL	184.52	TAP	304.83	RCA	99.79	APO	151.43
RC	52.096	GL	7.29	GP	-22.86	ZAL	93.36	ZAP	29.17	ETS	45.37	ZAE	143.31	ETE	322.99	ZAC	79.17	ETC	261.50

PLANETOCENTRIC CONIC

C3	9.419	VHL	3.069	DLA	-11.97	RAL	234.55	RAD	6567.3	VEL	11.437	PTH	1.98	VHP	6.235	DPA	-43.87	RAP	242.34

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 32 25	1669.46	-3.69	9.36	84.60	118.09	7 0 14	1069.5	.09	2.73
90.00	15 25 38	5074.97	24.16	224.62	87.76	74.77	16 50 13	4475.0	21.84	216.72
100.00	7 47 40	1426.69	-4.54	351.05	84.13	119.58	8 11 26	826.7	-.57	344.51
100.00	16 53 5	4792.97	25.09	203.59	87.46	73.20	18 12 58	4193.0	22.55	195.71
110.00	8 42 8	1256.08	-6.75	336.74	82.77	123.59	9 3 4	656.1	-2.29	330.50
110.00	18 15 5	4536.34	27.54	183.16	86.53	68.90	19 30 42	3936.3	24.42	175.38

DIFFERENTIAL CORRECTIONS

TDE	.0816	TRA	-.5985	TC3	1.3492	BAU	.2179
RDE	-.1602	RRA	.1275	RC3	-1.0835	FAU	.05102
FDE	.1627	FRA	.8189	FC3	-4.6892	BSP	4922
BDE	.1798	BRA	.6120	BC3	1.7304	FSP	-807

MID-COURSE EXECUTION ACCURACY

SGT	1419.0	SGR	768.7	SG3	284.2		
RRT	-.8014	RRF	.8715	RTF	-.8832		
SGB	1613.9	R23	-.1596	R13	.9107		
SG1	1558.7	SG2	418.6	THA	154.57		

ORBIT DETERMINATION ACCURACY

ST	375.8	SR	308.5	SS	304.5
CRT	-.6130	CRS	.3149	CST	.5484
LSA	453.1	MSA	351.0	SSA	24.9
EL1	439.2	EL2	208.6	ALF	143.98

LAUNCH DATE AUG 22 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 284.533

RL	151.31	LAL	-.00	LOL	328.49	VL	26.504	GAL	-1.29	AZL	88.90	HCA	123.54	SMA	126.18	ECC	.20033	INC	1.0977
RP	107.64	LAP	.92	LOP	92.04	VP	37.606	GAP	-7.91	AZP	90.61	TAL	185.16	TAP	308.69	RCA	100.90	APO	151.46
RC	53.818	GL	9.73	GP	-25.02	ZAL	94.54	ZAP	32.39	ETS	43.66	ZAE	141.72	ETE	320.35	ZAC	77.05	ETC	261.53

PLANETOCENTRIC CONIC

C3	9.027	VHL	3.004	DLA	-9.31	RAL	233.94	RAD	6567.3	VEL	11.420	PTH	1.98	VHP	5.952	DPA	-46.11	RAP	242.29

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 8 14	1749.04	-6.23	13.84	83.34	117.68	6 37 23	1149.0	-2.48	7.17
90.00	15 44 58	4978.87	22.29	218.20	85.78	72.07	17 7 57	4378.9	19.64	210.54
100.00	7 25 1	1501.32	-7.03	355.19	82.91	119.13	7 50 3	901.3	-3.10	348.61
100.00	17 10 52	4701.81	23.16	197.51	85.46	70.55	18 29 14	4101.8	20.30	189.88
110.00	8 22 53	1320.13	-9.14	340.15	81.62	123.08	8 44 53	720.1	-4.72	333.85
110.00	18 29 29	4455.77	25.45	177.83	84.47	66.37	19 43 45	3855.8	22.04	170.34

DIFFERENTIAL CORRECTIONS

TDE	.0510	TRA	-.5903	TC3	1.4017	BAU	.2288
RDE	-.1252	RRA	.1489	RC3	-1.2769	FAU	.05430
FDE	.2641	FRA	.8729	FC3	-5.2080	BSP	4912
BDE	.1352	BRA	.6088	BC3	1.8961	FSP	-875

MID-COURSE EXECUTION ACCURACY

SGT	1421.4	SGR	853.5	SG3	310.2		
RRT	-.8225	RRF	.9027	RTF	-.8839		
SGB	1658.0	R23	-.1775	R13	.9193		
SG1	1601.0	SG2	431.0	THA	151.46		

ORBIT DETERMINATION ACCURACY

ST	356.7	SR	254.9	SS	370.3
CRT	-.5868	CRS	.4052	CST	.4928
LSA	445.1	MSA	361.4	SSA	25.0
EL1	397.3	EL2	185.3	ALF	150.13

LAUNCH DATE AUG 22 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 291.211

RL	151.31	LAL	-.00	LOL	328.49	VL	26.585	GAL	-1.40	AZL	88.63	HCA	126.77	SMA	126.70	ECC	.19569	INC	1.3708	V1	29.446
RP	107.61	LAP	1.10	LOP	95.27	VP	37.670	GAP	-7.26	AZP	90.82	TAL	185.77	TAP	312.54	RCA	101.91	APO	151.50	V2	35.214
RC	55.612	GL	12.41	GP	-27.45	ZAL	95.63	ZAP	35.87	ETS	42.13	ZAE	140.11	ETE	317.39	ZAC	74.67	ETC	261.50	CLP	-24.05

PLANETOCENTRIC CONIC

C3	8.752	VHL	2.958	DLA	-6.43	RAL	233.47	RAD	6567.3	VEL	11.408	PTH	1.97	VHP	5.701	DPA	-48.56	RAP	241.91	ECC	1.1440

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 43 52	1835.43	-8.93	18.75	82.50	116.98	6 14 27	1235.4	-5.24	12.01
90.00	16 5 35	4880.63	20.10	211.83	84.17	69.62	17 26 55	4280.6	17.14	204.41
100.00	7 2 9	1582.89	-9.71	359.77	82.09	118.41	7 28 31	982.9	-5.84	353.12
100.00	17 29 59	4608.40	20.91	191.48	83.83	68.14	18 46 47	4008.4	17.76	184.10
110.00	8 3 23	1391.13	-11.76	343.99	80.87	122.33	8 26 35	791.1	-7.41	337.60
110.00	18 45 13	4372.92	23.09	172.56	82.79	64.06	19 58 6	3772.9	19.41	165.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0306	TRA	-.5704	TC3	1.4776	BAU	.2465	SGT	1415.5	SGR	964.0	SG3	338.0	ST	339.7	SR	196.2	SS	447.0
RDE	-.0859	RRA	.1720	RC3	-1.5016	FAU	.05813	RRT	-.8495	RRF	.9286	RTF	-.8889	CRT	-.6614	CRS	.3578	CST	.4509
FDE	.3739	FRA	.9191	FC3	-5.7501	BSP	5239	SGB	1712.6	R23	-.1774	R13	.9310	LSA	488.1	MSA	339.0	SSA	24.1
BDE	.0912	BRA	.5957	BC3	2.1066	FSP	-976	SG1	1656.5	SG2	434.6	THA	147.43	EL1	368.0	EL2	135.8	ALF	155.55

LAUNCH DATE AUG 22 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 297.872

RL	151.31	LAL	-.00	LOL	328.49	VL	26.657	GAL	-1.50	AZL	88.33	HCA	130.00	SMA	127.17	ECC	.19156	INC	1.6682	V1	29.446
RP	107.59	LAP	1.28	LOP	98.51	VP	37.728	GAP	-6.63	AZP	91.07	TAL	186.34	TAP	316.34	RCA	102.81	APO	151.53	V2	35.222
RC	57.469	GL	15.34	GP	-30.17	ZAL	96.61	ZAP	39.62	ETS	40.70	ZAE	138.40	ETE	314.10	ZAC	71.98	ETC	261.39	CLP	-27.00

PLANETOCENTRIC CONIC

C3	8.597	VHL	2.932	DLA	-3.33	RAL	233.16	RAD	6567.3	VEL	11.401	PTH	1.97	VHP	5.485	DPA	-51.23	RAP	241.10	ECC	1.1415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 19 12	1929.32	-11.78	24.17	82.14	115.94	5 51 21	1329.3	-8.20	17.32
90.00	16 27 47	4779.96	17.59	205.52	83.00	67.44	17 47 27	4180.0	14.38	198.31
100.00	6 38 59	1671.94	-12.54	4.85	81.75	117.36	7 6 51	1071.9	-8.78	358.09
100.00	17 50 41	4512.57	18.37	185.50	82.64	66.00	19 5 53	3912.6	14.97	178.35
110.00	7 43 40	1469.47	-14.57	348.32	80.58	121.27	8 8 9	869.5	-10.32	341.79
110.00	19 2 29	4287.81	20.46	167.36	81.56	62.00	20 13 57	3687.8	16.55	160.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0043	TRA	-.5564	TC3	1.4856	BAU	.2623	SGT	1394.7	SGR	1092.5	SG3	364.4	ST	327.9	SR	141.3	SS	547.6
RDE	-.0362	RRA	.2018	RC3	-1.7327	FAU	.06141	RRT	-.8637	RRF	.9480	RTF	-.8892	CRT	-.8654	CRS	-.0039	CST	.4797
FDE	.5105	FRA	.9757	FC3	-6.1836	BSP	5427	SGB	1771.7	R23	-.1784	R13	.9415	LSA	577.5	MSA	305.6	SSA	22.4
BDE	.0365	BRA	.5919	BC3	2.2824	FSP	-1061	SG1	1714.1	SG2	448.0	THA	142.97	EL1	350.9	EL2	66.2	ALF	158.75

LAUNCH DATE AUG 22 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 304.512

RL	151.31	LAL	-.00	LOL	328.49	VL	26.721	GAL	-1.58	AZL	88.00	HCA	133.23	SMA	127.58	ECC	.18793	INC	1.9953	V1	29.446
RP	107.57	LAP	1.45	LOP	101.74	VP	37.780	GAP	-6.01	AZP	91.37	TAL	186.87	TAP	320.10	RCA	103.61	APO	151.56	V2	35.229
RC	59.382	GL	18.52	GP	-33.18	ZAL	97.44	ZAP	43.63	ETS	39.28	ZAE	136.54	ETE	310.48	ZAC	68.98	ETC	261.20	CLP	-30.14

PLANETOCENTRIC CONIC

C3	8.569	VHL	2.927	DLA	-.01	RAL	233.04	RAD	6567.3	VEL	11.400	PTH	1.97	VHP	5.308	DPA	-54.14	RAP	239.76	ECC	1.1410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 54 3	2031.65	-14.75	30.22	82.31	114.45	5 27 55	1431.7	-11.33	23.21
90.00	16 51 55	4676.39	14.77	199.22	82.31	65.56	18 9 51	4076.4	11.35	192.21
100.00	6 15 23	1769.29	-15.52	10.55	81.94	115.87	6 44 53	1169.3	-11.91	3.62
100.00	18 13 16	4413.98	15.54	179.55	81.94	64.14	19 26 50	3814.0	11.93	172.61
110.00	7 23 37	1555.71	-17.55	353.22	80.82	119.81	7 49 33	955.7	-13.46	346.50
110.00	19 21 31	4200.33	17.57	162.21	80.82	60.20	20 31 32	3600.3	13.48	155.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0216	TRA	-.5427	TC3	1.4483	BAU	.2800	SGT	1359.8	SGR	1244.8	SG3	388.9	ST	322.5	SR	153.1	SS	664.7
RDE	.0259	RRA	.2388	RC3	-1.9686	FAU	.06423	RRT	-.8720	RRF	.9625	RTF	-.8873	CRT	-.9665	CRS	-.7023	CST	.5397
FDE	.6694	FRA	1.0365	FC3	-6.4890	BSP	5655	SGB	1843.5	R23	-.1722	R13	.9520	LSA	701.5	MSA	276.9	SSA	20.0
BDE	.0338	BRA	.5930	BC3	2.4440	FSP	-1144	SG1	1784.1	SG2	464.5	THA	137.90	EL1	355.2	EL2	35.7	ALF	155.08

LAUNCH DATE AUG 22 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 311.131

RL	151.31	LAL	-.00	LOL	328.49	VL	26.777	GAL	-1.66	AZL	87.64	HCA	136.46	SMA	127.95	ECC	.18474	INC	2.3591	V1	29.446
RP	107.55	LAP	1.62	LOP	104.98	VP	37.825	GAP	-5.42	AZP	91.71	TAL	187.34	TAP	323.81	RCA	104.31	APO	151.59	V2	35.235
RC	61.346	GL	21.96	GP	-36.51	ZAL	98.10	ZAP	47.90	ETS	37.79	ZAE	134.45	ETE	306.58	ZAC	65.66	ETC	260.90	CLP	-33.48

PLANETOCENTRIC CONIC

C3	8.682	VHL	2.947	DLA	3.52	RAL	233.11	RAD	6567.3	VEL	11.405	PTH	1.97	VHP	5.177	DPA	-57.27	RAP	237.75	ECC	1.1429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 28 7	2143.73	-17.79	37.04	83.10	112.40	5 3 50	1543.7	-14.60	29.82
90.00	17 18 27	4569.27	11.66	192.89	82.19	64.01	18 34 36	3969.3	8.07	186.05
100.00	5 51 6	1876.06	-18.58	17.01	82.75	113.85	6 22 22	1276.1	-15.20	9.84
100.00	18 38 9	4312.18	12.43	173.59	81.79	62.59	19 50 1	3712.2	8.66	166.83
110.00	7 3 7	1650.65	-20.67	358.81	81.67	117.85	7 30 38	1050.6	-16.79	351.85
110.00	19 42 37	4110.36	14.46	157.10	80.62	58.68	20 51 7	3510.4	10.21	150.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0448	TRA	-.5284	TC3	1.3562	BAU	.2993	SGT	1306.1	SGR	1420.9	SG3	409.2	ST	321.8	SR	264.9	SS	793.0
RDE	.1042	RRA	.2844	RC3	-2.1935	FAU	.06621	RRT	-.8735	RRF	.9731	RTF	-.8819	CRT	-.8203	CRS	-.9479	CST	.6042
FDE	.8478	FRA	1.0984	FC3	-6.6023	BSP	5927	SGB	1930.0	R23	-.1588	R13	.9623	LSA	858.6	MSA	255.0	SSA	17.4
BDE	.1134	BRA	.6001	BC3	2.5789	FSP	-1215	SG1	1868.5	SG2	483.5	THA	132.24	EL1	398.4	EL2	122.4	ALF	141.71

LAUNCH DATE AUG 22 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 317.728

RL	151.31	LAL	-.00	LOL	328.49	VL	26.826	GAL	-1.72	AZL	87.23	HCA	139.70	SMA	128.28	ECC	.18196	INC	2.7691
RP	107.53	LAP	1.79	LOP	108.22	VP	37.865	GAP	-4.85	AZP	92.11	TAL	187.76	TAP	327.46	RCA	104.93	APO	151.62
RC	63.355	GL	25.64	GP	-40.16	ZAL	98.55	ZAP	52.40	ETS	36.13	ZAE	132.07	ETE	302.42	ZAC	62.01	ETC	260.46

V1	29.446	V2	35.240	CLP	-37.03														

PLANETOCENTRIC CONIC

C3	8.961	VHL	2.994	DLA	7.26	RAL	233.40	RAO	6567.3	VEL	11.417	PTH	1.98	VHP	5.096	DPA	-60.60	RAP	234.83
ECC	1.1475																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 0 54	2267.41	-20.81	44.86	84.60	109.64	4 38 41	1667.4	-17.95	37.35
90.00	17 47 59	4457.70	8.26	186.46	82.70	62.82	19 2 17	3857.7	4.55	179.74
100.00	5 25 43	1993.83	-21.65	24.40	84.27	111.13	5 58 57	1393.8	-18.58	16.95
100.00	19 5 51	4206.50	9.04	167.57	82.28	61.39	20 15 58	3606.5	5.16	160.94
110.00	6 41 54	1755.40	-23.86	5.27	83.24	115.23	7 11 10	1155.4	-20.27	357.98
110.00	20 6 9	4017.70	11.12	151.99	81.03	57.47	21 13 7	3417.7	6.75	145.63

DIFFERENTIAL CORRECTIONS

TDE	-.0616	TRA	-.5128	TC3	1.2145	BAU	.3214
RDE	.2021	RRA	.3409	RC3	-2.3919	FAU	.06713
FDE	1.0376	FRA	1.1585	FC3	-6.4854	BSP	6251
BDE	.2113	BRA	.6157	BC3	2.6825	FSP	-1267

MID-COURSE EXECUTION ACCURACY

SGT	1233.5	SGR	1622.6	SG3	423.4		
RRT	-.8682	RRF	.9807	RTF	-.8716		
SGB	2038.2	R23	-.1392	R13	.9717		
SG1	1975.2	SG2	502.9	THA	126.13		

ORBIT DETERMINATION ACCURACY

ST	320.1	SR	436.4	SS	924.4
CRT	-.7522	CRS	-.9885	CST	.6482
LSA	1043.9	MSA	239.9	SSA	14.7
EL1	510.3	EL2	180.4	ALF	123.64

LAUNCH DATE AUG 22 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 324.301

RL	151.31	LAL	-.00	LOL	328.49	VL	26.868	GAL	-1.77	AZL	86.76	HCA	142.93	SMA	128.56	ECC	.17956	INC	3.2377
RP	107.52	LAP	1.95	LOP	111.47	VP	37.899	GAP	-4.30	AZP	92.58	TAL	188.11	TAP	331.04	RCA	105.47	APO	151.64
RC	65.403	GL	29.57	GP	-44.10	ZAL	98.78	ZAP	57.07	ETS	34.20	ZAE	129.34	ETE	298.07	ZAC	58.05	ETC	259.85

V1	29.446	V2	35.245	CLP	-40.80														

PLANETOCENTRIC CONIC

C3	9.448	VHL	3.074	DLA	11.19	RAL	233.93	RAO	6567.3	VEL	11.438	PTH	1.98	VHP	5.076	DPA	-64.06	RAP	230.68
ECC	1.1555																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 31 38	2405.43	-23.70	53.95	86.93	105.97	4 11 43	1805.4	-21.28	46.11
90.00	18 21 28	4340.19	4.55	179.81	83.95	62.02	19 33 48	3740.2	.77	173.17
100.00	4 58 36	2124.94	-24.61	33.01	86.63	107.53	5 34 1	1524.9	-21.98	25.20
100.00	19 37 11	4095.90	5.39	161.39	83.49	60.55	20 45 27	3495.9	1.42	154.85
110.00	6 19 35	1871.53	-27.02	12.81	85.68	111.78	6 50 46	1271.5	-23.82	5.11
110.00	20 32 41	3922.08	7.57	146.86	82.15	56.57	21 38 3	3322.1	3.12	140.60

DIFFERENTIAL CORRECTIONS

TDE	-.0693	TRA	-.4944	TC3	1.0195	BAU	.3450
RDE	.3261	RRA	.4107	RC3	-2.5340	FAU	.06643
FDE	1.2328	FRA	1.2126	FC3	-6.0870	BSP	6630
BDE	.3334	BRA	.6427	BC3	2.7314	FSP	-1290

MID-COURSE EXECUTION ACCURACY

SGT	1136.6	SGR	1845.4	SG3	428.5		
RRT	-.8524	RRF	.9861	RTF	-.8527		
SGB	2167.3	R23	-.1151	R13	.9797		
SG1	2103.7	SG2	521.3	THA	119.71		

ORBIT DETERMINATION ACCURACY

ST	310.6	SR	653.1	SS	1053.6
CRT	-.7167	CRS	-.9969	CST	.6617
LSA	1257.2	MSA	229.1	SSA	12.2
EL1	693.9	EL2	203.9	ALF	110.69

LAUNCH DATE AUG 22 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 330.851

RL	151.31	LAL	-.00	LOL	328.49	VL	26.904	GAL	-1.80	AZL	86.22	HCA	146.16	SMA	128.80	ECC	.17751	INC	3.7822
RP	107.51	LAP	2.11	LOP	114.71	VP	37.928	GAP	-3.76	AZP	93.14	TAL	188.40	TAP	334.56	RCA	105.94	APO	151.66
RC	67.486	GL	33.72	GP	-48.31	ZAL	98.77	ZAP	61.84	ETS	31.91	ZAE	126.23	ETE	293.58	ZAC	53.81	ETC	259.02

V1	29.446	V2	35.249	CLP	-44.80														

PLANETOCENTRIC CONIC

C3	10.208	VHL	3.195	DLA	15.29	RAL	234.71	RAO	6567.4	VEL	11.472	PTH	1.99	VHP	5.128	DPA	-67.56	RAP	224.81
ECC	1.1680																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 59 0	2562.27	-26.21	64,74	90.21	101.13	3 41 43	1962.3	-24.41	56.53
90.00	19 0 18	4214.01	.49	172.76	86.11	61.69	20 10 32	3614.0	-3.30	166.13
100.00	4 28 42	2273.04	-27.25	43.22	89.96	102.78	5 6 35	1673.0	-25.22	35.01
100.00	20 13 17	3978.48	1.43	154.93	85.59	60.14	21 19 36	3378.5	-2.56	148.40
110.00	5 55 32	2001.33	-29.98	21.75	89.13	107.24	6 28 53	1401.3	-27.33	13.56
110.00	21 2 57	3822.94	3.82	141.63	84.09	56.01	22 6 39	3222.9	-.66	135.42

DIFFERENTIAL CORRECTIONS

TDE	-.0606	TRA	-.4708	TC3	.7875	BAU	.3708
RDE	.4802	RRA	.4963	RC3	-2.6003	FAU	.06401
FDE	1.4155	FRA	1.2534	FC3	-5.4286	BSP	7091
BDE	.4840	BRA	.6840	BC3	2.7169	FSP	-1283

MID-COURSE EXECUTION ACCURACY

SGT	1015.4	SGR	2086.5	SG3	422.4		
RRT	-.8200	RRF	.9900	RTF	-.8180		
SGB	2320.5	R23	-.0894	R13	.9860		
SG1	2257.4	SG2	537.2	THA	113.14		

ORBIT DETERMINATION ACCURACY

ST	284.6	SR	905.9	SS	1167.4
CRT	-.6480	CRS	-.9990	CST	.6150
LSA	1488.3	MSA	222.1	SSA	10.1
EL1	925.5	EL2	212.1	ALF	102.16

LAUNCH DATE AUG 22 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 337.375

RL	151.31	LAL	-.00	LOL	328.49	VL	26.934	GAL	-1.83	AZL	85.57	HCA	149.39	SMA	129.00	ECC	.17576	INC	4.4268
RP	107.50	LAP	2.25	LOP	117.96	VP	37.953	GAP	-3.24	AZP	93.81	TAL	188.62	TAP	338.00	RCA	106.33	APO	151.67
RC	69.600	GL	38.08	GP	-52.75	ZAL	98.52	ZAP	66.61	ETS	29.17	ZAE	122.72	ETE	289.00	ZAC	49.32	ETC	257.90

V1	29.446	V2	35.253	CLP	-49.02														

PLANETOCENTRIC CONIC

C3	11.350	VHL	3.369	DLA	19.54	RAL	235.75	RAO	6567.4	VEL	11.521	PTH	2.01	VHP	5.267	DPA	-70.94	RAP	216.45
ECC	1.1868																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 20 28	2746.34	-27.95	77.92	94.49	94.76	3 6 14	2146.3	-26.99	69.38
90.00	19 47 10	4073.18	-4.05	164.90	89.41	61.95	20 55 3	3473.2	-7.77	158.19
100.00	3 54 4	2444.52	-29.23	55.57	94.35	96.57	4 34 48	1844.5	-28.01	46.98
100.00	20 56 15	3850.23	-2.92	147.89	88.79	60.24	22 0 26	3250.2	-6.86	141.32
110.00	5 28 43	2148.37	-32.46	32.48	93.75	101.35	6 4 32	1548.4	-30.56	23.78
110.00	21 38 5	3719.14	-.14	136.21	87.05	55.82	22 40 4	3119.1	-4.62	130.00

DIFFERENTIAL CORRECTIONS

TDE	-.0288	TRA	-.4398	TC3	.5332	BAU	.3972
RDE	.6723	RRA	.6024	RC3	-2.5629	FAU	.05962
FDE	1.5740	FRA	1.2784	FC3	-4.5479	BSP	7620
BDE	.6729	BRA	.7459	BC3	2.6178	FSP	-1237

MID-COURSE EXECUTION ACCURACY

SGT	872.6	SGR	2339.1	SG3	404.1		
RRT	-.7542	RRF	.9927	RTF	-.7505		
SGB	2496.5	R23	-.0638	R13	.9906		
SG1	2435.1	SG2	550.5	THA	106.59		

ORBIT DETERMINATION ACCURACY

ST	243.3	SR	1190.1	SS	1258.9
CRT	-.4635	CRS	-.9996	CST	.4411
LSA	1735.8	MSA	217.8	SSA	8.2
EL1	1195.6	EL2	214.6	ALF	95.60

LAUNCH DATE AUG 22 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 343.872

RL	151.31	LAL	-.00	LOL	328.49	VL	26.958	GAL	-1.84	AZL	84.79	HCA	152.61	SMA	129.17	ECC	.17431	INC	5.2073	VI	29.446
RP	107.49	LAP	2.39	LOP	121.20	VP	37.973	GAP	-2.74	AZP	94.63	TAL	188.76	TAP	341.37	RCA	106.65	APO	151.68	V2	35.255
RC	71.740	GL	42.60	GP	-57.37	ZAL	98.04	ZAP	71.26	ETS	25.87	ZAE	118.84	ETE	284.34	ZAC	44.65	ETC	256.40	CLP	-53.43

PLANETOCENTRIC CONIC

C3	13.052	VHL	3.613	DLA	23.89	RAL	237.08	RAD	6567.5	VEL	11.595	PTH	2.03	VHP	5.516	DPA	-73.93	RAP	204.50	ECC	1.2148

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 29 33	2978.44	-28.09	94.86	99.64	86.29	2 19 11	2378.4	-28.31	86.20
90.00	20 48 41	3900.20	-9.48	155.10	94.31	63.19	21 53 41	3300.2	-13.01	148.19
100.00	3 10 23	2653.31	-29.86	71.03	99.73	88.48	3 54 37	2053.3	-29.75	62.23
100.00	21 50 32	3700.57	-7.92	139.59	93.47	61.08	22 52 12	3100.6	-11.72	132.86
110.00	4 57 19	2318.80	-34.00	45.53	99.64	93.78	5 35 57	1718.8	-33.10	36.41
110.00	22 20 6	3607.84	-4.39	130.40	91.30	56.07	23 20 14	3007.8	-8.81	124.10

DIFFERENTIAL CORRECTIONS

TDE	.0392	TRA	-.3965	TC3	.2807	BAU	.4230	SGT	719.6	SGR	2591.9	SG3	373.2	ST	215.5	SR	1491.0	SS	1316.5
RDE	.9082	RRA	.7330	RC3	-2.4078	FAU	.05338	RRT	-.6099	RRF	.9945	RTF	-.6047	CRT	.0328	CRS	-.9999	CST	-.0481
FDE	1.6897	FRA	1.2806	FC3	-3.5408	BSP	8208	SGB	2690.0	R23	-.0401	R13	.9937	LSA	1988.9	MSA	215.9	SSA	6.7
BDE	.9091	BRA	.8333	BC3	2.4241	FSP	-1152	SG1	2630.6	SG2	561.9	THA	100.08	EL1	1491.0	EL2	215.4	ALF	89.72

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 22 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 350.341

RL	151.31	LAL	-.00	LOL	328.49	VL	26.978	GAL	-1.83	AZL	83.82	HCA	155.83	SMA	129.30	ECC	.17311	INC	6.1783	VI	29.446
RP	107.48	LAP	2.53	LOP	124.45	VP	37.988	GAP	-2.25	AZP	95.64	TAL	188.82	TAP	344.65	RCA	106.92	APO	151.68	V2	35.257
RC	73.903	GL	47.23	GP	-62.15	ZAL	97.34	ZAP	75.67	ETS	21.92	ZAE	114.59	ETE	279.58	ZAC	39.83	ETC	254.38	CLP	-58.00

PLANETOCENTRIC CONIC

C3	15.628	VHL	3.953	DLA	28.28	RAL	238.71	RAD	6567.6	VEL	11.705	PTH	2.06	VHP	5.908	DPA	-76.16	RAP	187.83	ECC	1.2572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 25 47	3439.70	-21.85	127.00	103.67	71.52	24 23 7	2839.7	-24.17	119.10
90.00	23 1 28	3518.54	-20.06	132.09	102.99	69.59	24 0 7	2918.5	-22.66	124.39
100.00	2 1 7	2951.50	-27.32	92.76	105.34	77.37	2 50 18	2351.5	-28.78	84.27
100.00	23 12 46	3481.97	-14.85	127.06	100.64	63.75	24 10 48	2882.0	-18.25	119.92
110.00	4 17 9	2525.66	-33.76	61.65	106.55	84.27	4 59 15	1925.7	-34.18	52.43
110.00	23 13 12	3480.57	-9.18	123.65	97.34	56.93	24 11 13	2880.6	-13.47	117.19

DIFFERENTIAL CORRECTIONS

TDE	.1615	TRA	-.3335	TC3	.0560	BAU	.4459	SGT	598.3	SGR	2831.5	SG3	331.4	ST	286.1	SR	1789.4	SS	1333.9
RDE	1.1960	RRA	.8945	RC3	-2.1335	FAU	.04561	RRT	-.2816	RRF	.9958	RTF	-.2747	CRT	.6501	CRS	-.9999	CST	-.6574
FDE	1.7507	FRA	1.2574	FC3	-2.5265	BSP	8839	SGB	2894.0	R23	-.0184	R13	.9956	LSA	2239.7	MSA	216.3	SSA	5.4
BDE	1.2068	BRA	.9546	BC3	2.1343	FSP	-1034	SG1	2836.7	SG2	573.0	THA	93.55	EL1	1799.2	EL2	216.2	ALF	83.98

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 22 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 356.779

RL	151.31	LAL	-.00	LOL	328.49	VL	26.993	GAL	-1.82	AZL	82.57	HCA	159.05	SMA	129.40	ECC	.17216	INC	7.4274	VI	29.446
RP	107.48	LAP	2.65	LOP	127.70	VP	38.000	GAP	-1.78	AZP	96.94	TAL	188.81	TAP	347.85	RCA	107.13	APO	151.68	V2	35.258
RC	76.087	GL	51.88	GP	-67.06	ZAL	96.45	ZAP	79.68	ETS	17.21	ZAE	110.01	ETE	274.62	ZAC	34.89	ETC	251.57	CLP	-62.65

PLANETOCENTRIC CONIC

C3	19.654	VHL	4.433	DLA	32.63	RAL	240.63	RAD	6567.8	VEL	11.876	PTH	2.11	VHP	6.497	DPA	-77.12	RAP	166.70	ECC	1.3235

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.06	21 10 56	3949.20	-22.57	165.17	110.16	65.79	22 16 45	3349.2	-25.65	157.49
106.94	1 35 37	3115.30	-22.56	103.28	110.15	65.78	2 27 33	2515.3	-25.64	95.60
73.06	21 10 56	3949.20	-22.57	165.17	110.16	65.79	22 16 45	3349.2	-25.65	157.49
106.94	1 35 37	3115.30	-22.56	103.28	110.15	65.78	2 27 33	2515.3	-25.64	95.60
110.00	3 12 31	2816.72	-29.64	83.27	113.18	72.14	3 59 28	2216.7	-31.80	74.72
110.00	0 37 8	3295.78	-15.84	113.49	106.46	59.31	1 32 4	2695.8	-19.80	106.60

DIFFERENTIAL CORRECTIONS

TDE	.3687	TRA	-.2386	TC3	-.1164	BAU	.4619	SGT	609.8	SGR	3039.8	SG3	281.8	ST	489.1	SR	2058.8	SS	1309.1
RDE	1.5438	RRA	1.0982	RC3	-1.7541	FAU	.03675	RRT	.2666	RRF	.9966	RTF	.2746	CRT	.8893	CRS	-1.0000	CST	-.8924
FDE	1.7516	FRA	1.2113	FC3	-1.6187	BSP	9486	SGB	3100.4	R23	.0014	R13	.9966	LSA	2478.6	MSA	219.5	SSA	4.4
BDE	1.5872	BRA	1.1238	BC3	1.7580	FSP	-889	SG1	3044.3	SG2	586.9	THA	86.82	EL1	2104.8	EL2	218.8	ALF	77.94

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 22 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 363.180

RL	151.31	LAL	-.00	LOL	328.49	VL	27.004	GAL	-1.79	AZL	80.90	HCA	162.25	SMA	129.48	ECC	.17141	INC	9.1046	VI	29.446
RP	107.48	LAP	2.77	LOP	130.95	VP	38.008	GAP	-1.32	AZP	98.68	TAL	188.71	TAP	350.95	RCA	107.28	APO	151.67	V2	35.259
RC	78.289	GL	56.42	GP	-72.14	ZAL	95.42	ZAP	83.18	ETS	11.50	ZAE	105.08	ETE	269.19	ZAC	29.81	ETC	247.46	CLP	-67.23

PLANETOCENTRIC CONIC

C3	26.280	VHL	5.126	DLA	36.81	RAL	242.85	RAD	6568.1	VEL	12.151	PTH	2.18	VHP	7.376	DPA	-76.47	RAP	144.39	ECC	1.4325

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.43	20 34 55	4155.78	-22.94	181.59	118.42	60.39	21 44 11	3555.8	-26.70	174.23
114.57	2 29 20	3049.87	-22.93	98.35	118.41	60.38	3 20 10	2449.9	-26.69	90.98
65.43	20 34 55	4155.78	-22.94	181.59	118.42	60.39	21 44 11	3555.8	-26.70	174.23
114.57	2 29 20	3049.87	-22.93	98.35	118.41	60.38	3 20 10	2449.9	-26.69	90.98
65.43	20 34 55	4155.78	-22.94	181.59	118.42	60.39	21 44 11	3555.8	-26.70	174.23
114.57	2 29 20	3049.87	-22.93	98.35	118.41	60.38	3 20 10	2449.9	-26.69	90.98

DIFFERENTIAL CORRECTIONS

TDE	.7187	TRA	-.0861	TC3	-.2190	BAU	.4645	SGT	842.6	SGR	3191.7	SG3	228.9	ST	804.1	SR	2262.7	SS	1247.0
RDE	1.9590	RRA	1.3602	RC3	-1.3039	FAU	.02741	RRT	.6807	RRF	.9971	RTF	.6895	CRT	.9555	CRS	-1.0000	CST	-.9574
FDE	1.6970	FRA	1.1465	FC3	-.9030	BSP	10114	SGB	3301.0	R23	.0200	R13	.9970	LSA	2696.3	MSA	226.3	SSA	3.7
BDE	2.0867	BRA	1.3629	BC3	1.3221	FSP	-730	SG1	3244.7	SG2	607.2	THA	79.44	EL1	2390.8	EL2	224.5	ALF	71.07

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 22 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 369.537
RL 151.31 LAL -.00 LOL 328.49 VL 27.011 GAL -1.74 AZL 78.51 HCA 165.43 SMA 129.52 ECC .17087 INC11.4887 V1 29.446
RP 107.48 LAP 2.87 LOP 134.20 VP 38.013 GAP -.88 AZP 101.13 TAL 188.51 TAP 353.94 RCA 107.39 APO 151.65 V2 35.258
RC 80.507 GL 60.66 GP -77.53 ZAL 94.31 ZAP 86.06 ETS 4.05 ZAE 99.72 ETE 262.51 ZAC 24.52 ETC 240.70 CLP -71.45
PLANETOCENTRIC CONIC
C3 38.053 VHL 6.169 DLA 40.63 RAL 245.31 RAD 6568.5 VEL 12.626 PTH 2.29 VHP 8.716 DPA -74.26 RAP 124.81 ECC 1.6263

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.56	20 16 13	4330.72	-21.50	195.12	127.99	54.66	21 28 24	3730.7	-25.97	188.28
120.44	3 7 38	3060.83	-21.49	98.26	127.98	54.65	3 58 39	2460.8	-25.95	91.43
59.56	20 16 13	4330.72	-21.50	195.12	127.99	54.66	21 28 24	3730.7	-25.97	188.28
120.44	3 7 38	3060.83	-21.49	98.26	127.98	54.65	3 58 39	2460.8	-25.95	91.43
59.56	20 16 13	4330.72	-21.50	195.12	127.99	54.66	21 28 24	3730.7	-25.97	188.28
120.44	3 7 38	3060.83	-21.49	98.26	127.98	54.65	3 58 39	2460.8	-25.95	91.43

DIFFERENTIAL CORRECTIONS
TDE 1.3476 TRA .1919 TC3 -.2457 BAU .4427
RDE 2.4194 RRA 1.7027 RC3 -.8349 FAU .01828
FDE 1.6023 FRA 1.0734 FC3 -.4159 BSP 10721
BDE 2.7694 BRA 1.7135 BC3 .8703 FSP -572

MID-COURSE EXECUTION ACCURACY
SGT 1309.1 SGR 3233.1 SG3 177.1
RRT .8540 RRF .9972 RTF .8669
SGB 3488.1 R23 .0376 R13 .9969
SG1 3428.4 SG2 642.4 THA 70.20

ORBIT DETERMINATION ACCURACY
ST 1253.7 SR 2332.7 SS 1159.4
CRT .9769 CRS -.9999 CST -.9795
LSA 2880.9 MSA 239.6 SSA 3.1
EL1 2637.6 EL2 236.7 ALF 62.05

LAUNCH DATE AUG 22 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 375.831
RL 151.31 LAL -.00 LOL 328.49 VL 27.014 GAL -1.68 AZL 74.84 HCA 168.57 SMA 129.54 ECC .17049 INC15.1579 V1 29.446
RP 107.48 LAP 2.97 LOP 137.45 VP 38.014 GAP -.47 AZP 104.87 TAL 188.21 TAP 356.78 RCA 107.46 APO 151.63 V2 35.257
RC 82.739 GL 64.23 GP -83.48 ZAL 93.16 ZAP 88.22 ETS 351.26 ZAE 93.69 ETE 250.86 ZAC 18.85 ETC 226.17 CLP -74.15
PLANETOCENTRIC CONIC
C3 61.473 VHL 7.840 DLA 43.74 RAL 247.85 RAD 6569.1 VEL 13.521 PTH 2.47 VHP 10.876 DPA -70.63 RAP 109.01 ECC 2.0117

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.16	20 7 51	4500.81	-17.72	206.88	138.36	49.33	21 22 52	3900.8	-22.82	200.72
124.84	3 36 18	3129.81	-17.71	101.16	138.35	49.33	4 28 27	2529.8	-22.80	95.00
55.16	20 7 51	4500.81	-17.72	206.88	138.36	49.33	21 22 52	3900.8	-22.82	200.72
124.84	3 36 18	3129.81	-17.71	101.16	138.35	49.33	4 28 27	2529.8	-22.80	95.00
55.16	20 7 51	4500.81	-17.72	206.88	138.36	49.33	21 22 52	3900.8	-22.82	200.72
124.84	3 36 18	3129.81	-17.71	101.16	138.35	49.33	4 28 27	2529.8	-22.80	95.00

DIFFERENTIAL CORRECTIONS
TDE 2.7152 TRA .8712 TC3 -.2068 BAU .3593
RDE 2.6346 RRA 2.1071 RC3 -.3852 FAU .00933
FDE 1.5083 FRA 1.0192 FC3 -.1313 BSP 10970
BDE 3.7833 BRA 2.2801 BC3 .4372 FSP -416

MID-COURSE EXECUTION ACCURACY
SGT 2195.1 SGR 2934.9 SG3 131.6
RRT .9149 RRF .9940 RTF .9458
SGB 3665.0 R23 .0553 R13 .9965
SG1 3592.7 SG2 724.0 THA 53.92

ORBIT DETERMINATION ACCURACY
ST 2001.7 SR 2028.8 SS 1075.7
CRT .9823 CRS -.9989 CST -.9901
LSA 3034.1 MSA 271.7 SSA 2.5
EL1 2837.4 EL2 267.8 ALF 45.39

LAUNCH DATE AUG 22 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 382.015
RL 151.31 LAL -.00 LOL 328.49 VL 27.013 GAL -1.59 AZL 68.49 HCA 171.63 SMA 129.54 ECC .17024 INC21.5103 V1 29.446
RP 107.49 LAP 3.06 LOP 140.70 VP 38.012 GAP -.09 AZP 111.30 TAL 187.77 TAP 359.40 RCA 107.49 APO 151.59 V2 35.255
RC 84.985 GL 66.33 GP -89.11 ZAL 92.06 ZAP 89.62 ETS 283.95 ZAE 86.36 ETE 184.89 ZAC 12.55 ETC 148.98 CLP 64.80
PLANETOCENTRIC CONIC
C3 116.863 VHL 10.810 DLA 45.41 RAL 250.05 RAD 6570.2 VEL 15.434 PTH 2.76 VHP 14.716 DPA -65.26 RAP 95.97 ECC 2.9233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.89	20 7 54	4667.69	-11.54	216.26	148.45	45.77	21 25 41	4067.7	-17.05	210.69
127.11	3 53 46	3250.94	-11.52	106.36	148.43	45.76	4 47 57	2650.9	-17.04	100.79
52.89	20 7 54	4667.69	-11.54	216.26	148.45	45.77	21 25 41	4067.7	-17.05	210.69
127.11	3 53 46	3250.94	-11.52	106.36	148.43	45.76	4 47 57	2650.9	-17.04	100.79
52.89	20 7 54	4667.69	-11.54	216.26	148.45	45.77	21 25 41	4067.7	-17.05	210.69
127.11	3 53 46	3250.94	-11.52	106.36	148.43	45.76	4 47 57	2650.9	-17.04	100.79

DIFFERENTIAL CORRECTIONS
TDE 4.9534 TRA 3.2619 TC3 -.0879 BAU .1374
RDE-2.2007 RRA .0096 RC3 .0026 FAU .00059
FDE 1.4724 FRA 1.0173 FC3 -.0044 BSP 11420
BDE 5.4202 BRA 3.2619 BC3 .0879 FSP -302

MID-COURSE EXECUTION ACCURACY
SGT 3604.6 SGR 1166.4 SG3 94.6
RRT -.7243 RRF -.7084 RTF .9987
SGB 3788.6 R23 -.0736 R13 -.9963
SG1 3707.1 SG2 782.0 THA 166.18

ORBIT DETERMINATION ACCURACY
ST 2727.3 SR 1166.4 SS 1034.6
CRT -.9621 CRS .9585 CST -.9999
LSA 3127.3 MSA 298.6 SSA 1.8
EL1 2951.7 EL2 293.9 ALF 157.40

LAUNCH DATE AUG 22 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 387.942
RL 151.31 LAL -.00 LOL 328.49 VL 27.010 GAL -1.44 AZL 55.31 HCA 174.48 SMA 129.52 ECC .17007 INC34.6903 V1 29.446
RP 107.50 LAP 3.14 LOP 143.95 VP 38.007 GAP .22 AZP 124.57 TAL 187.04 TAP 1.52 RCA 107.49 APO 151.54 V2 35.253
RC 87.241 GL 64.74 GP -78.69 ZAL 91.07 ZAP 90.24 ETS 198.72 ZAE 75.76 ETE 100.96 ZAC 7.74 ETC 10.63 CLP 91.21
PLANETOCENTRIC CONIC
C3 288.718 VHL 16.992 DLA 43.56 RAL 250.77 RAD 6571.7 VEL 20.249 PTH 3.15 VHP 22.707 DPA -56.35 RAP 84.27 ECC 5.7516

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.41	20 20 29	4788.90	-4.35	220.34	156.19	46.62	21 40 18	4188.9	-9.82	214.86
124.59	3 46 56	3423.25	-4.34	115.10	156.17	46.62	4 43 59	2823.3	-9.80	109.62
55.41	20 20 29	4788.90	-4.35	220.34	156.19	46.62	21 40 18	4188.9	-9.82	214.86
124.59	3 46 56	3423.25	-4.34	115.10	156.17	46.62	4 43 59	2823.3	-9.80	109.62
55.41	20 20 29	4788.90	-4.35	220.34	156.19	46.62	21 40 18	4188.9	-9.82	214.86
124.59	3 46 56	3423.25	-4.34	115.10	156.17	46.62	4 43 59	2823.3	-9.80	109.62

DIFFERENTIAL CORRECTIONS
TDE -.3706 TRA 1.2293 TC3 -.0154 BAU .5970
RDE-8.4669 RRA-5.1898 RC3 -.1539 FAU-.01283
FDE 1.6691 FRA 1.2130 FC3 .0385 BSP 11638
BDE 8.4750 BRA 5.3334 BC3 .1547 FSP -225

MID-COURSE EXECUTION ACCURACY
SGT 587.8 SGR 3775.7 SG3 69.8
RRT -.4492 RRF -.9962 RTF .5174
SGB 3821.2 R23 -.0683 R13 -.9969
SG1 3785.1 SG2 523.9 THA 94.08

ORBIT DETERMINATION ACCURACY
ST 212.3 SR 2945.5 SS 1153.1
CRT .3718 CRS .9990 CST .3309
LSA 3163.8 MSA 203.0 SSA 1.7
EL1 2946.6 EL2 197.0 ALF 88.46

LAUNCH DATE AUG 22 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 392.983

```
RL  151.31 LAL   -.00 LOL 328.49 VL  27.003 GAL  -1.11 AZL  21.91 HCA 176.54 SMA 129.47 ECC .16974 INC68.0862 V1  29.446
RP  107.51 LAP   3.21 LOP 147.20 VP  37.999 GAP    .29 AZP 158.05 TAL 185.46 TAP   2.00 RCA 107.50 APO 151.45 V2  35.249
RC  89.506 GL   52.29 GP  -58.53 ZAL  90.30 ZAP  90.17 ETS 186.62 ZAE  55.63 ETE  89.24 ZAC  21.96 ETC 296.05 CLP  90.33
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PLANETOCENTRIC CONIC

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C31002.535 VHL 31.663 DLA  31.29 RAL 247.71 RAD 6573.0 VEL 33.523 PTH   3.50 VHP 41.638 DPA -37.61 RAP  73.08 ECC17.4992
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.10	21 59 42	4557.84	.21	198.32	158.08	58.71	23 15 39	3957.8	-3.93	191.89
103.90	1 43 20	3852.23	.23	146.18	158.07	58.71	2 47 32	3252.2	-3.92	139.75
76.10	21 59 42	4557.84	.21	198.32	158.08	58.71	23 15 39	3957.8	-3.93	191.89
103.90	1 43 20	3852.23	.23	146.18	158.07	58.71	2 47 32	3252.2	-3.92	139.75
110.00	4 8 48	3399.74	-12.15	119.28	165.74	57.80	5 5 28	2799.7	-16.31	112.65
110.00	0 37 20	4058.33	12.60	154.21	150.42	57.96	1 44 59	3458.3	8.27	147.78

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-4.5353 TRA -.0631 TC3 -.0782 BAU 3.3259   SGT  958.6 SGR 3337.2 SG3   58.4     ST   820.8 SR  2262.6 SS  1583.8
 RD-12.0340 RRA-9.6441 RC3 -.2355 FAU-.05622   RRT  .7980 RRF -.9992 RTF -.7767     CRT  .9640 CRS  .9997 CST  .9574
 FDE 2.3253 FRA 2.0333 FC3  .0485 BSP  10501   SGB 3472.1 R23 -.0730 R13 -.9971     LSA 2873.0 MSA  218.0 SSA    1.4
 BDE12.8603 BRA 9.6443 BC3  .2481 FSP   -185   SG1 3426.2 SG2  562.6 THA  76.72     EL1 2398.1 EL2  206.1 ALF  70.58
```

LAUNCH DATE AUG 22 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 403.697

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.994 GAL  -1.86 AZL 149.05 HCA 183.81 SMA 129.41 ECC .17220 INC59.0529 V1  29.446
RP  107.52 LAP   3.26 LOP 150.45 VP  37.989 GAP   1.87 AZP  31.00 TAL 189.00 TAP  12.80 RCA 107.13 APO 151.70 V2  35.245
RC  91.778 GL  -56.05 GP   64.74 ZAL  91.06 ZAP  91.87 ETS 183.60 ZAE  67.92 ETE 278.06 ZAC 142.84 ETC 287.27 CLP  94.38
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PLANETOCENTRIC CONIC

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C3 778.114 VHL 27.895 DLA -71.18 RAL 197.63 RAD 6572.8 VEL 29.990 PTH   3.45 VHP 35.629 DPA  76.49 RAP 356.52 ECC13.8058
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.50	3 14 53	2428.41	.43	78.58	107.47	161.18	3 55 21	1828.4	7.99	76.40
158.50	13 48 35	667.83	.43	287.10	107.49	161.18	13 59 43	67.8	8.00	284.92
21.50	3 14 53	2428.41	.43	78.58	107.47	161.18	3 55 21	1828.4	7.99	76.40
158.50	13 48 35	667.83	.43	287.10	107.49	161.18	13 59 43	67.8	8.00	284.92
21.50	3 14 53	2428.41	.43	78.58	107.47	161.18	3 55 21	1828.4	7.99	76.40
158.50	13 48 35	667.83	.43	287.10	107.49	161.18	13 59 43	67.8	8.00	284.92

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.7370 TRA 1.4295 TC3 -.1105 BAU 2.7038   SGT 1611.5 SGR 3371.3 SG3   63.4     ST  1209.7 SR  2999.0 SS  2037.7
 RD-14.5472 RRA-1.3281 RC3  .2353 FAU-.04240   RRT -.9387 RRF  .9994 RTF -.9373     CRT -.9898 CRS-1.0000 CST  .9898
 FDE-3.2110 FRA -.2923 FC3  .0472 BSP  11582   SGB 3736.7 R23 -.0650 R13  .9973     LSA 3818.7 MSA  163.8 SSA    2.0
 BDE15.6376 BRA 1.9513 BC3  .2599 FSP   -200   SG1 3702.2 SG2  506.0 THA 114.66     EL1 3229.8 EL2  160.1 ALF 111.82
```

LAUNCH DATE AUG 22 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 409.035

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.983 GAL  -1.57 AZL 122.51 HCA 186.17 SMA 129.33 ECC .17207 INC32.5061 V1  29.446
RP  107.53 LAP   3.31 LOP 153.70 VP  37.976 GAP   2.01 AZP  57.64 TAL 187.61 TAP  13.78 RCA 107.08 APO 151.59 V2  35.240
RC  94.056 GL  -65.17 GP   80.94 ZAL  91.37 ZAP  93.54 ETS 178.86 ZAE  84.71 ETE 272.07 ZAC 158.08 ETC 294.80 CLP 113.06
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PLANETOCENTRIC CONIC

```
C3 255.098 VHL 15.972 DLA -75.90 RAL 169.47 RAD 6571.5 VEL 19.401 PTH   3.10 VHP 20.143 DPA  74.37 RAP 284.12 ECC 5.1983
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.07	1 11 22	2338.17	7.16	80.10	77.64	165.78	1 50 20	1738.2	14.91	78.49
163.93	12 7 26	5842.31	7.17	261.02	77.67	165.78	13 44 48	5242.3	14.92	259.41
16.07	1 11 22	2338.17	7.16	80.10	77.64	165.78	1 50 20	1738.2	14.91	78.49
163.93	12 7 26	5842.31	7.17	261.02	77.67	165.78	13 44 48	5242.3	14.92	259.41
16.07	1 11 22	2338.17	7.16	80.10	77.64	165.78	1 50 20	1738.2	14.91	78.49
163.93	12 7 26	5842.31	7.17	261.02	77.67	165.78	13 44 48	5242.3	14.92	259.41

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.8819 TRA  .8899 TC3 -.0498 BAU  .5236   SGT 1482.4 SGR 3885.9 SG3   81.8     ST   781.2 SR  2771.2 SS  1207.9
 RDE-7.3579 RRA-1.9113 RC3  .1452 FAU-.00737   RRT -.9621 RRF  .9990 RTF -.9539     CRT -.9764 CRS -.9999 CST  .9729
 FDE-1.8518 FRA -.4551 FC3  .0250 BSP  13085   SGB 4159.0 R23 -.0604 R13  .9975     LSA 3117.9 MSA  166.3 SSA    1.7
 BDE 7.5947 BRA 2.1083 BC3  .1535 FSP   -262   SG1 4141.7 SG2  379.1 THA 110.33     EL1 2874.6 EL2  162.6 ALF 105.44
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 414.959

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.969 GAL  -1.40 AZL 111.69 HCA 189.09 SMA 129.24 ECC .17245 INC21.6888 V1  29.446
RP  107.55 LAP   3.35 LOP 156.95 VP  37.961 GAP   2.31 AZP  68.56 TAL 186.72 TAP  15.82 RCA 106.95 APO 151.53 V2  35.235
RC  96.339 GL  -66.16 GP   83.92 ZAL  91.57 ZAP  96.02 ETS  83.45 ZAE  93.92 ETE 176.12 ZAC 164.26 ETC 219.83 CLP-171.85
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PLANETOCENTRIC CONIC

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C3 118.656 VHL 10.893 DLA -75.99 RAL 165.24 RAD 6570.2 VEL 15.492 PTH   2.76 VHP 13.597 DPA  67.18 RAP 263.34 ECC 2.9528
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.96	0 54 17	2210.51	15.60	78.50	71.24	165.45	1 31 8	1610.5	23.33	76.74
164.04	11 50 48	5714.25	15.61	259.31	71.26	165.45	13 26 2	5114.2	23.34	257.55
15.96	0 54 17	2210.51	15.60	78.50	71.24	165.45	1 31 8	1610.5	23.33	76.74
164.04	11 50 48	5714.25	15.61	259.31	71.26	165.45	13 26 2	5114.2	23.34	257.55
15.96	0 54 17	2210.51	15.60	78.50	71.24	165.45	1 31 8	1610.5	23.33	76.74
164.04	11 50 48	5714.25	15.61	259.31	71.26	165.45	13 26 2	5114.2	23.34	257.55

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-4.8116 TRA-1.5667 TC3 -.0769 BAU  .1248   SGT 4245.9 SGR  798.9 SG3  113.4     ST  2729.2 SR   447.1 SS  1059.9
 RDE  .7526 RRA -.3189 RC3 -.0168 FAU .00684   RRT  .4021 RRF  .3387 RTF  .9966     CRT -.6469 CRS  .6821 CST -.9989
 FDE-1.6189 FRA -.4570 FC3 -.0499 BSP  13645   SGB 4320.4 R23 -.0811 R13  .9957     LSA 2942.1 MSA  340.6 SSA    2.0
 BDE 4.8701 BRA 1.5988 BC3  .0787 FSP   -367   SG1 4258.4 SG2  729.3 THA   4.46     EL1 2744.8 EL2  339.0 ALF 173.86
```

LAUNCH DATE AUG 22 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 421.041

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.953 GAL  -1.24 AZL 106.20 HCA 192.18 SMA 129.13 ECC .17307 INC16.2029 V1  29.446
RP  107.57 LAP   3.37 LOP 160.20 VP  37.944 GAP   2.65 AZP  74.14 TAL 185.94 TAP  18.11 RCA 106.78 APO 151.48 V2  35.229
RC  98.624 GL  -64.57 GP   78.34 ZAL  91.54 ZAP  99.11 ETS  39.29 ZAE 100.39 ETE 132.00 ZAC 165.38 ETC 200.52 CLP-141.56
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PLANETOCENTRIC CONIC

```
C3  69.318 VHL  8.326 DLA -75.54 RAL 171.47 RAD 6569.3 VEL 13.808 PTH   2.52 VHP 10.336 DPA  61.05 RAP 253.83 ECC 2.1408
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.47	1 20 11	2091.30	23.33	76.35	75.08	164.22	1 55 2	1491.3	31.01	74.24
163.53	12 14 37	5596.92	23.34	257.67	75.10	164.22	13 47 54	4996.9	31.02	255.56
16.47	1 20 11	2091.30	23.33	76.35	75.08	164.22	1 55 2	1491.3	31.01	74.24
163.53	12 14 37	5596.92	23.34	257.67	75.10	164.22	13 47 54	4996.9	31.02	255.56
16.47	1 20 11	2091.30	23.33	76.35	75.08	164.22	1 55 2	1491.3	31.01	74.24
163.53	12 14 37	5596.92	23.34	257.67	75.10	164.22	13 47 54	4996.9	31.02	255.56

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7073 TRA-1.0245 TC3 -.3405 BAU  .3700  SGT 3430.7 SGR 2750.9 SG3  155.0       ST  2046.8 SR  2264.9 SS  1202.2
RDE 3.2168 RRA  .5788 RC3  .2084 FAU .01721  RRT -.9354 RRF -.9908 RTF  .9698       CRT -.9772 CRS  .9985 CST -.9873
FDE-1.8867 FRA -.4298 FC3 -.2149 BSP  13813  SGB 4397.4 R23  .0991 R13 -.9933       LSA 3264.5 MSA  327.5 SSA    2.7
BDE 4.2044 BRA 1.1768 BC3  .3992 FSP   -499  SG1 4329.4 SG2  770.6 THA 141.69       EL1 3035.5 EL2  324.2 ALF 132.04
```

LAUNCH DATE AUG 22 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 427.172

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.935 GAL  -1.08 AZL 102.93 HCA 195.33 SMA 129.01 ECC .17385 INC12.9272 V1  29.446
RP  107.59 LAP   3.39 LOP 163.45 VP  37.925 GAP   3.00 AZP  77.52 TAL 185.16 TAP  20.49 RCA 106.58 APO 151.44 V2  35.222
RC 100.910 GL  -62.03 GP   72.33 ZAL  91.27 ZAP 102.65 ETS  36.31 ZAE 105.53 ETE 129.64 ZAC 163.28 ETC 217.05 CLP-136.16
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PLANETOCENTRIC CONIC

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C3  46.536 VHL  6.822 DLA -74.71 RAL 180.99 RAD 6568.7 VEL 12.958 PTH   2.36 VHP  8.472 DPA  55.53 RAP 247.73 ECC 1.7659
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.43	2 0 4	1991.86	29.59	73.73	82.04	162.34	2 33 16	1391.9	37.18	71.11
162.57	12 50 37	5501.14	29.59	256.01	82.07	162.34	14 22 19	4901.1	37.18	253.39
17.43	2 0 4	1991.86	29.59	73.73	82.04	162.34	2 33 16	1391.9	37.18	71.11
162.57	12 50 37	5501.14	29.59	256.01	82.07	162.34	14 22 19	4901.1	37.18	253.39
17.43	2 0 4	1991.86	29.59	73.73	82.04	162.34	2 33 16	1391.9	37.18	71.11
162.57	12 50 37	5501.14	29.59	256.01	82.07	162.34	14 22 19	4901.1	37.18	253.39

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6865 TRA -.7648 TC3 -.6616 BAU  .4907  SGT 3440.5 SGR 2835.5 SG3  203.7       ST  2371.9 SR  2479.2 SS  1427.2
RDE 2.9146 RRA  .4099 RC3  .4295 FAU .02685  RRT -.9463 RRF -.9943 RTF  .9669       CRT -.9881 CRS  .9997 CST -.9917
FDE-2.2819 FRA -.3746 FC3 -.4994 BSP  13994  SGB 4458.4 R23  .1159 R13 -.9908       LSA 3706.1 MSA  272.0 SSA    3.4
BDE 3.9639 BRA  .8677 BC3  .7888 FSP   -655  SG1 4400.4 SG2  716.8 THA 140.81       EL1 3420.8 EL2  264.7 ALF 133.72
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 433.316

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.916 GAL   -.92 AZL 100.75 HCA 198.50 SMA 128.88 ECC .17477 INC10.7516 V1  29.446
RP  107.61 LAP   3.39 LOP 166.70 VP  37.905 GAP   3.35 AZP  79.79 TAL 184.37 TAP  22.88 RCA 106.35 APO 151.40 V2  35.215
RC 103.196 GL  -59.09 GP   66.65 ZAL  90.74 ZAP 106.49 ETS  36.63 ZAE 109.81 ETE 131.17 ZAC 159.67 ETC 229.19 CLP-135.72
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PLANETOCENTRIC CONIC

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C3  34.238 VHL  5.851 DLA -73.47 RAL 190.96 RAD 6568.3 VEL 12.474 PTH   2.26 VHP  7.316 DPA  50.34 RAP 243.32 ECC 1.5635
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.86	2 42 47	1911.51	34.35	70.57	89.25	159.84	3 14 39	1311.5	41.81	67.29
161.14	13 27 31	5426.67	34.36	254.28	89.27	159.84	14 57 57	4826.7	41.82	251.01
18.86	2 42 47	1911.51	34.35	70.57	89.25	159.84	3 14 39	1311.5	41.81	67.29
161.14	13 27 31	5426.67	34.36	254.28	89.27	159.84	14 57 57	4826.7	41.82	251.01
18.86	2 42 47	1911.51	34.35	70.57	89.25	159.84	3 14 39	1311.5	41.81	67.29
161.14	13 27 31	5426.67	34.36	254.28	89.27	159.84	14 57 57	4826.7	41.82	251.01

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7632 TRA -.5828 TC3-1.0545 BAU  .5622  SGT 3587.1 SGR 2741.2 SG3  255.4       ST  2772.1 SR  2515.3 SS  1638.9
RDE 2.5557 RRA  .2445 RC3  .6299 FAU .03598  RRT -.9528 RRF -.9946 RTF  .9675       CRT -.9930 CRS  .9999 CST -.9945
FDE-2.6306 FRA -.2861 FC3 -.9097 BSP  14192  SGB 4514.6 R23  .1298 R13 -.9883       LSA 4079.6 MSA  233.4 SSA    4.3
BDE 3.7639 BRA  .6320 BC3 1.2283 FSP   -819  SG1 4464.8 SG2  668.7 THA 142.97       EL1 3736.7 EL2  220.4 ALF 137.80
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 439.458

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.894 GAL   -.76 AZL  99.20 HCA 201.70 SMA 128.74 ECC .17583 INC 9.1972 V1  29.446
RP  107.64 LAP   3.39 LOP 169.94 VP  37.882 GAP   3.70 AZP  81.44 TAL 183.55 TAP  25.25 RCA 106.10 APO 151.37 V2  35.207
RC 105.482 GL  -56.01 GP   61.32 ZAL  89.96 ZAP 110.49 ETS  37.53 ZAE 113.39 ETE 133.80 ZAC 155.57 ETC 236.95 CLP-136.83
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PLANETOCENTRIC CONIC

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C3  26.872 VHL  5.184 DLA -71.89 RAL 200.28 RAD 6568.1 VEL 12.176 PTH   2.19 VHP  6.565 DPA  45.41 RAP 240.01 ECC 1.4422
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.67	3 23 44	1846.64	37.84	66.88	95.56	156.83	3 54 30	1246.6	45.11	62.85
159.33	14 0 54	5370.07	37.84	252.45	95.58	156.82	15 30 24	4770.1	45.12	248.42
20.67	3 23 44	1846.64	37.84	66.88	95.56	156.83	3 54 30	1246.6	45.11	62.85
159.33	14 0 54	5370.07	37.84	252.45	95.58	156.82	15 30 24	4770.1	45.12	248.42
20.67	3 23 44	1846.64	37.84	66.88	95.56	156.83	3 54 30	1246.6	45.11	62.85
159.33	14 0 54	5370.07	37.84	252.45	95.58	156.82	15 30 24	4770.1	45.12	248.42

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7863 TRA -.4288 TC3-1.5031 BAU  .6107  SGT 3773.4 SGR 2583.1 SG3  305.3       ST  3113.8 SR  2417.0 SS  1791.8
RDE 2.1838 RRA  .1155 RC3  .7940 FAU .04421  RRT -.9585 RRF -.9941 RTF  .9695       CRT -.9953 CRS 1.0000 CST -.9959
FDE-2.8532 FRA -.1682 FC3-1.4244 BSP  14431  SGB 4572.8 R23  .1386 R13 -.9862       LSA 4325.1 MSA  204.5 SSA    5.2
BDE 3.5401 BRA  .4441 BC3 1.6999 FSP   -980  SG1 4531.5 SG2  613.2 THA 146.02       EL1 3937.5 EL2  184.3 ALF 142.21
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 445.592

RL 151.31 LAL -.00 LOL 328.49 VL 26.872 GAL -.58 AZL 98.03 HCA 204.90 SMA 128.58 ECC .17702 INC 8.0263 V1 29.446
RP 107.66 LAP 3.37 LOP 173.18 VP 37.858 GAP 4.05 AZP 82.71 TAL 182.69 TAP 27.60 RCA 105.82 APO 151.35 V2 35.198
RC 107.765 GL -52.89 GP 56.36 ZAL 88.94 ZAP 114.52 ETS 38.42 ZAE 116.36 ETE 136.84 ZAC 151.43 ETC 242.03 CLP-138.52

PLANETOCENTRIC CONIC

C3 22.132 VHL 4.704 DLA -70.06 RAL 208.61 RAD 6567.9 VEL 11.980 PTH 2.14 VHP 6.067 DPA 40.74 RAP 237.50 ECC 1.3642

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.79	4 1 27	1793.64	40.27	62.80	100.71	153.46	4 31 21	1193.6	47.31	57.96
157.21	14 29 40	5327.81	40.27	250.57	100.73	153.45	15 58 28	4727.8	47.32	245.72
22.79	4 1 27	1793.64	40.27	62.80	100.71	153.46	4 31 21	1193.6	47.31	57.96
157.21	14 29 40	5327.81	40.27	250.57	100.73	153.45	15 58 28	4727.8	47.32	245.72
22.79	4 1 27	1793.64	40.27	62.80	100.71	153.46	4 31 21	1193.6	47.31	57.96
157.21	14 29 40	5327.81	40.27	250.57	100.73	153.45	15 58 28	4727.8	47.32	245.72

DIFFERENTIAL CORRECTIONS
TDE-2.7477 TRA -.2841 TC3-1.9883 BAU .6472
RDE 1.8324 RRA .0147 RC3 .9115 FAU .05108
FDE-2.9315 FRA -.0221 FC3-1.9980 BSP 14614
BDE 3.3026 BRA .2845 BC3 2.1872 FSP -1118

MID-COURSE EXECUTION ACCURACY
SGT 3965.8 SGR 2391.4 SG3 348.7
RRT -.9623 RRF -.9931 RTF .9712
SGB 4631.0 R23 .1444 R13 -.9842
SG1 4596.9 SG2 561.5 THA 149.37

ORBIT DETERMINATION ACCURACY
ST 3360.7 SR 2231.9 SS 1871.9
CRT -.9965 CRS 1.0000 CST -.9965
LSA 4443.6 MSA 184.6 SSA 6.2
EL1 4031.3 EL2 155.7 ALF 146.45

LAUNCH DATE AUG 22 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 451.711

RL 151.31 LAL -.00 LOL 328.49 VL 26.848 GAL -.39 AZL 97.11 HCA 208.11 SMA 128.42 ECC .17833 INC 7.1080 V1 29.446
RP 107.69 LAP 3.34 LOP 176.42 VP 37.832 GAP 4.40 AZP 83.72 TAL 181.80 TAP 29.92 RCA 105.52 APO 151.33 V2 35.189
RC 110.046 GL -49.79 GP 51.78 ZAL 87.69 ZAP 118.48 ETS 39.17 ZAE 118.76 ETE 140.03 ZAC 147.45 ETC 245.51 CLP-140.43

PLANETOCENTRIC CONIC

C3 18.926 VHL 4.350 DLA -68.06 RAL 215.99 RAD 6567.8 VEL 11.845 PTH 2.10 VHP 5.739 DPA 36.32 RAP 235.64 ECC 1.3115

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.12	4 35 55	1749.60	41.84	58.47	104.84	149.90	5 5 5	1149.6	48.61	52.83
154.88	14 54 2	5297.05	41.85	248.72	104.85	149.89	16 22 19	4697.1	48.62	243.07
25.12	4 35 55	1749.60	41.84	58.47	104.84	149.90	5 5 5	1149.6	48.61	52.83
154.88	14 54 2	5297.05	41.85	248.72	104.85	149.89	16 22 19	4697.1	48.62	243.07
25.12	4 35 55	1749.60	41.84	58.47	104.84	149.90	5 5 5	1149.6	48.61	52.83
154.88	14 54 2	5297.05	41.85	248.72	104.85	149.89	16 22 19	4697.1	48.62	243.07

DIFFERENTIAL CORRECTIONS
TDE-2.6654 TRA -.1452 TC3-2.4924 BAU .6779
RDE 1.5233 RRA -.0601 RC3 .9828 FAU .05640
FDE-2.8845 FRA .1377 FC3-2.5801 BSP 14877
BDE 3.0700 BRA .1572 BC3 2.6791 FSP -1238

MID-COURSE EXECUTION ACCURACY
SGT 4157.9 SGR 2191.2 SG3 383.6
RRT -.9647 RRF -.9915 RTF .9728
SGB 4699.9 R23 .1459 R13 -.9826
SG1 4671.7 SG2 513.7 THA 152.69

ORBIT DETERMINATION ACCURACY
ST 3514.4 SR 2007.4 SS 1885.5
CRT -.9971 CRS 1.0000 CST -.9966
LSA 4461.7 MSA 170.5 SSA 7.2
EL1 4045.2 EL2 131.7 ALF 150.30

LAUNCH DATE AUG 22 1970 FLIGHT TIME 162.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 457.815

RL 151.31 LAL -.00 LOL 328.49 VL 26.823 GAL -.19 AZL 96.36 HCA 211.33 SMA 128.26 ECC .17978 INC 6.3647 V1 29.446
RP 107.72 LAP 3.30 LOP 179.66 VP 37.805 GAP 4.75 AZP 84.56 TAL 180.87 TAP 32.20 RCA 105.20 APO 151.31 V2 35.179
RC 112.324 GL -46.72 GP 47.58 ZAL 86.23 ZAP 122.31 ETS 39.73 ZAE 120.67 ETE 143.20 ZAC 143.74 ETC 248.00 CLP-142.41

PLANETOCENTRIC CONIC

C3 16.681 VHL 4.084 DLA -65.93 RAL 222.54 RAD 6567.7 VEL 11.750 PTH 2.07 VHP 5.529 DPA 32.19 RAP 234.30 ECC 1.2745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.59	5 7 35	1712.28	42.71	54.03	108.18	146.29	5 36 7	1112.3	49.18	47.66
152.41	15 14 37	5275.66	42.72	246.98	108.19	146.29	16 42 33	4675.7	49.19	240.61
27.59	5 7 35	1712.28	42.71	54.03	108.18	146.29	5 36 7	1112.3	49.18	47.66
152.41	15 14 37	5275.66	42.72	246.98	108.19	146.29	16 42 33	4675.7	49.19	240.61
27.59	5 7 35	1712.28	42.71	54.03	108.18	146.29	5 36 7	1112.3	49.18	47.66
152.41	15 14 37	5275.66	42.72	246.98	108.19	146.29	16 42 33	4675.7	49.19	240.61

DIFFERENTIAL CORRECTIONS
TDE-2.5559 TRA -.0096 TC3-3.0002 BAU .7062
RDE 1.2632 RRA -.1141 RC3 1.0133 FAU .06019
FDE-2.7432 FRA .2994 FC3-3.1238 BSP 15122
BDE 2.8510 BRA .1145 BC3 3.1667 FSP -1323

MID-COURSE EXECUTION ACCURACY
SGT 4343.2 SGR 1994.8 SG3 408.7
RRT -.9660 RRF -.9892 RTF .9742
SGB 4779.4 R23 .1427 R13 -.9815
SG1 4756.1 SG2 471.1 THA 155.82

ORBIT DETERMINATION ACCURACY
ST 3586.3 SR 1776.1 SS 1844.6
CRT -.9976 CRS .9999 CST -.9966
LSA 4403.7 MSA 160.0 SSA 8.2
EL1 4000.5 EL2 110.5 ALF 153.69

LAUNCH DATE AUG 22 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 463.900

RL 151.31 LAL -.00 LOL 328.49 VL 26.796 GAL .02 AZL 95.75 HCA 214.54 SMA 128.08 ECC .18136 INC 5.7473 V1 29.446
RP 107.75 LAP 3.26 LOP 182.90 VP 37.777 GAP 5.10 AZP 85.26 TAL 179.91 TAP 34.46 RCA 104.85 APO 151.31 V2 35.169
RC 114.599 GL -43.71 GP 43.77 ZAL 84.57 ZAP 125.94 ETS 40.15 ZAE 122.14 ETE 146.27 ZAC 140.35 ETC 249.84 CLP-144.37

PLANETOCENTRIC CONIC

C3 15.079 VHL 3.883 DLA -63.73 RAL 228.41 RAD 6567.6 VEL 11.682 PTH 2.05 VHP 5.404 DPA 28.35 RAP 233.41 ECC 1.2482

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.18	5 36 58	1680.04	43.02	49.59	110.98	142.75	6 4 58	1080.0	49.17	42.61
149.82	15 32 5	5262.10	43.03	245.46	110.99	142.74	16 59 47	4662.1	49.18	238.47
30.18	5 36 58	1680.04	43.02	49.59	110.98	142.75	6 4 58	1080.0	49.17	42.61
149.82	15 32 5	5262.10	43.03	245.46	110.99	142.74	16 59 47	4662.1	49.18	238.47
30.18	5 36 58	1680.04	43.02	49.59	110.98	142.75	6 4 58	1080.0	49.17	42.61
149.82	15 32 5	5262.10	43.03	245.46	110.99	142.74	16 59 47	4662.1	49.18	238.47

DIFFERENTIAL CORRECTIONS
TDE-2.4014 TRA .1506 TC3-3.4773 BAU .7290
RDE 1.0214 RRA -.1728 RC3 .9923 FAU .06176
FDE-2.4656 FRA .5089 FC3-3.5458 BSP 14901
BDE 2.6096 BRA .2292 BC3 3.6161 FSP -1311

MID-COURSE EXECUTION ACCURACY
SGT 4483.4 SGR 1788.1 SG3 420.6
RRT -.9618 RRF -.9860 RTF .9704
SGB 4826.8 R23 .1565 R13 -.9768
SG1 4805.1 SG2 456.5 THA 158.81

ORBIT DETERMINATION ACCURACY
ST 3547.5 SR 1517.1 SS 1715.6
CRT -.9974 CRS .9997 CST -.9953
LSA 4219.1 MSA 167.1 SSA 9.3
EL1 3856.9 EL2 100.5 ALF 156.88

LAUNCH DATE AUG 22 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 469.969

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.769 GAL    .24 AZL  95.22 HCA 217.76 SMA 127.90 ECC .18308 INC 5.2234 V1  29.446
RP  107.79 LAP   3.20 LOP 186.14 VP  37.748 GAP   5.45 AZP  85.87 TAL 178.92 TAP  36.68 RCA 104.48 APO 151.32 V2  35.158
RC 116.871 GL  -40.77 GP   40.32 ZAL  82.74 ZAP 129.37 ETS  40.44 ZAE 123.23 ETE 149.15 ZAC 137.30 ETC 251.26 CLP-146.29
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PLANETOCENTRIC CONIC

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C3  13.927 VHL  3.732 DLA -61.48 RAL 233.73 RAD 6567.5 VEL 11.632 PTH   2.04 VHP  5.342 DPA  24.80 RAP 232.89 ECC 1.2292
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.84	6 4 35	1651.59	42.87	45.25	113.43	139.35	6 32 7	1051.6	48.69	37.77
147.16	15 46 54	5255.30	42.88	244.23	113.45	139.35	17 14 30	4655.3	48.69	236.75
32.84	6 4 35	1651.59	42.87	45.25	113.43	139.35	6 32 7	1051.6	48.69	37.77
147.16	15 46 54	5255.30	42.88	244.23	113.45	139.35	17 14 30	4655.3	48.69	236.75
32.84	6 4 35	1651.59	42.87	45.25	113.43	139.35	6 32 7	1051.6	48.69	37.77
147.16	15 46 54	5255.30	42.88	244.23	113.45	139.35	17 14 30	4655.3	48.69	236.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2866 TRA  .2750 TC3-3.9500 BAU  .7574   SGT 4668.9 SGR 1637.9 SG3  431.3     ST  3521.8 SR  1349.2 SS  1637.7
RDE  .8706 RRA -.1891 RC3  .9721 FAU .06328   RRT -.9636 RRF -.9822 RTF  .9745     CRT -.9981 CRS  .9993 CST -.9954
FDE-2.2762 FRA  .6282 FC3-3.9335 BSP  15591   SGB 4947.8 R23  .1333 R13 -.9788     LSA 4108.7 MSA  153.1 SSA   10.5
BDE 2.4467 BRA  .3337 BC3 4.0679 FSP  -1399   SG1 4930.5 SG2  414.4 THA 161.18     EL1 3770.6 EL2   76.7 ALF 159.07
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 476.017

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.741 GAL    .48 AZL  94.77 HCA 220.97 SMA 127.71 ECC .18493 INC 4.7707 V1  29.446
RP  107.82 LAP   3.13 LOP 189.37 VP  37.718 GAP   5.79 AZP  86.39 TAL 177.89 TAP  38.87 RCA 104.10 APO 151.33 V2  35.147
RC 119.138 GL  -37.90 GP   37.22 ZAL  80.76 ZAP 132.56 ETS  40.66 ZAE 124.02 ETE 151.82 ZAC 134.57 ETC 252.38 CLP-148.14
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PLANETOCENTRIC CONIC

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C3  13.107 VHL  3.620 DLA -59.21 RAL 238.60 RAD 6567.5 VEL 11.597 PTH   2.03 VHP  5.329 DPA  21.52 RAP 232.70 ECC 1.2157
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.56	6 30 48	1626.00	42.34	41.04	115.69	136.16	6 57 54	1026.0	47.83	33.20
144.44	15 59 31	5254.47	42.35	243.33	115.70	136.15	17 27 5	4654.5	47.84	235.49
35.56	6 30 48	1626.00	42.34	41.04	115.69	136.16	6 57 54	1026.0	47.83	33.20
144.44	15 59 31	5254.47	42.35	243.33	115.70	136.15	17 27 5	4654.5	47.84	235.49
35.56	6 30 48	1626.00	42.34	41.04	115.69	136.16	6 57 54	1026.0	47.83	33.20
144.44	15 59 31	5254.47	42.35	243.33	115.70	136.15	17 27 5	4654.5	47.84	235.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1529 TRA  .4145 TC3-4.3770 BAU  .7838   SGT 4826.4 SGR 1490.8 SG3  432.5     ST  3430.0 SR  1182.1 SS  1514.2
RDE  .7367 RRA -.2089 RC3  .9223 FAU .06328   RRT -.9613 RRF -.9770 RTF  .9751     CRT -.9986 CRS  .9985 CST -.9945
FDE-2.0281 FRA  .7650 FC3-4.1793 BSP  16106   SGB 5051.4 R23  .1212 R13 -.9782.    LSA 3928.4 MSA  150.9 SSA   11.7
BDE 2.2754 BRA  .4642 BC3 4.4731 FSP  -1437   SG1 5036.0 SG2  393.8 THA 163.36     EL1 3627.5 EL2   59.7 ALF 161.00
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 482.045

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.712 GAL    .73 AZL  94.37 HCA 224.19 SMA 127.52 ECC .18694 INC 4.3732 V1  29.446
RP  107.86 LAP   3.05 LOP 192.60 VP  37.686 GAP   6.14 AZP  86.86 TAL 176.84 TAP  41.02 RCA 103.68 APO 151.36 V2  35.136
RC 121.402 GL  -35.10 GP   34.44 ZAL  78.64 ZAP 135.53 ETS  40.82 ZAE 124.56 ETE 154.24 ZAC 132.14 ETC 253.30 CLP-149.92
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PLANETOCENTRIC CONIC

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C3  12.544 VHL  3.542 DLA -56.92 RAL 243.09 RAD 6567.5 VEL 11.573 PTH   2.02 VHP  5.354 DPA  18.51 RAP 232.80 ECC 1.2064
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.32	6 55 59	1602.41	41.51	37.00	117.86	133.20	7 22 41	1002.4	46.69	28.91
141.68	16 10 10	5259.19	41.52	242.81	117.88	133.19	17 37 49	4659.2	46.70	234.72
38.32	6 55 59	1602.41	41.51	37.00	117.86	133.20	7 22 41	1002.4	46.69	28.91
141.68	16 10 10	5259.19	41.52	242.81	117.88	133.19	17 37 49	4659.2	46.70	234.72
38.32	6 55 59	1602.41	41.51	37.00	117.86	133.20	7 22 41	1002.4	46.69	28.91
141.68	16 10 10	5259.19	41.52	242.81	117.88	133.19	17 37 49	4659.2	46.70	234.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9974 TRA  .5755 TC3-4.6983 BAU  .8003   SGT 4942.2 SGR 1352.5 SG3  425.9     ST  3273.0 SR  1027.1 SS  1361.6
RDE  .6221 RRA -.2298 RC3  .8381 FAU .06130   RRT -.9559 RRF -.9702 RTF  .9739     CRT -.9990 CRS  .9968 CST -.9925
FDE-1.7482 FRA  .9125 FC3-4.2310 BSP  16145   SGB 5123.9 R23  .1142 R13 -.9764     LSA 3687.4 MSA  155.5 SSA   12.9
BDE 2.0920 BRA  .6197 BC3 4.7725 FSP  -1399   SG1 5109.5 SG2  384.3 THA 165.26     EL1 3430.1 EL2   44.3 ALF 162.59
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 488.052

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.682 GAL    .99 AZL  94.02 HCA 227.40 SMA 127.33 ECC .18909 INC 4.0194 V1  29.446
RP  107.89 LAP   2.96 LOP 195.83 VP  37.654 GAP   6.48 AZP  87.28 TAL 175.75 TAP  43.15 RCA 103.25 APO 151.41 V2  35.124
RC 123.660 GL  -32.39 GP   31.96 ZAL  76.43 ZAP 138.29 ETS  40.97 ZAE 124.91 ETE 156.43 ZAC 130.00 ETC 254.08 CLP-151.63
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PLANETOCENTRIC CONIC

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C3  12.187 VHL  3.491 DLA -54.62 RAL 247.25 RAD 6567.5 VEL 11.557 PTH   2.02 VHP  5.409 DPA  15.74 RAP 233.13 ECC 1.2006
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.12	7 20 21	1580.23	40.43	33.13	120.01	130.48	7 46 41	980.2	45.32	24.89
138.88	16 19 2	5269.11	40.44	242.69	120.02	130.47	17 46 52	4669.1	45.33	234.45
41.12	7 20 21	1580.23	40.43	33.13	120.01	130.48	7 46 41	980.2	45.32	24.89
138.88	16 19 2	5269.11	40.44	242.69	120.02	130.47	17 46 52	4669.1	45.33	234.45
41.12	7 20 21	1580.23	40.43	33.13	120.01	130.48	7 46 41	980.2	45.32	24.89
138.88	16 19 2	5269.11	40.44	242.69	120.02	130.47	17 46 52	4669.1	45.33	234.45

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8525 TRA  .7332 TC3-4.9867 BAU  .8219   SGT 5068.3 SGR 1238.5 SG3  417.3     ST  3105.5 SR   905.0 SS  1220.4
RDE  .5368 RRA -.2429 RC3  .7629 FAU .05945   RRT -.9502 RRF -.9619 RTF  .9736     CRT -.9995 CRS  .9935 CST -.9900
FDE-1.4973 FRA 1.0339 FC3-4.2232 BSP  16445   SGB 5217.4 R23  .1018 R13 -.9754     LSA 3453.5 MSA  160.3 SSA   14.0
BDE 1.9287 BRA  .7724 BC3 5.0448 FSP  -1379   SG1 5203.8 SG2  376.0 THA 166.86     EL1 3234.5 EL2   28.0 ALF 163.76
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 494.034

RL	151.31	LAL	-.00	LOL	328.49	VL	26.651	GAL	1.27	AZL	93.70	HCA	230.62	SMA	127.13	ECC	.19142	INC	3.7005	V1	29.446		
RP	107.93	LAP	2.86	LOP	199.05	VP	37.621	GAP	6.83	AZP	87.65	TAL	174.64	TAP	45.26	RCA	102.80	APO	151.47	V2	35.112		
RC	125.912	GL	-29.76	GP	29.74	ZAL	74.14	ZAP	140.85	ETS	41.13	ZAE	125.12	ETE	158.38	ZAC	128.12	ETC	254.76	CLP	-153.26		

PLANETOCENTRIC CONIC

C3	12.004	VHL	3.465	DLA	-52.34	RAL	251.14	RAD	6567.5	VEL	11.550	PTH	2.02	VHP	5.488	DPA	13.19	RAP	233.68	ECC	1.1976		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.94	7 44 7	1558.88	39.16	29.43	122.18	128.01	8 10 6	958.9	43.78	21.11
136.06	16 26 14	5284.06	39.17	242.99	122.19	128.00	17 54 18	4684.1	43.78	234.67
43.94	7 44 7	1558.88	39.16	29.43	122.18	128.01	8 10 6	958.9	43.78	21.11
136.06	16 26 14	5284.06	39.17	242.99	122.19	128.00	17 54 18	4684.1	43.78	234.67
43.94	7 44 7	1558.88	39.16	29.43	122.18	128.01	8 10 6	958.9	43.78	21.11
136.06	16 26 14	5284.06	39.17	242.99	122.19	128.00	17 54 18	4684.1	43.78	234.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7208	TRA	.8835	TC3	-5.2496	BAU	.8499	SGT	5200.9	SGR	1143.1	SG3	406.7	ST	2936.8	SR	811.0	SS	1095.0
RDE	.4749	RRA	-.2490	RC3	.7006	FAU	.05798	RRT	-.9441	RRF	-.9521	RTF	.9743	CRT	-.9998	CRS	.9878	CST	-.9873
FDE	-1.2815	FRA	1.1248	FC3	-4.1815	BSP	17078	SGB	5325.1	R23	.0838	R13	-.9756	LSA	3233.3	MSA	163.9	SSA	15.1
BDE	1.7851	BRA	.9179	BC3	5.2961	FSP	-1388	SG1	5312.3	SG2	369.0	THA	168.22	EL1	3046.7	EL2	15.5	ALF	164.56

LAUNCH DATE AUG 22 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 499.996

RL	151.31	LAL	-.00	LOL	328.49	VL	26.620	GAL	1.56	AZL	93.41	HCA	233.83	SMA	126.93	ECC	.19391	INC	3.4099	V1	29.446		
RP	107.97	LAP	2.75	LOP	202.27	VP	37.588	GAP	7.18	AZP	87.99	TAL	173.50	TAP	47.33	RCA	102.32	APO	151.54	V2	35.099		
RC	128.158	GL	-27.22	GP	27.76	ZAL	71.78	ZAP	143.21	ETS	41.33	ZAE	125.21	ETE	160.11	ZAC	126.47	ETC	255.36	CLP	-154.82		

PLANETOCENTRIC CONIC

C3	11.973	VHL	3.460	DLA	-50.09	RAL	254.77	RAD	6567.5	VEL	11.548	PTH	2.02	VHP	5.587	DPA	10.84	RAP	234.42	ECC	1.1970		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.79	8 7 29	1537.92	37.75	25.88	124.40	125.77	8 33 6	937.9	42.11	17.55
133.21	16 31 54	5303.94	37.76	243.71	124.41	125.76	18 0 17	4703.9	42.12	235.37
46.79	8 7 29	1537.92	37.75	25.88	124.40	125.77	8 33 6	937.9	42.11	17.55
133.21	16 31 54	5303.94	37.76	243.71	124.41	125.76	18 0 17	4703.9	42.12	235.37
46.79	8 7 29	1537.92	37.75	25.88	124.40	125.77	8 33 6	937.9	42.11	17.55
133.21	16 31 54	5303.94	37.76	243.71	124.41	125.76	18 0 17	4703.9	42.12	235.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5671	TRA	1.0638	TC3	-5.3647	BAU	.8643	SGT	5296.7	SGR	1056.7	SG3	392.8	ST	2724.8	SR	724.6	SS	960.6
RDE	.4202	RRA	-.2606	RC3	.6136	FAU	.05470	RRT	-.9341	RRF	-.9401	RTF	.9729	CRT	-.9994	CRS	.9758	CST	-.9813
FDE	-1.0529	FRA	1.2339	FC3	-3.9551	BSP	17121	SGB	5401.1	R23	.0752	R13	-.9739	LSA	2973.3	MSA	177.8	SSA	16.0
BDE	1.6225	BRA	1.0953	BC3	5.3997	FSP	-1321	SG1	5388.3	SG2	370.8	THA	169.39	EL1	2819.4	EL2	24.0	ALF	165.12

LAUNCH DATE AUG 22 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 505.933

RL	151.31	LAL	-.00	LOL	328.49	VL	26.589	GAL	1.86	AZL	93.14	HCA	237.04	SMA	126.73	ECC	.19658	INC	3.1424	V1	29.446		
RP	108.01	LAP	-2.64	LOP	205.49	VP	37.554	GAP	7.54	AZP	88.29	TAL	172.35	TAP	49.38	RCA	101.82	APO	151.64	V2	35.086		
RC	130.397	GL	-24.78	GP	25.98	ZAL	69.40	ZAP	145.41	ETS	41.57	ZAE	125.22	ETE	161.64	ZAC	125.02	ETC	255.92	CLP	-156.32		

PLANETOCENTRIC CONIC

C3	12.081	VHL	3.476	DLA	-47.87	RAL	258.18	RAD	6567.5	VEL	11.553	PTH	2.02	VHP	5.705	DPA	8.67	RAP	235.33	ECC	1.1988		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.65	8 30 34	1516.85	36.22	22.46	126.68	123.75	8 55 51	916.9	40.35	14.14
130.35	16 35 59	5328.79	36.23	244.86	126.69	123.73	18 4 48	4728.8	40.36	236.54
49.65	8 30 34	1516.85	36.22	22.46	126.68	123.75	8 55 51	916.9	40.35	14.14
130.35	16 35 59	5328.79	36.23	244.86	126.69	123.73	18 4 48	4728.8	40.36	236.54
49.65	8 30 34	1516.85	36.22	22.46	126.68	123.75	8 55 51	916.9	40.35	14.14
130.35	16 35 59	5328.79	36.23	244.86	126.69	123.73	18 4 48	4728.8	40.36	236.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4219	TRA	1.2435	TC3	-5.4349	BAU	.8821	SGT	5394.9	SGR	984.8	SG3	378.4	ST	2519.3	SR	657.7	SS	846.0
RDE	.3804	RRA	-.2686	RC3	.5404	FAU	.05177	RRT	-.9233	RRF	-.9265	RTF	.9722	CRT	-.9974	CRS	.9555	CST	-.9734
FDE	-.8560	FRA	1.3214	FC3	-3.7100	BSP	17351	SGB	5484.0	R23	.0639	R13	-.9730	LSA	2730.9	MSA	193.0	SSA	16.7
BDE	1.4719	BRA	1.2722	BC3	5.4617	FSP	-1274	SG1	5471.3	SG2	372.9	THA	170.39	EL1	2603.3	EL2	46.1	ALF	165.40

LAUNCH DATE AUG 22 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 511.844

RL	151.31	LAL	-.00	LOL	328.49	VL	26.557	GAL	2.19	AZL	92.89	HCA	240.24	SMA	126.52	ECC	.19945	INC	2.8939	V1	29.446		
RP	108.05	LAP	2.51	LOP	208.71	VP	37.519	GAP	7.89	AZP	88.56	TAL	171.16	TAP	51.41	RCA	101.29	APO	151.76	V2	35.074		
RC	132.627	GL	-22.44	GP	24.40	ZAL	67.01	ZAP	147.45	ETS	41.88	ZAE	125.18	ETE	162.99	ZAC	123.75	ETC	256.44	CLP	-157.76		

PLANETOCENTRIC CONIC

C3	12.321	VHL	3.510	DLA	-45.69	RAL	261.38	RAD	6567.5	VEL	11.563	PTH	2.02	VHP	5.837	DPA	6.67	RAP	236.38	ECC	1.2028		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.52	8 53 34	1495.22	34.61	19.12	129.02	121.93	9 18 29	895.2	38.53	10.86
127.48	16 38 32	5358.74	34.62	246.43	129.03	121.91	18 7 51	4758.7	38.55	238.16
52.52	8 53 34	1495.22	34.61	19.12	129.02	121.93	9 18 29	895.2	38.53	10.86
127.48	16 38 32	5358.74	34.62	246.43	129.03	121.91	18 7 51	4758.7	38.55	238.16
52.52	8 53 34	1495.22	34.61	19.12	129.02	121.93	9 18 29	895.2	38.53	10.86
127.48	16 38 32	5358.74	34.62	246.43	129.03	121.91	18 7 51	4758.7	38.55	238.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2799	TRA	1.4290	TC3	-5.4436	BAU	.9000	SGT	5488.0	SGR	924.1	SG3	363.6	ST	2319.8	SR	604.7	SS	748.9
RDE	.3510	RRA	-.2756	RC3	.4745	FAU	.04886	RRT	-.9111	RRF	-.9112	RTF	.9716	CRT	-.9921	CRS	.9222	CST	-.9627
FDE	-.6823	FRA	1.3971	FC3	-3.4332	BSP	17624	SGB	5565.2	R23	.0530	R13	-.9722	LSA	2502.5	MSA	211.7	SSA	17.2
BDE	1.3271	BRA	1.4553	BC3	5.4642	FSP	-1230	SG1	5552.5	SG2	376.6	THA	171.24	EL1	2396.2	EL2	73.7	ALF	165.49

LAUNCH DATE AUG 22 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 517.729

RL	151.31	LAL	-.00	LOL	328.49	VL	26.525	GAL	2.52	AZL	92.66	HCA	243.45	SMA	126.32	ECC	.20252	INC	2.6610	V1	29.446
RP	108.09	LAP	2.38	LOP	211.92	VP	37.484	GAP	8.26	AZP	88.81	TAL	169.96	TAP	53.41	RCA	100.73	APO	151.90	V2	35.061
RC	134.850	GL	-20.21	GP	22.97	ZAL	64.62	ZAP	149.35	ETS	42.28	ZAE	125.09	ETE	164.18	ZAC	122.64	ETC	256.94	CLP	-159.14

PLANETOCENTRIC CONIC

C3	12.688	VHL	3.562	DLA	-43.56	RAL	264.39	RAD	6567.5	VEL	11.579	PTH	2.02	VHP	5.984	DPA	4.81	RAP	237.57	ECC	1.2088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.40	9 16 39	1472.48	32.95	15.84	131.42	120.29	9 41 11	872.5	36.69	7.64
124.60	16 39 28	5394.01	32.96	248.45	131.43	120.28	18 9 23	4794.0	36.70	240.25
55.40	9 16 39	1472.48	32.95	15.84	131.42	120.29	9 41 11	872.5	36.69	7.64
124.60	16 39 28	5394.01	32.96	248.45	131.43	120.28	18 9 23	4794.0	36.70	240.25
55.40	9 16 39	1472.48	32.95	15.84	131.42	120.29	9 41 11	872.5	36.69	7.64
124.60	16 39 28	5394.01	32.96	248.45	131.43	120.28	18 9 23	4794.0	36.70	240.25

DIFFERENTIAL CORRECTIONS

TDE	-1.1386	TRA	1.6225	TC3	-5.3873	BAU	.9165	SGT	5572.9	SGR	872.3
RDE	.3292	RRA	-.2826	RC3	.4141	FAU	.04586	RRT	-.8972	RRF	-.8945
FDE	-.5274	FRA	1.4644	FC3	-3.1291	BSP	17885	SGB	5640.7	R23	.0435
BDE	1.1852	BRA	1.6470	BC3	5.4032	FSP	-1184	SG1	5627.8	SG2	381.5

MID-COURSE EXECUTION ACCURACY

SG3	348.4	ST	2129.6	SR	562.0
RTF	.9710	CRT	-.9810	CRS	.8706
R13	-.9715	LSA	2289.8	MSA	234.9
THA	171.97	EL1	2199.9	EL2	105.5

ORBIT DETERMINATION ACCURACY

SS	669.2		
CST	-.9488		
SSA	17.5		
ALF	165.45		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 523.586

RL	151.31	LAL	-.00	LOL	328.49	VL	26.492	GAL	2.88	AZL	92.44	HCA	246.65	SMA	126.11	ECC	.20582	INC	2.4409	V1	29.446
RP	108.13	LAP	2.24	LOP	215.13	VP	37.448	GAP	8.63	AZP	89.03	TAL	168.75	TAP	55.40	RCA	100.15	APO	152.06	V2	35.047
RC	137.063	GL	-18.08	GP	21.70	ZAL	62.26	ZAP	151.13	ETS	42.76	ZAE	124.97	ETE	165.23	ZAC	121.66	ETC	257.42	CLP	-160.47

PLANETOCENTRIC CONIC

C3	13.185	VHL	3.631	DLA	-41.50	RAL	267.23	RAD	6567.5	VEL	11.600	PTH	2.03	VHP	6.144	DPA	3.09	RAP	238.87	ECC	1.2170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.29	9 39 57	1448.18	31.26	12.57	133.89	118.82	10 4 5	848.2	34.84	4.44
121.71	16 38 47	5434.83	31.27	250.92	133.90	118.81	18 9 22	4834.8	34.84	242.80
58.29	9 39 57	1448.18	31.26	12.57	133.89	118.82	10 4 5	848.2	34.84	4.44
121.71	16 38 47	5434.83	31.27	250.92	133.90	118.81	18 9 22	4834.8	34.84	242.80
58.29	9 39 57	1448.18	31.26	12.57	133.89	118.82	10 4 5	848.2	34.84	4.44
121.71	16 38 47	5434.83	31.27	250.92	133.90	118.81	18 9 22	4834.8	34.84	242.80

DIFFERENTIAL CORRECTIONS

TDE	-.9982	TRA	1.8248	TC3	-5.2765	BAU	.9322	SGT	5652.0	SGR	828.4
RDE	.3137	RRA	-.2897	RC3	.3610	FAU	.04292	RRT	-.8822	RRF	-.8767
FDE	-.3905	FRA	1.5243	FC3	-2.8185	BSP	18139	SGB	5712.4	R23	.0350
BDE	1.0463	BRA	1.8476	BC3	5.2888	FSP	-1138	SG1	5699.3	SG2	386.8

MID-COURSE EXECUTION ACCURACY

SG3	333.3	ST	1955.6	SR	527.8
RTF	.9705	CRT	-.9608	CRS	.7972
R13	-.9708	LSA	2098.4	MSA	261.9
THA	172.60	EL1	2020.6	EL2	141.6

ORBIT DETERMINATION ACCURACY

SS	608.0		
CST	-.9326		
SSA	17.5		
ALF	165.39		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 529.412

RL	151.31	LAL	-.00	LOL	328.49	VL	26.459	GAL	3.26	AZL	92.23	HCA	249.86	SMA	125.90	ECC	.20936	INC	2.2314	V1	29.446
RP	108.17	LAP	2.09	LOP	218.34	VP	37.413	GAP	9.00	AZP	89.23	TAL	167.51	TAP	57.37	RCA	99.54	APO	152.26	V2	35.034
RC	139.266	GL	-16.07	GP	20.55	ZAL	59.94	ZAP	152.78	ETS	43.36	ZAE	124.84	ETE	166.16	ZAC	120.80	ETC	257.90	CLP	-161.75

PLANETOCENTRIC CONIC

C3	13.814	VHL	3.717	DLA	-39.51	RAL	269.90	RAD	6567.5	VEL	11.628	PTH	2.04	VHP	6.316	DPA	1.49	RAP	240.28	ECC	1.2273

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.21	10 3 41	1421.67	29.56	9.25	136.42	117.50	10 27 23	821.7	32.99	1.21
118.79	16 36 20	5481.64	29.57	253.87	136.42	117.49	18 7 42	4881.6	33.00	245.82
61.21	10 3 41	1421.67	29.56	9.25	136.42	117.50	10 27 23	821.7	32.99	1.21
118.79	16 36 20	5481.64	29.57	253.87	136.42	117.49	18 7 42	4881.6	33.00	245.82
61.21	10 3 41	1421.67	29.56	9.25	136.42	117.50	10 27 23	821.7	32.99	1.21
118.79	16 36 20	5481.64	29.57	253.87	136.42	117.49	18 7 42	4881.6	33.00	245.82

DIFFERENTIAL CORRECTIONS

TDE	-.8588	TRA	2.0360	TC3	-5.1171	BAU	.9468	SGT	5724.5	SGR	791.2
RDE	.3032	RRA	-.2973	RC3	.3140	FAU	.04003	RRT	-.8663	RRF	-.8581
FDE	-.2699	FRA	1.5781	FC3	-2.5090	BSP	18384	SGB	5778.9	R23	.0278
BDE	.9107	BRA	2.0576	BC3	5.1267	FSP	-1092	SG1	5765.6	SG2	392.4

MID-COURSE EXECUTION ACCURACY

SG3	318.6	ST	1804.2	SR	500.3
RTF	.9700	CRT	-.9274	CRS	.7020
R13	-.9702	LSA	1933.6	MSA	292.1
THA	173.14	EL1	1863.5	EL2	181.2

ORBIT DETERMINATION ACCURACY

SS	564.8		
CST	-.9167		
SSA	17.5		
ALF	165.44		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 535.205

RL	151.31	LAL	-.00	LOL	328.49	VL	26.426	GAL	3.65	AZL	92.03	HCA	253.06	SMA	125.69	ECC	.21316	INC	2.0304	V1	29.446
RP	108.21	LAP	1.94	LOP	221.54	VP	37.377	GAP	9.39	AZP	89.41	TAL	166.26	TAP	59.32	RCA	98.90	APO	152.48	V2	35.021
RC	141.459	GL	-14.16	GP	19.51	ZAL	57.67	ZAP	154.34	ETS	44.07	ZAE	124.69	ETE	166.97	ZAC	120.05	ETC	258.37	CLP	-162.99

PLANETOCENTRIC CONIC

C3	14.582	VHL	3.819	DLA	-37.59	RAL	272.41	RAD	6567.6	VEL	11.660	PTH	2.05	VHP	6.501	DPA	.00	RAP	241.79	ECC	1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.17	10 28 9	1392.03	27.88	5.82	138.99	116.31	10 51 21	792.0	31.17	357.86
115.83	16 31 56	5535.15	27.89	257.32	139.00	116.30	18 4 11	4935.2	31.18	249.36
64.17	10 28 9	1392.03	27.88	5.82	138.99	116.31	10 51 21	792.0	31.17	357.86
115.83	16 31 56	5535.15	27.89	257.32	139.00	116.30	18 4 11	4935.2	31.18	249.36
64.17	10 28 9	1392.03	27.88	5.82	138.99	116.31	10 51 21	792.0	31.17	357.86
115.83	16 31 56	5535.15	27.89	257.32	139.00	116.30	18 4 11	4935.2	31.18	249.36

DIFFERENTIAL CORRECTIONS

TDE	-.7294	TRA	2.2470	TC3	-4.9440	BAU	.9653	SGT	5792.9	SGR	759.5
RDE	.2985	RRA	-.3040	RC3	.2775	FAU	.03762	RRT	-.8500	RRF	-.8392
FDE	-.1725	FRA	1.6188	FC3	-2.2336	BSP	18857	SGB	5842.5	R23	.0205
BDE	.7881	BRA	2.2675	BC3	4.9518	FSP	-1066	SG1	5829.0	SG2	397.6

MID-COURSE EXECUTION ACCURACY

SG3	303.9	ST	1685.2	SR	480.0
RTF	.9701	CRT	-.8793	CRS	.5989
R13	-.9702	LSA	1804.4	MSA	320.8
THA	173.61	EL1	1738.1	EL2	221.7

ORBIT DETERMINATION ACCURACY

SS	537.3		
CST	-.9074		
SSA	17.2		
ALF	165.70		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 190.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 540.967

RL	151.31	LAL	-.00	LOL	328.49	VL	26.393	GAL	4.07	AZL	91.84	HCA	256.25	SMA	125.48	ECC	.21724	INC	1.8363
RP	108.25	LAP	1.78	LOP	224.74	VP	37.341	GAP	9.78	AZP	89.56	TAL	165.00	TAP	61.26	RCA	98.22	APO	152.74
RC	143.643	GL	-12.37	GP	18.58	ZAL	55.47	ZAP	155.79	ETS	44.92	ZAE	124.53	ETE	167.69	ZAC	119.39	ETC	258.85

V1	29.446	V2	35.008	CLP	-164.20														

PLANETOCENTRIC CONIC

C3	15.499	VHL	3.937	DLA	-35.75	RAL	274.78	RAD	6567.6	VEL	11.700	PTH	2.06	VHP	6.698	DPA	-1.38	RAP	243.38
ECC	1.2551																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.20	10 53 41	1358.17	26.21	2.19	141.62	115.23	11 16 20	758.2	29.38	354.30
112.80	16 25 18	5596.32	26.22	261.36	141.63	115.22	17 58 34	4996.3	29.39	253.47
67.20	10 53 41	1358.17	26.21	2.19	141.62	115.23	11 16 20	758.2	29.38	354.30
112.80	16 25 18	5596.32	26.22	261.36	141.63	115.22	17 58 34	4996.3	29.39	253.47
67.20	10 53 41	1358.17	26.21	2.19	141.62	115.23	11 16 20	758.2	29.38	354.30
112.80	16 25 18	5596.32	26.22	261.36	141.63	115.22	17 58 34	4996.3	29.39	253.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5821	TRA	2.4869	TC3	-4.6884	BAU	.9727	SGT	5850.9	SGR	731.7	SG3	290.3	ST	1587.4	SR	459.9	SS	524.3
RDE	.2939	RRA	-.3142	RC3	.2375	FAU	.03451	RRT	-.8328	RRF	-.8201	RTF	.9691	CRT	-.8069	CRS	.4718	CST	-.9008
FDE	-.0713	FRA	1.6707	FC3	-1.9276	BSP	18875	SGB	5896.5	R23	.0166	R13	-.9692	LSA	1697.3	MSA	353.9	SSA	17.0
BDE	.6521	BRA	2.5066	BC3	4.6944	FSP	-1007	SG1	5882.7	SG2	402.8	THA	174.03	EL1	1631.4	EL2	264.3	ALF	166.48

LAUNCH DATE AUG 22 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 546.690

RL	151.31	LAL	-.00	LOL	328.49	VL	26.359	GAL	4.51	AZL	91.65	HCA	259.45	SMA	125.27	ECC	.22162	INC	1.6476
RP	108.29	LAP	1.62	LOP	227.94	VP	37.305	GAP	10.19	AZP	89.70	TAL	163.73	TAP	63.18	RCA	97.51	APO	153.03
RC	145.816	GL	-10.69	GP	17.73	ZAL	53.34	ZAP	157.16	ETS	45.92	ZAE	124.37	ETE	168.33	ZAC	118.80	ETC	259.33

V1	29.446	V2	34.995	CLP	-165.37														

PLANETOCENTRIC CONIC

C3	16.576	VHL	4.071	DLA	-33.99	RAL	277.01	RAD	6567.7	VEL	11.746	PTH	2.07	VHP	6.907	DPA	-2.67	RAP	245.05
ECC	1.2728																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.36	11 20 53	1318.24	24.58	358.21	144.29	114.26	11 42 51	718.2	27.64	350.39
109.64	16 15 56	5666.81	24.59	266.08	144.29	114.24	17 50 23	5066.8	27.65	258.26
70.36	11 20 53	1318.24	24.58	358.21	144.29	114.26	11 42 51	718.2	27.64	350.39
109.64	16 15 56	5666.81	24.59	266.08	144.29	114.24	17 50 23	5066.8	27.65	258.26
110.00	15 50 46	5743.62	22.27	270.87	143.09	116.63	17 26 29	5143.6	25.66	263.35
110.00	16 45 14	5577.46	26.94	260.22	145.40	111.89	18 18 11	4977.5	29.66	252.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4401	TRA	2.7315	TC3	-4.4259	BAU	.9819	SGT	5904.9	SGR	707.6	SG3	277.1	ST	1526.4	SR	444.1	SS	521.6
RDE	.2930	RRA	-.3241	RC3	.2053	FAU	.03176	RRT	-.8159	RRF	-.8014	RTF	.9686	CRT	-.7161	CRS	.3519	CST	-.9047
FDE	.0132	FRA	1.7140	FC3	-1.6588	BSP	19021	SGB	5947.1	R23	.0128	R13	-.9687	LSA	1629.0	MSA	381.0	SSA	16.6
BDE	.5287	BRA	2.7507	BC3	4.4306	FSP	-960	SG1	5933.1	SG2	407.2	THA	174.39	EL1	1560.5	EL2	303.2	ALF	167.76

LAUNCH DATE AUG 22 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 552.372

RL	151.31	LAL	-.00	LOL	328.49	VL	26.326	GAL	4.97	AZL	91.46	HCA	262.64	SMA	125.06	ECC	.22633	INC	1.4628
RP	108.33	LAP	1.45	LOP	231.13	VP	37.269	GAP	10.62	AZP	89.81	TAL	162.45	TAP	65.10	RCA	96.76	APO	153.37
RC	147.979	GL	-9.12	GP	16.97	ZAL	51.29	ZAP	158.45	ETS	47.08	ZAE	124.21	ETE	168.90	ZAC	118.27	ETC	259.81

V1	29.446	V2	34.982	CLP	-166.51														

PLANETOCENTRIC CONIC

C3	17.830	VHL	4.223	DLA	-32.32	RAL	279.12	RAD	6567.7	VEL	11.799	PTH	2.09	VHP	7.130	DPA	-3.87	RAP	246.78
ECC	1.2934																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.73	11 50 39	1269.16	22.99	353.66	147.00	113.37	12 11 48	669.2	25.95	345.91
106.27	16 2 58	5749.55	23.00	271.69	147.00	113.36	17 38 48	5149.5	25.96	263.94
73.73	11 50 39	1269.16	22.99	353.66	147.00	113.37	12 11 48	669.2	25.95	345.91
106.27	16 2 58	5749.55	23.00	271.69	147.00	113.36	17 38 48	5149.5	25.96	263.94
110.00	15 1 20	652.21	15.83	304.56	143.13	120.70	15 12 12	52.2	19.78	297.67
110.00	17 51 27	5414.50	30.56	248.93	150.04	106.11	19 21 42	4814.5	32.47	240.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2991	TRA	2.9863	TC3	-4.1508	BAU	.9903	SGT	5953.5	SGR	686.2	SG3	264.5	ST	1498.3	SR	430.9	SS	525.8
RDE	.2945	RRA	-.3345	RC3	.1779	FAU	.02917	RRT	-.7991	RRF	-.7831	RTF	.9682	CRT	-.6109	CRS	.2425	CST	-.9156
FDE	.0868	FRA	1.7534	FC3	-1.4164	BSP	19191	SGB	5992.9	R23	.0095	R13	-.9683	LSA	1595.7	MSA	400.9	SSA	16.3
BDE	.4197	BRA	3.0049	BC3	4.1546	FSP	-918	SG1	5978.8	SG2	410.7	THA	174.71	EL1	1522.5	EL2	335.7	ALF	169.52

LAUNCH DATE AUG 22 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 558.010

RL	151.31	LAL	-.00	LOL	328.49	VL	26.292	GAL	5.46	AZL	91.28	HCA	265.83	SMA	124.86	ECC	.23141	INC	1.2809
RP	108.37	LAP	1.28	LOP	234.33	VP	37.233	GAP	11.05	AZP	89.91	TAL	161.17	TAP	67.00	RCA	95.96	APO	153.75
RC	150.132	GL	-7.66	GP	16.27	ZAL	49.32	ZAP	159.66	ETS	48.42	ZAE	124.05	ETE	169.40	ZAC	117.81	ETC	260.31

V1	29.446	V2	34.969	CLP	-167.62														

PLANETOCENTRIC CONIC

C3	19.277	VHL	4.391	DLA	-30.73	RAL	281.10	RAD	6567.8	VEL	11.860	PTH	2.10	VHP	7.367	DPA	-4.98	RAP	248.59
ECC	1.3173																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.53	12 24 56	1204.69	21.44	348.07	149.74	112.56	12 45 1	604.7	24.31	340.38
102.47	15 44 31	5850.65	21.46	278.64	149.74	112.55	17 22 2	5250.7	24.32	270.94
77.53	12 24 56	1204.69	21.44	348.07	149.74	112.56	12 45 1	604.7	24.31	340.38
102.47	15 44 31	5850.65	21.46	278.64	149.74	112.55	17 22 2	5250.7	24.32	270.94
110.00	14 38 58	768.39	11.69	311.02	144.46	122.35	14 51 46	168.4	15.87	304.41
110.00	18 29 40	5334.95	31.92	243.13	153.48	102.93	19 58 35	4734.9	33.37	234.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1574	TRA	3.2526	TC3	-3.8665	BAU	.9973	SGT	5996.0	SGR	666.8	SG3	252.4	ST	1499.0	SR	419.4	SS	534.4
RDE	.2979	RRA	-.3455	RC3	.1542	FAU	.02670	RRT	-.7828	RRF	-.7656	RTF	.9679	CRT	-.4985	CRS	.1464	CST	-.9300
FDE	.1516	FRA	1.7903	FC3	-1.1989	BSP	19360	SGB	6033.0	R23	.0069	R13	-.9680	LSA	1593.1	MSA	412.7	SSA	15.9
BDE	.3370	BRA	3.2708	BC3	3.8696	FSP	-878	SG1	6018.8	SG2	413.3	THA	175.00	EL1	1514.4	EL2	359.9	ALF	171.58

LAUNCH DATE AUG 22 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 563.598

RL	151.31	LAL	-.00	LOL	328.49	VL	26.259	GAL	5.98	AZL	91.10	HCA	269.02	SMA	124.65	ECC	.23688	INC	1.1006
RP	108.41	LAP	1.10	LOP	237.52	VP	37.198	GAP	11.51	AZP	89.98	TAL	159.88	TAP	68.90	RCA	95.12	APO	154.17
RC	152.275	GL	-6.29	GP	15.64	ZAL	47.44	ZAP	160.79	ETS	49.97	ZAE	123.89	ETE	169.85	ZAC	117.39	ETC	260.81

V1	29.446	V2	34.956	CLP	-168.71														

PLANETOCENTRIC CONIC

C3	20.942	VHL	4.576	DLA	-29.23	RAL	282.98	RAD	6567.9	VEL	11.930	PTH	2.12	VHP	7.619	DPA	-6.02	RAP	250.44
ECC	1.3447																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.45	13 9 50	1104.98	19.95	340.01	152.51	111.81	13 28 14	505.0	22.73	332.37
97.55	15 14 34	701.78	19.96	310.43	152.51	111.80	15 26 15	101.8	22.75	302.79
100.00	14 40 33	810.88	15.65	316.50	150.52	115.79	14 54 4	210.9	19.00	309.31
100.00	16 26 31	5759.15	24.38	272.98	154.23	107.86	18 2 30	5159.2	26.59	264.88
110.00	14 24 1	862.97	8.19	316.11	146.20	123.30	14 38 24	263.0	12.52	309.69
110.00	18 59 33	5279.83	32.69	239.02	156.63	100.60	20 27 33	4679.8	33.81	229.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0138	TRA	3.5325	TC3	-3.5774	BAU	1.0023	SGT	6033.6	SGR	648.8	SG3	240.9	ST	1523.6	SR	409.0	SS	545.6
RDE	.3027	RRA	-.3570	RC3	.1335	FAU	.02432	RRT	-.7670	RRF	-.7488	RTF	.9678	CRT	-.3860	CRS	.0633	CST	-.9446
FDE	.2095	FRA	1.8257	FC3	-1.0055	BSP	19511	SGB	6068.4	R23	.0046	R13	-.9678	LSA	1616.3	MSA	416.8	SSA	15.5
BDE	.3030	BRA	3.5505	BC3	3.5799	FSP	-839	SG1	6054.2	SG2	414.9	THA	175.26	EL1	1532.3	EL2	375.1	ALF	173.71

LAUNCH DATE AUG 22 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 569.133

RL	151.31	LAL	-.00	LOL	328.49	VL	26.225	GAL	6.53	AZL	90.92	HCA	272.21	SMA	124.44	ECC	.24278	INC	.9208
RP	108.45	LAP	.92	LOP	240.70	VP	37.162	GAP	11.99	AZP	90.04	TAL	158.60	TAP	70.80	RCA	94.23	APO	154.66
RC	154.408	GL	-5.03	GP	15.06	ZAL	45.65	ZAP	161.87	ETS	51.74	ZAE	123.73	ETE	170.25	ZAC	117.01	ETC	261.32

V1	29.446	V2	34.943	CLP	-169.78														

PLANETOCENTRIC CONIC

C3	22.850	VHL	4.780	DLA	-27.80	RAL	284.74	RAD	6567.9	VEL	12.010	PTH	2.14	VHP	7.886	DPA	-6.98	RAP	252.35
ECC	1.3761																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 31 52	1078.47	14.74	335.74	153.65	114.46	13 49 51	478.5	17.91	328.50
90.00	15 6 35	770.44	22.38	316.39	156.77	107.81	15 19 26	170.4	24.61	308.43
100.00	14 6 57	965.04	10.89	325.47	151.71	118.01	14 23 2	365.0	14.56	318.60
100.00	17 14 11	5647.14	26.50	265.33	158.07	104.37	18 48 18	5047.1	28.21	256.95
110.00	14 12 58	946.16	5.06	320.52	148.18	123.85	14 28 44	346.2	9.47	314.20
110.00	19 24 40	5238.79	33.16	235.91	159.64	98.82	20 51 59	4638.8	34.02	226.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1310	TRA	3.8254	TC3	-3.2902	BAU	1.0057	SGT	6065.3	SGR	631.9	SG3	230.0	ST	1565.8	SR	399.4	SS	557.6
RDE	.3088	RRA	-.3690	RC3	.1154	FAU	.02207	RRT	-.7517	RRF	-.7329	RTF	.9677	CRT	-.2806	CRS	-.0065	CST	-.9575
FDE	.2606	FRA	1.8598	FC3	-.8360	BSP	19670	SGB	6098.1	R23	.0029	R13	-.9678	LSA	1658.4	MSA	414.6	SSA	15.1
BDE	.3355	BRA	3.8431	BC3	3.2923	FSP	-803	SG1	6084.0	SG2	415.4	THA	175.50	EL1	1570.1	EL2	382.3	ALF	175.65

LAUNCH DATE AUG 22 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 574.605

RL	151.31	LAL	-.00	LOL	328.49	VL	26.192	GAL	7.11	AZL	90.74	HCA	275.39	SMA	124.24	ECC	.24917	INC	.7402
RP	108.49	LAP	.74	LOP	243.89	VP	37.127	GAP	12.49	AZP	90.07	TAL	157.31	TAP	72.70	RCA	93.28	APO	155.19
RC	156.530	GL	-3.85	GP	14.53	ZAL	43.95	ZAP	162.87	ETS	53.76	ZAE	123.56	ETE	170.61	ZAC	116.66	ETC	261.84

V1	29.446	V2	34.931	CLP	-170.83														

PLANETOCENTRIC CONIC

C3	25.034	VHL	5.003	DLA	-26.46	RAL	286.40	RAD	6568.0	VEL	12.100	PTH	2.17	VHP	8.172	DPA	-7.86	RAP	254.30
ECC	1.4120																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 55 59	1241.48	9.94	345.30	154.90	116.65	13 16 41	641.5	13.44	338.37
90.00	15 55 44	652.13	24.62	308.45	160.65	104.44	16 6 36	52.1	26.37	300.21
100.00	13 47 25	1075.35	7.30	331.69	153.49	119.07	14 5 21	475.3	11.12	324.99
100.00	17 46 59	5581.53	27.52	260.73	161.41	102.15	19 20 0	4981.5	28.92	252.20
110.00	14 4 24	1022.05	2.17	324.49	150.33	124.12	14 21 26	422.1	6.63	318.25
110.00	19 46 29	5207.59	33.46	233.52	162.60	97.44	21 13 17	4607.6	34.13	224.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2776	TRA	4.1328	TC3	-3.0074	BAU	1.0071	SGT	6091.3	SGR	615.6	SG3	219.6	ST	1620.0	SR	390.4	SS	569.7
RDE	.3160	RRA	-.3814	RC3	.0996	FAU	.01992	RRT	-.7371	RRF	-.7178	RTF	.9679	CRT	-.1855	CRS	-.0650	CST	-.9681
FDE	.3061	FRA	1.8931	FC3	-.6887	BSP	19829	SGB	6122.3	R23	.0015	R13	-.9679	LSA	1713.1	MSA	407.9	SSA	14.7
BDE	.4207	BRA	4.1504	BC3	3.0091	FSP	-770	SG1	6108.2	SG2	414.8	THA	175.72	EL1	1621.7	EL2	383.2	ALF	177.29

LAUNCH DATE AUG 22 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 580.009

RL	151.31	LAL	-.00	LOL	328.49	VL	26.158	GAL	7.73	AZL	90.56	HCA	278.57	SMA	124.04	ECC	.25608	INC	.5579
RP	108.53	LAP	.55	LOP	247.07	VP	37.092	GAP	13.02	AZP	90.08	TAL	156.04	TAP	74.61	RCA	92.27	APO	155.80
RC	158.641	GL	-2.76	GP	14.05	ZAL	42.34	ZAP	163.81	ETS	56.06	ZAE	123.40	ETE	170.94	ZAC	116.34	ETC	262.36

V1	29.446	V2	34.919	CLP	-171.88														

PLANETOCENTRIC CONIC

C3	27.531	VHL	5.247	DLA	-25.19	RAL	287.97	RAD	6568.1	VEL	12.203	PTH	2.19	VHP	8.477	DPA	-8.68	RAP	256.29
ECC	1.4531																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 35 42	1354.88	6.41	351.76	156.76	117.64	12 58 17	754.9	10.06	344.99
90.00	16 28 30	5873.87	25.67	281.78	164.01	102.38	18 6 24	5273.9	27.12	273.41
100.00	13 33 31	1168.21	4.20	336.84	155.55	119.62	13 52 59	568.2	8.12	330.24
100.00	18 13 22	5535.78	28.14	257.47	164.57	100.54	19 45 37	4935.8	29.30	248.86
110.00	13 57 34	1092.78	-.54	328.18	152.60	124.18	14 15 46	492.8	3.95	321.97
110.00	20 5 49	5183.96	33.65	231.70	165.53	96.38	21 32 12	4584.0	34.17	222.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4260	TRA	4.4554	TC3	-2.7333	BAU	1.0065	SGT	6111.6	SGR	599.5	SG3	209.7	ST	1680.9	SR	381.7	SS	581.1
RDE	.3242	RRA	-.3939	RC3	.0857	FAU	.01788	RRT	-.7230	RRF	-.7036	RTF	.9682	CRT	-.1022	CRS	-.1138	CST	-.9763
FDE	.3464	FRA	1.9259	FC3	-.5623	BSP	20006	SGB	6141.0	R23	.0005	R13	-.9682	LSA	1774.8	MSA	398.4	SSA	14.3
BDE	.5353	BRA	4.4728	BC3	2.7347	FSP	-739	SG1	6127.1	SG2	413.1	THA	175.92	EL1	1681.4	EL2	379.6	ALF	178.60

LAUNCH DATE AUG 22 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 585.335

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RL  151.31 LAL   -.00 LOL 328.49 VL  26.125 GAL   8.39 AZL  90.37 HCA 281.75 SMA 123.84 ECC .26358 INC  .3726 V1  29.446
RP  108.56 LAP    .37 LOP 250.25 VP  37.058 GAP  13.58 AZP  90.08 TAL 154.77 TAP  76.52 RCA  91.19 APO 156.48 V2  34.907
RC 160.740 GL   -1.75 GP   13.62 ZAL  40.82 ZAP 164.68 ETS  58.67 ZAE 123.22 ETE 171.23 ZAC 116.04 ETC 262.90 CLP-172.91
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PLANETOCENTRIC CONIC

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C3  30.387 VHL  5.512 DLA -24.00 RAL 289.44 RAD 6568.2 VEL 12.319 PTH   2.22 VHP  8.804 DPA  -9.42 RAP 258.32 ECC 1.5001
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 21 18	1449.65	3.39	357.09	158.87	118.13	12 45 27	849.7	7.12	350.40
90.00	16 54 38	5828.45	26.30	278.60	167.20	100.90	18 31 47	5228.4	27.54	270.15
100.00	13 22 51	1250.97	1.41	341.39	157.77	119.86	13 43 42	651.0	5.37	334.85
100.00	18 35 47	5502.37	28.53	255.06	167.64	99.33	20 7 29	4902.4	29.52	246.40
110.00	13 51 59	1159.60	-3.09	331.67	154.96	124.06	14 11 18	559.6	1.40	325.46
110.00	20 23 8	5166.50	33.78	230.35	168.45	95.59	21 49 14	4566.5	34.18	221.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .5774 TRA 4.7945 TC3-2.4695 BAU 1.0037   SGT 6126.3 SGR  583.4 SG3  200.3          ST  1745.1 SR   373.1 SS   592.0
RDE  .3332 RRA -.4065 RC3  .0733 FAU .01595   RRT -.7093 RRF -.6900 RTF  .9687          CRT -.0298 CRS -.1551 CST -.9825
FDE  .3829 FRA 1.9588 FC3 -.4543 BSP  20190   SGB 6154.0 R23 -.0003 R13 -.9687          LSA 1839.8 MSA  387.2 SSA   13.9
BDE  .6667 BRA 4.8117 BC3 2.4706 FSP   -710   SG1 6140.3 SG2  410.3 THA 176.12          EL1 1745.1 EL2  372.9 ALF 179.62
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 590.571

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RL  151.31 LAL   -.00 LOL 328.49 VL  26.092 GAL   9.10 AZL  90.18 HCA 284.93 SMA 123.64 ECC .27174 INC  .1828 V1  29.446
RP  108.60 LAP    .18 LOP 253.42 VP  37.024 GAP  14.17 AZP  90.05 TAL 153.52 TAP  78.45 RCA  90.04 APO 157.23 V2  34.896
RC 162.826 GL    -.81 GP   13.21 ZAL  39.39 ZAP 165.48 ETS  61.61 ZAE 123.04 ETE 171.50 ZAC 115.77 ETC 263.44 CLP-173.94
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PLANETOCENTRIC CONIC

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C3  33.657 VHL  5.801 DLA -22.89 RAL 290.82 RAD 6568.3 VEL 12.451 PTH   2.25 VHP  9.155 DPA -10.11 RAP 260.37 ECC 1.5539
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 10 13	1533.80	.68	1.79	161.14	118.31	12 35 46	933.8	4.46	355.15
90.00	17 16 45	5795.75	26.70	276.29	170.29	99.81	18 53 21	5195.7	27.78	267.79
100.00	13 14 18	1326.93	-1.17	345.56	160.11	119.87	13 36 25	726.9	2.81	339.04
100.00	18 55 21	5477.85	28.79	253.28	170.67	98.43	20 26 39	4877.8	29.65	244.59
110.00	13 47 21	1223.31	-5.51	335.01	157.41	123.79	14 7 44	623.3	-1.03	328.79
110.00	20 38 47	5154.23	33.86	229.40	171.37	95.03	22 4 41	4554.2	34.18	220.17

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .7320 TRA 5.1520 TC3-2.2165 BAU  .9978   SGT 6135.2 SGR  567.1 SG3  191.4          ST  1809.4 SR   364.4 SS   602.1
RDE  .3428 RRA -.4189 RC3  .0623 FAU .01410   RRT -.6960 RRF -.6771 RTF  .9694          CRT  .0324 CRS -.1900 CST -.9871
FDE  .4159 FRA 1.9925 FC3 -.3626 BSP  20381   SGB 6161.3 R23 -.0008 R13 -.9694          LSA 1904.8 MSA  375.1 SSA   13.5
BDE  .8083 BRA 5.1690 BC3 2.2174 FSP   -683   SG1 6147.9 SG2  406.3 THA 176.30          EL1 1809.4 EL2  364.2 ALF    .39
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 595.705

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.059 GAL   9.85 AZL  89.99 HCA 288.10 SMA 123.44 ECC .28062 INC  .0000 V1  29.446
RP  108.63 LAP   -.01 LOP 256.60 VP  36.990 GAP  14.80 AZP  90.00 TAL 152.29 TAP  80.39 RCA  88.80 APO 158.08 V2  34.885
RC 164.900 GL     .05 GP   12.85 ZAL  38.04 ZAP 166.22 ETS  64.94 ZAE 122.85 ETE 171.75 ZAC 115.50 ETC 263.98 CLP-174.97
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PLANETOCENTRIC CONIC

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C3  37.408 VHL  6.116 DLA -21.84 RAL 292.11 RAD 6568.5 VEL 12.601 PTH   2.29 VHP  9.533 DPA -10.73 RAP 262.44 ECC 1.6156
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 1 18	1610.83	-1.81	6.09	163.52	118.26	12 28 9	1010.8	1.98	359.46
90.00	17 35 59	5772.10	26.96	274.61	173.33	99.01	19 12 12	5172.1	27.93	266.08
100.00	13 7 17	1397.89	-3.57	349.46	162.55	119.70	13 30 34	797.9	.41	342.93
100.00	19 12 42	5460.25	28.95	252.00	173.67	97.77	20 43 43	4860.2	29.73	243.28
110.00	13 43 28	1284.46	-7.81	338.25	159.93	123.38	14 4 52	684.5	-3.37	331.98
110.00	20 53 0	5146.45	33.90	228.80	174.30	94.68	22 18 47	4546.4	34.18	219.57

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .8911 TRA 5.5302 TC3-1.9757 BAU  .9884   SGT 6138.9 SGR  550.3 SG3  183.0          ST  1872.3 SR   355.6 SS   611.8
RDE  .3531 RRA -.4311 RC3  .0523 FAU .01231   RRT -.6829 RRF -.6646 RTF  .9702          CRT  .0862 CRS -.2201 CST -.9906
FDE  .4463 FRA 2.0277 FC3 -.2849 BSP  20572   SGB 6163.5 R23 -.0011 R13 -.9702          LSA 1968.4 MSA  362.4 SSA   13.1
BDE  .9585 BRA 5.5470 BC3 1.9763 FSP   -657   SG1 6150.4 SG2  401.2 THA 176.48          EL1 1872.6 EL2  354.2 ALF    .97
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 600.719

```
RL  151.31 LAL   -.00 LOL 328.49 VL  26.027 GAL  10.66 AZL  89.79 HCA 291.28 SMA 123.25 ECC .29032 INC  .2133 V1  29.446
RP  108.66 LAP   -.20 LOP 259.77 VP  36.958 GAP  15.48 AZP  89.92 TAL 151.08 TAP  82.36 RCA  87.47 APO 159.03 V2  34.874
RC 166.961 GL     .85 GP   12.51 ZAL  36.78 ZAP 166.88 ETS  68.66 ZAE 122.65 ETE 171.98 ZAC 115.25 ETC 264.53 CLP-176.00
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PLANETOCENTRIC CONIC

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C3  41.719 VHL  6.459 DLA -20.86 RAL 293.33 RAD 6568.6 VEL 12.770 PTH   2.32 VHP  9.941 DPA -11.29 RAP 264.53 ECC 1.6866
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 53 57	1682.58	-4.11	10.10	165.99	118.04	12 22 0	1082.6	-.33	3.46
90.00	17 53 1	5755.42	27.13	273.42	176.34	98.43	19 28 56	5155.4	28.02	264.87
100.00	13 1 23	1464.94	-5.82	353.16	165.05	119.37	13 25 48	864.9	-1.87	346.61
100.00	19 28 16	5448.29	29.06	251.13	176.64	97.33	20 59 4	4848.3	29.77	242.40
110.00	13 40 10	1343.42	-10.01	341.40	162.51	122.86	14 2 33	743.4	-5.61	335.07
110.00	21 5 58	5142.58	33.92	228.50	177.23	94.50	22 31 41	4542.6	34.17	219.27

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.0566 TRA 5.9322 TC3-1.7460 BAU  .9741   SGT 6138.1 SGR  532.9 SG3  175.0          ST  1933.1 SR   346.4 SS   621.6
RDE  .3637 RRA -.4429 RC3  .0433 FAU .01056   RRT -.6699 RRF -.6524 RTF  .9713          CRT  .1332 CRS -.2466 CST -.9931
FDE  .4753 FRA 2.0653 FC3 -.2192 BSP  20729   SGB 6161.2 R23 -.0013 R13 -.9713          LSA 2030.1 MSA  349.5 SSA   12.8
BDE 1.1175 BRA 5.9487 BC3 1.7466 FSP   -632   SG1 6148.5 SG2  395.0 THA 176.66          EL1 1933.7 EL2  343.2 ALF   1.41
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LAUNCH DATE AUG 22 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 605.595

RL	151.31	LAL	-.00	LOL	328.49	VL	25.995	GAL	11.53	AZL	89.58	HCA	294.45	SMA	123.06	ECC	.30093	INC	.4243
RP	108.69	LAP	-.39	LOP	262.94	VP	36.926	GAP	16.22	AZP	89.82	TAL	149.91	TAP	84.35	RCA	86.03	APO	160.09
RC	169.007	GL	1.58	GP	12.20	ZAL	35.61	ZAP	167.45	ETS	72.82	ZAE	122.43	ETE	172.19	ZAC	115.00	ETC	265.08

PLANETOCENTRIC CONIC

C3	46.688	VHL	6.833	DLA	-19.94	RAL	294.45	RAD	6568.7	VEL	12.963	PTH	2.36	VHP	10.384	DPA	-11.78	RAP	266.62

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 47 45	1750.23	-6.27	13.90	168.53	117.67	12 16 55	1150.2	-2.51	7.24
90.00	18 8 13	5744.41	27.24	272.63	179.32	98.05	19 43 57	5144.4	28.07	264.07
100.00	12 56 22	1528.78	-7.94	356.72	167.62	118.91	13 21 51	928.8	-4.02	350.12
100.00	19 42 17	5441.09	29.12	250.60	179.60	97.06	21 12 58	4841.1	29.79	241.86
110.00	13 37 19	1400.45	-12.10	344.50	165.13	122.22	14 0 40	800.4	-7.76	338.09
110.00	21 17 49	5142.19	33.92	228.47	180.17	94.48	22 43 31	4542.2	34.17	219.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2300	TRA	6.3611	TC3	-1.5281	BAU	.9541	SGT	6133.5	SGR	514.9	SG3	167.5	ST	1991.3	SR	336.9
RDE	.3748	RRA	-.4541	RC3	.0350	FAU	.00882	RRT	-.6567	RRF	-.6402	RTF	.9725	CRT	.1747	CRS	-.2705
FDE	.5035	FRA	2.1063	FC3	-.1636	BSP	20844	SGB	6155.0	R23	-.0013	R13	-.9725	LSA	2089.2	MSA	336.3
BDE	1.2859	BRA	6.3773	BC3	1.5285	FSP	-606	SG1	6142.8	SG2	387.7	THA	176.83	EL1	1992.2	EL2	331.6

SS	631.8	VI	29.446	V2	34.864
CST	-.9950	CLP	-177.04		
SSA	12.4	ALF	1.74		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 610.306

RL	151.31	LAL	-.00	LOL	328.49	VL	25.964	GAL	12.47	AZL	89.35	HCA	297.62	SMA	122.87	ECC	.31258	INC	.6459
RP	108.72	LAP	-.57	LOP	266.11	VP	36.894	GAP	17.01	AZP	89.70	TAL	148.77	TAP	86.39	RCA	84.46	APO	161.28
RC	171.039	GL	2.26	GP	11.91	ZAL	34.53	ZAP	167.94	ETS	77.43	ZAE	122.19	ETE	172.39	ZAC	114.76	ETC	265.63

PLANETOCENTRIC CONIC

C3	52.437	VHL	7.241	DLA	-19.08	RAL	295.50	RAD	6568.9	VEL	13.183	PTH	2.41	VHP	10.865	DPA	-12.23	RAP	268.71

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 42 26	1814.46	-8.28	17.55	171.11	117.18	12 12 40	1214.5	-4.57	10.83
90.00	18 21 53	5738.11	27.30	272.18	182.27	97.83	19 57 31	5138.1	28.10	263.61
100.00	12 52 2	1589.86	-9.93	.16	170.23	118.34	13 18 32	989.9	-6.07	353.50
100.00	19 54 58	5437.94	29.15	250.37	182.54	96.94	21 25 36	4837.9	29.80	241.63
110.00	13 34 51	1455.71	-14.08	347.55	167.79	121.47	13 59 6	855.7	-9.81	341.05
110.00	21 28 38	5144.86	33.91	228.68	183.10	94.61	22 54 23	4544.9	34.17	219.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.4136	TRA	6.8214	TC3	-1.3214	BAU	.9265	SGT	6126.1	SGR	496.0	SG3	160.5	ST	2046.9	SR	327.0
RDE	.3861	RRA	-.4643	RC3	.0274	FAU	.00707	RRT	-.6432	RRF	-.6278	RTF	.9738	CRT	.2119	CRS	-.2924
FDE	.5317	FRA	2.1516	FC3	-.1167	BSP	20881	SGB	6146.1	R23	-.0012	R13	-.9738	LSA	2146.0	MSA	323.0
BDE	1.4653	BRA	6.8372	BC3	1.3216	FSP	-580	SG1	6134.4	SG2	379.3	THA	177.01	EL1	2048.1	EL2	319.4

SS	642.9	VI	29.446	V2	34.855
CST	-.9963	CLP	-178.09		
SSA	12.0	ALF	1.99		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 614.824

RL	151.31	LAL	-.00	LOL	328.49	VL	25.933	GAL	13.49	AZL	89.12	HCA	300.78	SMA	122.69	ECC	.32540	INC	.8806
RP	108.75	LAP	-.76	LOP	269.28	VP	36.864	GAP	17.87	AZP	89.55	TAL	147.69	TAP	88.47	RCA	82.77	APO	162.61
RC	173.056	GL	2.89	GP	11.65	ZAL	33.54	ZAP	168.32	ETS	82.48	ZAE	121.93	ETE	172.58	ZAC	114.53	ETC	266.18

PLANETOCENTRIC CONIC

C3	59.115	VHL	7.689	DLA	-18.28	RAL	296.46	RAD	6569.1	VEL	13.434	PTH	2.46	VHP	11.392	DPA	-12.61	RAP	270.80

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 37 48	1875.75	-10.17	21.06	173.72	116.57	12 9 4	1275.7	-6.52	14.28
90.00	18 34 11	5735.83	27.32	272.02	185.18	97.75	20 9 47	5135.8	28.11	263.44
100.00	12 48 14	1648.49	-11.81	3.50	172.86	117.66	13 15 43	1048.5	-8.01	356.77
100.00	20 6 27	5438.32	29.15	250.40	185.45	96.95	21 37 5	4838.3	29.80	241.66
110.00	13 32 39	1509.30	-15.96	350.56	170.48	120.64	13 57 49	909.3	-11.78	343.95
110.00	21 38 31	5150.28	33.88	229.10	186.02	94.85	23 4 21	4550.3	34.18	219.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.6082	TRA	7.3159	TC3	-1.1262	BAU	.8902	SGT	6115.6	SGR	476.3	SG3	153.9	ST	2099.0	SR	316.8
RDE	.3979	RRA	-.4733	RC3	.0206	FAU	.00528	RRT	-.6289	RRF	-.6149	RTF	.9754	CRT	.2457	CRS	-.3130
FDE	.5601	FRA	2.2019	FC3	-.0773	BSP	20845	SGB	6134.1	R23	-.0010	R13	-.9754	LSA	2199.9	MSA	309.5
BDE	1.6567	BRA	7.3312	BC3	1.1264	FSP	-552	SG1	6123.0	SG2	369.9	THA	177.19	EL1	2100.5	EL2	306.8

SS	655.1	VI	29.446	V2	34.846
CST	-.9974	CLP	-179.16		
SSA	11.6	ALF	2.17		

LAUNCH DATE AUG 22 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 619.108

RL	151.31	LAL	-.00	LOL	328.49	VL	25.902	GAL	14.60	AZL	88.87	HCA	303.95	SMA	122.51	ECC	.33955	INC	1.1313
RP	108.78	LAP	-.94	LOP	272.45	VP	36.835	GAP	18.82	AZP	89.37	TAL	146.66	TAP	90.61	RCA	80.91	APO	164.11
RC	175.059	GL	3.47	GP	11.41	ZAL	32.63	ZAP	168.59	ETS	87.95	ZAE	121.63	ETE	172.76	ZAC	114.29	ETC	266.72

PLANETOCENTRIC CONIC

C3	66.907	VHL	8.180	DLA	-17.54	RAL	297.34	RAD	6569.3	VEL	13.721	PTH	2.51	VHP	11.969	DPA	-12.95	RAP	272.88

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 33 44	1934.35	-11.93	24.47	176.34	115.87	12 5 58	1334.4	-8.36	17.61
90.00	18 45 17	5737.02	27.31	272.10	188.05	97.80	20 20 54	5137.0	28.11	263.53
100.00	12 44 52	1704.82	-13.57	6.76	175.51	116.89	13 13 17	1104.8	-9.85	359.94
100.00	20 16 50	5441.78	29.12	250.65	188.32	97.08	21 47 31	4841.8	29.79	241.91
110.00	13 30 41	1561.24	-17.74	353.54	173.18	119.71	13 56 43	961.2	-13.65	346.81
110.00	21 47 29	5158.13	33.83	229.71	188.91	95.21	23 13 27	4558.1	34.18	220.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.8156	TRA	7.8496	TC3	-.9429	BAU	.8435	SGT	6103.2	SGR	455.7	SG3	147.8	ST	2147.6	SR	306.2
RDE	.4101	RRA	-.4805	RC3	.0145	FAU	.00344	RRT	-.6136	RRF	-.6010	RTF	.9771	CRT	.2770	CRS	-.3331
FDE	.5896	FRA	2.2582	FC3	-.0445	BSP	20678	SGB	6120.2	R23	-.0008	R13	-.9771	LSA	2250.7	MSA	295.9
BDE	1.8613	BRA	7.8643	BC3	.9430	FSP	-524	SG1	6109.6	SG2	359.4	THA	177.37	EL1	2149.3	EL2	293.9

SS	668.8	VI	29.446	V2	34.837
CST	-.9981	CLP	179.75		
SSA	11.2	ALF	2.30		

LAUNCH DATE AUG 23 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 1 1970

HELIOCENTRIC CONIC DISTANCE 158.053

RL	151.28	LAL	-.00	LOL	329.46	VL	22.226	GAL	1.90	AZL	92.64	HCA	63.12	SMA	105.28	ECC	.43794	INC	2.6387	V1	29.452
RP	108.32	LAP	-2.35	LOP	32.55	VP	34.495	GAP	-25.92	AZP	91.19	TAL	177.56	TAP	240.68	RCA	59.17	APO	151.39	V2	34.987
RC	42.355	GL	-7.93	GP	-7.30	ZAL	81.47	ZAP	16.79	ETS	151.90	ZAE	174.67	ETE	175.72	ZAC	91.96	ETC	258.04	CLP	15.17

PLANETOCENTRIC CONIC

C3	54.966	VHL	7.414	DLA	-29.48	RAL	244.86	RAD	6569.0	VEL	13.279	PTH	2.43	VHP	15.507	DPA	-22.43	RAP	223.14	ECC	1.9046		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.45	10 25 58	1370.79	13.34	356.52	130.04	116.53	10 48 48	770.8	16.79	349.47
98.55	12 46 27	917.04	13.35	323.21	130.05	116.53	13 1 44	317.0	16.81	316.15
100.00	12 15 43	1015.41	9.27	328.33	127.88	118.55	12 32 39	415.4	13.01	321.54
100.00	13 39 22	747.65	17.49	312.70	132.10	114.64	13 51 50	147.7	20.67	305.35
110.00	11 51 29	1091.78	-.50	328.13	121.92	124.18	12 9 41	491.8	3.99	321.92
110.00	16 20 6	5532.09	28.05	257.16	136.84	110.39	17 52 18	4932.1	30.56	248.86

DIFFERENTIAL CORRECTIONS

TDE	.1783	TRA	-.8825	TC3	-.0258	BAU	.0190
RDE	-.5731	RRA	-.0116	RC3	.0001	FAU	.01763
FDE	-.1278	FRA	.4301	FC3	-.2777	BSP	2071
BDE	.6002	BRA	.8826	BC3	.0258	FSP	-106

MID-COURSE EXECUTION ACCURACY

SGT	796.4	SGR	443.0	SG3	49.3		
RRT	-.1501	RRF	.1573	RTF	-.6541		
SGB	911.3	R23	-.0173	R13	.6566		
SG1	800.3	SG2	435.8	THA	173.20		

ORBIT DETERMINATION ACCURACY

ST	272.5	SR	442.9	SS	203.3
CRT	-.4998	CRS	-.6455	CST	.9800
LSA	498.2	MSA	251.6	SSA	14.4
EL1	470.1	EL2	222.4	ALF	112.35

LAUNCH DATE AUG 23 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 164.587

RL	151.28	LAL	-.00	LOL	329.46	VL	22.660	GAL	1.73	AZL	92.42	HCA	66.31	SMA	106.93	ECC	.41559	INC	2.4170	V1	29.452		
RP	108.27	LAP	-2.21	LOP	35.75	VP	34.790	GAP	-24.55	AZP	90.97	TAL	177.57	TAP	243.88	RCA	62.49	APO	151.38	V2	35.000		
RC	41.583	GL	-7.88	GP	-7.62	ZAL	81.36	ZAP	15.47	ETS	148.04	ZAE	177.10	ETE	185.58	ZAC	91.87	ETC	258.24	CLP	13.50		

PLANETOCENTRIC CONIC

C3	48.524	VHL	6.966	DLA	-29.45	RAL	244.99	RAD	6568.8	VEL	13.034	PTH	2.38	VHP	14.751	DPA	-23.25	RAP	224.58	ECC	1.7986		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.55	10 27 19	1337.22	14.26	354.51	128.22	116.04	10 49 36	737.2	17.64	347.39
98.45	12 46 10	888.68	14.27	321.58	128.23	116.04	13 0 59	288.7	17.66	314.46
100.00	12 14 54	988.83	10.13	326.83	126.06	118.27	12 31 23	388.8	13.83	319.99
100.00	13 41 16	712.31	18.48	310.55	130.27	113.92	13 53 8	112.3	21.55	303.10
110.00	11 51 39	1062.10	.64	326.58	120.29	124.18	12 9 21	462.1	5.12	320.36
110.00	16 21 1	5499.84	28.80	254.95	134.72	109.27	17 52 41	4899.8	31.15	246.53

DIFFERENTIAL CORRECTIONS

TDE	.1787	TRA	-.8668	TC3	-.0093	BAU	.0070
RDE	-.5442	RRA	-.0043	RC3	-.0053	FAU	.01835
FDE	-.1299	FRA	.4427	FC3	-.3273	BSP	2211
BDE	.5728	BRA	.8668	BC3	.0108	FSP	-119

MID-COURSE EXECUTION ACCURACY

SGT	831.9	SGR	447.7	SG3	54.2		
RRT	-.1675	RRF	.1761	RTF	-.6742		
SGB	944.7	R23	-.0198	R13	.6769		
SG1	836.6	SG2	438.9	THA	172.88		

ORBIT DETERMINATION ACCURACY

ST	286.3	SR	447.6	SS	210.7
CRT	-.5112	CRS	-.6440	CST	.9828
LSA	509.4	MSA	258.9	SSA	14.8
EL1	479.0	EL2	229.9	ALF	113.95

LAUNCH DATE AUG 23 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 171.164

RL	151.28	LAL	-.00	LOL	329.46	VL	23.062	GAL	1.54	AZL	92.21	HCA	69.51	SMA	108.54	ECC	.39452	INC	2.2057	V1	29.452		
RP	108.23	LAP	-2.07	LOP	38.95	VP	35.067	GAP	-23.24	AZP	90.77	TAL	177.64	TAP	247.14	RCA	65.72	APO	151.36	V2	35.013		
RC	40.971	GL	-7.79	GP	-7.98	ZAL	81.36	ZAP	14.24	ETS	143.39	ZAE	178.91	ETE	251.45	ZAC	91.75	ETC	258.46	CLP	11.83		

PLANETOCENTRIC CONIC

C3	42.885	VHL	6.549	DLA	-29.36	RAL	245.00	RAD	6568.6	VEL	12.816	PTH	2.33	VHP	14.028	DPA	-24.09	RAP	226.01	ECC	1.7058		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.92	10 30 13	1297.03	15.13	351.97	126.24	115.46	10 51 50	697.0	18.44	344.78
98.08	12 43 21	866.84	15.15	320.40	126.25	115.45	12 57 48	266.8	18.45	313.20
100.00	12 10 34	971.91	10.67	325.86	123.94	118.09	12 26 46	371.9	14.35	319.00
100.00	13 45 41	667.19	19.70	307.75	128.40	112.95	13 56 48	67.2	22.64	300.19
110.00	11 50 22	1035.51	1.65	325.19	118.47	124.15	12 7 38	435.5	6.12	318.96
110.00	16 22 22	5464.40	29.57	252.48	132.44	107.99	17 53 26	4864.4	31.74	243.94

DIFFERENTIAL CORRECTIONS

TDE	.1797	TRA	-.8508	TC3	.0121	BAU	.0100
RDE	-.5162	RRA	.0024	RC3	-.0126	FAU	.01914
FDE	-.1320	FRA	.4554	FC3	-.3864	BSP	2354
BDE	.5466	BRA	.8508	BC3	.0175	FSP	-134

MID-COURSE EXECUTION ACCURACY

SGT	868.6	SGR	452.0	SG3	59.8		
RRT	-.1869	RRF	.1972	RTF	-.6935		
SGB	979.1	R23	-.0229	R13	.6965		
SG1	874.1	SG2	441.2	THA	172.53		

ORBIT DETERMINATION ACCURACY

ST	300.6	SR	451.7	SS	218.1
CRT	-.5244	CRS	-.6431	CST	.9855
LSA	520.9	MSA	265.3	SSA	15.1
EL1	488.1	EL2	236.8	ALF	115.71

LAUNCH DATE AUG 23 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 177.780

RL	151.28	LAL	-.00	LOL	329.46	VL	23.434	GAL	1.34	AZL	92.00	HCA	72.70	SMA	110.10	ECC	.37469	INC	2.0029	V1	29.452		
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.325	GAP	-21.98	AZP	90.60	TAL	177.76	TAP	250.47	RCA	68.84	APO	151.35	V2	35.027		
RC	40.525	GL	-7.64	GP	-8.38	ZAL	81.49	ZAP	13.14	ETS	137.76	ZAE	177.06	ETE	320.71	ZAC	91.58	ETC	258.68	CLP	10.16		

PLANETOCENTRIC CONIC

C3	37.950	VHL	6.160	DLA	-29.19	RAL	244.89	RAD	6568.5	VEL	12.622	PTH	2.29	VHP	13.335	DPA	-24.96	RAP	227.44	ECC	1.6246		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.61	10 35 16	1248.42	15.94	348.77	124.11	114.78	10 56 5	648.4	19.15	341.50
97.39	12 37 22	853.72	15.95	319.82	124.12	114.77	12 51 35	253.7	19.16	312.55
100.00	12 3 9	963.51	10.94	325.38	121.57	117.99	12 19 13	363.5	14.60	318.51
100.00	13 52 10	613.87	21.08	304.39	126.44	111.70	14 2 24	13.9	23.84	296.68
110.00	11 47 36	1012.45	2.54	323.99	116.48	124.10	12 4 29	412.5	6.99	317.74
110.00	16 24 12	5425.72	30.35	249.74	130.00	106.54	17 54 38	4825.7	32.31	241.07

DIFFERENTIAL CORRECTIONS

TDE	.1809	TRA	-.8346	TC3	.0396	BAU	.0230
RDE	-.4892	RRA	.0087	RC3	-.0223	FAU	.02003
FDE	-.1335	FRA	.4683	FC3	-.4569	BSP	2496
BDE	.5216	BRA	.8347	BC3	.0454	FSP	-151

MID-COURSE EXECUTION ACCURACY

SGT	906.2	SGR	455.9	SG3	65.9		
RRT	-.2084	RRF	.2203	RTF	-.7121		
SGB	1014.5	R23	-.0260	R13	.7154		
SG1	912.8	SG2	442.7	THA	172.16		

ORBIT DETERMINATION ACCURACY

ST	315.4	SR	455.0	SS	224.9
CRT	-.5385	CRS	-.6410	CST	.9882
LSA	532.3	MSA	271.1	SSA	15.5
EL1	497.4	EL2	243.1	ALF	117.58

LAUNCH DATE AUG 23 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 184.430

RL	151.28	LAL	-.00	LOL	329.46	VL	23.777	GAL	1.13	AZL	91.81	HCA	75.91	SMA	111.60	ECC	.35608	INC	1.8069	V1	29.452
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.567	GAP	-20.79	AZP	90.44	TAL	177.95	TAP	253.86	RCA	71.86	APO	151.33	V2	35.040
RC	40.252	GL	-7.43	GP	-8.81	ZAL	81.74	ZAP	12.20	ETS	131.03	ZAE	174.34	ETE	330.87	ZAC	91.36	ETC	258.90	CLP	8.47

PLANETOCENTRIC CONIC

C3	33.633	VHL	5.799	DLA	-28.94	RAL	244.64	RAD	6568.3	VEL	12.450	PTH	2.25	VHP	12.672	DPA	-25.85	RAP	228.86	ECC	1.5535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.79	10 43 44	1187.60	16.67	344.63	121.84	114.00	11 3 31	587.6	19.77	337.29
96.21	12 26 59	853.54	16.68	320.15	121.85	113.99	12 41 12	253.5	19.78	312.80
100.00	11 53 14	962.06	10.99	325.30	118.99	117.97	12 9 16	362.1	14.65	318.42
100.00	14 0 9	5842.35	22.53	278.47	124.36	110.18	15 37 32	5242.4	25.07	270.59
110.00	11 43 17	993.39	3.26	322.99	114.32	124.05	11 59 50	393.4	7.71	316.73
110.00	16 26 36	5383.78	31.12	246.71	127.41	104.91	17 56 20	4783.8	32.85	237.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1823	TRA	-.8180	TC3	.0738	BAU	.0367	SGT	944.7	SGR	459.7	SG3	72.6	ST	330.5	SR	457.7	SS	231.6
RDE	-.4632	RRA	.0145	RC3	-.0348	FAU	.02100	RRT	-.2326	RRF	.2467	RTF	-.7300	CRT	-.5541	CRS	-.6392	CST	.9908
FDE	-.1351	FRA	.4815	FC3	-.5406	BSP	2652	SGB	1050.7	R23	-.0296	R13	.7337	LSA	544.1	MSA	275.8	SSA	15.8
BDE	.4978	BRA	.8181	BC3	.0816	FSP	-169	SG1	952.5	SG2	443.5	THA	171.74	EL1	507.0	EL2	248.4	ALF	119.56

LAUNCH DATE AUG 23 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 191.109

RL	151.28	LAL	-.00	LOL	329.46	VL	24.093	GAL	.92	AZL	91.62	HCA	79.11	SMA	113.04	ECC	.33867	INC	1.6162	V1	29.452
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.792	GAP	-19.64	AZP	90.31	TAL	178.21	TAP	257.31	RCA	74.75	APO	151.32	V2	35.053
RC	40.156	GL	-7.14	GP	-9.29	ZAL	82.10	ZAP	11.48	ETS	123.10	ZAE	171.51	ETE	334.02	ZAC	91.08	ETC	259.14	CLP	6.77

PLANETOCENTRIC CONIC

C3	29.860	VHL	5.464	DLA	-28.59	RAL	244.28	RAD	6568.2	VEL	12.298	PTH	2.22	VHP	12.038	DPA	-26.77	RAP	230.27	ECC	1.4914

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.87	10 59 19	1102.64	17.29	338.67	119.43	113.13	11 17 42	502.6	20.27	331.25
94.13	12 8 29	878.64	17.30	322.28	119.44	113.12	12 23 7	278.6	20.29	314.85
100.00	11 41 18	966.36	10.85	325.55	116.26	118.02	11 57 24	366.4	14.52	318.67
100.00	14 9 11	5778.19	23.97	274.25	122.14	108.41	15 45 29	5178.2	26.27	266.20
110.00	11 37 21	978.73	3.82	322.23	112.00	123.99	11 53 40	378.7	8.26	315.95
110.00	16 29 37	5338.58	31.87	243.40	124.66	103.08	17 58 35	4738.6	33.34	234.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1834	TRA	-.8011	TC3	.1155	BAU	.0504	SGT	984.0	SGR	463.5	SG3	80.1	ST	345.5	SR	459.6	SS	237.4
RDE	-.4383	RRA	.0200	RC3	-.0510	FAU	.02209	RRT	-.2592	RRF	.2759	RTF	-.7465	CRT	-.5696	CRS	-.6360	CST	.9930
FDE	-.1358	FRA	.4946	FC3	-.6403	BSP	2785	SGB	1087.7	R23	-.0341	R13	.7506	LSA	555.5	MSA	279.6	SSA	16.2
BDE	.4751	BRA	.8014	BC3	.1262	FSP	-189	SG1	993.1	SG2	443.5	THA	171.29	EL1	516.5	EL2	252.7	ALF	121.54

LAUNCH DATE AUG 23 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 197.813

RL	151.28	LAL	-.00	LOL	329.46	VL	24.385	GAL	.70	AZL	91.43	HCA	82.32	SMA	114.41	ECC	.32242	INC	1.4294	V1	29.452
RP	108.07	LAP	-1.42	LOP	51.77	VP	36.002	GAP	-18.55	AZP	90.19	TAL	178.52	TAP	260.83	RCA	77.52	APO	151.30	V2	35.066
RC	40.238	GL	-6.78	GP	-9.83	ZAL	82.60	ZAP	11.03	ETS	114.10	ZAE	168.66	ETE	335.24	ZAC	90.75	ETC	259.37	CLP	5.04

PLANETOCENTRIC CONIC

C3	26.564	VHL	5.154	DLA	-28.14	RAL	243.80	RAD	6568.1	VEL	12.163	PTH	2.18	VHP	11.430	DPA	-27.73	RAP	231.65	ECC	1.4372

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 4 33	1050.45	15.52	334.05	115.90	113.99	11 22 3	450.5	18.63	326.76
90.00	11 59 23	872.49	20.11	323.01	117.87	110.37	12 13 56	272.5	22.70	315.30
100.00	11 27 40	975.68	10.55	326.08	113.41	118.13	11 43 55	375.7	14.23	319.22
100.00	14 18 58	5710.53	25.35	269.70	119.76	106.39	15 54 8	5110.5	27.36	261.47
110.00	11 29 50	968.82	4.20	321.71	109.56	123.96	11 45 59	368.8	8.63	315.42
110.00	16 33 16	5290.16	32.56	239.79	121.77	101.04	18 1 26	4690.2	33.74	230.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1848	TRA	-.7840	TC3	.1660	BAU	.0642	SGT	1023.9	SGR	467.6	SG3	88.4	ST	360.8	SR	460.8	SS	243.0
RDE	-.4144	RRA	.0253	RC3	-.0716	FAU	.02330	RRT	-.2899	RRF	.3093	RTF	-.7627	CRT	-.5865	CRS	-.6322	CST	.9949
FDE	-.1362	FRA	.5089	FC3	-.7594	BSP	2939	SGB	1125.7	R23	-.0389	R13	.7672	LSA	567.1	MSA	282.3	SSA	16.7
BDE	.4538	BRA	.7844	BC3	.1808	FSP	-212	SG1	1034.9	SG2	442.8	THA	170.75	EL1	526.4	EL2	255.8	ALF	123.58

LAUNCH DATE AUG 23 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 204.536

RL	151.28	LAL	-.00	LOL	329.46	VL	24.654	GAL	.49	AZL	91.25	HCA	85.52	SMA	115.73	ECC	.30730	INC	1.2453	V1	29.452
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.197	GAP	-17.50	AZP	90.10	TAL	178.89	TAP	264.42	RCA	80.17	APO	151.29	V2	35.079
RC	40.497	GL	-6.32	GP	-10.41	ZAL	83.21	ZAP	10.91	ETS	104.37	ZAE	165.84	ETE	335.64	ZAC	90.34	ETC	259.61	CLP	3.29

PLANETOCENTRIC CONIC

C3	23.690	VHL	4.867	DLA	-27.58	RAL	243.20	RAD	6568.0	VEL	12.044	PTH	2.15	VHP	10.849	DPA	-28.72	RAP	233.01	ECC	1.3899

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 33 4	1117.34	13.63	338.05	112.29	115.06	10 51 41	517.3	16.89	330.90
90.00	12 26 7	749.18	22.82	314.99	116.03	107.24	12 38 36	149.2	24.96	306.97
100.00	11 12 34	989.66	10.10	326.87	110.48	118.28	11 29 4	389.7	13.81	320.04
100.00	14 29 18	5640.13	26.61	264.85	117.20	104.14	16 3 18	5040.1	28.30	256.45
110.00	11 20 45	963.97	4.38	321.45	107.01	123.94	11 36 49	364.0	8.81	315.16
110.00	16 37 37	5238.58	33.16	235.89	118.74	98.81	18 4 55	4638.6	34.02	226.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1856	TRA	-.7666	TC3	.2271	BAU	.0783	SGT	1064.6	SGR	472.4	SG3	97.7	ST	375.6	SR	461.1	SS	247.5
RDE	-.3916	RRA	.0304	RC3	-.0976	FAU	.02466	RRT	-.3239	RRF	.3466	RTF	-.7781	CRT	-.6030	CRS	-.6265	CST	.9961
FDE	-.1358	FRA	.5233	FC3	-.9013	BSP	3123	SGB	1164.7	R23	-.0446	R13	.7832	LSA	577.9	MSA	284.1	SSA	17.1
BDE	.4333	BRA	.7672	BC3	.2472	FSP	-240	SG1	1077.8	SG2	441.4	THA	170.15	EL1	536.0	EL2	257.8	ALF	125.55

LAUNCH DATE AUG 23 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 211.275
RL 151.28 LAL -.00 LOL 329.46 VL 24.901 GAL .28 AZL 91.06 HCA 88.73 SMA 116.98 ECC .29326 INC 1.0627 V1 29.452
RP 107.99 LAP -1.06 LOP 58.19 VP 36.378 GAP -16.49 AZP 90.02 TAL 179.32 TAP 268.06 RCA 82.67 APO 151.28 V2 35.092
RC- 40.930 GL -5.76 GP -11.07 ZAL 83.94 ZAP 11.17 ETS 94.49 ZAE 163.09 ETE 335.59 ZAC 89.87 ETC 259.84 CLP 1.50
PLANETOCENTRIC CONIC
C3 21.188 VHL 4.603 DLA -26.90 RAL 242.50 RAD 6567.9 VEL 11.940 PTH 2.12 VHP 10.294 DPA -29.76 RAP 234.33 ECC 1.3487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 8 11	1163.27	12.29	340.76	108.95	115.71	10 27 35	563.3	15.65	333.69
90.00	12 45 25	649.09	24.68	308.24	113.70	104.35	12 56 14	49.1	26.41	300.00
100.00	10 56 12	1008.17	9.50	327.92	107.51	118.47	11 13 0	408.2	13.24	321.12
100.00	14 40 5	5567.46	27.72	259.73	114.49	101.66	16 12 53	4967.5	29.05	251.18
110.00	11 10 8	964.43	4.36	321.48	104.37	123.94	11 26 12	364.4	8.79	315.18
110.00	16 42 39	5183.96	33.65	231.70	115.58	96.38	18 9 3	4584.0	34.17	222.50

DIFFERENTIAL CORRECTIONS
TDE .1843 TRA -.7492 TC3 .2965 BAU .0917
RDE -.3694 RRA .0356 RC3 -.1298 FAU .02613
FDE -.1321 FRA .5391 FC3-1.0676 BSP 3231
BDE .4128 BRA .7500 BC3 .3236 FSP -266

MID-COURSE EXECUTION ACCURACY
SGT 1104.7 SGR 477.7 SG3 107.9
RRT -.3602 RRF .3864 RTF -.7921
SGB 1203.6 R23 -.0507 R13 .7979
SG1 1120.5 SG2 439.3 THA 169.52

ORBIT DETERMINATION ACCURACY
ST 388.7 SR 460.1 SS 249.7
CRT -.6161 CRS -.6120 CST .9965
LSA 585.8 MSA 285.8 SSA 17.7
EL1 543.7 EL2 259.0 ALF 127.31

LAUNCH DATE AUG 23 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 218.025
RL 151.28 LAL -.00 LOL 329.46 VL 25.128 GAL .07 AZL 90.88 HCA 91.95 SMA 118.16 ECC .28027 INC .8803 V1 29.452
RP 107.95 LAP -.88 LOP 61.41 VP 36.546 GAP -15.52 AZP 89.97 TAL 179.81 TAP 271.76 RCA 85.04 APO 151.28 V2 35.105
RC 41.530 GL -5.08 GP -11.79 ZAL 84.78 ZAP 11.80 ETS 85.12 ZAE 160.43 ETE 335.23 ZAC 89.31 ETC 260.08 CLP -.32
PLANETOCENTRIC CONIC
C3 19.013 VHL 4.360 DLA -26.07 RAL 241.71 RAD 6567.8 VEL 11.849 PTH 2.10 VHP 9.764 DPA -30.85 RAP 235.61 ECC 1.3129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 44 52	1205.02	11.04	343.19	105.72	116.24	10 4 57	605.0	14.48	336.20
90.00	13 2 25	5843.80	26.09	279.68	111.11	101.41	14 39 49	5243.8	27.41	271.26
100.00	10 38 41	1031.23	8.75	329.22	104.51	118.70	10 55 52	431.2	12.52	322.45
100.00	14 51 18	5492.82	28.63	254.37	111.63	98.98	16 22 51	4892.8	29.58	245.69
110.00	10 58 4	970.40	4.14	321.79	101.68	123.96	11 14 15	370.4	8.57	315.50
110.00	16 48 24	5126.42	34.00	227.25	112.33	93.76	18 13 50	4526.4	34.15	218.00

DIFFERENTIAL CORRECTIONS
TDE .1767 TRA -.7340 TC3 .3737 BAU .1044
RDE -.3473 RRA .0415 RC3 -.1700 FAU .02780
FDE -.1217 FRA .5592 FC3-1.2658 BSP 3323
BDE .3896 BRA .7352 BC3 .4106 FSP -288

MID-COURSE EXECUTION ACCURACY
SGT 1145.9 SGR 483.7 SG3 119.5
RRT -.3960 RRF .4281 RTF -.8046
SGB 1243.8 R23 -.0600 R13 .8111
SG1 1164.5 SG2 437.0 THA 168.93

ORBIT DETERMINATION ACCURACY
ST 397.2 SR 456.7 SS 248.7
CRT -.6166 CRS -.5764 CST .9950
LSA 586.1 MSA 290.4 SSA 18.3
EL1 545.8 EL2 261.7 ALF 128.60

LAUNCH DATE AUG 23 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 224.783
RL 151.28 LAL -.00 LOL 329.46 VL 25.336 GAL -.13 AZL 90.70 HCA 95.16 SMA 119.28 ECC .26829 INC .6971 V1 29.452
RP 107.91 LAP -.69 LOP 64.62 VP 36.702 GAP -14.59 AZP 89.94 TAL 180.35 TAP 275.51 RCA 87.28 APO 151.28 V2 35.117
RC 42.291 GL -4.27 GP -12.60 ZAL 85.73 ZAP 12.78 ETS 76.73 ZAE 157.89 ETE 334.63 ZAC 88.65 ETC 260.31 CLP -2.18
PLANETOCENTRIC CONIC
C3 17.128 VHL 4.139 DLA -25.10 RAL 240.84 RAD 6567.7 VEL 11.769 PTH 2.08 VHP 9.258 DPA -32.00 RAP 236.83 ECC 1.2819

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 21 58	1246.79	9.77	345.61	102.56	116.71	9 42 45	646.8	13.28	338.68
90.00	13 18 24	5753.32	27.15	273.27	108.33	98.36	14 54 17	5153.3	28.03	264.71
100.00	10 20 9	1058.93	7.84	330.77	101.54	118.94	10 37 48	458.9	11.65	324.05
100.00	15 2 54	5416.41	29.32	248.79	108.64	96.12	16 33 10	4816.4	29.85	240.03
110.00	10 44 40	982.04	3.69	322.40	98.98	124.01	11 1 2	382.0	8.13	316.12
110.00	16 54 53	5066.07	34.17	222.54	108.99	90.98	18 19 19	4466.1	33.93	213.30

DIFFERENTIAL CORRECTIONS
TDE .1848 TRA -.7051 TC3 .4787 BAU .1207
RDE -.3286 RRA .0448 RC3 -.2212 FAU .02984
FDE -.1242 FRA .5643 FC3-1.5082 BSP 3675
BDE .3770 BRA .7065 BC3 .5273 FSP -346

MID-COURSE EXECUTION ACCURACY
SGT 1176.6 SGR 495.2 SG3 131.9
RRT -.4509 RRF .4838 RTF -.8172
SGB 1276.5 R23 -.0642 R13 .8249
SG1 1200.8 SG2 433.1 THA 167.62

ORBIT DETERMINATION ACCURACY
ST 412.5 SR 455.5 SS 250.3
CRT -.6551 CRS -.5876 CST .9925
LSA 600.3 MSA 282.0 SSA 19.0
EL1 559.7 EL2 253.6 ALF 130.69

LAUNCH DATE AUG 23 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 231.544
RL 151.28 LAL -.00 LOL 329.46 VL 25.527 GAL -.32 AZL 90.51 HCA 98.38 SMA 120.33 ECC .25726 INC .5119 V1 29.452
RP 107.88 LAP -.51 LOP 67.84 VP 36.845 GAP -13.70 AZP 89.93 TAL 180.93 TAP 279.31 RCA 89.37 APO 151.29 V2 35.129
RC 43.202 GL -3.32 GP -13.50 ZAL 86.78 ZAP 14.10 ETS 69.53 ZAE 155.49 ETE 333.83 ZAC 87.89 ETC 260.53 CLP -4.10
PLANETOCENTRIC CONIC
C3 15.500 VHL 3.937 DLA -23.96 RAL 239.91 RAD 6567.6 VEL 11.700 PTH 2.06 VHP 8.777 DPA -33.22 RAP 237.98 ECC 1.2551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 59 4	1290.48	8.43	348.11	99.51	117.13	9 20 34	690.5	12.00	341.25
90.00	13 33 54	5664.05	27.87	266.84	105.41	95.21	15 8 18	5064.0	28.30	258.20
100.00	10 0 44	1091.39	6.77	332.59	98.61	119.18	10 18 55	491.4	10.61	325.90
100.00	15 14 55	5338.36	29.74	243.03	105.56	93.12	16 43 53	4738.4	29.86	234.23
110.00	10 30 3	999.45	3.03	323.31	96.30	124.06	10 46 43	399.5	7.48	317.05
110.00	17 2 5	5003.07	34.14	217.62	105.62	88.07	18 25 29	4403.1	33.49	208.44

DIFFERENTIAL CORRECTIONS
TDE .1764 TRA -.6924 TC3 .5782 BAU .1332
RDE -.3082 RRA .0516 RC3 -.2812 FAU .03185
FDE -.1097 FRA .5884 FC3-1.7787 BSP 3811
BDE .3551 BRA .6943 BC3 .6429 FSP -385

MID-COURSE EXECUTION ACCURACY
SGT 1220.2 SGR 506.9 SG3 146.2
RRT -.4955 RRF .5346 RTF -.8288
SGB 1321.3 R23 -.0754 R13 .8376
SG1 1249.3 SG2 430.0 THA 166.77

ORBIT DETERMINATION ACCURACY
ST 418.9 SR 449.3 SS 247.2
CRT -.6555 CRS -.5381 CST .9852
LSA 596.9 MSA 285.8 SSA 19.7
EL1 559.2 EL2 254.2 ALF 131.95

LAUNCH DATE AUG 23 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 238.306

RL	151.28	LAL	-.00	LOL	329.46	VL	25.702	GAL	-.51	AZL	90.32	HCA	101.60	SMA	121.31	ECC	.24716	INC	.3234	V1	29.452
RP	107.84	LAP	-.32	LOP	71.06	VP	36.978	GAP	-12.84	AZP	89.93	TAL	181.55	TAP	283.15	RCA	91.33	APO	151.30	V2	35.141
RC	44.254	GL	-2.22	GP	-14.51	ZAL	87.91	ZAP	15.71	ETS	63.54	ZAE	153.24	ETE	332.83	ZAC	87.02	ETC	260.74	CLP	-6.08

PLANETOCENTRIC CONIC

C3	14.099	VHL	3.755	DLA	-22.64	RAL	238.95	RAD	6567.6	VEL	11.640	PTH	2.04	VHP	8.320	DPA	-34.52	RAP	239.06	ECC	1.2320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 59	1337.15	6.97	350.76	96.57	117.52	8 58 16	737.2	10.60	343.97
90.00	13 49 16	5575.13	28.25	260.36	102.41	91.99	15 22 11	4975.1	28.23	251.70
100.00	9 40 33	1128.77	5.53	334.66	95.78	119.42	9 59 21	528.8	9.40	328.02
100.00	15 27 23	5258.75	29.89	237.12	102.45	90.01	16 55 2	4658.7	29.57	228.33
110.00	10 14 22	1022.75	2.14	324.53	93.68	124.12	10 31 24	422.7	6.61	318.29
110.00	17 10 4	4937.53	33.87	212.52	102.24	85.07	18 32 21	4337.5	32.81	203.44

DIFFERENTIAL CORRECTIONS

TDE	.1689	TRA	-.6742	TC3	.6891	BAU	.1460				
RDE	-.2883	RRA	.0579	RC3	-.3541	FAU	.03409				
FDE	-.0917	FRA	.6088	FC3	-2.0933	BSP	3934				
BDE	.3341	BRA	.6767	BC3	.7747	FSP	-428				

MID-COURSE EXECUTION ACCURACY

SGT	1255.6	SGR	522.9	SG3	161.7						
RRT	-.5449	RRF	.5885	RTF	-.8388						
SGB	1360.2	R23	-.0855	R13	.8490						
SG1	1291.7	SG2	426.2	THA	165.62						

ORBIT DETERMINATION ACCURACY

ST	422.5	SR	440.9	SS	241.7						
CRT	-.6609	CRS	-.4766	CST	.9702						
LSA	590.2	MSA	287.3	SSA	20.5						
EL1	556.6	EL2	251.2	ALF	133.15						

LAUNCH DATE AUG 23 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 245.065

RL	151.28	LAL	-.00	LOL	329.46	VL	25.861	GAL	-.68	AZL	90.13	HCA	104.82	SMA	122.23	ECC	.23793	INC	.1299	V1	29.452
RP	107.81	LAP	-.13	LOP	74.28	VP	37.099	GAP	-12.01	AZP	89.97	TAL	182.19	TAP	287.02	RCA	93.15	APO	151.31	V2	35.152
RC	45.436	GL	-.94	GP	-15.64	ZAL	89.12	ZAP	17.57	ETS	58.63	ZAE	151.14	ETE	331.63	ZAC	86.01	ETC	260.94	CLP	-8.13

PLANETOCENTRIC CONIC

C3	12.900	VHL	3.592	DLA	-21.15	RAL	237.96	RAD	6567.5	VEL	11.588	PTH	2.03	VHP	7.888	DPA	-35.91	RAP	240.03	ECC	1.2123

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 41	1387.53	5.37	353.61	93.78	117.84	8 35 49	787.5	9.06	346.87
90.00	14 4 42	5486.05	28.29	253.85	99.40	88.73	15 36 8	4886.0	27.81	245.21
100.00	9 19 43	1171.21	4.10	337.01	93.08	119.64	9 39 14	571.2	8.02	330.41
100.00	15 40 22	5177.60	29.74	231.09	99.33	86.84	17 6 39	4577.6	28.99	222.37
110.00	9 57 45	1051.99	1.02	326.05	91.17	124.17	10 15 17	452.0	5.50	319.83
110.00	17 18 49	4869.59	33.35	207.29	98.92	82.01	18 39 58	4269.6	31.88	198.36

DIFFERENTIAL CORRECTIONS

TDE	.1590	TRA	-.6567	TC3	.8116	BAU	.1594				
RDE	-.2684	RRA	.0652	RC3	-.4423	FAU	.03663				
FDE	-.0679	FRA	.6321	FC3	-2.4587	BSP	4095				
BDE	.3119	BRA	.6599	BC3	.9243	FSP	-480				

MID-COURSE EXECUTION ACCURACY

SGT	1290.6	SGR	544.7	SG3	179.2						
RRT	-.5962	RRF	.6447	RTF	-.8488						
SGB	1400.9	R23	-.0967	R13	.8607						
SG1	1335.6	SG2	422.6	THA	164.26						

ORBIT DETERMINATION ACCURACY

ST	422.1	SR	429.5	SS	235.8						
CRT	-.6620	CRS	-.3886	CST	.9428						
LSA	577.6	MSA	290.2	SSA	21.4						
EL1	549.0	EL2	247.5	ALF	134.24						

LAUNCH DATE AUG 23 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 251.818

RL	151.28	LAL	-.00	LOL	329.46	VL	26.006	GAL	-.85	AZL	89.93	HCA	108.05	SMA	123.08	ECC	.22952	INC	.0664	V1	29.452
RP	107.77	LAP	.06	LOP	77.50	VP	37.211	GAP	-11.21	AZP	90.02	TAL	182.86	TAP	290.91	RCA	94.83	APO	151.34	V2	35.163
RC	46.738	GL	.51	GP	-16.90	ZAL	90.38	ZAP	19.69	ETS	54.61	ZAE	149.19	ETE	330.23	ZAC	84.85	ETC	261.12	CLP	-10.25

PLANETOCENTRIC CONIC

C3	11.880	VHL	3.447	DLA	-19.46	RAL	236.98	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	7.479	DPA	-37.40	RAP	240.89	ECC	1.1955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 11	1442.13	3.63	356.67	91.18	118.10	8 13 13	842.1	7.36	349.98
90.00	14 20 24	5396.45	27.98	247.31	96.42	85.46	15 50 20	4796.4	27.06	238.77
100.00	8 58 22	1218.88	2.49	339.63	90.55	119.80	9 18 40	618.9	6.44	333.07
100.00	15 53 54	5094.94	29.27	224.99	96.28	83.67	17 18 49	4494.9	28.09	216.39
110.00	9 40 22	1087.22	-.32	327.89	88.80	124.18	9 58 30	487.2	4.16	321.68
110.00	17 28 23	4799.36	32.56	201.96	95.70	78.95	18 48 22	4199.4	30.69	193.24

DIFFERENTIAL CORRECTIONS

TDE	.1463	TRA	-.6396	TC3	.9390	BAU	.1726				
RDE	-.2479	RRA	.0735	RC3	-.5473	FAU	.03943				
FDE	-.0364	FRA	.6578	FC3	-2.8736	BSP	4261				
BDE	.2879	BRA	.6438	BC3	1.0869	FSP	-539				

MID-COURSE EXECUTION ACCURACY

SGT	1322.7	SGR	573.6	SG3	198.4						
RRT	-.6466	RRF	.7005	RTF	-.8576						
SGB	1441.7	R23	-.1096	R13	.8718						
SG1	1379.3	SG2	419.6	THA	162.68						

ORBIT DETERMINATION ACCURACY

ST	417.1	SR	414.1	SS	231.4						
CRT	-.6577	CRS	-.2639	CST	.8942						
LSA	557.9	MSA	295.2	SSA	22.4						
EL1	535.1	EL2	243.1	ALF	135.31						

LAUNCH DATE AUG 23 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 258.563

RL	151.28	LAL	-.00	LOL	329.46	VL	26.138	GAL	-1.01	AZL	89.73	HCA	111.27	SMA	123.87	ECC	.22190	INC	.2742	V1	29.452
RP	107.74	LAP	.26	LOP	80.73	VP	37.313	GAP	-10.44	AZP	90.10	TAL	183.55	TAP	294.82	RCA	96.39	APO	151.36	V2	35.174
RC	48.150	GL	2.16	GP	-18.32	ZAL	91.67	ZAP	22.04	ETS	51.34	ZAE	147.37	ETE	328.59	ZAC	83.53	ETC	261.28	CLP	-12.47

PLANETOCENTRIC CONIC

C3	11.022	VHL	3.320	DLA	-17.56	RAL	236.03	RAD	6567.4	VEL	11.507	PTH	2.00	VHP	7.096	DPA	-39.02	RAP	241.61	ECC	1.1814

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 25 30	1501.38	1.72	359.98	88.81	118.27	7 50 31	901.4	5.49	353.33
90.00	14 36 31	5306.06	27.32	240.78	93.55	82.25	16 4 57	4706.1	25.97	232.38
100.00	8 36 37	1271.92	.69	342.54	88.24	119.89	8 57 49	671.9	4.67	336.01
100.00	16 8 6	5010.74	28.49	218.86	93.35	80.53	17 31 36	4410.7	26.88	210.42
110.00	9 22 23	1128.50	-1.90	330.04	86.61	124.14	9 41 12	528.5	2.59	323.84
110.00	17 38 48	4726.93	31.48	196.59	92.63	75.94	18 57 35	4126.9	29.23	188.10

DIFFERENTIAL CORRECTIONS

TDE	.1306	TRA	-.6222	TC3	1.0656	BAU	.1855				
RDE	-.2262	RRA	.0829	RC3	-.6704	FAU	.04244				
FDE	.0058	FRA	.6850	FC3	-3.3337	BSP	4402				
BDE	.2612	BRA	.6277	BC3	1.2590	FSP	-601				

MID-COURSE EXECUTION ACCURACY

SGT	1349.0	SGR	610.8	SG3	219.2						
RRT	-.6941	RRF	.7534	RTF	-.8649						
SGB	1480.8	R23	-.1236	R13	.8821						
SG1	1420.8	SG2	417.5	THA	160.83						

ORBIT DETERMINATION ACCURACY

ST	406.7	SR	393.2	SS	231.8						
CRT	-.6470	CRS	-.0924	CST	.8121						
LSA	530.0	MSA	303.7	SSA	23.5						
EL1	513.4	EL2	237.5	ALF	136.49						

LAUNCH DATE AUG 23 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 265.297

RL	151.28	LAL	-.00	LOL	329.46	VL	26.258	GAL	-1.16	AZL	89.51	HCA	114.50	SMA	124.60	ECC	.21501	INC	.4900	V1	29.452
RP	107.71	LAP	.45	LOP	83.96	VP	37.406	GAP	-9.70	AZP	90.20	TAL	184.23	TAP	298.73	RCA	97.81	APO	151.39	V2	35.184
RC	49.661	GL	4.01	GP	-19.91	ZAL	92.97	ZAP	24.62	ETS	48.65	ZAE	145.68	ETE	326.71	ZAC	82.02	ETC	261.41	CLP	-14.79

PLANETOCENTRIC CONIC

C3	10.310	VHL	3.211	DLA	-15.47	RAL	235.14	RAD	6567.4	VEL	11.476	PTH	1.99	VHP	6.739	DPA	-40.79	RAP	242.16	ECC	1.1697

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 42	1565.62	-.35	3.57	86.69	118.32	7 27 48	965.6	3.44	356.93
90.00	14 53 13	5214.66	26.32	234.28	90.86	79.15	16 20 7	4614.7	24.55	226.06
100.00	8 14 34	1330.52	-1.29	345.76	86.17	119.87	8 36 45	730.5	2.69	339.24
100.00	16 23 2	4924.99	27.37	212.73	90.61	77.49	17 45 7	4325.0	25.37	204.50
110.00	9 3 56	1175.87	-3.71	332.52	84.66	124.01	9 23 32	575.9	.78	326.31
110.00	17 50 9	4652.41	30.12	191.21	89.79	73.02	19 7 41	4052.4	27.51	182.99

DIFFERENTIAL CORRECTIONS

TDE	.1108	TRA	-.6079	TC3	1.1794	BAU	.1974
RDE	-.2025	RRA	.0946	RC3	-.8123	FAU	.04560
FDE	.0605	FRA	.7191	FC3	-3.8294	BSP	4518
BDE	.2308	BRA	.6152	BC3	1.4321	FSP	-669

MID-COURSE EXECUTION ACCURACY

SGT	1370.9	SGR	658.3	SG3	241.8		
RRT	-.7355	RRF	.8018	RTF	-.8705		
SGB	1520.8	R23	-.1407	R13	.8915		
SG1	1462.2	SG2	418.2	THA	158.72		

ORBIT DETERMINATION ACCURACY

ST	392.0	SR	365.4	SS	244.7
CRT	-.6252	CRS	.1097	CST	.6993
LSA	494.7	MSA	318.9	SSA	24.5
EL1	483.4	EL2	231.2	ALF	138.20

LAUNCH DATE AUG 23 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 272.019

RL	151.28	LAL	-.00	LOL	329.46	VL	26.365	GAL	-1.29	AZL	89.28	HCA	117.73	SMA	125.27	ECC	.20881	INC	.7175	V1	29.452
RP	107.68	LAP	.64	LOP	87.19	VP	37.491	GAP	-8.98	AZP	90.33	TAL	184.91	TAP	302.64	RCA	99.11	APO	151.43	V2	35.193
RC	51.263	GL	6.07	GP	-21.70	ZAL	94.25	ZAP	27.44	ETS	46.41	ZAE	144.07	ETE	324.55	ZAC	80.30	ETC	261.51	CLP	-17.22

PLANETOCENTRIC CONIC

C3	9.732	VHL	3.120	DLA	-13.16	RAL	234.34	RAD	6567.4	VEL	11.451	PTH	1.99	VHP	6.408	DPA	-42.71	RAP	242.52	ECC	1.1602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 37 50	1635.21	-2.59	7.45	84.88	118.21	7 5 5	1035.2	1.20	.82
90.00	15 10 39	5122.05	24.97	227.84	88.40	76.19	16 36 1	4522.1	22.82	219.82
100.00	7 52 20	1394.87	-3.47	349.29	84.40	119.71	8 15 35	794.9	.51	342.77
100.00	16 38 51	4837.62	25.94	206.64	88.12	74.59	17 59 28	4237.6	23.57	198.64
110.00	8 45 10	1229.40	-5.74	335.33	82.99	123.76	9 5 39	629.4	-1.27	329.10
110.00	18 2 30	4575.85	28.48	185.85	87.21	70.24	19 18 46	3975.9	25.52	177.92

DIFFERENTIAL CORRECTIONS

TDE	.0812	TRA	-.6004	TC3	1.2536	BAU	.2062
RDE	-.1744	RRA	.1098	RC3	-.9695	FAU	.04867
FDE	.1369	FRA	.7628	FC3	-4.3294	BSP	4474
BDE	.1923	BRA	.6103	BC3	1.5847	FSP	-730

MID-COURSE EXECUTION ACCURACY

SGT	1384.3	SGR	715.1	SG3	265.3		
RRT	-.7631	RRF	.8432	RTF	-.8715		
SGB	1558.1	R23	-.1662	R13	.8988		
SG1	1498.5	SG2	426.9	THA	156.46		

ORBIT DETERMINATION ACCURACY

ST	371.7	SR	326.7	SS	280.2
CRT	-.5705	CRS	.3158	CST	.5904
LSA	450.1	MSA	346.7	SSA	25.4
EL1	439.9	EL2	226.8	ALF	141.39

LAUNCH DATE AUG 23 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 278.724

RL	151.28	LAL	-.00	LOL	329.46	VL	26.462	GAL	-1.42	AZL	89.04	HCA	120.96	SMA	125.88	ECC	.20324	INC	.9589	V1	29.452
RP	107.65	LAP	.82	LOP	90.42	VP	37.568	GAP	-8.29	AZP	90.49	TAL	185.58	TAP	306.54	RCA	100.29	APO	151.46	V2	35.202
RC	52.948	GL	8.36	GP	-23.71	ZAL	95.49	ZAP	30.51	ETS	44.50	ZAE	142.51	ETE	322.09	ZAC	78.35	ETC	261.56	CLP	-19.79

PLANETOCENTRIC CONIC

C3	9.277	VHL	3.046	DLA	-10.65	RAL	233.63	RAD	6567.3	VEL	11.431	PTH	1.98	VHP	6.106	DPA	-44.81	RAP	242.62	ECC	1.1527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 13 51	1710.59	-5.01	11.67	83.41	117.91	6 42 22	1110.6	-1.24	5.02
90.00	15 29 0	5027.93	23.28	221.45	86.22	73.41	16 52 48	4427.9	20.79	213.67
100.00	7 29 53	1465.28	-5.83	353.18	82.96	119.37	7 54 19	865.3	-1.88	346.63
100.00	16 55 39	4748.46	24.18	200.59	85.92	71.87	18 14 48	4148.5	21.48	192.84
110.00	8 26 5	1289.29	-7.99	338.50	81.63	123.35	8 47 35	689.3	-3.55	332.23
110.00	18 15 57	4497.22	26.55	180.55	84.95	67.64	19 30 54	3897.2	23.29	172.91

DIFFERENTIAL CORRECTIONS

TDE	.0692	TRA	-.5745	TC3	1.3918	BAU	.2250
RDE	-.1459	RRA	.1243	RC3	-1.1637	FAU	.05272
FDE	.2117	FRA	.7942	FC3	-4.9199	BSP	4895
BDE	.1615	BRA	.5878	BC3	1.8143	FSP	-832

MID-COURSE EXECUTION ACCURACY

SGT	1394.7	SGR	796.6	SG3	292.4		
RRT	-.8087	RRF	.8818	RTF	-.8816		
SGB	1606.1	R23	-.1636	R13	.9126		
SG1	1549.8	SG2	421.6	THA	153.05		

ORBIT DETERMINATION ACCURACY

ST	355.6	SR	284.4	SS	322.9
CRT	-.5916	CRS	.4298	CST	.4637
LSA	421.7	MSA	364.8	SSA	25.6
EL1	409.5	EL2	199.1	ALF	145.42

LAUNCH DATE AUG 23 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 285.414

RL	151.28	LAL	-.00	LOL	329.46	VL	26.549	GAL	-1.53	AZL	88.78	HCA	124.19	SMA	126.43	ECC	.19828	INC	1.2173	V1	29.452
RP	107.63	LAP	1.01	LOP	93.65	VP	37.637	GAP	-7.62	AZP	90.68	TAL	186.22	TAP	310.41	RCA	101.36	APO	151.50	V2	35.210
RC	54.707	GL	10.87	GP	-25.97	ZAL	96.64	ZAP	33.83	ETS	42.84	ZAE	140.96	ETE	319.32	ZAC	76.14	ETC	261.56	CLP	-22.50

PLANETOCENTRIC CONIC

C3	8.942	VHL	2.990	DLA	-7.92	RAL	233.06	RAD	6567.3	VEL	11.416	PTH	1.98	VHP	5.834	DPA	-47.11	RAP	242.43	ECC	1.1472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 49 48	1792.13	-7.59	16.28	82.33	117.36	6 19 41	1192.1	-3.86	9.58
90.00	15 48 30	4932.14	21.28	215.15	84.40	70.87	17 10 42	4332.1	18.48	207.60
100.00	7 7 20	1542.03	-8.38	357.46	81.90	118.80	7 33 2	942.0	-4.47	350.85
100.00	17 13 39	4657.47	22.12	194.62	84.07	69.37	18 31 17	4057.5	19.12	18[illegible]
110.00	8 6 52	1355.64	-10.46	342.06	80.65	122.73	8 29 27	755.6	-6.07	335.72
110.00	18 30 37	4416.63	24.36	175.31	83.06	65.24	19 44 14	3816.6	20.82	167.96

DIFFERENTIAL CORRECTIONS

TDE	.0426	TRA	-.5616	TC3	1.4529	BAU	.2386
RDE	-.1092	RRA	.1449	RC3	-1.3682	FAU	.05630
FDE	.3177	FRA	.8421	FC3	-5.4508	BSP	5027
BDE	.1172	BRA	.5800	BC3	1.9958	FSP	-915

MID-COURSE EXECUTION ACCURACY

SGT	1393.6	SGR	889.9	SG3	319.2		
RRT	-.8326	RRF	.9114	RTF	-.8842		
SGB	1653.5	R23	-.1742	R13	.9228		
SG1	1596.6	SG2	430.2	THA	149.56		

ORBIT DETERMINATION ACCURACY

ST	337.0	SR	226.8	SS	396.6
CRT	-.5903	CRS	.4701	CST	.4228
LSA	443.6	MSA	353.4	SSA	25.2
EL1	370.6	EL2	166.5	ALF	152.27

LAUNCH DATE AUG 23 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 292.085

RL 151.28 LAL -.00 LOL 329.46 VL 26.627 GAL -1.64 AZL 88.50 HCA 127.42 SMA 126.93 ECC .19387 INC 1.4965 V1 29.452
RP 107.60 LAP 1.19 LOP 96.89 VP 37.699 GAP -6.97 AZP 90.91 TAL 186.83 TAP 314.25 RCA 102.32 APO 151.54 V2 35.218
RC 56.533 GL 13.61 GP -28.49 ZAL 97.69 ZAP 37.42 ETS 41.34 ZAE 139.36 ETE 316.21 ZAC 73.66 ETC 261.50 CLP -25.36

PLANETOCENTRIC CONIC

C3 8.723 VHL 2.953 DLA -4.98 RAL 232.64 RAD 6567.3 VEL 11.407 PTH 1.97 VHP 5.595 DPA -49.63 RAP 241.87 ECC 1.1436

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 25 36	1880.43	-10.31	21.33	81.69	116.52	5 56 56	1280.4	-6.67	14.55
90.00	16 9 21	4834.35	18.97	208.90	82.98	68.58	17 29 56	4234.3	15.90	201.58
100.00	6 44 36	1625.60	-11.08	2.19	81.28	117.94	7 11 41	1025.6	-7.26	355.49
100.00	17 33 3	4564.41	19.77	188.71	82.63	67.11	18 49 7	3964.4	16.50	181.44
110.00	7 47 28	1428.77	-13.12	346.06	80.08	121.85	8 11 17	828.8	-8.81	339.60
110.00	18 46 40	4334.00	21.91	170.15	81.57	63.08	19 58 54	3734.0	18.12	163.07

DIFFERENTIAL CORRECTIONS
TDE .0164 TRA -.5475 TC3 1.4837 BAU .2536
RDE -.0651 RRA .1695 RC3-1.5900 FAU .05981
FDE .4432 FRA .8926 FC3-5.9366 BSP 5210
BOE .0671 BRA .5731 BC3 2.1748 FSP -1003

MID-COURSE EXECUTION ACCURACY
SGT 1380.5 SGR 1003.5 SG3 346.2
RRT -.8511 RRF .9347 RTF -.8856
SGB 1706.6 R23 -.1785 R13 .9334
SG1 1648.6 SG2 441.1 THA 145.43

ORBIT DETERMINATION ACCURACY
ST 322.5 SR 162.9 SS 488.7
CRT -.6936 CRS .3275 CST .4359
LSA 517.8 MSA 317.3 SSA 24.0
EL1 344.2 EL2 110.0 ALF 158.38

LAUNCH DATE AUG 23 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 298.738

RL 151.28 LAL -.00 LOL 329.46 VL 26.696 GAL -1.73 AZL 88.20 HCA 130.65 SMA 127.38 ECC .18997 INC 1.8010 V1 29.452
RP 107.58 LAP 1.37 LOP 100.12 VP 37.754 GAP -6.35 AZP 91.17 TAL 187.39 TAP 318.05 RCA 103.18 APO 151.57 V2 35.225
RC 58.419 GL 16.59 GP -31.29 ZAL 98.60 ZAP 41.27 ETS 39.89 ZAE 137.65 ETE 312.77 ZAC 70.87 ETC 261.36 CLP -28.41

PLANETOCENTRIC CONIC

C3 8.623 VHL 2.936 DLA -1.84 RAL 232.40 RAD 6567.3 VEL 11.402 PTH 1.97 VHP 5.393 DPA -52.37 RAP 240.85 ECC 1.1419

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 1 6	1976.23	-13.16	26.92	81.54	115.30	5 34 2	1376.2	-9.65	20.01
90.00	16 31 53	4734.17	16.37	202.71	82.01	66.57	17 50 47	4134.2	13.06	195.59
100.00	6 21 35	1716.60	-13.93	7.45	81.15	116.72	6 50 12	1116.6	-10.23	.61
100.00	17 54 5	4469.03	17.14	182.85	81.65	65.13	19 8 34	3869.0	13.65	175.80
110.00	7 27 52	1509.11	-15.96	350.55	80.00	120.64	7 53 1	909.1	-11.77	343.94
110.00	19 4 18	4249.27	19.21	165.06	80.55	61.16	20 15 7	3649.3	15.21	158.22

DIFFERENTIAL CORRECTIONS
TDE -.0091 TRA -.5336 TC3 1.4734 BAU .2702
RDE -.0109 RRA .1999 RC3-1.8225 FAU .06304
FDE .5890 FRA .9478 FC3-6.3296 BSP 5411
BOE .0142 BRA .5698 BC3 2.3436 FSP -1087

MID-COURSE EXECUTION ACCURACY
SGT 1354.4 SGR 1139.4 SG3 372.3
RRT -.8633 RRF .9525 RTF -.8851
SGB 1769.9 R23 -.1763 R13 .9443
SG1 1710.3 SG2 455.4 THA 140.69

ORBIT DETERMINATION ACCURACY
ST 314.1 SR 123.2 SS 597.0
CRT -.9569 CRS -.2793 CST .4889
LSA 623.1 MSA 285.5 SSA 22.0
EL1 335.8 EL2 33.5 ALF 159.20

LAUNCH DATE AUG 23 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 305.369

RL 151.28 LAL -.00 LOL 329.46 VL 26.756 GAL -1.80 AZL 87.86 HCA 133.89 SMA 127.77 ECC .18655 INC 2.1366 V1 29.452
RP 107.56 LAP 1.54 LOP 103.36 VP 37.803 GAP -5.75 AZP 91.48 TAL 187.91 TAP 321.79 RCA 103.94 APO 151.61 V2 35.232
RC 60.358 GL 19.82 GP -34.40 ZAL 99.35 ZAP 45.39 ETS 38.42 ZAE 135.76 ETE 309.02 ZAC 67.77 ETC 261.13 CLP -31.65

PLANETOCENTRIC CONIC

C3 8.651 VHL 2.941 DLA 1.51 RAL 232.34 RAD 6567.3 VEL 11.404 PTH 1.97 VHP 5.231 DPA -55.33 RAP 239.26 ECC 1.1424

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 36 5	2080.55	-16.11	33.17	81.94	113.61	5 10 45	1480.5	-12.78	26.07
90.00	16 56 28	4631.09	13.48	196.52	81.55	64.86	18 13 39	4031.1	9.98	189.59
100.00	5 58 7	1815.91	-16.88	13.34	81.58	115.04	6 28 23	1215.9	-13.37	6.31
100.00	18 17 6	4370.97	14.24	177.01	81.17	63.44	19 29 57	3771.0	10.56	170.15
110.00	7 7 58	1597.26	-18.94	355.64	80.47	119.00	7 34 36	997.3	-14.93	348.82
110.00	19 23 44	4162.38	16.28	160.03	80.02	59.52	20 33 7	3562.4	12.11	153.40

DIFFERENTIAL CORRECTIONS
TDE -.0332 TRA -.5201 TC3 1.4117 BAU .2882
RDE .0570 RRA .2376 RC3-2.0534 FAU .06565
FDE .7565 FRA 1.0068 FC3-6.5693 BSP 5650
BOE .0659 BRA .5718 BC3 2.4918 FSP -1166

MID-COURSE EXECUTION ACCURACY
SGT 1311.9 SGR 1298.4 SG3 395.5
RRT -.8687 RRF .9657 RTF -.8814
SGB 1845.7 R23 -.1674 R13 .9550
SG1 1784.1 SG2 473.0 THA 135.34

ORBIT DETERMINATION ACCURACY
ST 311.8 SR 181.4 SS 719.2
CRT -.8893 CRS -.8641 CST .5586
LSA 761.0 MSA 260.7 SSA 19.4
EL1 353.3 EL2 73.3 ALF 151.29

LAUNCH DATE AUG 23 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 311.979

RL 151.28 LAL -.00 LOL 329.46 VL 26.809 GAL -1.87 AZL 87.49 HCA 137.12 SMA 128.12 ECC .18355 INC 2.5110 V1 29.452
RP 107.54 LAP 1.71 LOP 106.60 VP 37.846 GAP -5.16 AZP 91.84 TAL 188.37 TAP 325.49 RCA 104.61 APO 151.64 V2 35.238
RC 62.346 GL 23.28 GP -37.82 ZAL 99.89 ZAP 49.74 ETS 36.84 ZAE 133.61 ETE 304.98 ZAC 64.35 ETC 260.77 CLP -35.10

PLANETOCENTRIC CONIC

C3 8.825 VHL 2.971 DLA 5.05 RAL 232.49 RAD 6567.3 VEL 11.411 PTH 1.98 VHP 5.116 DPA -58.50 RAP 236.91 ECC 1.1452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 10 11	2194.79	-19.08	40.23	82.99	111.33	4 46 46	1594.8	-16.02	32.90
90.00	17 23 35	4524.42	10.31	190.28	81.67	63.48	18 38 59	3924.4	6.67	183.50
100.00	5 33 54	1924.75	-19.89	20.03	82.65	112.79	6 5 59	1324.7	-16.63	12.75
100.00	18 42 32	4269.69	11.08	171.15	81.27	62.06	19 53 42	3669.7	7.26	164.45
110.00	6 47 36	1694.09	-22.03	1.45	81.59	116.82	7 15 51	1094.1	-18.26	354.36
110.00	19 45 20	4073.12	13.13	155.03	80.06	58.15	20 53 13	3473.1	8.83	148.57

DIFFERENTIAL CORRECTIONS
TDE -.0529 TRA -.5056 TC3 1.2981 BAU .3084
RDE .1417 RRA .2841 RC3-2.2688 FAU .06735
FDE .9395 FRA 1.0659 FC3-6.6070 BSP 5932
BOE .1512 BRA .5800 BC3 2.6139 FSP -1231

MID-COURSE EXECUTION ACCURACY
SGT 1250.4 SGR 1481.3 SG3 413.9
RRT -.8671 RRF .9754 RTF -.8735
SGB 1938.5 R23 -.1514 R13 .9652
SG1 1875.0 SG2 492.2 THA 129.44

ORBIT DETERMINATION ACCURACY
ST 311.7 SR 321.8 SS 848.1
CRT -.7703 CRS -.9753 CST .6175
LSA 927.8 MSA 242.7 SSA 16.7
EL1 421.5 EL2 151.7 ALF 133.82

LAUNCH DATE AUG 23 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 318.566

RL	151.28	LAL	-.00	LOL	329.46	VL	26.855	GAL	-1.92	AZL	87.07	HCA	140.35	SMA	128.43	ECC	.18095	INC	2.9339	V1	29.452
RP	107.53	LAP	1.87	LOP	109.85	VP	37.883	GAP	-4.60	AZP	92.26	TAL	188.77	TAP	329.12	RCA	105.19	APO	151.67	V2	35.243
RC	64.375	GL	26.98	GP	-41.54	ZAL	100.21	ZAP	54.30	ETS	35.05	ZAE	131.16	ETE	300.71	ZAC	60.62	ETC	260.27	CLP	-38.78

PLANETOCENTRIC CONIC

C3	9.172	VHL	3.029	DLA	8.79	RAL	232.87	RAD	6567.3	VEL	11.426	PTH	1.98	VHP	5.055	DPA	-61.84	RAP	233.56	ECC	1.1509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 42 52	2321.01	-22.00	48.34	84.78	108.29	4 21 33	1721.0	-19.30	40.71
90.00	17 53 55	4413.06	6.86	183.92	82.45	62.46	19 7 28	3813.1	3.12	177.24
100.00	5 8 29	2044.86	-22.86	27.71	84.46	109.80	5 42 34	1444.9	-19.96	20.12
100.00	19 10 59	4164.44	7.66	165.21	82.01	61.02	20 20 23	3564.4	3.74	158.62
110.00	6 26 29	1800.80	-25.15	8.17	83.45	113.95	6 56 30	1200.8	-21.70	.72
110.00	20 9 29	3981.27	9.78	150.02	80.73	57.08	21 15 50	3381.3	5.37	143.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0656	TRA -.4896	TC3 1.1330	BAU .3308			SGT 1168.3	SGR 1687.7	SG3 425.3	ST 308.0	SR 511.5	SS 979.5
RDE .2485	RRA .3420	RC3-2.4480	FAU .06776			RRT -.8569	RRF .9823	RTF -.8591	CRT -.7267	CRS -.9941	CST .6513
FDE 1.1336	FRA 1.1234	FC3-6.3958	BSP 6275			SGB 2052.6	R23 -.1295	R13 .9743	LSA 1123.7	MSA 230.1	SSA 14.0
BDE .2570	BRA .5972	BC3 2.6975	FSP -1275			SG1 1987.9	SG2 511.3	THA 123.15	EL1 565.5	EL2 791.4	ALF 116.97

LAUNCH DATE AUG 23 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 325.129

RL	151.28	LAL	-.00	LOL	329.46	VL	26.895	GAL	-1.96	AZL	86.58	HCA	143.58	SMA	128.69	ECC	.17871	INC	3.4189	V1	29.452
RP	107.51	LAP	2.03	LOP	113.09	VP	37.915	GAP	-4.05	AZP	92.75	TAL	189.10	TAP	332.68	RCA	105.69	APO	151.69	V2	35.247
RC	66.441	GL	30.91	GP	-45.53	ZAL	100.29	ZAP	59.01	ETS	32.95	ZAE	128.35	ETE	296.26	ZAC	56.60	ETC	259.58	CLP	-42.68

PLANETOCENTRIC CONIC

C3	9.740	VHL	3.121	DLA	12.70	RAL	233.49	RAD	6567.4	VEL	11.451	PTH	1.99	VHP	5.056	DPA	-65.28	RAP	228.84	ECC	1.1603

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 13 14	2462.33	-24.71	57.81	87.41	104.29	3 54 16	1862.3	-22.50	49.83
90.00	18 28 30	4295.24	3.11	177.30	84.00	61.84	19 40 5	3695.2	-.68	170.67
100.00	4 41 8	2178.86	-25.67	36.67	87.12	105.88	5 17 27	1578.9	-23.24	28.71
100.00	19 43 18	4053.94	3.98	159.08	83.52	60.35	20 50 52	3453.9	.00	152.55
110.00	6 4 8	1919.11	-28.18	16.03	86.20	110.20	6 36 8	1319.1	-25.17	8.15
110.00	20 36 46	3886.45	6.23	144.97	82.12	56.32	21 41 33	3286.5	1.76	138.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0659	TRA -.4703	TC3 .9232	BAU .3554			SGT 1063.0	SGR 1914.9	SG3 427.2	ST 292.2	SR 740.1	SS 1102.5
RDE .3817	RRA .4134	RC3-2.5686	FAU .06659			RRT -.8338	RRF .9872	RTF -.8330	CRT -.6820	CRS -.9982	CST .6399
FDE 1.3251	FRA 1.1737	FC3-5.9193	BSP 6695			SGB 2190.1	R23 -.1044	R13 .9818	LSA 1341.5	MSA 221.7	SSA 11.7
BDE .3873	BRA .6261	BC3 2.7295	FSP -1292			SG1 2125.3	SG2 528.7	THA 116.61	EL1 768.6	EL2 205.8	ALF 106.27

LAUNCH DATE AUG 23 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 331.668

RL	151.28	LAL	-.00	LOL	329.46	VL	26.928	GAL	-1.99	AZL	86.02	HCA	146.81	SMA	128.92	ECC	.17681	INC	3.9844	V1	29.452
RP	107.50	LAP	2.18	LOP	116.33	VP	37.943	GAP	-3.52	AZP	93.34	TAL	189.36	TAP	336.17	RCA	106.12	APO	151.71	V2	35.251
RC	68.539	GL	35.05	GP	-49.78	ZAL	100.13	ZAP	63.77	ETS	30.46	ZAE	125.16	ETE	291.68	ZAC	52.32	ETC	258.65	CLP	-46.82

PLANETOCENTRIC CONIC

C3	10.602	VHL	3.256	DLA	16.77	RAL	234.37	RAD	6567.4	VEL	11.489	PTH	2.00	VHP	5.132	DPA	-68.69	RAP	222.19	ECC	1.1745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 39 44	2624.01	-26.94	69.11	90.99	99.06	3 23 28	2024.0	-25.41	60.78
90.00	19 9 1	4167.56	-1.01	170.17	86.50	61.70	20 18 29	3567.6	-4.78	163.53
100.00	4 10 36	2330.96	-28.06	47.33	90.77	100.76	4 49 27	1731.0	-26.29	38.98
100.00	20 20 50	3935.84	-.02	152.59	85.95	60.11	21 26 26	3335.8	-4.00	146.06
110.00	5 39 53	2051.60	-30.94	25.35	90.00	105.31	6 14 5	1451.6	-28.53	16.98
110.00	21 8 2	3787.96	2.49	139.80	84.38	55.90	22 11 10	3188.0	-2.00	133.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0477	TRA -.4452	TC3 .6805	BAU .3816			SGT 934.3	SGR 2157.1	SG3 417.6	ST 259.7	SR 1002.9	SS 1208.8
RDE .5471	RRA .5014	RC3-2.6047	FAU .06357			RRT -.7872	RRF .9906	RTF -.7842	CRT -.5731	CRS -.9994	CST .5463
FDE 1.5009	FRA 1.2115	FC3-5.1908	BSP 7174			SGB 2350.8	R23 -.0782	R13 .9876	LSA 1577.3	MSA 216.2	SSA 9.6
BDE .5492	BRA .6706	BC3 2.6921	FSP -1272			SG1 2287.1	SG2 543.5	THA 110.00	EL1 1014.4	EL2 210.4	ALF 98.82

LAUNCH DATE AUG 23 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 338.181

RL	151.28	LAL	-.00	LOL	329.46	VL	26.956	GAL	-2.01	AZL	85.34	HCA	150.04	SMA	129.10	ECC	.17520	INC	4.6568	V1	29.452
RP	107.49	LAP	2.32	LOP	119.58	VP	37.965	GAP	-3.01	AZP	94.04	TAL	189.54	TAP	339.58	RCA	106.49	APO	151.72	V2	35.254
RC	70.666	GL	39.38	GP	-54.22	ZAL	99.71	ZAP	68.50	ETS	27.47	ZAE	121.58	ETE	287.02	ZAC	47.83	ETC	257.42	CLP	-51.17

PLANETOCENTRIC CONIC

C3	11.881	VHL	3.447	DLA	20.97	RAL	235.52	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	5.300	DPA	-71.89	RAP	212.80	ECC	1.1955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 59 9	2816.52	-28.24	83.03	95.54	92.21	2 46 6	2216.5	-27.63	74.42
90.00	19 58 48	4022.08	-5.67	162.03	90.22	62.21	21 5 50	3422.1	-9.35	155.28
100.00	3 34 33	2508.90	-29.63	60.31	95.45	94.11	4 16 22	1908.9	-28.75	51.62
100.00	21 6 5	3804.94	-4.45	145.39	89.55	60.41	22 9 30	3204.9	-8.35	138.78
110.00	5 12 32	2202.33	-33.11	36.56	94.98	99.02	5 49 15	1602.3	-31.51	27.70
110.00	21 44 35	3684.27	-1.47	134.39	87.70	55.84	22 45 59	3084.3	-5.95	128.16

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE -.0016	TRA -.4114	TC3 .4226	BAU .4078			SGT 788.1	SGR 2405.4	SG3 395.4	ST 219.9	SR 1291.3	SS 1288.8
RDE .7510	RRA .6101	RC3-2.5325	FAU .05855			RRT -.6895	RRF .9931	RTF -.6849	CRT -.2652	CRS -.9998	CST .2464
FDE 1.6453	FRA 1.2321	FC3-4.2666	BSP 7710			SGB 2531.2	R23 -.0531	R13 .9917	LSA 1825.2	MSA 213.2	SSA 7.8
BDE .7510	BRA .7358	BC3 2.5675	FSP -1213			SG1 2469.4	SG2 556.0	THA 103.42	EL1 1292.6	EL2 211.8	ALF 92.66

LAUNCH DATE AUG 23 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 344.667

RL 151.28 LAL -.00 LOL 329.46 VL 26.978 GAL -2.01 AZL 84.52 HCA 153.26 SMA 129.26 ECC .17387 INC 5.4749 V1 29.452
RP 107.48 LAP 2.46 LOP 122.83 VP 37.983 GAP -2.51 AZP 94.89 TAL 189.65 TAP 342.92 RCA 106.78 APO 151.73 V2 35.256
RC 72.818 GL 43.87 GP -58.83 ZAL 99.05 ZAP 73.05 ETS 23.89 ZAE 117.63 ETE 282.27 ZAC 43.17 ETC 255.77 CLP -55.73

PLANETOCENTRIC CONIC

C3 13.779 VHL 3.712 DLA 25.25 RAL 236.97 RAD 6567.5 VEL 11.626 PTH 2.04 VHP 5.584 DPA -74.61 RAP 199.58 ECC 1.2268

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 2 6	3069.96	-27.51	101.49	100.76	83.01	1 53 16	2470.0	-28.19	92.89
90.00	21 7 21	3832.26	-11.54	151.17	95.76	63.96	22 11 13	3232.3	-14.95	144.15
100.00	2 47 10	2731.21	-29.58	76.81	101.00	85.45	3 32 42	2131.2	-29.89	68.02
100.00	22 4 58	3646.24	-9.70	136.54	94.79	61.59	23 5 44	3046.2	-13.42	129.73
110.00	4 39 52	2378.60	-34.17	50.19	101.16	91.03	5 19 31	1778.6	-33.65	40.99
110.00	22 28 45	3571.61	-5.76	128.49	92.40	56.25	23 28 17	2971.6	-10.16	122.16

DIFFERENTIAL CORRECTIONS
TDE .0865 TRA -.3632 TC3 .1771 BAU .4332
RDE .9993 RRA .7440 RC3-2.3449 FAU .05182
FDE 1.7425 FRA 1.2308 FC3-3.2561 BSP 8309
BDE 1.0030 BRA .8279 BC3 2.3516 FSP -1119

MID-COURSE EXECUTION ACCURACY
SGT 647.5 SGR 2649.8 SG3 361.3
RRT -.4719 RRF .9948 RTF -.4654
SGB 2727.8 R23 -.0301 R13 .9943
SG1 2668.2 SG2 566.9 THA 96.89

ORBIT DETERMINATION ACCURACY
ST 229.0 SR 1589.6 SS 1333.1
CRT .3709 CRS -.9999 CST -.3822
LSA 2076.4 MSA 212.4 SSA 6.4
EL1 1591.9 EL2 212.3 ALF 86.89

LAUNCH DATE AUG 23 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 351.124

RL 151.28 LAL -.00 LOL 329.46 VL 26.996 GAL -2.01 AZL 83.50 HCA 156.48 SMA 129.37 ECC .17279 INC 6.4991 V1 29.452
RP 107.48 LAP 2.59 LOP 126.08 VP 37.997 GAP -2.03 AZP 95.96 TAL 189.68 TAP 346.17 RCA 107.02 APO 151.73 V2 35.258
RC 74.992 GL 48.44 GP -63.56 ZAL 98.18 ZAP 77.31 ETS 19.64 ZAE 113.35 ETE 277.39 ZAC 38.38 ETC 253.54 CLP -60.43

PLANETOCENTRIC CONIC

C3 16.655 VHL 4.081 DLA 29.55 RAL 238.71 RAD 6567.7 VEL 11.749 PTH 2.07 VHP 6.020 DPA -76.42 RAP 181.76 ECC 1.2741

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.17	21 57 27	3726.97	-21.51	147.98	104.69	69.23	22 59 34	3127.0	-24.14	140.20
98.83	0 25 55	3260.26	-21.50	113.70	104.69	69.22	1 20 15	2660.3	-24.13	105.92
100.00	1 12 48	3110.27	-24.48	103.70	105.82	72.28	2 4 38	2510.3	-26.67	95.59
100.00	23 53 15	3352.19	-18.59	119.24	103.42	66.16	24 49 7	2752.2	-21.66	111.79
110.00	3 56 28	2597.35	-33.13	67.15	108.15	81.07	4 39 45	1997.3	-34.01	58.02
110.00	23 26 4	3437.87	-10.75	121.35	99.07	57.36	24 23 22	2837.9	-14.98	114.80

DIFFERENTIAL CORRECTIONS
TDE .2378 TRA -.2925 TC3 -.0325 BAU .4545
RDE 1.2996 RRA .9104 RC3-2.0411 FAU .04366
FDE 1.7836 FRA 1.2062 FC3-2.2695 BSP 8937
BDE 1.3211 BRA .9563 BC3 2.0414 FSP -992

MID-COURSE EXECUTION ACCURACY
SGT 578.8 SGR 2874.6 SG3 317.4
RRT -.0243 RRF .9959 RTF -.0160
SGB 2932.3 R23 -.0092 R13 .9959
SG1 2874.6 SG2 578.6 THA 90.29

ORBIT DETERMINATION ACCURACY
ST 362.6 SR 1877.7 SS 1337.6
CRT .8029 CRS-1.0000 CST -.8076
LSA 2323.9 MSA 213.8 SSA 5.2
EL1 1900.4 EL2 213.6 ALF 81.07

LAUNCH DATE AUG 23 1970 FLIGHT TIME 130.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 357.548

RL 151.28 LAL -.00 LOL 329.46 VL 27.009 GAL -1.98 AZL 82.17 HCA 159.69 SMA 129.46 ECC .17193 INC 7.8269 V1 29.452
RP 107.48 LAP 2.71 LOP 129.33 VP 38.007 GAP -1.56 AZP 97.35 TAL 189.63 TAP 349.32 RCA 107.20 APO 151.72 V2 35.259
RC 77.186 GL 53.01 GP -68.43 ZAL 97.12 ZAP 81.13 ETS 14.56 ZAE 108.73 ETE 272.25 ZAC 33.47 ETC 250.42 CLP -65.21

PLANETOCENTRIC CONIC

C3 21.177 VHL 4.602 DLA 33.79 RAL 240.76 RAD 6567.9 VEL 11.940 PTH 2.12 VHP 6.667 DPA -76.90 RAP 160.46 ECC 1.3485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.74	20 52 52	4012.20	-22.81	170.15	111.86	64.36	21 59 44	3412.2	-26.06	162.54
109.26	1 46 52	3087.97	-22.79	101.28	111.85	64.35	2 38 20	2488.0	-26.05	93.67
70.74	20 52 52	4012.20	-22.81	170.15	111.86	64.36	21 59 44	3412.2	-26.06	162.54
109.26	1 46 52	3087.97	-22.79	101.28	111.85	64.35	2 38 20	2488.0	-26.05	93.67
110.00	2 30 32	2954.55	-26.39	92.67	113.62	67.45	3 19 47	2354.6	-29.21	84.62
110.00	1 12 18	3193.61	-19.30	107.58	109.92	61.22	2 5 32	2593.6	-22.98	100.39

DIFFERENTIAL CORRECTIONS
TDE .4878 TRA -.1849 TC3 -.1840 BAU .4681
RDE 1.6580 RRA 1.1202 RC3-1.6431 FAU .03464
FDE 1.7650 FRA 1.1599 FC3-1.4160 BSP 9582
BDE 1.7283 BRA 1.1354 BC3 1.6534 FSP -844

MID-COURSE EXECUTION ACCURACY
SGT 688.6 SGR 3060.2 SG3 267.0
RRT .4958 RRF .9966 RTF .5047
SGB 3136.8 R23 .0101 R13 .9966
SG1 3080.0 SG2 594.2 THA 83.39

ORBIT DETERMINATION ACCURACY
ST 613.0 SR 2125.3 SS 1301.2
CRT .9304 CRS-1.0000 CST -.9327
LSA 2557.0 MSA 218.2 SSA 4.3
EL1 2201.3 EL2 217.0 ALF 74.83

LAUNCH DATE AUG 23 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 363.935

RL 151.28 LAL -.00 LOL 329.46 VL 27.017 GAL -1.95 AZL 80.37 HCA 162.89 SMA 129.52 ECC .17127 INC 9.6278 V1 29.452
RP 107.48 LAP 2.82 LOP 132.58 VP 38.013 GAP -1.11 AZP 99.21 TAL 189.49 TAP 352.38 RCA 107.34 APO 151.71 V2 35.259
RC 79.396 GL 57.45 GP -73.50 ZAL 95.93 ZAP 84.41 ETS 8.34 ZAE 103.76 ETE 266.49 ZAC 28.42 ETC 245.77 CLP -69.94

PLANETOCENTRIC CONIC

C3 28.702 VHL 5.357 DLA 37.85 RAL 243.11 RAD 6568.2 VEL 12.251 PTH 2.20 VHP 7.631 DPA -75.83 RAP 139.25 ECC 1.4724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.79	20 23 35	4202.42	-22.75	185.27	120.43	58.92	21 33 37	3602.4	-26.70	178.02
116.21	2 34 51	3047.11	-22.74	98.00	120.42	58.91	3 25 38	2447.1	-26.68	90.75
63.79	20 23 35	4202.42	-22.75	185.27	120.43	58.92	21 33 37	3602.4	-26.70	178.02
116.21	2 34 51	3047.11	-22.74	98.00	120.42	58.91	3 25 38	2447.1	-26.68	90.75
63.79	20 23 35	4202.42	-22.75	185.27	120.43	58.92	21 33 37	3602.4	-26.70	178.02
116.21	2 34 51	3047.11	-22.74	98.00	120.42	58.91	3 25 38	2447.1	-26.68	90.75

DIFFERENTIAL CORRECTIONS
TDE .9081 TRA -.0076 TC3 -.2615 BAU .4672
RDE 2.0737 RRA 1.3891 RC3-1.1891 FAU .02538
FDE 1.6934 FRA 1.0967 FC3 -.7656 BSP 10228
BDE 2.2638 BRA 1.3891 BC3 1.2175 FSP -688

MID-COURSE EXECUTION ACCURACY
SGT 1010.8 SGR 3174.8 SG3 214.4
RRT .7764 RRF .9970 RTF .7867
SGB 3331.8 R23 .0281 R13 .9968
SG1 3274.1 SG2 617.8 THA 75.59

ORBIT DETERMINATION ACCURACY
ST 971.2 SR 2288.7 SS 1229.8
CRT .9683 CRS-1.0000 CST -.9703
LSA 2764.5 MSA 226.5 SSA 3.6
EL1 2476.2 EL2 224.2 ALF 67.47

LAUNCH DATE AUG 23 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 370.274

RL	151.28	LAL	-.00	LOL	329.46	VL	27.022	GAL	-1.89	AZL	77.78	HCA	166.06	SMA	129.56	ECC	.17080	INC	12.2232	V1	29.452		
RP	107.48	LAP	2.92	LOP	135.83	VP	38.016	GAP	-.68	AZP	101.87	TAL	189.26	TAP	355.32	RCA	107.43	APO	151.69	V2	35.258		
RC	81.621	GL	61.53	GP	-78.90	ZAL	94.66	ZAP	87.03	ETS	359.89	ZAE	98.33	ETE	258.95	ZAC	23.13	ETC	237.79	CLP	-74.40		

PLANETOCENTRIC CONIC

C3	42.308	VHL	6.504	DLA	41.46	RAL	245.68	RAD	6568.6	VEL	12.794	PTH	2.33	VHP	9.110	DPA	-73.31	RAP	121.11	ECC	1.6963		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.36	20 8 31	4372.09	-20.80	198.13	130.23	53.29	21 21 24	3772.1	-25.43	191.45
121.64	3 10 28	3072.99	-20.78	98.76	130.22	53.29	4 1 40	2473.0	-25.41	92.08
58.36	20 8 31	4372.09	-20.80	198.13	130.23	53.29	21 21 24	3772.1	-25.43	191.45
121.64	3 10 28	3072.99	-20.78	98.76	130.22	53.29	4 1 40	2473.0	-25.41	92.08
58.36	20 8 31	4372.09	-20.80	198.13	130.23	53.29	21 21 24	3772.1	-25.43	191.45
121.64	3 10 28	3072.99	-20.78	98.76	130.22	53.29	4 1 40	2473.0	-25.41	92.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6759	TRA	.3303	TC3	-.2647	BAU	.4358	SGT	1564.8	SGR	3146.0	SG3	164.5	ST	1480.9	SR	2283.1	SS	1139.9
RDE	2.4965	RRA	1.7365	RC3	-.7236	FAU	.01634	RRT	.8864	RRF	.9967	RTF	.9031	CRT	.9814	CRS	-.9998	CST	-.9847
FDE	1.5914	FRA	1.0311	FC3	-.3343	BSP	10782	SGB	3513.7	R23	.0456	R13	.9966	LSA	2940.4	MSA	242.9	SSA	3.0
BDE	3.0069	BRA	1.7696	BC3	.7705	FSP	-532	SG1	3451.1	SG2	660.3	THA	65.24	EL1	2710.8	EL2	239.5	ALF	57.23

LAUNCH DATE AUG 23 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 376.544

RL	151.28	LAL	-.00	LOL	329.46	VL	27.023	GAL	-1.82	AZL	73.70	HCA	169.19	SMA	129.57	ECC	.17049	INC	16.2977	V1	29.452		
RP	107.48	LAP	3.02	LOP	139.08	VP	38.015	GAP	-.28	AZP	106.02	TAL	188.91	TAP	358.11	RCA	107.48	APO	151.65	V2	35.256		
RC	83.861	GL	64.84	GP	-84.99	ZAL	93.38	ZAP	88.93	ETS	343.12	ZAE	92.15	ETE	243.41	ZAC	17.38	ETC	218.50	CLP	-77.62		

PLANETOCENTRIC CONIC

C3	70.126	VHL	8.374	DLA	44.27	RAL	248.30	RAD	6569.4	VEL	13.838	PTH	2.53	VHP	11.527	DPA	-69.41	RAP	106.34	ECC	2.1541		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.42	20 2 51	4539.96	-16.48	209.28	140.66	48.30	21 18 31	3940.0	-21.69	203.28
125.58	3 37 3	3153.74	-16.46	102.19	140.65	48.30	4 29 36	2553.7	-21.68	96.18
54.42	20 2 51	4539.96	-16.48	209.28	140.66	48.30	21 18 31	3940.0	-21.69	203.28
125.58	3 37 3	3153.74	-16.46	102.19	140.65	48.30	4 29 36	2553.7	-21.68	96.18
54.42	20 2 51	4539.96	-16.48	209.28	140.66	48.30	21 18 31	3940.0	-21.69	203.28
125.58	3 37 3	3153.74	-16.46	102.19	140.65	48.30	4 29 36	2553.7	-21.68	96.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.4083	TRA	1.2376	TC3	-.2060	BAU	.3318	SGT	2637.4	SGR	2570.0	SG3	121.4	ST	2358.8	SR	1697.5	SS	1061.9
RDE	2.3274	RRA	2.0498	RC3	-.2879	FAU	.00753	RRT	.9142	RRF	.9868	RTF	.9629	CRT	.9796	CRS	-.9965	CST	-.9930
FDE	1.5020	FRA	.9897	FC3	-.0930	BSP	10989	SGB	3682.5	R23	.0635	R13	.9961	LSA	3081.1	MSA	282.8	SSA	2.4
BDE	4.1272	BRA	2.3945	BC3	.3540	FSP	-384	SG1	3602.7	SG2	762.6	THA	44.19	EL1	2892.7	EL2	278.5	ALF	35.56

LAUNCH DATE AUG 23 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 382.685

RL	151.28	LAL	-.00	LOL	329.46	VL	27.021	GAL	-1.71	AZL	66.43	HCA	172.23	SMA	129.55	ECC	.17029	INC	23.5670	V1	29.452		
RP	107.49	LAP	3.10	LOP	142.33	VP	38.012	GAP	.09	AZP	113.37	TAL	188.41	TAP	.63	RCA	107.49	APO	151.61	V2	35.254		
RC	86.111	GL	66.42	GP	-87.35	ZAL	92.16	ZAP	90.05	ETS	248.18	ZAE	84.42	ETE	149.86	ZAC	10.93	ETC	109.97	CLP	91.17		

PLANETOCENTRIC CONIC

C3	138.842	VHL	11.783	DLA	45.39	RAL	250.46	RAD	6570.5	VEL	16.130	PTH	2.84	VHP	15.937	DPA	-63.58	RAP	93.87	ECC	3.2850		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.91	20 5 41	4700.99	-9.94	217.76	150.52	45.47	21 24 2	4101.0	-15.49	212.27
127.09	3 51 25	3284.65	-9.93	107.90	150.51	45.47	4 46 9	2684.6	-15.48	102.41
52.91	20 5 41	4700.99	-9.94	217.76	150.52	45.47	21 24 2	4101.0	-15.49	212.27
127.09	3 51 25	3284.65	-9.93	107.90	150.51	45.47	4 46 9	2684.6	-15.48	102.41
52.91	20 5 41	4700.99	-9.94	217.76	150.52	45.47	21 24 2	4101.0	-15.49	212.27
127.09	3 51 25	3284.65	-9.93	107.90	150.51	45.47	4 46 9	2684.6	-15.48	102.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.0166	TRA	3.0894	TC3	-.0282	BAU	.0563	SGT	2897.5	SGR	2442.0	SG3	87.4	ST	2055.8	SR	2180.0	SS	1042.3
RDE	-4.4264	RRA	-1.6656	RC3	.0113	FAU	-.00143	RRT	-.9431	RRF	-.9614	RTF	.9971	CRT	-.9875	CRS	.9924	CST	-.9994
FDE	1.4951	FRA	1.0154	FC3	.0089	BSP	11508	SGB	3789.3	R23	-.0760	R13	-.9962	LSA	3163.4	MSA	241.0	SSA	1.6
BDE	5.9771	BRA	3.5098	BC3	.0303	FSP	-282	SG1	3736.6	SG2	629.9	THA	140.16	EL1	2987.1	EL2	236.2	ALF	133.30

LAUNCH DATE AUG 23 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 388.507

RL	151.28	LAL	-.00	LOL	329.46	VL	27.016	GAL	-1.54	AZL	50.67	HCA	174.99	SMA	129.52	ECC	.17011	INC	39.3257	V1	29.452		
RP	107.50	LAP	3.17	LOP	145.58	VP	38.005	GAP	.37	AZP	129.22	TAL	187.56	TAP	2.55	RCA	107.49	APO	151.55	V2	35.251		
RC	88.372	GL	63.41	GP	-75.61	ZAL	91.08	ZAP	90.42	ETS	195.35	ZAE	72.62	ETE	98.27	ZAC	8.20	ETC	346.69	CLP	91.69		

PLANETOCENTRIC CONIC

C3	366.306	VHL	19.139	DLA	42.15	RAL	250.82	RAD	6572.0	VEL	22.082	PTH	3.24	VHP	25.443	DPA	-53.41	RAP	82.45	ECC	7.0285		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.38	20 24 51	4794.06	-3.01	219.55	157.51	47.94	21 44 45	4194.1	-8.35	213.98
122.62	3 35 9	3471.95	-3.00	118.18	157.49	47.94	4 33 1	2871.9	-8.33	112.60
57.38	20 24 51	4794.06	-3.01	219.55	157.51	47.94	21 44 45	4194.1	-8.35	213.98
122.62	3 35 9	3471.95	-3.00	118.18	157.49	47.94	4 33 1	2871.9	-8.33	112.60
57.38	20 24 51	4794.06	-3.01	219.55	157.51	47.94	21 44 45	4194.1	-8.35	213.98
122.62	3 35 9	3471.95	-3.00	118.18	157.49	47.94	4 33 1	2871.9	-8.33	112.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1236	TRA	.9887	TC3	-.0281	BAU	.9158	SGT	533.0	SGR	3750.2	SG3	65.9	ST	357.1	SR	2904.7	SS	1220.5
RDE	-9.4066	RRA	-5.8783	RC3	-.1849	FAU	-.01763	RRT	.0380	RRF	-.9970	RTF	.0303	CRT	.8311	CRS	.9993	CST	.8090
FDE	1.7791	FRA	1.2946	FC3	.0417	BSP	11423	SGB	3787.9	R23	-.0690	R13	-.9970	LSA	3164.3	MSA	204.1	SSA	1.7
BDE	9.4734	BRA	5.9609	BC3	.1870	FSP	-210	SG1	3750.2	SG2	532.6	THA	89.68	EL1	2919.9	EL2	197.5	ALF	84.14

LAUNCH DATE AUG 23 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 393.155

```
RL  151.28 LAL   -.00 LOL 329.46 VL  27.008 GAL  -1.14 AZL  10.99 HCA 176.70 SMA 129.46 ECC .16965 INC79.0104 V1  29.452
RP  107.51 LAP   3.24 LOP 148.83 VP  37.996 GAP    .33 AZP 169.00 TAL 185.59 TAP   2.30 RCA 107.50 APO 151.43 V2  35.247
RC  90.641 GL   47.48 GP  -52.55 ZAL  90.28 ZAP  90.18 ETS 185.68 ZAE  49.60 ETE  88.60 ZAC  27.41 ETC 290.69 CLP  90.30
PLANETOCENTRIC CONIC
C31293.321 VHL 35.963 DLA  26.47 RAL 247.16 RAD 6573.1 VEL 37.611 PTH   3.54 VHP 47.136 OPA -31.65 RAP  71.81 ECC22.2848
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 17 2	3921.28	-8.84	156.31	162.87	62.99	2 22 23	3321.3	-12.39	149.43
90.00	22 13 43	4509.47	9.85	189.42	153.48	63.32	23 28 52	3909.5	6.19	182.66
100.00	3 8 20	3562.49	-12.37	131.75	164.72	62.57	4 7 42	2962.5	-15.95	124.79
100.00	23 5 6	4343.49	13.40	175.40	151.65	63.03	24 17 29	3743.5	9.68	168.59
110.00	5 7 53	3188.40	-19.47	107.28	168.65	61.33	6 1 2	2588.4	-23.14	100.06
110.00	23 22 2	4290.35	20.54	167.51	147.77	62.05	24 33 32	3690.3	16.64	160.55

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-5.2360 TRA -.2528 TC3 -.0872 BAU 4.2214   SGT 1044.6 SGR 3110.9 SG3   57.4     ST   834.5 SR  1979.3 SS  1659.2
RD-11.9276 RR-10.3240 RC3 -.2280 FAU-.07343   RRT  .8298 RRF -.9994 RTF -.8124     CRT  .9648 CRS  .9997 CST  .9587
FDE 2.4385 FRA 2.2889 FC3  .0492 BSP  9129    SGB 3281.6 R23 -.0801 R13 -.9966     LSA 2705.4 MSA  218.5 SSA    1.3
BDE13.0263 BRA10.3271 BC3  .2441 FSP  -169    SG1 3233.3 SG2  560.9 THA  73.93     EL1 2138.4 EL2  203.1 ALF  67.65
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LAUNCH DATE AUG 23 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 404.118

```
RL  151.28 LAL   -.00 LOL 329.46 VL  26.998 GAL  -1.93 AZL 141.49 HCA 184.20 SMA 129.39 ECC .17238 INC51.4856 V1  29.452
RP  107.53 LAP   3.29 LOP 152.08 VP  37.985 GAP   1.98 AZP  38.59 TAL 189.33 TAP  13.54 RCA 107.09 APO 151.70 V2  35.243
RC  92.917 GL  -59.05 GP   69.10 ZAL  91.27 ZAP  92.24 ETS 183.27 ZAE  72.33 ETE 276.94 ZAC 146.91 ETC 288.58 CLP  96.29
PLANETOCENTRIC CONIC
C3 606.006 VHL 24.617 DLA -73.42 RAL 191.00 RAD 6572.6 VEL 26.968 PTH   3.39 VHP 31.388 OPA  78.43 RAP 337.31 ECC10.9733
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.91	2 39 8	2418.64	1.46	79.68	100.55	163.41	3 19 26	1818.6	9.13	77.80
161.09	13 23 36	646.02	1.47	285.55	100.58	163.41	13 34 22	46.0	9.13	283.66
18.91	2 39 8	2418.64	1.46	79.68	100.55	163.41	3 19 26	1818.6	9.13	77.80
161.09	13 23 36	646.02	1.47	285.55	100.58	163.41	13 34 22	46.0	9.13	283.66
18.91	2 39 8	2418.64	1.46	79.68	100.55	163.41	3 19 26	1818.6	9.13	77.80
161.09	13 23 36	646.02	1.47	285.55	100.58	163.41	13 34 22	46.0	9.13	283.66

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.7700 TRA 1.3115 TC3 -.1025 BAU 2.0237   SGT 1622.2 SGR 3491.1 SG3   65.7     ST  1155.8 SR  3045.2 SS  1822.9
RD-12.9668 RRA-1.6551 RC3  .2278 FAU-.03131   RRT -.9465 RRF  .9994 RTF -.9433     CRT -.9891 CRS-1.0000 CST  .9887
FDE-2.8634 FRA -.3577 FC3  .0447 BSP  11878   SGB 3849.6 R23 -.0643 R13  .9974     LSA 3729.0 MSA  163.1 SSA    1.9
BDE13.8163 BRA 2.1117 BC3  .2498 FSP  -206    SG1 3819.8 SG2  478.3 THA 114.14     EL1 3253.3 EL2  159.5 ALF 110.63
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LAUNCH DATE AUG 23 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 409.641

```
RL  151.28 LAL   -.00 LOL 329.46 VL  26.985 GAL  -1.68 AZL 119.64 HCA 186.75 SMA 129.30 ECC .17238 INC29.6410 V1  29.452
RP  107.54 LAP   3.33 LOP 155.33 VP  37.971 GAP   2.17 AZP  60.53 TAL 188.09 TAP  14.84 RCA 107.01 APO 151.59 V2  35.238
RC  95.197 GL  -65.71 GP   82.52 ZAL  91.66 ZAP  94.16 ETS 173.33 ZAE  86.87 ETE 265.98 ZAC 159.68 ETC 292.37 CLP 123.89
PLANETOCENTRIC CONIC
C3 214.216 VHL 14.636 DLA -76.16 RAL 167.47 RAD 6571.2 VEL 18.318 PTH   3.03 VHP 18.446 OPA  73.02 RAP 277.13 ECC 4.5254
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.77	0 58 53	2314.10	8.80	79.97	75.28	165.99	1 37 27	1714.1	16.55	78.38
164.23	11 56 9	5817.17	8.80	260.60	75.30	165.99	13 33 6	5217.2	16.56	259.00
15.77	0 58 53	2314.10	8.80	79.97	75.28	165.99	1 37 27	1714.1	16.55	78.38
164.23	11 56 9	5817.17	8.80	260.60	75.30	165.99	13 33 6	5217.2	16.56	259.00
15.77	0 58 53	2314.10	8.80	79.97	75.28	165.99	1 37 27	1714.1	16.55	78.38
164.23	11 56 9	5817.17	8.80	260.60	75.30	165.99	13 33 6	5217.2	16.56	259.00

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.1138 TRA  .6610 TC3 -.0282 BAU  .3283   SGT 1169.1 SGR 4010.4 SG3   86.1     ST   543.5 SR  2710.1 SS  1118.4
RDE-6.5079 RRA-1.8824 RC3  .1111 FAU-.00371   RRT -.9532 RRF  .9985 RTF -.9397     CRT -.9577 CRS -.9997 CST  .9500
FDE-1.7003 FRA -.4529 FC3  .0150 BSP  13042   SGB 4177.3 R23 -.0627 R13  .9973     LSA 2977.5 MSA  158.1 SSA    1.7
BDE 6.6025 BRA 1.9951 BC3  .1146 FSP  -274    SG1 4163.4 SG2  340.5 THA 105.64     EL1 2759.8 EL2  153.6 ALF 100.91
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LAUNCH DATE AUG 23 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 415.605

```
RL  151.28 LAL   -.00 LOL 329.46 VL  26.970 GAL  -1.50 AZL 110.34 HCA 189.72 SMA 129.20 ECC .17282 INC20.3401 V1  29.452
RP  107.56 LAP   3.36 LOP 158.58 VP  37.955 GAP   2.47 AZP  69.93 TAL 187.22 TAP  16.93 RCA 106.87 APO 151.53 V2  35.232
RC  97.481 GL  -65.94 GP   82.81 ZAL  91.91 ZAP  96.84 ETS  63.52 ZAE  95.31 ETE 155.79 ZAC 164.66 ETC 204.36 CLP-162.28
PLANETOCENTRIC CONIC
C3 105.331 VHL 10.263 DLA -75.98 RAL 166.21 RAD 6570.0 VEL 15.056 PTH   2.71 VHP 12.826 OPA  65.93 RAP 260.47 ECC 2.7335
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.97	0 54 16	2186.04	17.21	78.16	71.77	165.31	1 30 42	1586.0	24.94	76.35
164.03	11 50 42	5689.85	17.22	258.98	71.78	165.31	13 25 32	5089.9	24.94	257.17
15.97	0 54 16	2186.04	17.21	78.16	71.77	165.31	1 30 42	1586.0	24.94	76.35
164.03	11 50 42	5689.85	17.22	258.98	71.78	165.31	13 25 32	5089.9	24.94	257.17
15.97	0 54 16	2186.04	17.21	78.16	71.77	165.31	1 30 42	1586.0	24.94	76.35
164.03	11 50 42	5689.85	17.22	258.98	71.78	165.31	13 25 32	5089.9	24.94	257.17

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-3.8794 TRA-1.4924 TC3 -.1390 BAU  .1978   SGT 4074.8 SGR 1456.8 SG3  119.6     ST  2399.0 SR  1363.4 SS  1054.8
RDE 2.4250 RRA  .2327 RC3  .0204 FAU .00919   RRT -.8067 RRF -.8839 RTF  .9879     CRT -.9472 CRS  .9768 CST -.9939
FDE-1.6107 FRA -.4514 FC3 -.0756 BSP  13682   SGB 4327.4 R23  .0892 R13 -.9948     LSA 2928.9 MSA  385.1 SSA    2.2
BDE 4.5750 BRA 1.5104 BC3  .1404 FSP  -388    SG1 4247.9 SG2  825.8 THA 163.26     EL1 2732.5 EL2  383.8 ALF 151.08
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LAUNCH DATE AUG 23 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 421.695

RL	151.28	LAL	-.00	LOL	329.46	VL	26.953	GAL	-1.34	AZL	105.43	HCA	192.82	SMA	129.08	ECC	.17348	INC	15.4308	V1	29.452
RP	107.58	LAP	3.38	LOP	161.83	VP	37.936	GAP	2.81	AZP	74.94	TAL	186.42	TAP	19.23	RCA	106.69	APO	151.48	V2	35.226
RC	99.767	GL	-64.07	GP	76.97	ZAL	91.92	ZAP	100.09	ETS	39.56	ZAE	101.45	ETE	132.02	ZAC	165.00	ETC	204.68	CLP	-140.98

PLANETOCENTRIC CONIC

C3	63.555	VHL	7.972	DLA	-75.40	RAL	173.42	RAD	6569.2	VEL	13.598	PTH	2.49	VHP	9.930	DPA	59.88	RAP	252.09	ECC	2.0460		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.64	1 24 21	2070.25	24.67	75.87	76.53	163.89	1 58 52	1470.2	32.34	73.66
163.36	12 18 8	5576.47	24.68	257.35	76.56	163.89	13 51 4	4976.5	32.34	255.15
16.64	1 24 21	2070.25	24.67	75.87	76.53	163.89	1 58 52	1470.2	32.34	73.66
163.36	12 18 8	5576.47	24.68	257.35	76.56	163.89	13 51 4	4976.5	32.34	255.15
16.64	1 24 21	2070.25	24.67	75.87	76.53	163.89	1 58 52	1470.2	32.34	73.66
163.36	12 18 8	5576.47	24.68	257.35	76.56	163.89	13 51 4	4976.5	32.34	255.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.7209	TRA	-.9845	TC3	-.4089	BAU	.4058	SGT	3482.4	SGR	2684.3	SG3	161.7	ST	2129.2
RDE	3.0308	RRA	.5386	RC3	.8468	FAU	.01921	RRT	-.9391	RRF	-.9913	RTF	.9708	SR	2225.4
FDE	-1.9129	FRA	-.4207	FC3	-.2617	BSP	13791	SGB	4396.9	R23	.1051	R13	-.9925	CRT	-.9800
BDE	4.0730	BRA	1.1193	BC3	.4776	FSP	-521	SG1	4334.0	SG2	741.4	THA	142.83	CRS	.9988
														LSA	3297.7
														EL1	3064.5

ORBIT DETERMINATION ACCURACY					
SS	1219.2	CST	-.9887	MSA	312.2
SSA	2.8	ALF	133.71	EL2	307.9

LAUNCH DATE AUG 23 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 427.823

RL	151.28	LAL	-.00	LOL	329.46	VL	26.934	GAL	-1.18	AZL	102.42	HCA	195.97	SMA	128.96	ECC	.17429	INC	12.4233	V1	29.452		
RP	107.80	LAP	3.39	LOP	165.07	VP	37.916	GAP	3.16	AZP	78.04	TAL	185.62	TAP	21.59	RCA	106.48	APO	151.43	V2	35.218		
RC	102.053	GL	-61.40	GP	71.02	ZAL	91.67	ZAP	103.74	ETS	37.39	ZAE	106.38	ETE	130.62	ZAC	162.51	ETC	220.31	CLP	-136.92		

PLANETOCENTRIC CONIC

C3	43.535	VHL	6.598	DLA	-74.44	RAL	183.13	RAD	6568.7	VEL	12.841	PTH	2.34	VHP	8.240	DPA	54.39	RAP	246.54	ECC	1.7165		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.74	2 5 20	1974.49	30.63	73.09	83.63	161.84	2 38 14	1374.5	38.19	70.34
162.26	12 54 38	5484.99	30.64	255.68	83.66	161.83	14 26 3	4885.0	38.20	252.93
17.74	2 5 20	1974.49	30.63	73.09	83.63	161.84	2 38 14	1374.5	38.19	70.34
162.26	12 54 38	5484.99	30.64	255.68	83.66	161.83	14 26 3	4885.0	38.20	252.93
17.74	2 5 20	1974.49	30.63	73.09	83.63	161.84	2 38 14	1374.5	38.19	70.34
162.26	12 54 38	5484.99	30.64	255.68	83.66	161.83	14 26 3	4885.0	38.20	252.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.7249	TRA	-.7462	TC3	-.7518	BAU	.5146	SGT	3523.8	SGR	2740.3	SG3	210.5	ST	2474.9
RDE	2.7475	RRA	.3707	RC3	.4652	FAU	.02873	RRT	-.9479	RRF	-.9941	RTF	.9680	SR	2412.9
FDE	-2.2993	FRA	-.3629	FC3	-.5714	BSP	14032	SGB	4463.9	R23	.1217	R13	-.9899	CRT	-.9891
BDE	[illegible]4696	BRA	.8332	BC3	.8841	FSP	-678	SG1	4409.0	SG2	697.9	THA	142.50	CRS	.9997
														LSA	3736.5
														EL1	3447.1

ORBIT DETERMINATION ACCURACY					
SS	1443.5	CST	-.9925	MSA	263.3
SSA	3.6	ALF	135.73	EL2	254.5

LAUNCH DATE AUG 23 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 433.961

RL	151.28	LAL	-.00	LOL	329.46	VL	26.913	GAL	-1.02	AZL	100.39	HCA	199.15	SMA	128.82	ECC	.17525	INC	10.3913	V1	29.452		
RP	107.63	LAP	3.39	LOP	168.32	VP	37.895	GAP	3.51	AZP	80.17	TAL	184.81	TAP	23.96	RCA	106.24	APO	151.39	V2	35.211		
RC	104.339	GL	-58.41	GP	65.42	ZAL	91.15	ZAP	107.65	ETS	37.72	ZAE	110.50	ETE	132.29	ZAC	158.77	ETC	231.25	CLP	-136.78		

PLANETOCENTRIC CONIC

C3	32.465	VHL	5.698	DLA	-73.10	RAL	192.99	RAD	6568.3	VEL	12.403	PTH	2.24	VHP	7.179	DPA	49.21	RAP	242.49	ECC	1.5343		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.28	2 47 50	1897.17	35.13	69.76	90.64	159.18	3 19 27	1297.2	42.55	66.33
160.72	13 30 48	5414.20	35.14	253.91	90.66	159.18	15 1 2	4814.2	42.56	250.48
19.28	2 47 50	1897.17	35.13	69.76	90.64	159.18	3 19 27	1297.2	42.55	66.33
160.72	13 30 48	5414.20	35.14	253.91	90.66	159.18	15 1 2	4814.2	42.56	250.48
19.28	2 47 50	1897.17	35.13	69.76	90.64	159.18	3 19 27	1297.2	42.55	66.33
160.72	13 30 48	5414.20	35.14	253.91	90.66	159.18	15 1 2	4814.2	42.56	250.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.7814	TRA	-.5696	TC3	-1.1625	BAU	.5798	SGT	3668.7	SGR	2640.7	SG3	260.8	ST	2859.0
RDE	2.4035	RRA	.2181	RC3	.6582	FAU	.03760	RRT	-.9538	RRF	-.9943	RTF	.9683	SR	2427.6
FDE	-2.6176	FRA	-.2714	FC3	-1.0027	BSP	14231	SGB	4520.3	R23	.1348	R13	-.9873	CRT	-.9934
BDE	3.6760	BRA	.6099	BC3	1.3359	FSP	-839	SG1	4473.2	SG2	650.9	THA	144.67	CRS	.9999
														LSA	4088.0
														EL1	3744.5

ORBIT DETERMINATION ACCURACY					
SS	1642.2	CST	-.9948	MSA	227.3
SSA	4.4	ALF	139.70	EL2	212.6

LAUNCH DATE AUG 23 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 440.096

RL	151.28	LAL	-.00	LOL	329.46	VL	26.891	GAL	-.85	AZL	98.92	HCA	202.35	SMA	128.67	ECC	.17633	INC	8.9217	V1	29.452		
RP	107.65	LAP	3.38	LOP	171.56	VP	37.871	GAP	3.86	AZP	81.74	TAL	183.96	TAP	26.31	RCA	105.98	APO	151.36	V2	35.202		
RC	106.624	GL	-55.30	GP	60.17	ZAL	90.37	ZAP	111.67	ETS	38.50	ZAE	113.95	ETE	134.92	ZAC	154.65	ETC	238.29	CLP	-137.94		

PLANETOCENTRIC CONIC

C3	25.726	VHL	5.072	DLA	-71.44	RAL	202.10	RAD	6568.0	VEL	12.129	PTH	2.17	VHP	6.487	DPA	44.30	RAP	239.45	ECC	1.4234		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.19	3 28 8	1834.59	38.39	65.95	96.66	156.04	3 58 43	1234.6	45.62	61.73
158.81	14 3 8	5360.53	38.40	252.05	96.68	156.04	15 32 29	4760.5	45.62	247.83
21.19	3 28 8	1834.59	38.39	65.95	96.66	156.04	3 58 43	1234.6	45.62	61.73
158.81	14 3 8	5360.53	38.40	252.05	96.68	156.04	15 32 29	4760.5	45.62	247.83
21.19	3 28 8	1834.59	38.39	65.95	96.66	156.04	3 58 43	1234.6	45.62	61.73
158.81	14 3 8	5360.53	38.40	252.05	96.68	156.04	15 32 29	4760.5	45.62	247.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-2.7826	TRA	-.4161	TC3	-1.6243	BAU	.6244	SGT	3844.1	SGR	2479.0	SG3	308.0	ST	3174.7
RDE	2.0477	RRA	.0969	RC3	.8109	FAU	.04539	RRT	-.9585	RRF	-.9937	RTF	.9697	SR	2315.6
FDE	-2.8036	FRA	-.1490	FC3	-1.5274	BSP	14410	SGB	4574.1	R23	.1437	R13	-.9851	CRT	-.9954
BDE	3.4548	BRA	.4273	BC3	1.8154	FSP	-988	SG1	4534.7	SG2	599.1	THA	147.65	CRS	1.0000
														LSA	4308.1
														EL1	3925.4

ORBIT DETERMINATION ACCURACY					
SS	1777.4	CST	-.9960	MSA	201.0
SSA	5.4	ALF	143.93	EL2	178.8

LAUNCH DATE AUG 23 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 446.221
RL 151.28 LAL -.00 LOL 329.46 VL 26.867 GAL -.66 AZL 97.80 HCA 205.55 SMA 128.51 ECC .17755 INC 7.8046 V1 29.452
RP 107.68 LAP 3.36 LOP 174.80 VP 37.846 GAP 4.21 AZP 82.95 TAL 183.08 TAP 28.63 RCA 105.69 APO 151.33 V2 35.193
RC 108.906 GL -52.16 GP 55.29 ZAL 89.34 ZAP 115.70 ETS 39.27 ZAE 116.79 ETE 137.91 ZAC 150.55 ETC 242.94 CLP-139.61
PLANETOCENTRIC CONIC
C3 21.341 VHL 4.620 DLA -69.56 RAL 210.23 RAD 6567.9 VEL 11.947 PTH 2.13 VHP 6.028 DPA 39.65 RAP 237.17 ECC 1.3512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.37	4 5 13	1783.25	40.64	61.76	101.56	152.59	4 34 56	1183.2	47.62	56.73
156.63	14 30 54	5320.62	40.65	250.15	101.57	152.59	15 59 35	4720.6	47.63	245.11
23.37	4 5 13	1783.25	40.64	61.76	101.56	152.59	4 34 56	1183.2	47.62	56.73
156.63	14 30 54	5320.62	40.65	250.15	101.57	152.59	15 59 35	4720.6	47.63	245.11
23.37	4 5 13	1783.25	40.64	61.76	101.56	152.59	4 34 56	1183.2	47.62	56.73
156.63	14 30 54	5320.62	40.65	250.15	101.57	152.59	15 59 35	4720.6	47.63	245.11

DIFFERENTIAL CORRECTIONS
TDE-2.7288 TRA -.2734 TC3-2.1225 BAU .6601
RDE 1.7162 RRA .0041 RC3 .9204 FAU .05190
FDE-2.8519 FRA -.0039 FC3-2.1054 BSP 14633
BDE 3.2236 BRA .2735 BC3 2.3135 FSP -1121

MID-COURSE EXECUTION ACCURACY
SGT 4030.3 SGR 2292.2 SG3 348.8
RRT -.9619 RRF -.9925 RTF .9711
SGB 4636.5 R23 .1486 R13 -.9831
SG1 4603.9 SG2 548.9 THA 150.86

ORBIT DETERMINATION ACCURACY
ST 3397.5 SR 2128.8 SS 1842.4
CRT -.9965 CRS 1.0000 CST -.9964
LSA 4408.5 MSA 182.5 SSA 6.3
EL1 4006.4 EL2 151.4 ALF 147.97

LAUNCH DATE AUG 23 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 452.331
RL 151.28 LAL -.00 LOL 329.46 VL 26.842 GAL -.47 AZL 96.92 HCA 208.76 SMA 128.34 ECC .17889 INC 6.9224 V1 29.452
RP 107.71 LAP 3.32 LOP 178.04 VP 37.819 GAP 4.56 AZP 83.92 TAL 182.16 TAP 30.92 RCA 105.38 APO 151.30 V2 35.184
RC 111.186 GL -49.04 GP 50.79 ZAL 88.07 ZAP 119.64 ETS 39.90 ZAE 119.09 ETE 141.03 ZAC 146.64 ETC 246.17 CLP-141.47
PLANETOCENTRIC CONIC
C3 18.350 VHL 4.284 DLA -67.51 RAL 217.43 RAD 6567.7 VEL 11.821 PTH 2.09 VHP 5.726 DPA 35.28 RAP 235.49 ECC 1.3020

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.75	4 39 9	1740.39	42.06	57.36	105.48	148.99	5 8 9	1140.4	48.76	51.53
154.25	14 54 27	5291.76	42.07	248.30	105.50	148.98	16 22 39	4691.8	48.77	242.47
25.75	4 39 9	1740.39	42.06	57.36	105.48	148.99	5 8 9	1140.4	48.76	51.53
154.25	14 54 27	5291.76	42.07	248.30	105.50	148.98	16 22 39	4691.8	48.77	242.47
25.75	4 39 9	1740.39	42.06	57.36	105.48	148.99	5 8 9	1140.4	48.76	51.53
154.25	14 54 27	5291.76	42.07	248.30	105.50	148.98	16 22 39	4691.8	48.77	242.47

DIFFERENTIAL CORRECTIONS
TDE-2.6363 TRA -.1361 TC3-2.6373 BAU .6906
RDE 1.4264 RRA -.0648 RC3 .9845 FAU .05684
FDE-2.7828 FRA .1524 FC3-2.6818 BSP 14897
BDE 2.9975 BRA .1508 BC3 2.8151 FSP -1230

MID-COURSE EXECUTION ACCURACY
SGT 4214.9 SGR 2098.3 SG3 380.7
RRT -.9639 RRF -.9907 RTF .9725
SGB 4708.3 R23 .1491 R13 -.9816
SG1 4681.4 SG2 502.7 THA 154.04

ORBIT DETERMINATION ACCURACY
ST 3529.7 SR 1909.3 SS 1843.3
CRT -.9971 CRS 1.0000 CST -.9965
LSA 4412.8 MSA 169.3 SSA 7.4
EL1 4010.9 EL2 128.1 ALF 151.63

LAUNCH DATE AUG 23 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 458.426
RL 151.28 LAL -.00 LOL 329.46 VL 26.816 GAL -.27 AZL 96.20 HCA 211.98 SMA 128.17 ECC .18036 INC 6.2041 V1 29.452
RP 107.74 LAP 3.28 LOP 181.28 VP 37.792 GAP 4.90 AZP 84.73 TAL 181.21 TAP 33.19 RCA 105.05 APO 151.29 V2 35.174
RC 113.462 GL -45.97 GP 46.68 ZAL 86.59 ZAP 123.42 ETS 40.38 ZAE 120.90 ETE 144.13 ZAC 143.01 ETC 248.49 CLP-143.39
PLANETOCENTRIC CONIC
C3 16.247 VHL 4.031 DLA -65.36 RAL 223.85 RAD 6567.7 VEL 11.732 PTH 2.07 VHP 5.534 DPA 31.19 RAP 234.32 ECC 1.2674

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.27	5 10 26	1703.91	42.81	52.88	108.69	145.36	5 38 50	1103.9	49.20	46.35
151.73	15 14 24	5271.96	42.82	246.59	108.71	145.36	16 42 16	4672.0	49.21	240.05
28.27	5 10 26	1703.91	42.81	52.88	108.69	145.36	5 38 50	1103.9	49.20	46.35
151.73	15 14 24	5271.96	42.82	246.59	108.71	145.36	16 42 16	4672.0	49.21	240.05
28.27	5 10 26	1703.91	42.81	52.88	108.69	145.36	5 38 50	1103.9	49.20	46.35
151.73	15 14 24	5271.96	42.82	246.59	108.71	145.36	16 42 16	4672.0	49.21	240.05

DIFFERENTIAL CORRECTIONS
TDE-2.5198 TRA .0021 TC3-3.1507 BAU .7186
RDE 1.1838 RRA -.1174 RC3 1.0094 FAU .06028
FDE-2.6283 FRA .3157 FC3-3.2123 BSP 15146
BDE 2.7840 BRA .1175 BC3 3.3085 FSP -1308

MID-COURSE EXECUTION ACCURACY
SGT 4391.0 SGR 1911.6 SG3 403.6
RRT -.9647 RRF -.9883 RTF .9734
SGB 4789.1 R23 .1465 R13 -.9803
SG1 4766.5 SG2 464.1 THA 156.99

ORBIT DETERMINATION ACCURACY
ST 3582.7 SR 1687.2 SS 1793.3
CRT -.9975 CRS .9999 CST -.9963
LSA 4344.2 MSA 160.6 SSA 8.5
EL1 3958.6 EL2 108.3 ALF 154.82

LAUNCH DATE AUG 23 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 464.503
RL 151.28 LAL -.00 LOL 329.46 VL 26.789 GAL -.05 AZL 95.60 HCA 215.19 SMA 127.99 ECC .18196 INC 5.6048 V1 29.452
RP 107.77 LAP 3.23 LOP 184.52 VP 37.763 GAP 5.25 AZP 85.41 TAL 180.23 TAP 35.42 RCA 104.70 APO 151.28 V2 35.164
RC 115.736 GL -42.96 GP 42.95 ZAL 84.90 ZAP 126.99 ETS 40.72 ZAE 122.29 ETE 147.10 ZAC 139.71 ETC 250.23 CLP-145.30
PLANETOCENTRIC CONIC
C3 14.741 VHL 3.839 DLA -63.14 RAL 229.63 RAD 6567.6 VEL 11.667 PTH 2.05 VHP 5.422 DPA 27.41 RAP 233.56 ECC 1.2426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.88	5 39 35	1672.23	43.01	48.43	111.42	141.83	6 7 27	1072.2	49.07	41.30
149.12	15 31 22	5259.77	43.02	245.11	111.43	141.82	16 59 2	4659.8	49.08	237.98
30.88	5 39 35	1672.23	43.01	48.43	111.42	141.83	6 7 27	1072.2	49.07	41.30
149.12	15 31 22	5259.77	43.02	245.11	111.43	141.82	16 59 2	4659.8	49.08	237.98
30.88	5 39 35	1672.23	43.01	48.43	111.42	141.83	6 7 27	1072.2	49.07	41.30
149.12	15 31 22	5259.77	43.02	245.11	111.43	141.82	16 59 2	4659.8	49.08	237.98

DIFFERENTIAL CORRECTIONS
TDE-2.3930 TRA .1298 TC3-3.6364 BAU .7428
RDE .9885 RRA -.1482 RC3 .9919 FAU .06189
FDE-2.4260 FRA .4535 FC3-3.6347 BSP 15507
BDE 2.5892 BRA .1970 BC3 3.7693 FSP -1371

MID-COURSE EXECUTION ACCURACY
SGT 4553.5 SGR 1730.8 SG3 415.6
RRT -.9649 RRF -.9848 RTF .9754
SGB 4871.4 R23 .1345 R13 -.9803
SG1 4852.6 SG2 426.5 THA 159.69

ORBIT DETERMINATION ACCURACY
ST 3574.5 SR 1482.6 SS 1709.6
CRT -.9980 CRS .9997 CST -.9962
LSA 4227.9 MSA 149.8 SSA 9.6
EL1 3868.8 EL2 87.2 ALF 157.50

LAUNCH DATE AUG 23 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 470.561

RL	151.28	LAL	-.00	LOL	329.46	VL	26.761	GAL	.18	AZL	95.09	HCA	218.41	SMA	127.80	ECC	.18370	INC	5.0942	V1	29.452		
RP	107.80	LAP	3.16	LOP	187.75	VP	37.733	GAP	5.59	AZP	86.00	TAL	179.21	TAP	37.61	RCA	104.33	APO	151.28	V2	35.153		
RC	118.005	GL	-40.01	GP	39.59	ZAL	83.04	ZAP	130.35	ETS	40.96	ZAE	123.33	ETE	149.89	ZAC	136.74	ETC	251.58	CLP	-147.16		

PLANETOCENTRIC CONIC

C3	13.658	VHL	3.696	DLA	-60.87	RAL	234.89	RAD	6567.5	VEL	11.621	PTH	2.04	VHP	5.371	DPA	23.91	RAP	233.17	ECC	1.2248		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.57	6 7 5	1644.12	42.77	44.07	113.84	138.46	6 34 29	1044.1	48.50	36.49
146.43	15 45 48	5254.24	42.78	243.93	113.85	138.45	17 13 22	4654.2	48.51	236.34
33.57	6 7 5	1644.12	42.77	44.07	113.84	138.46	6 34 29	1044.1	48.50	36.49
146.43	15 45 48	5254.24	42.78	243.93	113.85	138.45	17 13 22	4654.2	48.51	236.34
33.57	6 7 5	1644.12	42.77	44.07	113.84	138.46	6 34 29	1044.1	48.50	36.49
146.43	15 45 48	5254.24	42.78	243.93	113.85	138.45	17 13 22	4654.2	48.51	236.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2476	TRA	.2873	TC3	-4.0897	BAU	.7667	SGT	4702.9	SGR	1573.6	SG3	422.4	ST	3496.5	SR	1287.1	SS	1583.9
RDE	.8220	RRA	-.1878	RC3	.9512	FAU	.06234	RRT	-.9612	RRF	-.9805	RTF	.9734	CRT	-.9981	CRS	.9992	CST	-.9950
FDE	-2.1658	FRA	.6357	FC3	-3.9514	BSP	15661	SGB	4959.2	R23	.1362	R13	-.9775	LSA	4045.6	MSA	154.4	SSA	10.8
BDE	2.3932	BRA	.3433	BC3	4.1989	FSP	-1379	SG1	4941.9	SG2	413.1	THA	162.04	EL1	3725.1	EL2	74.9	ALF	159.82

LAUNCH DATE AUG 23 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 476.599

RL	151.28	LAL	-.00	LOL	329.46	VL	26.732	GAL	.42	AZL	94.65	HCA	221.62	SMA	127.61	ECC	.18558	INC	4.6515	V1	29.452		
RP	107.84	LAP	3.09	LOP	190.98	VP	37.701	GAP	5.93	AZP	86.52	TAL	178.16	TAP	39.78	RCA	103.93	APO	151.30	V2	35.141		
RC	120.271	GL	-37.14	GP	36.57	ZAL	81.03	ZAP	133.48	ETS	41.13	ZAE	124.07	ETE	152.46	ZAC	134.09	ETC	252.66	CLP	-148.96		

PLANETOCENTRIC CONIC

C3	12.891	VHL	3.590	DLA	-58.57	RAL	239.71	RAD	6567.5	VEL	11.588	PTH	2.03	VHP	5.366	DPA	20.69	RAP	233.09	ECC	1.2122		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.32	6 33 17	1618.67	42.17	39.87	116.10	135.29	7 0 16	1018.7	47.57	31.94
143.68	15 58 5	5254.62	42.18	243.11	116.11	135.29	17 25 39	4654.6	47.58	235.18
36.32	6 33 17	1618.67	42.17	39.87	116.10	135.29	7 0 16	1018.7	47.57	31.94
143.68	15 58 5	5254.62	42.18	243.11	116.11	135.29	17 25 39	4654.6	47.58	235.18
36.32	6 33 17	1618.67	42.17	39.87	116.10	135.29	7 0 16	1018.7	47.57	31.94
143.68	15 58 5	5254.62	42.18	243.11	116.11	135.29	17 25 39	4654.6	47.58	235.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1069	TRA	.4286	TC3	-4.5077	BAU	.7922	SGT	4848.0	SGR	1431.6	SG3	421.8	ST	3386.5	SR	1126.0	SS	1453.6
RDE	.6954	RRA	-.2067	RC3	.9001	FAU	.06214	RRT	-.9586	RRF	-.9749	RTF	.9739	CRT	-.9985	CRS	.9983	CST	-.9939
FDE	-1.9137	FRA	.7685	FC3	-4.1729	BSP	16055	SGB	5054.9	R23	.1232	R13	-.9769	LSA	3850.5	MSA	152.4	SSA	12.0
BDE	2.2187	BRA	.4759	BC3	4.5967	FSP	-1397	SG1	5039.7	SG2	392.1	THA	164.10	EL1	3568.4	EL2	57.8	ALF	161.63

LAUNCH DATE AUG 23 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 482.618

RL	151.28	LAL	-.00	LOL	329.46	VL	26.702	GAL	.67	AZL	94.26	HCA	224.83	SMA	127.42	ECC	.18761	INC	4.2616	V1	29.452		
RP	107.87	LAP	3.00	LOP	194.21	VP	37.670	GAP	6.28	AZP	86.98	TAL	177.08	TAP	41.92	RCA	103.51	APO	151.32	V2	35.130		
RC	122.531	GL	-34.34	GP	33.87	ZAL	78.88	ZAP	136.38	ETS	41.27	ZAE	124.58	ETE	154.80	ZAC	131.75	ETC	253.55	CLP	-150.68		

PLANETOCENTRIC CONIC

C3	12.369	VHL	3.517	DLA	-56.27	RAL	244.17	RAD	6567.5	VEL	11.565	PTH	2.02	VHP	5.396	DPA	17.72	RAP	233.28	ECC	1.2036		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.11	6 58 31	1595.09	41.27	35.84	118.29	132.37	7 25 6	995.1	46.36	27.68
140.89	16 8 26	5260.52	41.28	242.68	118.30	132.36	17 36 7	4660.5	46.37	234.52
39.11	6 58 31	1595.09	41.27	35.84	118.29	132.37	7 25 6	995.1	46.36	27.68
140.89	16 8 26	5260.52	41.28	242.68	118.30	132.36	17 36 7	4660.5	46.37	234.52
39.11	6 58 31	1595.09	41.27	35.84	118.29	132.37	7 25 6	995.1	46.36	27.68
140.89	16 8 26	5260.52	41.28	242.68	118.30	132.36	17 36 7	4660.5	46.37	234.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9539	TRA	.5889	TC3	-4.8358	BAU	.8111	SGT	4968.6	SGR	1305.0	SG3	415.9	ST	3226.7	SR	983.2	SS	1306.5
RDE	.5909	RRA	-.2263	RC3	.8231	FAU	.06040	RRT	-.9533	RRF	-.9676	RTF	.9730	CRT	-.9990	CRS	.9962	CST	-.9918
FDE	-1.6476	FRA	.9097	FC3	-4.2273	BSP	16174	SGB	5137.1	R23	.1144	R13	-.9753	LSA	3614.0	MSA	157.0	SSA	13.2
BDE	2.0413	BRA	.6309	BC3	4.9053	FSP	-1366	SG1	5122.9	SG2	382.3	THA	165.86	EL1	3373.0	EL2	42.2	ALF	163.07

LAUNCH DATE AUG 23 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 488.614

RL	151.28	LAL	-.00	LOL	329.46	VL	26.672	GAL	.94	AZL	93.91	HCA	228.05	SMA	127.22	ECC	.18979	INC	3.9137	V1	29.452		
RP	107.91	LAP	2.91	LOP	197.44	VP	37.637	GAP	6.62	AZP	87.38	TAL	175.98	TAP	44.02	RCA	103.07	APO	151.37	V2	35.118		
RC	124.786	GL	-31.63	GP	31.45	ZAL	76.63	ZAP	139.08	ETS	41.41	ZAE	124.91	ETE	156.90	ZAC	129.67	ETC	254.31	CLP	-152.34		

PLANETOCENTRIC CONIC

C3	12.045	VHL	3.471	DLA	-53.97	RAL	248.32	RAD	6567.5	VEL	11.551	PTH	2.02	VHP	5.455	DPA	15.00	RAP	233.70	ECC	1.1982		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.93	7 23 0	1572.78	40.14	31.97	120.47	129.69	7 49 13	972.8	44.94	23.69
138.07	16 17 3	5271.62	40.15	242.65	120.48	129.68	17 44 54	4671.6	44.95	234.37
41.93	7 23 0	1572.78	40.14	31.97	120.47	129.69	7 49 13	972.8	44.94	23.69
138.07	16 17 3	5271.62	40.15	242.65	120.48	129.68	17 44 54	4671.6	44.95	234.37
41.93	7 23 0	1572.78	40.14	31.97	120.47	129.69	7 49 13	972.8	44.94	23.69
138.07	16 17 3	5271.62	40.15	242.65	120.48	129.68	17 44 54	4671.6	44.95	234.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8080	TRA	.7470	TC3	-5.1146	BAU	.8324	SGT	5089.9	SGR	1197.5	SG3	407.0	ST	3052.1	SR	869.0	SS	1167.8
RDE	.5120	RRA	-.2390	RC3	.7479	FAU	.05843	RRT	-.9470	RRF	-.9587	RTF	.9725	CRT	-.9995	CRS	.9923	CST	-.9889
FDE	-1.4055	FRA	1.0269	FC3	-4.1998	BSP	16475	SGB	5228.9	R23	.1018	R13	-.9743	LSA	3377.6	MSA	162.1	SSA	14.4
BDE	1.8791	BRA	.7843	BC3	5.1690	FSP	-1345	SG1	5215.4	SG2	375.3	THA	167.37	EL1	3173.3	EL2	26.0	ALF	164.11

LAUNCH DATE AUG 23 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 494.587

RL 151.28 LAL -.00 LOL 329.46 VL 26.641 GAL 1.22 AZL 93.60 HCA 231.26 SMA 127.02 ECC .19214 INC 3.5994 V1 29.452
RP 107.95 LAP 2.81 LOP 200.66 VP 37.603 GAP 6.97 AZP 87.75 TAL 174.85 TAP 46.11 RCA 102.61 APO 151.42 V2 35.105
RC 127.036 GL -29.01 GP 29.29 ZAL 74.31 ZAP 141.57 ETS 41.57 ZAE 125.10 ETE 158.78 ZAC 127.85 ETC 254.98 CLP-153.93

PLANETOCENTRIC CONIC

C3 11.891 VHL 3.448 DLA -51.68 RAL 252.19 RAO 6567.5 VEL 11.545 PTH 2.01 VHP 5.538 DPA 12.50 RAP 234.32 ECC 1.1957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.78	7 46 56	1551.15	38.82	28.27	122.68	127.26	8 12 47	951.1	43.35	19.93
136.22	16 23 59	5287.81	38.84	243.05	122.69	127.25	17 52 7	4687.8	43.36	234.71
44.78	7 46 56	1551.15	38.82	28.27	122.68	127.26	8 12 47	951.1	43.35	19.93
135.22	16 23 59	5287.81	38.84	243.05	122.69	127.25	17 52 7	4687.8	43.36	234.71
44.78	7 46 56	1551.15	38.82	28.27	122.68	127.26	8 12 47	951.1	43.35	19.93
135.22	16 23 59	5287.81	38.84	243.05	122.69	127.25	17 52 7	4687.8	43.36	234.71

DIFFERENTIAL CORRECTIONS
TDE-1.6737 TRA .8992 TC3-5.3627 BAU .8595
RDE .4544 RRA -.2455 RC3 .6855 FAU .05685
FDE-1.1957 FRA 1.1159 FC3-4.1387 BSP 17058
BOE 1.7343 BRA .9321 BC3 5.4063 FSP -1347

MID-COURSE EXECUTION ACCURACY
SGT 5217.1 SGR 1107.3 SG3 396.3
RRT -.9404 RRF -.9483 RTF .9732
SGB 5333.3 R23 .0837 R13 -.9745
SG1 5320.5 SG2 369.1 THA 168.66

ORBIT DETERMINATION ACCURACY
ST 2875.5 SR 780.5 SS 1043.8
CRT -.9998 CRS .9856 CST -.9856
LSA 3152.6 MSA 166.5 SSA 15.4
EL1 2979.5 EL2 15.4 ALF 164.82

LAUNCH DATE AUG 23 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 500.539

RL 151.28 LAL -.00 LOL 329.46 VL 26.609 GAL 1.52 AZL 93.31 HCA 234.47 SMA 126.81 ECC .19466 INC 3.3124 V1 29.452
RP 107.99 LAP 2.70 LOP 203.88 VP 37.569 GAP 7.31 AZP 88.07 TAL 173.69 TAP 48.16 RCA 102.13 APO 151.50 V2 35.093
RC 129.278 GL -26.47 GP 27.37 ZAL 71.92 ZAP 143.88 ETS 41.76 ZAE 125.19 ETE 160.44 ZAC 126.25 ETC 255.58 CLP-155.45

PLANETOCENTRIC CONIC

C3 11.886 VHL 3.448 DLA -49.41 RAL 255.82 RAO 6567.5 VEL 11.544 PTH 2.01 VHP 5.640 DPA 10.19 RAP 235.13 ECC 1.1956

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.65	8 10 31	1529.73	37.37	24.72	124.94	125.06	8 36 1	929.7	41.65	16.36
132.35	16 29 20	5309.05	37.38	243.89	124.95	125.04	17 57 49	4709.0	41.66	235.53
47.65	8 10 31	1529.73	37.37	24.72	124.94	125.06	8 36 1	929.7	41.65	16.36
132.35	16 29 20	5309.05	37.38	243.89	124.95	125.04	17 57 49	4709.0	41.66	235.53
47.65	8 10 31	1529.73	37.37	24.72	124.94	125.06	8 36 1	929.7	41.65	16.36
132.35	16 29 20	5309.05	37.38	243.89	124.95	125.04	17 57 49	4709.0	41.66	235.53

DIFFERENTIAL CORRECTIONS
TDE-1.5204 TRA 1.0790 TC3-5.4692 BAU .8743
RDE .4043 RRA -.2566 RC3 .6020 FAU .05367
FDE -.9779 FRA 1.2198 FC3-3.9095 BSP 17133
BOE 1.5733 BRA 1.1091 BC3 5.5023 FSP -1286

MID-COURSE EXECUTION ACCURACY
SGT 5310.7 SGR 1026.4 SG3 382.7
RRT -.9301 RRF -.9357 RTF .9719
SGB 5408.9 R23 .0742 R13 -.9729
SG1 5396.2 SG2 370.9 THA 169.76

ORBIT DETERMINATION ACCURACY
ST 2661.1 SR 700.2 SS 914.5
CRT -.9992 CRS .9717 CST -.9790
LSA 2894.0 MSA 180.5 SSA 16.3
EL1 2751.5 EL2 27.1 ALF 165.27

LAUNCH DATE AUG 23 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 506.466

RL 151.28 LAL -.00 LOL 329.46 VL 26.577 GAL 1.83 AZL 93.05 HCA 237.68 SMA 126.61 ECC .19736 INC 3.0477 V1 29.452
RP 108.03 LAP 2.58 LOP 207.10 VP 37.535 GAP 7.67 AZP 88.37 TAL 172.51 TAP 50.19 RCA 101.62 APO 151.60 V2 35.080
RC 131.513 GL -24.04 GP 25.64 ZAL 69.51 ZAP 146.03 ETS 42.01 ZAE 125.20 ETE 161.92 ZAC 124.85 ETC 256.13 CLP-156.91

PLANETOCENTRIC CONIC

C3 12.018 VHL 3.467 DLA -47.19 RAL 259.22 RAO 6567.5 VEL 11.550 PTH 2.02 VHP 5.760 DPA 8.06 RAP 236.10 ECC 1.1978

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.53	8 33 53	1508.06	35.80	21.27	127.27	123.07	8 59 1	908.1	39.86	12.95
129.47	16 33 7	5335.37	35.82	245.16	127.28	123.06	18 2 2	4735.4	39.87	236.83
50.53	8 33 53	1508.06	35.80	21.27	127.27	123.07	8 59 1	908.1	39.86	12.95
129.47	16 33 7	5335.37	35.82	245.16	127.28	123.06	18 2 2	4735.4	39.87	236.83
50.53	8 33 53	1508.06	35.80	21.27	127.27	123.07	8 59 1	908.1	39.86	12.95
129.47	16 33 7	5335.37	35.82	245.16	127.28	123.06	18 2 2	4735.4	39.87	236.83

DIFFERENTIAL CORRECTIONS
TDE-1.3750 TRA 1.2596 TC3-5.5273 BAU .8921
RDE .3679 RRA -.2648 RC3 .5309 FAU .05080
FDE -.7901 FRA 1.3050 FC3-3.6592 BSP 17376
BOE 1.4233 BRA 1.2871 BC3 5.5527 FSP -1242

MID-COURSE EXECUTION ACCURACY
SGT 5406.8 SGR 959.2 SG3 368.7
RRT -.9189 RRF -.9214 RTF .9713
SGB 5491.2 R23 .0626 R13 -.9720
SG1 5478.5 SG2 373.5 THA 170.70

ORBIT DETERMINATION ACCURACY
ST 2454.0 SR 638.1 SS 805.2
CRT -.9966 CRS .9481 CST -.9700
LSA 2653.0 MSA 196.4 SSA 17.0
EL1 2535.1 EL2 50.6 ALF 165.47

LAUNCH DATE AUG 23 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 512.368

RL 151.28 LAL -.00 LOL 329.46 VL 26.545 GAL 2.16 AZL 92.80 HCA 240.89 SMA 126.40 ECC .20026 INC 2.8012 V1 29.452
RP 108.07 LAP 2.45 LOP 210.31 VP 37.499 GAP 8.02 AZP 88.64 TAL 171.31 TAP 52.20 RCA 101.09 APO 151.71 V2 35.067
RC 133.740 GL -21.71 GP 24.10 ZAL 67.08 ZAP 148.02 ETS 42.34 ZAE 125.16 ETE 163.22 ZAC 123.62 ETC 256.65 CLP-158.32

PLANETOCENTRIC CONIC

C3 12.280 VHL 3.504 DLA -45.00 RAL 262.42 RAO 6567.5 VEL 11.561 PTH 2.02 VHP 5.895 DPA 6.10 RAP 237.21 ECC 1.2021

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.43	8 57 14	1485.60	34.17	17.91	129.66	121.29	9 21 59	885.6	38.02	9.64
126.57	16 35 17	5366.97	34.18	246.87	129.67	121.28	18 4 44	4767.0	38.03	238.60
53.43	8 57 14	1485.60	34.17	17.91	129.66	121.29	9 21 59	885.6	38.02	9.64
126.57	16 35 17	5366.97	34.18	246.87	129.67	121.28	18 4 44	4767.0	38.03	238.60
53.43	8 57 14	1485.60	34.17	17.91	129.66	121.29	9 21 59	885.6	38.02	9.64
126.57	16 35 17	5366.97	34.18	246.87	129.67	121.28	18 4 44	4767.0	38.03	238.60

DIFFERENTIAL CORRECTIONS
TDE-1.2316 TRA 1.4463 TC3-5.5197 BAU .9094
RDE .3408 RRA -.2722 RC3 .4662 FAU .04788
FDE -.6233 FRA 1.3790 FC3-3.3753 BSP 17636
BOE 1.2779 BRA 1.4717 BC3 5.5393 FSP -1198

MID-COURSE EXECUTION ACCURACY
SGT 5495.9 SGR 901.9 SG3 354.2
RRT -.9060 RRF -.9056 RTF .9707
SGB 5569.5 R23 .0518 R13 -.9713
SG1 5556.6 SG2 377.5 THA 171.50

ORBIT DETERMINATION ACCURACY
ST 2252.8 SR 588.4 SS 712.8
CRT -.9902 CRS .9098 CST -.9579
LSA 2425.3 MSA 216.3 SSA 17.5
EL1 2327.0 EL2 79.4 ALF 165.48

LAUNCH DATE AUG 23 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 518.242

RL	151.28	LAL	-.00	LOL	329.46	VL	26.512	GAL	2.50	AZL	92.57	HCA	244.09	SMA	126.19	ECC	.20337	INC	2.5699
RP	108.11	LAP	2.31	LOP	213.53	VP	37.464	GAP	8.38	AZP	88.88	TAL	170.10	TAP	54.19	RCA	100.53	APO	151.85
RC	135.957	GL	-19.49	GP	22.71	ZAL	64.67	ZAP	149.88	ETS	42.75	ZAE	125.08	ETE	164.37	ZAC	122.54	ETC	257.15

V1	29.452	V2	35.054	CLP	-159.67														

PLANETOCENTRIC CONIC

C3	12.671	VHL	3.560	DLA	-42.88	RAL	265.43	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	6.043	DPA	4.27	RAP	238.44
ECC	1.2085																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.35	9 20 41	1461.91	32.49	14.58	132.11	119.69	9 45 2	861.9	36.16	6.39
123.65	16 35 50	5404.00	32.50	249.03	132.12	119.67	18 5 54	4804.0	36.17	240.83
56.35	9 20 41	1461.91	32.49	14.58	132.11	119.69	9 45 2	861.9	36.16	6.39
123.65	16 35 50	5404.00	32.50	249.03	132.12	119.67	18 5 54	4804.0	36.17	240.83
56.35	9 20 41	1461.91	32.49	14.58	132.11	119.69	9 45 2	861.9	36.16	6.39
123.65	16 35 50	5404.00	32.50	249.03	132.12	119.67	18 5 54	4804.0	36.17	240.83

DIFFERENTIAL CORRECTIONS

TDE	-1.0895	TRA	1.6412	TC3	-5.4908	BAU	.9259
RDE	.3210	RRA	-.2796	RC3	.4079	FAU	.04496
FDE	-.4754	FRA	1.4452	FC3	-3.0717	BSP	17901
BDE	1.1358	BRA	1.8648	BC3	5.4680	FSP	-1154

MID-COURSE EXECUTION ACCURACY

SGT	5579.3	SGR	853.5	SG3	339.5		
RRT	-.8918	RRF	-.8884	RTF	.9701		
SGB	5644.2	R23	.0424	R13	-.9706		
SG1	5631.2	SG2	382.5	THA	172.19		

ORBIT DETERMINATION ACCURACY

ST	2063.7	SR	548.6	SS	638.7
CRT	-.9772	CRS	.8513	CST	-.9425
LSA	2215.7	MSA	240.5	SSA	17.7
EL1	2132.4	EL2	112.6	ALF	165.40

LAUNCH DATE AUG 23 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 524.099

RL	151.28	LAL	-.00	LOL	329.46	VL	26.479	GAL	2.87	AZL	92.35	HCA	247.29	SMA	125.98	ECC	.20670	INC	2.3510
RP	108.15	LAP	2.17	LOP	216.73	VP	37.428	GAP	8.75	AZP	89.09	TAL	168.86	TAP	56.16	RCA	99.94	APO	152.02
RC	138.166	GL	-17.38	GP	21.47	ZAL	62.29	ZAP	151.61	ETS	43.26	ZAE	124.97	ETE	165.38	ZAC	121.60	ETC	257.64

V1	29.452	V2	35.041	CLP	-160.97														

PLANETOCENTRIC CONIC

C3	13.191	VHL	3.632	DLA	-40.81	RAL	268.26	RAD	6567.5	VEL	11.801	PTH	2.03	VHP	6.204	DPA	2.58	RAP	239.79
ECC	1.2171																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.28	9 44 27	1436.31	30.78	11.24	134.63	118.24	10 8 24	836.3	34.29	3.13
120.72	16 34 39	5446.90	30.79	251.66	134.64	118.23	18 5 26	4846.9	34.30	243.55
59.28	9 44 27	1436.31	30.78	11.24	134.63	118.24	10 8 24	836.3	34.29	3.13
120.72	16 34 39	5446.90	30.79	251.66	134.64	118.23	18 5 26	4846.9	34.30	243.55
59.28	9 44 27	1436.31	30.78	11.24	134.63	118.24	10 8 24	836.3	34.29	3.13
120.72	16 34 39	5446.90	30.79	251.66	134.64	118.23	18 5 26	4846.9	34.30	243.55

DIFFERENTIAL CORRECTIONS

TDE	-.9483	TRA	1.8450	TC3	-5.3255	BAU	.9412
RDE	.3070	RRA	-.2873	RC3	.3558	FAU	.04205
FDE	-.3445	FRA	1.5045	FC3	-2.7600	BSP	18147
BDE	.9968	BRA	1.8672	BC3	5.3374	FSP	-1109

MID-COURSE EXECUTION ACCURACY

SGT	5656.1	SGR	812.4	SG3	325.0		
RRT	-.8785	RRF	-.8702	RTF	.9696		
SGB	5714.2	R23	.0341	R13	-.9699		
SG1	5701.0	SG2	388.1	THA	172.79		

ORBIT DETERMINATION ACCURACY

ST	1892.8	SR	516.6	SS	583.3
CRT	-.9538	CRS	.7696	CST	-.9251
LSA	2029.1	MSA	268.9	SSA	17.7
EL1	1956.3	EL2	150.1	ALF	165.32

LAUNCH DATE AUG 23 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 529.905

RL	151.28	LAL	-.00	LOL	329.46	VL	26.445	GAL	3.25	AZL	92.14	HCA	250.49	SMA	125.77	ECC	.21028	INC	2.1423
RP	108.19	LAP	2.02	LOP	219.94	VP	37.392	GAP	9.13	AZP	89.28	TAL	167.61	TAP	58.11	RCA	99.32	APO	152.22
RC	140.364	GL	-15.38	GP	20.35	ZAL	59.95	ZAP	153.23	ETS	43.88	ZAE	124.84	ETE	166.27	ZAC	120.76	ETC	258.13

V1	29.452	V2	35.028	CLP	-162.23														

PLANETOCENTRIC CONIC

C3	13.844	VHL	3.721	DLA	-38.82	RAL	270.93	RAD	6567.5	VEL	11.629	PTH	2.04	VHP	6.378	DPA	1.01	RAP	241.24
ECC	1.2278																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.25	10 8 48	1408.10	29.07	7.83	137.20	116.95	10 32 16	808.1	32.44	359.79
117.75	16 31 36	5496.18	29.09	254.80	137.21	116.93	18 3 12	4896.2	32.45	246.76
62.25	10 8 48	1408.10	29.07	7.83	137.20	116.95	10 32 16	808.1	32.44	359.79
117.75	16 31 36	5496.18	29.09	254.80	137.21	116.93	18 3 12	4896.2	32.45	246.76
62.25	10 8 48	1408.10	29.07	7.83	137.20	116.95	10 32 16	808.1	32.44	359.79
117.75	16 31 36	5496.18	29.09	254.80	137.21	116.93	18 3 12	4896.2	32.45	246.76

DIFFERENTIAL CORRECTIONS

TDE	-.8075	TRA	2.0580	TC3	-5.1520	BAU	.9553
RDE	.2977	RRA	-.2954	RC3	.3098	FAU	.03919
FDE	-.2286	FRA	1.5583	FC3	-2.4509	BSP	18381
BDE	.8606	BRA	2.0791	BC3	5.1613	FSP	-1065

MID-COURSE EXECUTION ACCURACY

SGT	5726.4	SGR	777.3	SG3	310.8		
RRT	-.8602	RRF	-.8514	RTF	.9690		
SGB	5778.9	R23	.0271	R13	-.9693		
SG1	5765.5	SG2	393.7	THA	173.31		

ORBIT DETERMINATION ACCURACY

ST	1746.0	SR	490.8	SS	545.7
CRT	-.9156	CRS	.6659	CST	-.9090
LSA	1869.9	MSA	300.3	SSA	17.6
EL1	1803.6	EL2	191.1	ALF	165.40

LAUNCH DATE AUG 23 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 535.688

RL	151.28	LAL	-.00	LOL	329.46	VL	26.412	GAL	3.65	AZL	91.94	HCA	253.69	SMA	125.56	ECC	.21412	INC	1.9418
RP	108.23	LAP	1.86	LOP	223.14	VP	37.356	GAP	9.51	AZP	89.45	TAL	166.35	TAP	60.04	RCA	98.67	APO	152.44
RC	142.552	GL	-13.50	GP	19.34	ZAL	57.67	ZAP	154.75	ETS	44.63	ZAE	124.70	ETE	167.06	ZAC	120.03	ETC	258.61

V1	29.452	V2	35.014	CLP	-163.45														

PLANETOCENTRIC CONIC

C3	14.639	VHL	3.826	DLA	-36.91	RAL	273.44	RAD	6567.6	VEL	11.663	PTH	2.05	VHP	6.564	DPA	-.44	RAP	242.79
ECC	1.2409																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.27	10 34 0	1376.25	27.38	4.27	139.82	115.78	10 56 56	776.3	30.61	356.31
114.73	16 26 25	5552.66	27.39	258.48	139.83	115.77	17 58 58	4952.7	30.62	250.52
65.27	10 34 0	1376.25	27.38	4.27	139.82	115.78	10 56 56	776.3	30.61	356.31
114.73	16 26 25	5552.66	27.39	258.48	139.83	115.77	17 58 58	4952.7	30.62	250.52
65.27	10 34 0	1376.25	27.38	4.27	139.82	115.78	10 56 56	776.3	30.61	356.31
114.73	16 26 25	5552.66	27.39	258.48	139.83	115.77	17 58 58	4952.7	30.62	250.52

DIFFERENTIAL CORRECTIONS

TDE	-.6757	TRA	2.2720	TC3	-4.9633	BAU	.9728
RDE	.2936	RRA	-.3027	RC3	.2736	FAU	.03677
FDE	-.1345	FRA	1.5999	FC3	-2.1748	BSP	18824
BDE	.7368	BRA	2.2921	BC3	4.9709	FSP	-1038

MID-COURSE EXECUTION ACCURACY

SGT	5792.7	SGR	747.4	SG3	296.6		
RRT	-.8437	RRF	-.8323	RTF	.9691		
SGB	5840.7	R23	.0201	R13	-.9693		
SG1	5827.1	SG2	398.9	THA	173.76		

ORBIT DETERMINATION ACCURACY

ST	1633.0	SR	471.5	SS	523.2
CRT	-.8608	CRS	.5558	CST	-.9008
LSA	1747.4	MSA	329.9	SSA	17.3
EL1	1683.7	EL2	232.7	ALF	165.76

LAUNCH DATE AUG 23 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 541.437

RL 151.28 LAL -.00 LOL 329.46 VL 26.378 GAL 4.07 AZL 91.75 HCA 256.89 SMA 125.35 ECC .21824 INC 1.7479 V1 29.452
RP 108.27 LAP 1.70 LOP 226.34 VP 37.320 GAP 9.91 AZP 89.60 TAL 165.07 TAP 61.96 RCA 97.99 APO 152.70 V2 35.001
RC 144.730 GL -11.73 GP 18.43 ZAL 55.45 ZAP 156.18 ETS 45.51 ZAE 124.56 ETE 167.76 ZAC 119.38 ETC 259.09 CLP-164.63

PLANETOCENTRIC CONIC

C3 15.584 VHL 3.948 DLA -35.08 RAL 275.81 RAD 6567.6 VEL 11.703 PTH 2.06 VHP 6.762 DPA -1.80 RAP 244.41 ECC 1.2565

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.38	11 0 30	1339.49	25.71	.45	142.49	114.72	11 22 49	739.5	28.82	352.57
111.62	16 18 50	5617.48	25.72	262.78	142.50	114.71	17 52 27	5017.5	28.83	254.90
68.38	11 0 30	1339.49	25.71	.45	142.49	114.72	11 22 49	739.5	28.82	352.57
111.62	16 18 50	5617.48	25.72	262.78	142.50	114.71	17 52 27	5017.5	28.83	254.90
68.38	11 0 30	1339.49	25.71	.45	142.49	114.72	11 22 49	739.5	28.82	352.57
111.62	16 18 50	5617.48	25.72	262.78	142.50	114.71	17 52 27	5017.5	28.83	254.90

DIFFERENTIAL CORRECTIONS
TDE -.5278 TRA 2.5127 TC3-4.6997 BAU .9804
RDE .2899 RRA -.3132 RC3 .2350 FAU .03377
FDE -.0379 FRA 1.6510 FC3-1.8757 BSP 18852
BDE .6022 BRA 2.5321 BC3 4.7055 FSP -982

MID-COURSE EXECUTION ACCURACY
SGT 5849.1 SGR 721.2 SG3 283.5
RRT -.8265 RRF -.8131 RTF .9682
SGB 5893.4 R23 .0162 R13 -.9684
SG1 5879.6 SG2 403.9 THA 174.15

ORBIT DETERMINATION ACCURACY
ST 1544.8 SR 452.7 SS 514.9
CRT -.7805 CRS .4257 CST -.8972
LSA 1650.7 MSA 362.5 SSA 17.1
EL1 1586.0 EL2 275.6 ALF 166.71

LAUNCH DATE AUG 23 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 547.149

RL 151.28 LAL -.00 LOL 329.46 VL 26.344 GAL 4.52 AZL 91.56 HCA 260.08 SMA 125.14 ECC .22267 INC 1.5592 V1 29.452
RP 108.31 LAP 1.54 LOP 229.54 VP 37.284 GAP 10.32 AZP 89.73 TAL 163.79 TAP 63.87 RCA 97.27 APO 153.00 V2 34.988
RC 146.899 GL -10.07 GP 17.60 ZAL 53.31 ZAP 157.52 ETS 46.55 ZAE 124.41 ETE 168.38 ZAC 118.81 ETC 259.58 CLP-165.78

PLANETOCENTRIC CONIC

C3 16.693 VHL 4.086 DLA -33.33 RAL 278.04 RAD 6567.7 VEL 11.751 PTH 2.07 VHP 6.973 DPA -3.06 RAP 246.11 ECC 1.2747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.65	11 29 0	1295.42	24.08	356.19	145.20	113.77	11 50 35	695.4	27.08	348.39
108.35	16 8 8	5692.84	24.09	267.85	145.21	113.75	17 43 0	5092.8	27.09	260.05
71.65	11 29 0	1295.42	24.08	356.19	145.20	113.77	11 50 35	695.4	27.08	348.39
108.35	16 8 8	5692.84	24.09	267.85	145.21	113.75	17 43 0	5092.8	27.09	260.05
110.00	15 20 18	5839.57	19.23	276.65	142.63	118.82	16 57 37	5239.6	22.93	269.46
110.00	17 16 0	5484.73	29.13	253.90	147.40	108.73	18 47 25	4884.7	31.41	245.43

DIFFERENTIAL CORRECTIONS
TDE -.3850 TRA 2.7587 TC3-4.4293 BAU .9895
RDE .2897 RRA -.3235 RC3 .2036 FAU .03108
FDE .0431 FRA 1.6942 FC3-1.6120 BSP 19009
BDE .4818 BRA 2.7776 BC3 4.4340 FSP -938

MID-COURSE EXECUTION ACCURACY
SGT 5901.6 SGR 698.2 SG3 270.8
RRT -.8094 RRF -.7944 RTF .9677
SGB 5942.8 R23 .0124 R13 -.9678
SG1 5928.7 SG2 408.1 THA 174.50

ORBIT DETERMINATION ACCURACY
ST 1494.2 SR 437.7 SS 515.8
CRT -.6821 CRS .3058 CST -.9041
LSA 1593.5 MSA 388.2 SSA 16.7
EL1 1525.1 EL2 313.6 ALF 168.19

LAUNCH DATE AUG 23 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 552.819

RL 151.28 LAL -.00 LOL 329.46 VL 26.310 GAL 4.99 AZL 91.37 HCA 263.27 SMA 124.93 ECC .22744 INC 1.3741 V1 29.452
RP 108.35 LAP 1.36 LOP 232.73 VP 37.247 GAP 10.74 AZP 89.84 TAL 162.50 TAP 65.77 RCA 96.51 APO 153.34 V2 34.975
RC 149.057 GL -8.52 GP 16.85 ZAL 51.26 ZAP 158.77 ETS 47.76 ZAE 124.26 ETE 168.93 ZAC 118.29 ETC 260.08 CLP-166.90

PLANETOCENTRIC CONIC

C3 17.981 VHL 4.240 DLA -31.66 RAL 280.14 RAD 6567.7 VEL 11.805 PTH 2.09 VHP 7.198 DPA -4.23 RAP 247.88 ECC 1.2959

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.21	12 0 47	1239.94	22.49	351.20	147.95	112.89	12 21 27	639.9	25.39	343.46
104.79	15 53 7	5782.71	22.50	273.99	147.95	112.88	17 29 30	5182.7	25.41	266.24
75.21	12 0 47	1239.94	22.49	351.20	147.95	112.89	12 21 27	639.9	25.39	343.46
104.79	15 53 7	5782.71	22.50	273.99	147.95	112.88	17 29 30	5182.7	25.41	266.24
110.00	14 47 44	698.19	14.21	307.15	143.48	121.42	14 59 22	98.2	18.27	300.38
110.00	18 5 21	5372.46	31.32	245.89	151.29	104.45	19 34 53	4772.5	32.98	237.06

DIFFERENTIAL CORRECTIONS
TDE -.2427 TRA 3.0153 TC3-4.1464 BAU .9976
RDE .2918 RRA -.3342 RC3 .1768 FAU .02856
FDE .1135 FRA 1.7337 FC3-1.3749 BSP 19177
BDE .3795 BRA 3.0338 BC3 4.1501 FSP -897

MID-COURSE EXECUTION ACCURACY
SGT 5948.6 SGR 677.8 SG3 258.6
RRT -.7927 RRF -.7761 RTF .9674
SGB 5987.0 R23 .0091 R13 -.9675
SG1 5972.9 SG2 411.5 THA 174.81

ORBIT DETERMINATION ACCURACY
ST 1476.7 SR 425.2 SS 522.7
CRT -.5706 CRS .1989 CST -.9177
LSA 1571.6 MSA 405.8 SSA 16.3
EL1 1497.7 EL2 344.3 ALF 170.14

LAUNCH DATE AUG 23 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 558.444

RL 151.28 LAL -.00 LOL 329.46 VL 26.276 GAL 5.49 AZL 91.19 HCA 266.46 SMA 124.72 ECC .23258 INC 1.1917 V1 29.452
RP 108.39 LAP 1.19 LOP 235.92 VP 37.211 GAP 11.18 AZP 89.93 TAL 161.20 TAP 67.67 RCA 95.71 APO 153.72 V2 34.962
RC 151.205 GL -7.08 GP 16.17 ZAL 49.29 ZAP 159.96 ETS 49.15 ZAE 124.10 ETE 169.41 ZAC 117.83 ETC 260.58 CLP-168.00

PLANETOCENTRIC CONIC

C3 19.468 VHL 4.412 DLA -30.08 RAL 282.12 RAD 6567.8 VEL 11.868 PTH 2.11 VHP 7.436 DPA -5.32 RAP 249.71 ECC 1.3204

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.40	12 38 52	1163.19	20.95	344.75	150.72	112.09	12 58 15	563.2	23.77	337.07
100.60	15 30 51	608.76	20.97	303.96	150.73	112.08	15 41 0	8.8	23.78	296.28
79.40	12 38 52	1163.19	20.95	344.75	150.72	112.09	12 58 15	563.2	23.77	337.07
100.60	15 30 51	608.76	20.97	303.96	150.73	112.08	15 41 0	8.8	23.78	296.28
110.00	14 28 55	804.45	10.36	312.97	145.03	122.76	14 42 19	204.4	14.61	306.45
110.00	18 39 59	5303.54	32.38	240.79	154.59	101.61	20 8 23	4703.5	33.64	231.79

DIFFERENTIAL CORRECTIONS
TDE -.0991 TRA 3.2838 TC3-3.8556 BAU 1.0043
RDE .2955 RRA -.3455 RC3 .1534 FAU .02613
FDE .1763 FRA 1.7711 FC3-1.1619 BSP 19345
BDE .3117 BRA 3.3019 BC3 3.8586 FSP -859

MID-COURSE EXECUTION ACCURACY
SGT 5989.8 SGR 659.1 SG3 246.9
RRT -.7764 RRF -.7586 RTF .9672
SGB 6025.9 R23 .0065 R13 -.9672
SG1 6011.7 SG2 413.9 THA 175.09

ORBIT DETERMINATION ACCURACY
ST 1487.5 SR 414.1 SS 533.4
CRT -.4542 CRS .1056 CST -.9333
LSA 1579.9 MSA 415.0 SSA 15.9
EL1 1500.1 EL2 365.8 ALF 172.34

LAUNCH DATE AUG 23 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 564.019

RL 151.28 LAL -.00 LOL 329.46 VL 26.243 GAL 6.02 AZL 91.01 HCA 269.65 SMA 124.51 ECC .23812 INC 1.0107 V1 29.452
RP 108.43 LAP 1.01 LOP 239.11 VP 37.176 GAP 11.64 AZP 89.99 TAL 159.90 TAP 69.56 RCA 94.86 APO 154.16 V2 34.949
RC 153.343 GL -5.74 GP 15.55 ZAL 47.40 ZAP 161.07 ETS 50.75 ZAE 123.95 ETE 169.85 ZAC 117.42 ETC 261.09 CLP-169.08

PLANETOCENTRIC CONIC

C3 21.176 VHL 4.602 DLA -28.59 RAL 283.99 RAD 6567.9 VEL 11.940 PTH 2.12 VHP 7.690 DPA -6.33 RAP 251.59 ECC 1.3485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.90	13 37 57	1017.36	19.47	333.36	153.53	111.36	13 54 54	417.4	22.20	325.73
94.10	14 46 41	794.74	19.48	317.06	153.54	111.35	14 59 56	194.7	22.21	309.43
100.00	14 19 37	882.09	13.50	320.69	150.74	116.92	14 34 19	282.1	17.01	313.66
100.00	16 47 42	5693.28	25.68	268.52	155.79	105.85	18 22 35	5093.3	27.60	260.25
110.00	14 15 44	894.29	7.02	317.78	146.91	123.54	14 30 38	294.3	11.38	311.40
110.00	19 8 4	5253.84	33.00	237.05	157.68	99.48	20 35 38	4653.8	33.95	227.94

DIFFERENTIAL CORRECTIONS
TDE .0459 TRA 3.5657 TC3-3.5612 BAU 1.0089
RDE .3007 RRA -.3573 RC3 .1329 FAU .02380
FDE .2318 FRA 1.8070 FC3 -.9729 BSP 19497
BDE .3042 BRA 3.5835 BC3 3.5637 FSP -822

MID-COURSE EXECUTION ACCURACY
SGT 6025.7 SGR 641.7 SG3 235.8
RRT -.7606 RRF -.7419 RTF .9671
SGB 6059.7 R23 .0044 R13 -.9671
SG1 6045.5 SG2 415.3 THA 175.35

ORBIT DETERMINATION ACCURACY
ST 1521.0 SR 404.1 SS 545.9
CRT -.3408 CRS .0267 CST -.9484
LSA 1612.8 MSA 416.5 SSA 15.5
EL1 1527.7 EL2 378.2 ALF 174.49

LAUNCH DATE AUG 23 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 569.539

RL 151.28 LAL -.00 LOL 329.46 VL 26.209 GAL 6.57 AZL 90.83 HCA 272.84 SMA 124.30 ECC .24410 INC .8298 V1 29.452
RP 108.47 LAP .83 LOP 242.29 VP 37.140 GAP 12.12 AZP 90.04 TAL 158.61 TAP 71.44 RCA 93.96 APO 154.64 V2 34.937
RC 155.470 GL -4.50 GP 14.99 ZAL 45.61 ZAP 162.12 ETS 52.58 ZAE 123.79 ETE 170.24 ZAC 117.04 ETC 261.61 CLP-170.13

PLANETOCENTRIC CONIC

C3 23.134 VHL 4.810 DLA -27.18 RAL 285.75 RAD 6567.9 VEL 12.021 PTH 2.15 VHP 7.960 DPA -7.26 RAP 253.53 ECC 1.3807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 8 52	1157.53	12.46	340.42	153.89	115.64	13 28 9	557.5	15.81	333.35
90.00	15 29 49	697.39	23.82	311.52	158.40	105.78	15 41 26	97.4	25.76	303.39
100.00	13 54 3	1011.55	9.40	328.11	152.29	118.51	14 10 55	411.5	13.13	321.31
100.00	17 27 19	5606.65	27.15	262.50	159.34	103.01	19 0 45	5006.6	28.67	254.03
110.00	14 5 48	974.64	3.98	322.01	148.99	123.98	14 22 3	374.6	8.41	315.73
110.00	19 32 3	5216.32	33.38	234.19	160.67	97.83	20 58 59	4616.3	34.10	225.02

DIFFERENTIAL CORRECTIONS
TDE .1928 TRA 3.8610 TC3-3.2693 BAU 1.0118
RDE .3070 RRA -.3695 RC3 .1149 FAU .02157
FDE .2815 FRA 1.8418 FC3 -.8074 BSP 19642
BDE .3626 BRA 3.8787 BC3 3.2714 FSP -786

MID-COURSE EXECUTION ACCURACY
SGT 6055.9 SGR 625.1 SG3 225.3
RRT -.7453 RRF -.7261 RTF .9671
SGB 6088.1 R23 .0027 R13 -.9671
SG1 6073.9 SG2 415.6 THA 175.58

ORBIT DETERMINATION ACCURACY
ST 1570.8 SR 394.8 SS 558.9
CRT -.2363 CRS -.0398 CST -.9611
LSA 1663.0 MSA 412.2 SSA 15.1
EL1 1573.7 EL2 382.9 ALF 176.39

LAUNCH DATE AUG 23 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 574.996

RL 151.28 LAL -.00 LOL 329.46 VL 26.175 GAL 7.16 AZL 90.65 HCA 276.02 SMA 124.10 ECC .25057 INC .6480 V1 29.452
RP 108.51 LAP .64 LOP 245.48 VP 37.105 GAP 12.62 AZP 90.07 TAL 157.31 TAP 73.33 RCA 93.00 APO 155.19 V2 34.925
RC 157.587 GL -3.34 GP 14.47 ZAL 43.91 ZAP 163.10 ETS 54.66 ZAE 123.64 ETE 170.60 ZAC 116.70 ETC 262.13 CLP-171.18

PLANETOCENTRIC CONIC

C3 25.374 VHL 5.037 DLA -25.85 RAL 287.41 RAD 6568.0 VEL 12.114 PTH 2.17 VHP 8.249 DPA -8.12 RAP 255.50 ECC 1.4176

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 42 21	1291.07	8.41	348.14	155.52	117.14	13 3 52	691.1	11.98	341.29
90.00	16 9 33	609.19	25.32	305.50	161.97	103.12	16 19 42	9.2	26.88	297.17
100.00	13 37 21	1113.49	6.04	333.81	154.24	119.33	13 55 54	513.5	9.90	327.16
100.00	17 57 15	5550.05	27.95	258.49	162.60	101.05	19 29 45	4950.1	29.19	249.90
110.00	13 58 1	1048.61	1.15	325.88	151.21	124.17	14 15 30	448.6	5.63	319.65
110.00	19 53 3	5187.70	33.63	231.99	163.62	96.55	21 19 51	4587.7	34.17	222.79

DIFFERENTIAL CORRECTIONS
TDE .3413 TRA 4.1707 TC3-2.9839 BAU 1.0128
RDE .3145 RRA -.3820 RC3 .0991 FAU .01947
FDE .3255 FRA 1.8757 FC3 -.6641 BSP 19800
BDE .4641 BRA 4.1882 BC3 2.9856 FSP -754

MID-COURSE EXECUTION ACCURACY
SGT 6080.6 SGR 609.1 SG3 215.2
RRT -.7306 RRF -.7110 RTF .9673
SGB 6111.0 R23 .0014 R13 -.9673
SG1 6096.9 SG2 414.8 THA 175.79

ORBIT DETERMINATION ACCURACY
ST 1630.8 SR 385.9 SS 571.6
CRT -.1436 CRS -.0950 CST -.9711
LSA 1723.9 MSA 404.0 SSA 14.7
EL1 1631.8 EL2 381.7 ALF 177.94

LAUNCH DATE AUG 23 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 580.383

RL 151.28 LAL -.00 LOL 329.46 VL 26.141 GAL 7.79 AZL 90.46 HCA 279.20 SMA 123.89 ECC .25758 INC .4644 V1 29.452
RP 108.54 LAP .46 LOP 248.66 VP 37.070 GAP 13.15 AZP 90.07 TAL 156.03 TAP 75.23 RCA 91.98 APO 155.81 V2 34.913
RC 159.692 GL -2.28 GP 14.00 ZAL 42.30 ZAP 164.01 ETS 57.02 ZAE 123.47 ETE 170.92 ZAC 116.38 ETC 262.67 CLP-172.21

PLANETOCENTRIC CONIC

C3 27.936 VHL 5.285 DLA -24.59 RAL 288.97 RAD 6568.1 VEL 12.219 PTH 2.20 VHP 8.557 DPA -8.91 RAP 257.51 ECC 1.4598

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 25 8	1395.16	5.13	354.04	157.53	117.89	12 48 23	795.2	8.82	347.30
90.00	16 39 13	5840.87	26.13	279.48	165.24	101.31	18 16 34	5240.9	27.43	271.05
100.00	13 25 1	1201.86	3.07	338.70	156.39	119.75	13 45 3	601.9	7.00	332.12
100.00	18 22 2	5509.40	28.45	255.57	165.72	99.59	19 53 51	4909.4	29.48	246.92
110.00	13 51 46	1117.93	-1.50	329.49	153.55	124.15	14 10 24	517.9	2.99	323.29
110.00	20 11 46	5166.09	33.78	230.32	166.55	95.57	21 37 52	4566.1	34.18	221.10

DIFFERENTIAL CORRECTIONS
TDE .4917 TRA 4.4955 TC3-2.7081 BAU 1.0119
RDE .3229 RRA -.3945 RC3 .0853 FAU .01748
FDE .3647 FRA 1.9092 FC3 -.5416 BSP 19986
BDE .5882 BRA 4.5128 BC3 2.7094 FSP -724

MID-COURSE EXECUTION ACCURACY
SGT 6099.5 SGR 593.2 SG3 205.6
RRT -.7165 RRF -.6968 RTF .9677
SGB 6128.2 R23 .0004 R13 -.9677
SG1 6114.3 SG2 412.8 THA 176.00

ORBIT DETERMINATION ACCURACY
ST 1696.1 SR 377.4 SS 583.4
CRT -.0633 CRS -.1409 CST -.9787
LSA 1790.1 MSA 393.5 SSA 14.3
EL1 1696.2 EL2 376.6 ALF 179.15

LAUNCH DATE AUG 23 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 585.690

RL	151.28	LAL	-.00	LOL	329.46	VL	26.108	GAL	8.46	AZL	90.28	HCA	282.38	SMA	123.69	ECC	.26519	INC	.2774	V1	29.452
RP	108.58	LAP	.27	LOP	251.84	VP	37.035	GAP	13.72	AZP	90.06	TAL	154.75	TAP	77.13	RCA	90.89	APO	156.49	V2	34.901
RC	161.784	GL	-1.29	GP	13.58	ZAL	40.78	ZAP	164.86	ETS	59.70	ZAE	123.30	ETE	171.21	ZAC	116.08	ETC	263.21	CLP	-173.24

PLANETOCENTRIC CONIC

C3	30.867	VHL	5.556	DLA	-23.42	RAL	290.44	RAD	6568.2	VEL	12.339	PTH	2.22	VHP	8.887	DPA	-9.64	RAP	259.55	ECC	1.5080

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 12 24	1485.01	2.25	359.07	159.75	118.23	12 37 9	885.0	6.01	352.40
90.00	17 3 40	5800.97	26.64	276.66	168.39	99.99	18 40 21	5201.0	27.74	268.17
100.00	13 15 22	1281.75	.36	343.08	158.70	119.89	13 36 44	681.7	4.34	336.55
100.00	18 43 23	5479.46	28.77	253.40	168.78	98.49	20 14 42	4879.5	29.64	244.70
110.00	13 46 39	1183.67	-4.00	332.93	155.97	123.98	14 6 22	583.7	.48	326.72
110.00	20 28 36	5150.30	33.88	229.10	169.48	94.85	21 54 26	4550.3	34.18	219.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6452	TRA	4.8376	TC3	-2.4426	BAU	1.0084	SGT	6112.8	SGR	577.2	SG3	196.5	ST	1763.4	SR	369.0
RDE	.3321	RRA	-.4071	RC3	.0729	FAU	.01557	RRT	-.7027	RRF	-.6832	RTF	.9683	CRT	.0058	CRS	-.1797
FDE	.4001	FRA	1.9429	FC3	-.4367	BSP	20168	SGB	6140.0	R23	-.0003	R13	-.9683	LSA	1858.3	MSA	381.7
BDE	.7256	BRA	4.8547	BC3	2.4437	FSP	-696	SG1	6126.3	SG2	409.8	THA	176.19	EL1	1763.4	EL2	368.9

SS	594.5
CST	-.9844
SSA	13.9
ALF	.07

LAUNCH DATE AUG 23 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 590.905

RL	151.28	LAL	-.00	LOL	329.46	VL	26.075	GAL	9.18	AZL	90.09	HCA	285.55	SMA	123.49	ECC	.27347	INC	.0851	V1	29.452
RP	108.61	LAP	.08	LOP	255.01	VP	37.002	GAP	14.32	AZP	90.02	TAL	153.49	TAP	79.05	RCA	89.72	APO	157.26	V2	34.890
RC	163.865	GL	-.38	GP	13.18	ZAL	39.35	ZAP	165.64	ETS	62.73	ZAE	123.13	ETE	171.47	ZAC	115.80	ETC	263.75	CLP	-174.26

PLANETOCENTRIC CONIC

C3	34.225	VHL	5.850	DLA	-22.31	RAL	291.82	RAD	6568.3	VEL	12.474	PTH	2.26	VHP	9.242	DPA	-10.29	RAP	261.62	ECC	1.5633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 2 24	1566.02	-.36	3.59	162.10	118.31	12 28 30	966.0	3.42	356.95
90.00	17 24 39	5771.96	26.96	274.60	171.47	99.00	19 0 51	5172.0	27.93	266.07
100.00	13 7 34	1355.68	-2.15	347.14	161.11	119.82	13 30 10	755.7	1.84	340.62
100.00	19 2 10	5457.53	28.98	251.80	171.80	97.67	20 33 8	4857.5	29.74	243.08
110.00	13 42 23	1246.52	-6.39	336.24	158.48	123.65	14 3 10	646.5	-1.92	330.00
110.00	20 43 50	5139.46	33.94	228.26	172.42	94.36	22 9 30	4539.5	34.17	219.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8025	TRA	5.1984	TC3	-2.1889	BAU	1.0019	SGT	6120.7	SGR	560.9	SG3	187.9	ST	1830.1	SR	360.4
RDE	.3419	RRA	-.4195	RC3	.0618	FAU	.01375	RRT	-.6892	RRF	-.6702	RTF	.9690	CRT	.0653	CRS	-.2128
FDE	.4324	FRA	1.9775	FC3	-.3477	BSP	20556	SGB	6146.3	R23	-.0008	R13	-.9690	LSA	1925.8	MSA	369.2
BDE	.8723	BRA	5.2155	BC3	2.1898	FSP	-670	SG1	6132.9	SG2	405.6	THA	176.37	EL1	1830.3	EL2	359.6

SS	604.9
CST	-.9886
SSA	13.5
ALF	.77

LAUNCH DATE AUG 23 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 596.015

RL	151.28	LAL	-.00	LOL	329.46	VL	26.042	GAL	9.95	AZL	89.89	HCA	288.73	SMA	123.30	ECC	.28249	INC	.1097	V1	29.452
RP	108.65	LAP	-.11	LOP	258.18	VP	36.968	GAP	14.96	AZP	89.96	TAL	152.26	TAP	80.98	RCA	88.47	APO	158.13	V2	34.880
RC	165.932	GL	.46	GP	12.82	ZAL	38.01	ZAP	166.35	ETS	66.13	ZAE	122.94	ETE	171.71	ZAC	115.53	ETC	264.30	CLP	-175.28

PLANETOCENTRIC CONIC

C3	38.077	VHL	6.171	DLA	-21.28	RAL	293.11	RAD	6568.5	VEL	12.627	PTH	2.29	VHP	9.624	DPA	-10.89	RAP	263.70	ECC	1.6266

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 54 17	1640.82	-2.77	7.76	164.55	118.19	12 21 38	1040.8	1.02	1.13
90.00	17 43 5	5751.05	27.18	273.11	174.51	98.28	19 18 56	5151.0	28.04	264.55
100.00	13 1 7	1425.12	-4.49	350.96	163.60	119.58	13 24 52	825.1	-.52	344.43
100.00	19 18 56	5441.98	29.12	250.67	174.80	97.09	20 49 38	4842.0	29.79	241.93
110.00	13 38 49	1306.95	-8.65	339.45	161.04	123.20	14 0 36	707.0	-4.22	333.16
110.00	20 57 43	5132.91	33.97	227.75	175.36	94.06	22 23 16	4532.9	34.16	218.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9649	TRA	5.5803	TC3	-1.9470	BAU	.9915	SGT	6123.4	SGR	544.1	SG3	179.7	ST	1894.9	SR	351.6
RDE	.3523	RRA	-.4316	RC3	.0518	FAU	.01198	RRT	-.6759	RRF	-.6576	RTF	.9699	CRT	.1166	CRS	-.2415
FDE	.4626	FRA	2.0139	FC3	-.2723	BSP	20534	SGB	6147.5	R23	-.0011	R13	-.9699	LSA	1991.3	MSA	356.4
BDE	1.0272	BRA	5.5970	BC3	1.9477	FSP	-645	SG1	6134.4	SG2	400.3	THA	176.55	EL1	1895.4	EL2	349.1

SS	615.0
CST	-.9917
SSA	13.1
ALF	1.28

LAUNCH DATE AUG 23 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 601.002

RL	151.28	LAL	-.00	LOL	329.46	VL	26.009	GAL	10.77	AZL	89.68	HCA	291.90	SMA	123.10	ECC	.29234	INC	.3154	V1	29.452
RP	108.68	LAP	-.29	LOP	261.36	VP	36.936	GAP	15.65	AZP	89.88	TAL	151.05	TAP	82.94	RCA	87.12	APO	159.09	V2	34.869
RC	167.985	GL	1.24	GP	12.49	ZAL	36.76	ZAP	166.98	ETS	69.93	ZAE	122.74	ETE	171.94	ZAC	115.27	ETC	264.86	CLP	-176.30

PLANETOCENTRIC CONIC

C3	42.507	VHL	6.520	DLA	-20.31	RAL	294.31	RAD	6568.6	VEL	12.801	PTH	2.33	VHP	10.038	DPA	-11.42	RAP	265.80	ECC	1.6996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 47 31	1710.92	-5.02	11.69	167.07	117.90	12 16 2	1110.9	-1.25	5.04
90.00	17 59 28	5736.53	27.31	272.07	177.51	97.78	19 35 4	5136.5	28.11	263.49
100.00	12 55 41	1490.95	-6.69	354.61	166.16	119.20	13 20 32	891.0	-2.75	348.04
100.00	19 33 59	5431.73	29.20	249.92	177.78	96.70	21 4 31	4831.7	29.82	241.17
110.00	13 35 46	1365.30	-10.81	342.59	163.66	122.63	13 58 32	765.3	-6.43	336.23
110.00	21 10 23	5130.15	33.98	227.54	178.31	93.93	22 35 53	4530.1	34.15	218.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1336	TRA	5.9862	TC3	-1.7175	BAU	.9763	SGT	6121.5	SGR	526.6	SG3	171.9	ST	1956.7	SR	342.5
RDE	.3631	RRA	-.4432	RC3	.0427	FAU	.01025	RRT	-.6626	RRF	-.6451	RTF	.9710	CRT	.1613	CRS	-.2668
FDE	.4913	FRA	2.0527	FC3	-.2087	BSP	20689	SGB	6144.1	R23	-.0013	R13	-.9710	LSA	2054.0	MSA	343.4
BDE	1.1903	BRA	6.0026	BC3	1.7180	FSP	-620	SG1	6131.5	SG2	393.8	THA	176.72	EL1	1957.5	EL2	337.9

SS	625.1
CST	-.9939
SSA	12.7
ALF	1.67

LAUNCH DATE AUG 23 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 605.847

RL	151.28	LAL	-.00	LOL	329.46	VL	25.977	GAL	11.65	AZL	89.47	HCA	295.07	SMA	122.91	ECC	.30313	INC	.5294	V1	29.452
RP	108.71	LAP	-.48	LOP	264.53	VP	36.904	GAP	16.39	AZP	89.78	TAL	149.87	TAP	84.94	RCA	85.65	APO	160.17	V2	34.859
RC	170.025	GL	1.95	GP	12.19	ZAL	35.59	ZAP	167.53	ETS	74.17	ZAE	122.52	ETE	172.15	ZAC	115.02	ETC	265.41	CLP	-177.34

PLANETOCENTRIC CONIC

C3	47.618	VHL	6.901	DLA	-19.40	RAL	295.44	RAD	6568.8	VEL	12.999	PTH	2.37	VHP	10.486	DPA	-11.90	RAP	267.90	ECC	1.7837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 41 47	1777.23	-7.12	15.43	169.66	117.48	12 11 24	1177.2	-3.38	8.75
90.00	18 14 9	5727.29	27.40	271.40	180.49	97.46	19 49 36	5127.3	28.14	262.82
100.00	12 51 2	1553.78	-8.76	358.12	168.77	118.69	13 16 55	953.8	-4.86	351.50
100.00	19 47 36	5425.96	29.24	249.49	180.75	96.49	21 18 2	4826.0	29.83	240.74
110.00	13 33 9	1421.77	-12.87	345.67	166.33	121.95	13 56 51	821.8	-8.55	339.23
110.00	21 21 58	5130.73	33.98	227.58	181.26	93.96	22 47 28	4530.7	34.16	218.34

DIFFERENTIAL CORRECTIONS

TDE	1.3106	TRA	6.4198	TC3	-1.4999	BAU	.9551
RDE	.3743	RRA	-.4540	RC3	.0344	FAU	.00852
FDE	.5194	FRA	2.0950	FC3	-.1549	BSP	20794
BDE	1.3630	BRA	6.4358	BC3	1.5003	FSP	-595

MID-COURSE EXECUTION ACCURACY

SGT	6116.2	SGR	508.5	SG3	164.7		
RRT	-.6490	RRF	-.6326	RTF	.9723		
SGB	6137.3	R23	-.0012	R13	-.9723		
SG1	6125.1	SG2	386.3	THA	176.90		

ORBIT DETERMINATION ACCURACY

ST	2015.6	SR	333.1	SS	635.6		
CRT	.2009	CRS	-.2897	CST	-.9956		
LSA	2113.8	MSA	330.3	SSA	12.3		
EL1	2016.7	EL2	326.1	ALF	1.95		

LAUNCH DATE AUG 23 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 610.523

RL	151.28	LAL	-.00	LOL	329.46	VL	25.946	GAL	12.61	AZL	89.25	HCA	298.24	SMA	122.73	ECC	.31498	INC	.7545	V1	29.452
RP	108.74	LAP	-.66	LOP	267.70	VP	36.873	GAP	17.19	AZP	89.64	TAL	148.73	TAP	86.97	RCA	84.07	APO	161.38	V2	34.850
RC	172.049	GL	2.61	GP	11.91	ZAL	34.51	ZAP	167.98	ETS	78.84	ZAE	122.28	ETE	172.35	ZAC	114.77	ETC	265.96	CLP	-178.38

PLANETOCENTRIC CONIC

C3	53.534	VHL	7.317	DLA	-18.56	RAL	296.48	RAD	6568.9	VEL	13.225	PTH	2.42	VHP	10.975	DPA	-12.31	RAP	270.00	ECC	1.8810

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 36 51	1840.35	-9.08	19.03	172.28	116.94	12 7 32	1240.3	-5.40	12.29
90.00	18 27 23	5722.48	27.44	271.06	183.44	97.29	20 2 45	5122.5	28.16	262.47
100.00	12 47 0	1614.00	-10.71	1.53	171.42	118.08	13 13 54	1014.0	-6.87	354.84
100.00	19 59 55	5424.07	29.26	249.36	183.69	96.41	21 30 19	4824.1	29.84	240.60
110.00	13 30 52	1476.53	-14.82	348.71	169.03	121.16	13 55 29	876.5	-10.58	342.17
110.00	21 32 32	5134.30	33.96	227.86	184.20	94.12	22 58 7	4534.3	34.16	218.62

DIFFERENTIAL CORRECTIONS

TDE	1.4978	TRA	6.8846	TC3	-1.2938	BAU	.9261
RDE	.3859	RRA	-.4637	RC3	.0268	FAU	.00678
FDE	.5475	FRA	2.1416	FC3	-.1097	BSP	20830
BDE	1.5467	BRA	6.9002	BC3	1.2940	FSP	-569

MID-COURSE EXECUTION ACCURACY

SGT	6107.5	SGR	489.5	SG3	157.9		
RRT	-.6350	RRF	-.6198	RTF	.9737		
SGB	6127.1	R23	-.0011	R13	-.9737		
SG1	6115.4	SG2	377.7	THA	177.08		

ORBIT DETERMINATION ACCURACY

ST	2071.2	SR	323.3	SS	647.0		
CRT	.2364	CRS	-.3109	CST	-.9968		
LSA	2170.8	MSA	317.0	SSA	11.9		
EL1	2072.6	EL2	313.9	ALF	2.16		

LAUNCH DATE AUG 23 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 614.998

RL	151.28	LAL	-.00	LOL	329.46	VL	25.915	GAL	13.65	AZL	89.01	HCA	301.40	SMA	122.54	ECC	.32803	INC	.9933	V1	29.452
RP	108.77	LAP	-.85	LOP	270.86	VP	36.843	GAP	18.07	AZP	89.48	TAL	147.65	TAP	89.09	RCA	82.35	APO	162.74	V2	34.841
RC	174.060	GL	3.22	GP	11.65	ZAL	33.53	ZAP	168.34	ETS	83.95	ZAE	122.02	ETE	172.54	ZAC	114.53	ETC	266.52	CLP	-179.45

PLANETOCENTRIC CONIC

C3	60.412	VHL	7.773	DLA	-17.77	RAL	297.43	RAD	6569.1	VEL	13.482	PTH	2.46	VHP	11.510	DPA	-12.68	RAP	272.10	ECC	1.9942

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 32 33	1900.66	-10.92	22.50	174.93	116.29	12 4 14	1300.7	-7.30	15.70
90.00	18 39 19	5721.50	27.45	270.99	186.36	97.25	20 14 40	5121.5	28.17	262.40
100.00	12 43 28	1671.84	-12.54	4.85	174.10	117.36	13 11 20	1071.8	-8.78	358.08
100.00	20 11 5	5425.55	29.25	249.46	186.61	96.47	21 41 31	4825.6	29.84	240.71
110.00	13 28 51	1529.63	-16.67	351.72	171.75	120.29	13 54 21	929.6	-12.52	345.07
110.00	21 42 11	5140.52	33.93	228.34	187.13	94.41	23 7 52	4540.5	34.17	219.10

DIFFERENTIAL CORRECTIONS

TDE	1.6977	TRA	7.3852	TC3	-1.0995	BAU	.8882
RDE	.3979	RRA	-.4721	RC3	.0200	FAU	.00900
FDE	.5764	FRA	2.1934	FC3	-.0716	BSP	20776
BDE	1.7437	BRA	7.4003	BC3	1.0997	FSP	-543

MID-COURSE EXECUTION ACCURACY

SGT	6096.8	SGR	469.7	SG3	151.5		
RRT	-.6200	RRF	-.6063	RTF	.9753		
SGB	6114.9	R23	-.0009	R13	-.9753		
SG1	6103.8	SG2	368.1	THA	177.26		

ORBIT DETERMINATION ACCURACY

ST	2123.7	SR	313.2	SS	659.6		
CRT	.2691	CRS	-.3311	CST	-.9977		
LSA	2225.1	MSA	303.7	SSA	11.5		
EL1	2125.4	EL2	301.4	ALF	2.32		

LAUNCH DATE AUG 23 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 619.232

RL	151.28	LAL	-.00	LOL	329.46	VL	25.884	GAL	14.78	AZL	88.75	HCA	304.56	SMA	122.37	ECC	.34244	INC	1.2487	V1	29.452
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.813	GAP	19.03	AZP	89.29	TAL	146.63	TAP	91.19	RCA	80.46	APO	164.27	V2	34.833
RC	176.095	GL	3.78	GP	11.41	ZAL	32.63	ZAP	168.57	ETS	89.45	ZAE	121.72	ETE	172.72	ZAC	114.29	ETC	267.06	CLP	179.46

PLANETOCENTRIC CONIC

C3	68.446	VHL	8.273	DLA	-17.05	RAL	298.30	RAD	6569.3	VEL	13.777	PTH	2.52	VHP	12.097	DPA	-12.99	RAP	274.18	ECC	2.1265

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 28 45	1958.39	-12.64	25.87	177.59	115.55	12 1 23	1358.4	-9.10	18.99
90.00	18 50 4	5723.81	27.43	271.15	189.23	97.33	20 25 28	5123.8	28.16	262.56
100.00	12 40 19	1727.45	-14.26	8.08	176.78	116.55	13 9 7	1127.4	-10.58	1.23
100.00	20 21 11	5429.99	29.21	249.79	189.48	96.64	21 51 41	4830.0	29.82	241.04
110.00	13 27 2	1581.10	-18.41	354.69	174.48	119.33	13 53 23	981.1	-14.36	347.92
110.00	21 50 57	5149.10	33.89	229.01	190.03	94.80	23 16 46	4549.1	34.18	219.77

DIFFERENTIAL CORRECTIONS

TDE	1.9103	TRA	7.9264	TC3	-.9170	BAU	.8392
RDE	.4104	RRA	-.4786	RC3	.0139	FAU	.00316
FDE	.6062	FRA	2.2514	FC3	-.0399	BSP	20597
BDE	1.9539	BRA	7.9409	BC3	.9171	FSP	-514

MID-COURSE EXECUTION ACCURACY

SGT	6084.3	SGR	448.9	SG3	145.6		
RRT	-.6039	RRF	-.5916	RTF	.9771		
SGB	6100.9	R23	-.0007	R13	-.9771		
SG1	6090.4	SG2	357.4	THA	177.44		

ORBIT DETERMINATION ACCURACY

ST	2172.4	SR	302.7	SS	673.8		
CRT	.2994	CRS	-.3508	CST	-.9984		
LSA	2276.1	MSA	290.2	SSA	11.1		
EL1	2174.3	EL2	288.5	ALF	2.43		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 2 1970

HELIOCENTRIC CONIC DISTANCE 158.870

RL	151.25	LAL	-.00	LOL	330.42	VL	22.382	GAL	1.48	AZL	92.55	HCA	63.75	SMA	105.83	ECC	.42975	INC	2.5470
RP	108.29	LAP	-2.28	LOP	34.15	VP	34.598	GAP	-25.42	AZP	91.13	TAL	178.03	TAP	241.78	RCA	60.35	APO	151.32
RC	41.950	GL	-7.90	GP	-7.48	ZAL	82.46	ZAP	16.37	ETS	150.43	ZAE	176.15	ETE	179.58	ZAC	91.94	ETC	258.17

V1	29.458	V2	34.993	CLP	14.60														

PLANETOCENTRIC CONIC

C3	52.359	VHL	7.236	DLA	-29.44	RAL	244.83	RAD	6568.9	VEL	13.180	PTH	2.41	VHP	15.232	DPA	-22.95	RAP	224.12
ECC	1.8617																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.58	10 22 58	1355.37	13.69	355.56	129.25	116.32	10 45 33	755.4	17.11	348.48
98.42	12 41 20	908.42	13.70	322.75	129.26	116.32	12 56 28	308.4	17.13	315.67
100.00	12 9 54	1009.07	9.48	327.97	127.02	118.48	12 26 43	409.1	13.21	321.17
100.00	13 37 4	729.95	17.99	311.63	131.36	114.28	13 49 14	129.9	21.12	304.23
110.00	11 46 56	1081.44	-.10	327.59	121.18	124.18	12 4 57	481.4	4.38	321.38
110.00	16 16 32	5518.39	28.37	256.22	135.94	109.92	17 48 30	4918.4	30.82	247.88

DIFFERENTIAL CORRECTIONS

TDE	.1763	TRA	-.8601	TC3	-.0158	BAU	.0112
RDE	-.5589	RRA	-.0103	RC3	-.0027	FAU	.01789
FDE	-.1251	FRA	.4208	FC3	-.2958	BSP	2070
BDE	.5861	BRA	.8602	BC3	.0160	FSP	-109

MID-COURSE EXECUTION ACCURACY

SGT	794.8	SGR	442.7	SG3	50.3		
RRT	-.1545	RRF	.1624	RTF	-.6549		
SGB	909.7	R23	-.0182	R13	.6576		
SG1	798.9	SG2	435.1	THA	173.00		

ORBIT DETERMINATION ACCURACY

ST	273.0	SR	442.6	SS	200.2
CRT	-.5059	CRS	-.6462	CST	.9810
LSA	497.8	MSA	250.0	SSA	14.5
EL1	470.5	EL2	221.5	ALF	112.61

LAUNCH DATE AUG 24 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 165.420

RL	151.25	LAL	-.00	LOL	330.42	VL	22.807	GAL	1.32	AZL	92.33	HCA	66.95	SMA	107.48	ECC	.40773	INC	2.3264
RP	108.25	LAP	-2.14	LOP	37.35	VP	34.888	GAP	-24.06	AZP	90.91	TAL	178.08	TAP	245.02	RCA	63.66	APO	151.31
RC	41.257	GL	-7.83	GP	-7.82	ZAL	82.42	ZAP	15.07	ETS	146.28	ZAE	178.46	ETE	206.42	ZAC	91.83	ETC	258.38

V1	29.458	V2	35.007	CLP	12.93														

PLANETOCENTRIC CONIC

C3	46.197	VHL	6.797	DLA	-29.38	RAL	244.88	RAD	6568.7	VEL	12.945	PTH	2.36	VHP	14.484	DPA	-23.77	RAP	225.55
ECC	1.7603																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.83	10 25 8	1317.92	14.59	353.25	127.32	115.78	10 47 6	717.9	17.94	346.09
98.17	12 39 38	883.37	14.61	321.35	127.33	115.78	12 54 21	283.4	17.96	314.20
100.00	12 7 10	987.40	10.18	326.74	125.02	118.26	12 23 37	387.4	13.88	319.91
100.00	13 40 17	689.12	19.11	309.11	129.48	113.43	13 51 46	89.1	22.12	301.61
110.00	11 46 17	1053.17	.98	326.12	119.43	124.17	12 3 50	453.2	5.46	319.89
110.00	16 17 39	5484.15	29.14	253.86	133.71	108.71	17 49 3	4884.2	31.42	245.39

DIFFERENTIAL CORRECTIONS

TDE	.1774	TRA	-.8443	TC3	.0031	BAU	.0058
RDE	-.5305	RRA	-.0035	RC3	-.0089	FAU	.01863
FDE	-.1271	FRA	.4331	FC3	-.3492	BSP	2208
BDE	.5594	BRA	.8443	BC3	.0094	FSP	-122

MID-COURSE EXECUTION ACCURACY

SGT	830.3	SGR	447.4	SG3	55.5		
RRT	-.1728	RRF	.1818	RTF	-.6756		
SGB	943.2	R23	-.0203	R13	.6785		
SG1	835.3	SG2	438.0	THA	172.65		

ORBIT DETERMINATION ACCURACY

ST	287.0	SR	447.2	SS	207.4
CRT	-.5190	CRS	-.6446	CST	.9840
LSA	509.1	MSA	256.9	SSA	14.9
EL1	479.6	EL2	228.8	ALF	114.29

LAUNCH DATE AUG 24 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 172.012

RL	151.25	LAL	-.00	LOL	330.42	VL	23.201	GAL	1.15	AZL	92.12	HCA	70.14	SMA	109.08	ECC	.38699	INC	2.1158
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.160	GAP	-22.76	AZP	90.72	TAL	178.18	TAP	248.33	RCA	66.87	APO	151.30
RC	40.727	GL	-7.70	GP	-8.19	ZAL	82.50	ZAP	13.88	ETS	141.27	ZAE	178.10	ETE	309.24	ZAC	91.69	ETC	258.60

V1	29.458	V2	35.020	CLP	11.24														

PLANETOCENTRIC CONIC

C3	40.812	VHL	6.388	DLA	-29.24	RAL	244.81	RAD	6568.6	VEL	12.735	PTH	2.32	VHP	13.768	DPA	-24.62	RAP	226.97
ECC	1.6717																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.38	10 29 9	1272.92	15.44	350.34	125.23	115.15	10 50 22	672.9	18.70	343.11
97.62	12 35 3	865.96	15.46	320.48	125.24	115.14	12 49 29	266.0	18.72	313.26
100.00	12 1 9	974.72	10.58	326.02	122.74	118.12	12 17 24	374.7	14.26	319.17
100.00	13 45 44	639.39	20.43	306.01	127.54	112.31	13 56 23	39.4	23.28	298.37
110.00	11 44 9	1028.23	1.93	324.81	117.49	124.14	12 1 17	428.2	6.40	318.58
110.00	16 19 13	5446.68	29.93	251.23	131.32	107.33	17 50 0	4846.7	32.01	242.63

DIFFERENTIAL CORRECTIONS

TDE	.1782	TRA	-.8281	TC3	.0271	BAU	.0175
RDE	-.5031	RRA	.0028	RC3	-.0172	FAU	.01946
FDE	-.1289	FRA	.4450	FC3	-.4128	BSP	2347
BDE	.5337	BRA	.8281	BC3	.0321	FSP	-137

MID-COURSE EXECUTION ACCURACY

SGT	866.8	SGR	451.7	SG3	61.1		
RRT	-.1924	RRF	.2035	RTF	-.6948		
SGB	977.4	R23	-.0237	R13	.6980		
SG1	872.6	SG2	440.3	THA	172.30		

ORBIT DETERMINATION ACCURACY

ST	301.3	SR	451.2	SS	214.3
CRT	-.5322	CRS	-.6435	CST	.9866
LSA	520.3	MSA	263.2	SSA	15.2
EL1	488.8	EL2	235.4	ALF	116.03

LAUNCH DATE AUG 24 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 178.642

RL	151.25	LAL	-.00	LOL	330.42	VL	23.564	GAL	.96	AZL	91.91	HCA	73.34	SMA	110.63	ECC	.36752	INC	1.9135
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.414	GAP	-21.53	AZP	90.55	TAL	178.35	TAP	251.69	RCA	69.97	APO	151.28
RC	40.367	GL	-7.52	GP	-8.60	ZAL	82.70	ZAP	12.83	ETS	135.23	ZAE	175.51	ETE	328.84	ZAC	91.49	ETC	258.83

V1	29.458	V2	35.033	CLP	9.55														

PLANETOCENTRIC CONIC

C3	36.109	VHL	6.009	DLA	-29.03	RAL	244.62	RAD	6568.4	VEL	12.549	PTH	2.27	VHP	13.084	DPA	-25.49	RAP	228.39
ECC	1.5943																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.33	10 35 57	1217.55	16.21	346.63	123.00	114.41	10 56 15	617.6	19.37	339.32
96.67	12 26 40	859.46	16.23	320.38	123.00	114.40	12 41 0	259.5	19.39	313.07
100.00	11 52 23	969.64	10.75	325.73	120.23	118.06	12 8 33	369.6	14.42	318.87
100.00	13 52 56	5870.65	21.85	280.30	125.49	110.92	15 30 46	5270.6	24.50	272.50
110.00	11 40 29	1007.08	2.74	323.71	115.38	124.09	11 57 16	407.1	7.20	317.46
110.00	16 21 19	5405.96	30.72	248.32	128.76	105.78	17 51 25	4806.0	32.58	239.59

DIFFERENTIAL CORRECTIONS

TDE	.1708	TRA	-.8204	TC3	.0477	BAU	.0266
RDE	-.4763	RRA	.0089	RC3	-.0278	FAU	.02030
FDE	-.1287	FRA	.4589	FC3	-.4868	BSP	2279
BDE	.5060	BRA	.8205	BC3	.0552	FSP	-151

MID-COURSE EXECUTION ACCURACY

SGT	911.2	SGR	455.5	SG3	67.4		
RRT	-.2037	RRF	.2255	RTF	-.7056		
SGB	1018.7	R23	-.0380	R13	.7095		
SG1	917.3	SG2	443.0	THA	172.41		

ORBIT DETERMINATION ACCURACY

ST	313.9	SR	454.2	SS	220.1
CRT	-.5242	CRS	-.6353	CST	.9867
LSA	527.8	MSA	272.9	SSA	15.7
EL1	494.5	EL2	245.6	ALF	117.11

LAUNCH DATE AUG 24 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 185.304

RL	151.25	LAL	-.00	LOL	330.42	VL	23.900	GAL	.76	AZL	91.72	HCA	76.54	SMA	112.11	ECC	.34926	INC	1.7176	V1	29.458
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.651	GAP	-20.34	AZP	90.40	TAL	178.59	TAP	255.13	RCA	72.96	APO	151.27	V2	35.046
RC	40.182	GL	-7.27	GP	-9.06	ZAL	83.03	ZAP	11.96	ETS	128.03	ZAE	172.72	ETE	333.51	ZAC	91.25	ETC	259.06	CLP	7.85

PLANETOCENTRIC CONIC

C3	32.001	VHL	5.657	DLA	-28.73	RAL	244.29	RAD	6568.3	VEL	12.384	PTH	2.24	VHP	12.428	DPA	-26.39	RAP	229.80	ECC	1.5267

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.95	10 47 49	1144.66	16.89	341.58	120.62	113.58	11 6 54	544.7	19.94	334.20
95.05	12 12 13	871.41	16.91	321.57	120.63	113.57	12 26 44	271.4	19.96	314.19
100.00	11 41 22	970.84	10.71	325.80	117.54	118.08	11 57 32	370.8	14.38	318.94
100.00	14 1 21	5808.51	23.31	276.26	123.30	109.27	15 38 10	5208.5	25.72	268.29
110.00	11 35 13	990.15	3.39	322.82	113.10	124.04	11 51 43	390.1	7.83	316.56
110.00	16 23 59	5361.96	31.49	245.12	126.05	104.03	17 53 21	4762.0	33.10	236.26

DIFFERENTIAL CORRECTIONS

TDE	.1739	TRA	-.8027	TC3	.0855	BAU	.0407
RDE	-.4509	RRA	.0143	RC3	-.0418	FAU	.02133
FDE	-.1300	FRA	.4715	FC3	-.5771	BSP	2448
BDE	.4833	BRA	.8029	BC3	.0951	FSP	-170

MID-COURSE EXECUTION ACCURACY

SGT	948.7	SGR	459.5	SG3	74.3		
RRT	-.2303	RRF	.2532	RTF	-.7243		
SGB	1054.1	R23	-.0407	R13	.7286		
SG1	956.2	SG2	443.6	THA	171.88		

ORBIT DETERMINATION ACCURACY

ST	329.2	SR	456.8	SS	226.3
CRT	-.5441	CRS	-.6336	CST	.9900
LSA	539.7	MSA	276.9	SSA	16.1
EL1	504.4	EL2	250.1	ALF	119.26

LAUNCH DATE AUG 24 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 191.993

RL	151.25	LAL	-.00	LOL	330.42	VL	24.209	GAL	.56	AZL	91.53	HCA	79.75	SMA	113.54	ECC	.33221	INC	1.5268	V1	29.458
RP	108.09	LAP	-1.50	LOP	50.17	VP	35.872	GAP	-19.21	AZP	90.27	TAL	178.88	TAP	258.63	RCA	75.82	APO	151.26	V2	35.060
RC	40.174	GL	-6.95	GP	-9.56	ZAL	83.48	ZAP	11.34	ETS	119.67	ZAE	169.88	ETE	335.25	ZAC	90.95	ETC	259.29	CLP	6.13

PLANETOCENTRIC CONIC

C3	28.417	VHL	5.331	DLA	-28.33	RAL	243.84	RAD	6568.1	VEL	12.239	PTH	2.20	VHP	11.801	DPA	-27.32	RAP	231.20	ECC	1.4677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
89.21	11 21 30	1000.06	17.46	331.24	118.12	112.66	11 38 10	400.1	20.38	323.78
90.79	11 34 57	956.44	17.48	328.05	118.12	112.65	11 50 53	356.4	20.40	320.60
100.00	11 28 29	977.40	10.50	326.18	114.71	118.15	11 44 46	377.4	14.18	319.32
100.00	14 10 39	5742.38	24.72	271.85	120.95	107.36	15 46 21	5142.4	26.86	263.71
110.00	11 28 21	977.82	3.86	322.18	110.68	123.99	11 44 39	377.8	8.29	315.90
110.00	16 27 16	5314.72	32.22	241.63	123.19	102.08	17 55 51	4714.7	33.55	232.65

DIFFERENTIAL CORRECTIONS

TDE	.1751	TRA	-.7845	TC3	.1310	BAU	.0547
RDE	-.4266	RRA	.0194	RC3	-.0598	FAU	.02247
FDE	-.1306	FRA	.4838	FC3	-.6848	BSP	2599
BDE	.4611	BRA	.7847	BC3	.1440	FSP	-191

MID-COURSE EXECUTION ACCURACY

SGT	986.2	SGR	463.5	SG3	82.0		
RRT	-.2579	RRF	.2839	RTF	-.7415		
SGB	1089.7	R23	-.0456	R13	.7463		
SG1	995.2	SG2	443.8	THA	171.36		

ORBIT DETERMINATION ACCURACY

ST	343.5	SR	458.5	SS	231.6
CRT	-.5607	CRS	-.6305	CST	.9924
LSA	550.6	MSA	280.2	SSA	16.6
EL1	513.6	EL2	253.9	ALF	121.21

LAUNCH DATE AUG 24 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 198.706

RL	151.25	LAL	-.00	LOL	330.42	VL	24.494	GAL	.35	AZL	91.34	HCA	82.96	SMA	114.91	ECC	.31633	INC	1.3397	V1	29.458
RP	108.05	LAP	-1.33	LOP	53.38	VP	36.077	GAP	-18.13	AZP	90.16	TAL	179.24	TAP	262.20	RCA	78.56	APO	151.25	V2	35.073
RC	40.345	GL	-6.54	GP	-10.11	ZAL	84.06	ZAP	11.01	ETS	110.33	ZAE	167.05	ETE	335.89	ZAC	90.58	ETC	259.53	CLP	4.38

PLANETOCENTRIC CONIC

C3	25.293	VHL	5.029	DLA	-27.82	RAL	243.27	RAD	6568.0	VEL	12.111	PTH	2.17	VHP	11.201	DPA	-28.28	RAP	232.56	ECC	1.4163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 39 18	1101.05	14.09	337.08	113.81	114.82	10 57 39	501.0	17.33	329.90
90.00	12 12 37	797.64	21.81	318.18	117.02	108.53	12 25 54	197.6	24.14	310.28
100.00	11 14 1	988.80	10.13	326.82	111.78	118.27	11 30 30	388.8	13.83	319.99
100.00	14 20 34	5673.16	26.05	267.14	118.43	105.21	15 55 8	5073.2	27.88	258.81
110.00	11 19 53	970.41	4.14	321.79	108.14	123.96	11 36 3	370.4	8.57	315.50
110.00	16 31 13	5264.31	32.88	237.84	120.18	99.93	17 58 57	4664.3	33.90	228.76

DIFFERENTIAL CORRECTIONS

TDE	.1754	TRA	-.7676	TC3	.1827	BAU	.0678
RDE	-.4031	RRA	.0244	RC3	-.0826	FAU	.02372
FDE	-.1295	FRA	.4976	FC3	-.8120	BSP	2744
BDE	.4396	BRA	.7680	BC3	.2005	FSP	-214

MID-COURSE EXECUTION ACCURACY

SGT	1025.3	SGR	467.7	SG3	90.6		
RRT	-.2880	RRF	.3176	RTF	-.7564		
SGB	1126.9	R23	-.0517	R13	.7618		
SG1	1036.1	SG2	443.2	THA	170.82		

ORBIT DETERMINATION ACCURACY

ST	357.7	SR	459.3	SS	235.8
CRT	-.5756	CRS	-.6224	CST	.9945
LSA	560.3	MSA	283.3	SSA	17.1
EL1	522.2	EL2	257.2	ALF	123.15

LAUNCH DATE AUG 24 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 205.436

RL	151.25	LAL	-.00	LOL	330.42	VL	24.756	GAL	.15	AZL	91.16	HCA	86.17	SMA	116.21	ECC	.30157	INC	1.1550	V1	29.458
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.268	GAP	-17.09	AZP	90.08	TAL	179.66	TAP	265.82	RCA	81.16	APO	151.25	V2	35.086
RC	40.692	GL	-6.03	GP	-10.72	ZAL	84.76	ZAP	11.03	ETS	100.47	ZAE	164.27	ETE	335.98	ZAC	90.15	ETC	259.76	CLP	2.61

PLANETOCENTRIC CONIC

C3	22.575	VHL	4.751	DLA	-27.19	RAL	242.60	RAD	6567.9	VEL	11.998	PTH	2.14	VHP	10.628	DPA	-29.29	RAP	233.90	ECC	1.3715

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 13 9	1150.37	12.67	340.00	110.37	115.54	10 32 19	550.4	16.00	332.91
90.00	12 33 22	692.65	23.91	311.20	114.81	105.64	12 44 54	92.6	25.83	303.06
100.00	10 58 12	1004.83	9.61	327.73	108.79	118.44	11 14 56	404.8	13.34	320.92
100.00	14 31 0	5601.47	27.23	262.14	115.74	102.84	16 4 21	5001.5	28.72	253.65
110.00	11 9 51	968.22	4.22	321.67	105.50	123.95	11 25 59	368.2	8.65	315.39
110.00	16 35 50	5210.84	33.43	233.77	117.04	97.58	18 2 40	4610.8	34.12	224.60

DIFFERENTIAL CORRECTIONS

TDE	.1718	TRA	-.7515	TC3	.2430	BAU	.0806
RDE	-.3802	RRA	.0295	RC3	-.1107	FAU	.02506
FDE	-.1250	FRA	.5130	FC3	-.9610	BSP	2880
BDE	.4172	BRA	.7521	BC3	.2671	FSP	-238

MID-COURSE EXECUTION ACCURACY

SGT	1065.0	SGR	472.1	SG3	100.0		
RRT	-.3184	RRF	.3532	RTF	-.7710		
SGB	1164.9	R23	-.0595	R13	.7771		
SG1	1077.7	SG2	442.3	THA	170.32		

ORBIT DETERMINATION ACCURACY

ST	369.3	SR	458.7	SS	237.7
CRT	-.5826	CRS	-.6041	CST	.9957
LSA	566.1	MSA	287.3	SSA	17.6
EL1	528.0	EL2	260.7	ALF	124.73

LAUNCH DATE AUG 24 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 212.181

RL	151.25	LAL	-.00	LOL	330.42	VL	24.997	GAL	-.05	AZL	90.97	HCA	89.38	SMA	117.44	ECC	.28789	INC	.9715	V1	29.458
RP	107.97	LAP	-.97	LOP	59.80	VP	36.446	GAP	-16.10	AZP	90.01	TAL	180.13	TAP	269.51	RCA	83.63	APO	151.25	V2	35.098
RC	41.209	GL	-5.41	GP	-11.40	ZAL	85.58	ZAP	11.43	ETS	90.72	ZAE	161.57	ETE	335.73	ZAC	89.64	ETC	260.00	CLP	.80

PLANETOCENTRIC CONIC

C3	20.214	VHL	4.496	DLA	-26.43	RAL	241.82	RAD	6567.8	VEL	11.899	PTH	2.11	VHP	10.080	DPA	-30.34	RAP	235.20	ECC	1.3327

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 49 29	1192.26	11.42	342.45	107.06	116.09	10 9 21	592.3	14.84	335.44
90.00	12 50 49	5885.61	25.50	282.60	112.28	102.75	14 28 55	5285.6	27.00	274.25
100.00	10 41 9	1025.41	8.94	328.89	105.76	118.64	10 58 14	425.4	12.70	322.12
100.00	14 41 50	5527.70	28.23	256.89	112.90	100.25	16 13 58	4927.7	29.36	248.26
110.00	10 58 20	971.44	4.10	321.84	102.80	123.97	11 14 32	371.4	8.53	315.56
110.00	16 41 8	5154.43	33.85	229.42	113.78	95.04	18 7 2	4554.4	34.18	220.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1777	TRA	-.7332	TC3	.3283	BAU	.0976	SGT	1107.7	SGR	480.6	SG3	112.0	ST	386.5	SR	458.9	SS	243.4
RDE	-.3599	RRA	.0340	RC3	-.1504	FAU	.02717	RRT	-.3650	RRF	.4054	RTF	-.7842	CRT	-.6116	CRS	-.6111	CST	.9960
FDE	-.1283	FRA	.5257	FC3	-1.1637	BSP	2990	SGB	1207.5	R23	-.0700	R13	.7915	LSA	581.0	MSA	285.1	SSA	18.5
BDE	.4014	BRA	.7339	BC3	.3611	FSP	-267	SG1	1124.1	SG2	441.0	THA	169.34	EL1	541.0	EL2	259.4	ALF	127.11

LAUNCH DATE AUG 24 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 218.933

RL	151.25	LAL	-.00	LOL	330.42	VL	25.218	GAL	-.25	AZL	90.79	HCA	92.59	SMA	118.61	ECC	.27525	INC	.7882	V1	29.458
RP	107.93	LAP	-.79	LOP	63.01	VP	36.610	GAP	-15.14	AZP	89.96	TAL	180.66	TAP	273.26	RCA	85.96	APO	151.25	V2	35.111
RC	41.891	GL	-4.67	GP	-12.16	ZAL	86.51	ZAP	12.21	ETS	81.67	ZAE	158.98	ETE	335.23	ZAC	89.04	ETC	260.23	CLP	-1.05

PLANETOCENTRIC CONIC

C3	18.167	VHL	4.262	DLA	-25.52	RAL	240.95	RAD	6567.7	VEL	11.813	PTH	2.09	VHP	9.558	DPA	-31.45	RAP	236.44	ECC	1.2990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 29	1233.07	10.19	344.82	103.83	116.56	9 47 2	633.1	13.68	337.87
90.00	13 6 53	5794.38	26.71	276.19	109.52	99.76	14 43 28	5194.4	27.79	267.69
100.00	10 22 59	1050.63	8.12	330.31	102.73	118.87	10 40 30	450.6	11.91	323.57
100.00	14 53 4	5452.05	29.03	251.40	109.92	97.47	16 23 56	4852.1	29.76	242.68
110.00	10 45 25	980.27	3.76	322.31	100.06	124.00	11 1 45	380.3	8.20	316.03
110.00	16 47 8	5095.18	34.11	224.81	110.43	92.33	18 12 3	4495.2	34.06	215.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1817	TRA	-.7036	TC3	.4274	BAU	.1139	SGT	1136.2	SGR	487.7	SG3	122.9	ST	398.3	SR	456.0	SS	240.7
RDE	-.3389	RRA	.0381	RC3	-.1928	FAU	.02868	RRT	-.4163	RRF	.4479	RTF	-.8056	CRT	-.6426	CRS	-.5875	CST	.9935
FDE	-.1205	FRA	.5365	FC3	-1.3665	BSP	3494	SGB	1236.4	R23	-.0601	R13	.8129	LSA	587.6	MSA	280.8	SSA	18.7
BDE	.3846	BRA	.7046	BC3	.4688	FSP	-317	SG1	1157.2	SG2	435.3	THA	168.17	EL1	550.1	EL2	253.0	ALF	129.04

LAUNCH DATE AUG 24 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 225.693

RL	151.25	LAL	-.00	LOL	330.42	VL	25.421	GAL	-.44	AZL	90.60	HCA	95.81	SMA	119.70	ECC	.26362	INC	.6036	V1	29.458
RP	107.89	LAP	-.60	LOP	66.23	VP	36.761	GAP	-14.22	AZP	89.94	TAL	181.24	TAP	277.05	RCA	88.15	APO	151.26	V2	35.123
RC	42.728	GL	-3.79	GP	-13.00	ZAL	87.55	ZAP	13.33	ETS	73.73	ZAE	156.52	ETE	334.53	ZAC	88.34	ETC	260.46	CLP	-2.95

PLANETOCENTRIC CONIC

C3	16.399	VHL	4.050	DLA	-24.46	RAL	240.02	RAD	6567.7	VEL	11.738	PTH	2.07	VHP	9.060	DPA	-32.62	RAP	237.63	ECC	1.2699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 37	1275.18	8.90	347.23	100.70	116.99	9 24 52	675.2	12.45	340.36
90.00	13 22 18	5704.94	27.58	269.80	106.62	96.67	14 57 23	5104.9	28.22	261.19
100.00	10 3 54	1080.54	7.13	331.98	99.74	119.11	10 21 55	480.5	10.96	325.28
100.00	15 4 42	5374.81	29.58	245.73	106.84	94.53	16 34 17	4774.8	29.89	236.94
110.00	10 31 14	994.81	3.21	323.07	97.32	124.05	10 47 49	394.8	7.66	316.80
110.00	16 53 51	5033.30	34.18	219.98	107.03	89.47	18 17 45	4433.3	33.73	210.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1772	TRA	-.6864	TC3	.5240	BAU	.1270	SGT	1175.3	SGR	497.7	SG3	135.9	ST	406.8	SR	451.4	SS	237.9
RDE	-.3187	RRA	.0433	RC3	-.2466	FAU	.03058	RRT	-.4609	RRF	.4973	RTF	-.8176	CRT	-.6514	CRS	-.5519	CST	.9879
FDE	-.1101	FRA	.5531	FC3	-1.6145	BSP	3613	SGB	1276.3	R23	-.0690	R13	.8259	LSA	588.2	MSA	281.9	SSA	19.4
BDE	.3647	BRA	.6878	BC3	.5791	FSP	-353	SG1	1200.9	SG2	432.3	THA	167.28	EL1	553.0	EL2	252.0	ALF	130.45

LAUNCH DATE AUG 24 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 232.456

RL	151.25	LAL	-.00	LOL	330.42	VL	25.607	GAL	-.63	AZL	90.42	HCA	99.03	SMA	120.74	ECC	.25295	INC	.4170	V1	29.458
RP	107.86	LAP	-.41	LOP	69.45	VP	36.901	GAP	-13.34	AZP	89.93	TAL	181.86	TAP	280.89	RCA	90.20	APO	151.28	V2	35.135
RC	43.711	GL	-2.77	GP	-13.95	ZAL	88.68	ZAP	14.76	ETS	67.00	ZAE	154.20	ETE	333.63	ZAC	87.54	ETC	260.67	CLP	-4.90

PLANETOCENTRIC CONIC

C3	14.876	VHL	3.857	DLA	-23.23	RAL	239.03	RAD	6567.6	VEL	11.673	PTH	2.05	VHP	8.587	DPA	-33.86	RAP	238.75	ECC	1.2448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 40 37	1319.89	7.51	349.78	97.66	117.38	9 2 36	719.9	11.12	342.97
90.00	13 37 27	5616.19	28.12	263.36	103.60	93.49	15 11 3	5016.2	28.31	254.70
100.00	9 44 0	1115.28	5.98	333.91	96.83	119.34	10 2 35	515.3	9.84	327.26
100.00	15 16 45	5296.03	29.86	239.89	103.69	91.47	16 45 1	4696.0	29.74	231.09
110.00	10 15 56	1015.17	2.43	324.13	94.63	124.11	10 32 51	415.2	6.89	317.88
110.00	17 1 18	4968.91	34.03	214.96	103.60	86.50	18 24 7	4368.9	33.17	205.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1707	TRA	-.6681	TC3	.6337	BAU	.1406	SGT	1212.3	SGR	511.4	SG3	150.6	ST	411.6	SR	444.7	SS	233.0
RDE	-.2989	RRA	.0488	RC3	-.3128	FAU	.03279	RRT	-.5093	RRF	.5507	RTF	-.8291	CRT	-.6574	CRS	-.4997	CST	.9765
FDE	-.0954	FRA	.5707	FC3	-1.9083	BSP	3762	SGB	1315.7	R23	-.0788	R13	.8387	LSA	583.8	MSA	283.2	SSA	20.2
BDE	.3442	BRA	.6698	BC3	.7067	FSP	-395	SG1	1243.8	SG2	429.0	THA	166.20	EL1	552.1	EL2	249.9	ALF	131.65

LAUNCH DATE AUG 24 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 239.217

RL	151.25	LAL	-.00	LOL	330.42	VL	25.776	GAL	-.81	AZL	90.23	HCA	102.25	SMA	121.70	ECC	.24318	INC	.2266	V1	29.458
RP	107.82	LAP	-.22	LOP	72.67	VP	37.030	GAP	-12.49	AZP	89.95	TAL	182.51	TAP	284.76	RCA	92.10	APO	151.29	V2	35.146
RC	44.829	GL	-1.59	GP	-15.00	ZAL	89.89	ZAP	16.48	ETS	61.43	ZAE	152.04	ETE	332.54	ZAC	86.61	ETC	260.88	CLP	-6.92

PLANETOCENTRIC CONIC

C3	13.571	VHL	3.684	DLA	-21.82	RAL	238.02	RAD	6567.5	VEL	11.617	PTH	2.04	VHP	8.138	DPA	-35.19	RAP	239.78	ECC	1.2233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 17 24	1368.00	5.99	352.51	94.77	117.73	8 40 12	768.0	9.66	345.74
90.00	13 52 34	5527.56	28.32	256.88	100.55	90.25	15 24 42	4927.6	28.05	248.23
100.00	9 23 24	1154.98	4.65	336.11	94.03	119.56	9 42 39	555.0	8.55	329.50
100.00	15 29 15	5215.80	29.85	233.93	100.53	88.33	16 56 11	4615.8	29.30	225.17
110.00	9 59 39	1041.38	1.43	325.50	92.03	124.16	10 17 0	441.4	5.90	319.27
110.00	17 9 30	4902.17	33.63	209.79	100.21	83.46	18 31 12	4302.2	32.36	200.79

DIFFERENTIAL CORRECTIONS

TDE	.1621	TRA	-.6499	TC3	.7498	BAU	.1535
RDE	-.2791	RRA	.0550	RC3	-.3921	FAU	.03518
FDE	-.0750	FRA	.5901	FC3	-2.2445	BSP	3931
BDE	.3228	BRA	.6522	BC3	.8461	FSP	-444

MID-COURSE EXECUTION ACCURACY

SGT	1246.7	SGR	529.5	SG3	166.8		
RRT	-.5594	RRF	.6060	RTF	-.8392		
SG8	1354.5	R23	-.0897	R13	.8505		
SG1	1285.9	SG2	425.5	THA	164.95		

ORBIT DETERMINATION ACCURACY

ST	413.0	SR	435.1	SS	226.8
CRT	-.6602	CRS	-.4222	CST	.9543
LSA	574.0	MSA	285.3	SSA	21.2
EL1	546.7	EL2	246.8	ALF	132.74

LAUNCH DATE AUG 24 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 245.975

RL	151.25	LAL	-.00	LOL	330.42	VL	25.931	GAL	-.98	AZL	90.03	HCA	105.47	SMA	122.60	ECC	.23428	INC	.0297	V1	29.458
RP	107.79	LAP	-.03	LOP	75.89	VP	37.148	GAP	-11.67	AZP	89.99	TAL	183.19	TAP	288.66	RCA	93.88	APO	151.32	V2	35.158
RC	46.073	GL	-.24	GP	-16.17	ZAL	91.16	ZAP	18.46	ETS	56.87	ZAE	150.03	ETE	331.25	ZAC	85.54	ETC	261.07	CLP	-9.01

PLANETOCENTRIC CONIC

C3	12.459	VHL	3.530	DLA	-20.23	RAL	237.00	RAD	6567.5	VEL	11.569	PTH	2.02	VHP	7.714	DPA	-36.61	RAP	240.70	ECC	1.2050

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 59	1420.07	4.34	355.43	92.05	118.01	8 17 39	820.1	8.05	348.72
90.00	14 7 51	5438.64	28.17	250.38	97.51	86.99	15 38 29	4838.6	27.46	241.79
100.00	9 2 15	1199.77	3.14	338.58	91.39	119.74	9 22 15	599.8	7.07	332.00
100.00	15 42 16	5134.17	29.53	227.88	97.40	85.17	17 7 50	4534.2	28.55	219.21
110.00	9 42 32	1073.51	.20	327.18	89.55	124.18	10 0 26	473.5	4.69	320.96
110.00	17 18 28	4833.19	32.97	204.51	96.89	80.41	18 39 1	4233.2	31.29	195.69

DIFFERENTIAL CORRECTIONS

TDE	.1513	TRA	-.6327	TC3	.8736	BAU	.1666
RDE	-.2591	RRA	.0620	RC3	-.4866	FAU	.03782
FDE	-.0478	FRA	.6122	FC3	-2.6283	BSP	4094
BDE	.3001	BRA	.6357	BC3	1.0000	FSP	-498

MID-COURSE EXECUTION ACCURACY

SGT	1280.0	SGR	553.6	SG3	184.7		
RRT	-.6105	RRF	.6622	RTF	-.8487		
SG8	1394.6	R23	-.1016	R13	.8620		
SG1	1329.1	SG2	422.3	THA	163.50		

ORBIT DETERMINATION ACCURACY

ST	410.4	SR	422.0	SS	221.1
CRT	-.6586	CRS	-.3103	CST	.9136
LSA	558.0	MSA	289.1	SSA	22.2
EL1	536.1	EL2	243.1	ALF	133.79

LAUNCH DATE AUG 24 1970 FLIGHT TIME 98.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 252.725

RL	151.25	LAL	-.00	LOL	330.42	VL	26.071	GAL	-1.14	AZL	89.83	HCA	108.69	SMA	123.43	ECC	.22619	INC	.1687	V1	29.458
RP	107.76	LAP	.16	LOP	79.12	VP	37.257	GAP	-10.88	AZP	90.05	TAL	183.89	TAP	292.58	RCA	95.51	APO	151.35	V2	35.168
RC	47.431	GL	1.30	GP	-17.49	ZAL	92.47	ZAP	20.67	ETS	53.15	ZAE	148.17	ETE	329.74	ZAC	84.32	ETC	261.24	CLP	-11.19

PLANETOCENTRIC CONIC

C3	11.519	VHL	3.394	DLA	-18.44	RAL	236.00	RAD	6567.4	VEL	11.529	PTH	2.01	VHP	7.314	DPA	-38.15	RAP	241.49	ECC	1.1896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 24	1476.50	2.53	358.59	89.53	118.21	7 55 1	876.5	6.28	351.92
90.00	14 23 27	5349.17	27.68	243.89	94.55	83.77	15 52 36	4749.2	26.53	235.41
100.00	8 40 40	1249.76	1.45	341.33	88.93	119.86	9 1 30	649.8	5.41	334.78
100.00	15 55 52	5051.15	28.90	221.79	94.37	82.02	17 20 3	4451.1	27.50	213.27
110.00	9 24 47	1111.55	-1.25	329.16	87.24	124.16	9 43 19	511.5	3.24	322.95
110.00	17 28 15	4762.12	32.04	199.18	93.71	77.38	18 47 37	4162.1	29.97	190.58

DIFFERENTIAL CORRECTIONS

TDE	.1371	TRA	-.6147	TC3	.9994	BAU	.1794
RDE	-.2382	RRA	.0699	RC3	-.5982	FAU	.04070
FDE	-.0108	FRA	.6357	FC3	-3.0592	BSP	4238
BDE	.2748	BRA	.6187	BC3	1.1647	FSP	-557

MID-COURSE EXECUTION ACCURACY

SGT	1307.8	SGR	584.8	SG3	204.3		
RRT	-.6598	RRF	.7168	RTF	-.8570		
SG8	1432.6	R23	-.1145	R13	.8728		
SG1	1369.8	SG2	419.6	THA	161.79		

ORBIT DETERMINATION ACCURACY

ST	402.1	SR	404.0	SS	218.3
CRT	-.6498	CRS	-.1486	CST	.8411
LSA	533.3	MSA	295.9	SSA	23.2
EL1	517.6	EL2	238.5	ALF	134.79

LAUNCH DATE AUG 24 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 259.466

RL	151.25	LAL	-.00	LOL	330.42	VL	26.199	GAL	-1.28	AZL	89.62	HCA	111.92	SMA	124.20	ECC	.21888	INC	.3783	V1	29.458
RP	107.72	LAP	.35	LOP	82.34	VP	37.356	GAP	-10.12	AZP	90.14	TAL	184.59	TAP	296.52	RCA	97.02	APO	151.38	V2	35.179
RC	48.893	GL	3.03	GP	-18.97	ZAL	93.80	ZAP	23.12	ETS	50.10	ZAE	146.44	ETE	328.00	ZAC	82.93	ETC	261.39	CLP	-13.46

PLANETOCENTRIC CONIC

C3	10.734	VHL	3.276	DLA	-16.46	RAL	235.04	RAD	6567.4	VEL	11.494	PTH	2.00	VHP	6.940	DPA	-39.81	RAP	242.14	ECC	1.1767

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 6 43	1537.65	.55	2.01	87.26	118.31	7 32 20	937.6	4.33	355.37
90.00	14 39 32	5258.94	26.84	237.42	91.73	80.63	16 7 11	4658.9	25.28	229.10
100.00	8 18 47	1305.08	-.43	344.36	86.71	119.89	8 40 32	705.1	3.55	337.84
100.00	16 10 8	4966.74	27.95	215.70	91.51	78.95	17 32 55	4366.7	26.14	207.36
110.00	9 6 32	1155.53	-2.93	331.46	85.15	124.07	9 25 47	555.5	1.56	325.25
110.00	17 38 53	4689.06	30.82	193.83	90.73	74.43	18 57 2	4089.1	28.38	185.48

DIFFERENTIAL CORRECTIONS

TDE	.1202	TRA	-.5981	TC3	1.1232	BAU	.1921
RDE	-.2158	RRA	.0794	RC3	-.7288	FAU	.04384
FDE	.0368	FRA	.6628	FC3	-3.5361	BSP	4377
BDE	.2470	BRA	.6034	BC3	1.3390	FSP	-622

MID-COURSE EXECUTION ACCURACY

SGT	1332.5	SGR	625.6	SG3	225.9		
RRT	-.7062	RRF	.7687	RTF	-.8641		
SG8	1472.0	R23	-.1289	R13	.8833		
SG1	1411.4	SG2	418.2	THA	159.81		

ORBIT DETERMINATION ACCURACY

ST	389.6	SR	380.1	SS	224.7
CRT	-.6339	CRS	.0530	CST	.7304
LSA	501.8	MSA	307.2	SSA	24.3
EL1	492.0	EL2	232.8	ALF	136.12

LAUNCH DATE AUG 24 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 266.196

RL	151.25	LAL	-.00	LOL	330.42	VL	26.314	GAL	-1.42	AZL	89.40	HCA	115.15	SMA	124.91	ECC	.21228	INC	.5975	V1	29.458
RP	107.69	LAP	.54	LOP	85.57	VP	37.446	GAP	-9.38	AZP	90.25	TAL	185.30	TAP	300.45	RCA	98.39	APO	151.42	V2	35.188
RC	50.451	GL	4.95	GP	-20.64	ZAL	95.12	ZAP	25.80	EIS	47.57	ZAE	144.81	ETE	326.00	ZAC	81.34	ETC	261.50	CLP	-15.84

PLANETOCENTRIC CONIC

C3	10.089	VHL	3.176	DLA	-14.27	RAL	234.16	RAD	6567.4	VEL	11.466	PTH	1.99	VHP	6.592	DPA	-41.62	RAP	242.60	ECC	1.1660

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 42 57	1603.81	-1.58	5.70	85.27	118.28	7 9 41	1003.8	2.21	359.07
90.00	14 56 14	5167.76	25.67	231.00	89.12	77.62	16 22 22	4567.8	23.71	222.88
100.00	7 56 42	1365.89	-2.49	347.70	84.76	119.80	8 19 27	765.9	1.49	341.18
100.00	16 25 11	4880.91	26.68	209.64	88.86	76.00	17 46 32	4280.9	24.50	201.52
110.00	8 47 55	1205.47	-4.83	334.07	83.31	123.88	9 8 0	605.5	-.35	327.86
110.00	17 50 27	4614.10	29.33	188.50	87.99	71.60	19 7 21	4014.1	26.54	180.43

DIFFERENTIAL CORRECTIONS

TDE	.1003	TRA	-.5828	TC3	1.2374	BAU	.2047
RDE	-.1910	RRA	.0908	RC3	-.8793	FAU	.04720
FDE	.0975	FRA	.6946	FC3	-4.0501	BSP	4519
BDE	.2158	BRA	.5899	BC3	1.5180	FSP	-694

MID-COURSE EXECUTION ACCURACY

SGT	1351.9	SGR	677.8	SG3	249.2		
RRT	-.7475	RRF	.8159	RTF	-.8701		
SGB	1512.3	R23	-.1441	R13	.8935		
SG1	1453.1	SG2	418.9	THA	157.48		

ORBIT DETERMINATION ACCURACY

ST	373.1	SR	348.7	SS	246.5
CRT	-.6092	CRS	.2625	CST	.5959
LSA	463.7	MSA	325.5	SSA	25.4
EL1	458.5	EL2	225.1	ALF	138.17

LAUNCH DATE AUG 24 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 272.912

RL	151.25	LAL	-.00	LOL	330.42	VL	26.418	GAL	-1.55	AZL	89.17	HCA	118.38	SMA	125.55	ECC	.20636	INC	.8285	V1	29.458
RP	107.67	LAP	.73	LOP	88.80	VP	37.527	GAP	-8.67	AZP	90.39	TAL	185.99	TAP	304.37	RCA	99.64	APO	151.46	V2	35.198
RC	52.096	GL	7.09	GP	-22.50	ZAL	96.41	ZAP	28.72	EIS	45.46	ZAE	143.26	ETE	323.72	ZAC	79.54	ETC	261.58	CLP	-18.34

PLANETOCENTRIC CONIC

C3	9.572	VHL	3.094	DLA	-11.89	RAL	233.37	RAD	6567.3	VEL	11.444	PTH	1.99	VHP	6.272	DPA	-43.60	RAP	242.85	ECC	1.1575

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 19 11	1675.29	-3.88	9.69	83.60	118.07	6 47 6	1075.3	-.10	3.05
90.00	15 13 44	5075.46	24.17	224.66	86.78	74.78	16 38 20	4475.5	21.85	216.75
100.00	7 34 29	1432.36	-4.73	351.36	83.13	119.55	7 58 21	832.4	-.76	344.82
100.00	16 41 8	4793.62	25.11	203.63	86.49	73.22	18 1 1	4193.6	22.57	195.75
110.00	8 29 3	1261.42	-6.95	337.02	81.77	123.55	8 50 5	661.4	-2.49	330.78
110.00	18 3 2	4537.32	27.56	183.23	85.55	68.94	19 18 40	3937.3	24.45	175.44

DIFFERENTIAL CORRECTIONS

TDE	.0739	TRA	-.5718	TC3	1.3196	BAU	.2155
RDE	-.1621	RRA	.1053	RC3	-1.0466	FAU	.05052
FDE	.1779	FRA	.7340	FC3	-4.5694	BSP	4561
BDE	.1781	BRA	.5814	BC3	1.6842	FSP	-763

MID-COURSE EXECUTION ACCURACY

SGT	1362.4	SGR	741.1	SG3	273.7		
RRT	-.7780	RRF	.8559	RTF	-.8728		
SGB	1550.9	R23	-.1633	R13	.9024		
SG1	1491.5	SG2	425.3	THA	154.88		

ORBIT DETERMINATION ACCURACY

ST	353.1	SR	306.6	SS	291.5
CRT	-.5628	CRS	.4383	CST	.4859
LSA	419.5	MSA	356.3	SSA	26.1
EL1	414.9	EL2	215.7	ALF	142.06

LAUNCH DATE AUG 24 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 279.611

RL	151.25	LAL	-.00	LOL	330.42	VL	26.511	GAL	-1.67	AZL	88.93	HCA	121.61	SMA	126.14	ECC	.20106	INC	1.0743	V1	29.458
RP	107.64	LAP	.92	LOP	92.04	VP	37.601	GAP	-7.99	AZP	90.56	TAL	186.66	TAP	308.27	RCA	100.78	APO	151.51	V2	35.206
RC	53.818	GL	9.44	GP	-24.59	ZAL	97.63	ZAP	31.90	EIS	43.64	ZAE	141.75	ETE	321.12	ZAC	77.50	ETC	261.61	CLP	-20.98

PLANETOCENTRIC CONIC

C3	9.176	VHL	3.029	DLA	-9.30	RAL	232.70	RAD	6567.3	VEL	11.427	PTH	1.98	VHP	5.980	DPA	-45.76	RAP	242.82	ECC	1.1510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 55 21	1752.50	-6.34	14.03	82.30	117.66	6 24 34	1152.5	-2.59	7.36
90.00	15 32 13	4981.76	22.35	218.39	84.76	72.15	16 55 15	4381.8	19.71	210.72
100.00	7 12 9	1504.77	-7.15	355.38	81.86	119.10	7 37 13	904.8	-3.21	348.80
100.00	16 58 7	4704.72	23.23	197.70	84.44	70.63	18 16 32	4104.7	20.37	190.06
110.00	8 10 1	1323.54	-9.27	340.33	80.56	123.05	8 32 5	723.5	-4.85	334.03
110.00	18 16 44	4458.72	25.53	178.02	83.44	66.46	19 31 2	3858.7	22.13	170.52

DIFFERENTIAL CORRECTIONS

TDE	.0554	TRA	-.5516	TC3	1.4230	BAU	.2318
RDE	-.1303	RRA	.1208	RC3	-1.2433	FAU	.05444
FDE	.2664	FRA	.7685	FC3	-5.1364	BSP	4858
BDE	.1416	BRA	.5647	BC3	1.8896	FSP	-858

MID-COURSE EXECUTION ACCURACY

SGT	1368.2	SGR	825.7	SG3	300.6		
RRT	-.8143	RRF	.8913	RTF	-.8795		
SGB	1598.1	R23	-.1675	R13	.9146		
SG1	1540.3	SG2	425.7	THA	151.45		

ORBIT DETERMINATION ACCURACY

ST	335.0	SR	257.1	SS	349.6
CRT	-.5622	CRS	.5255	CST	.3961
LSA	405.1	MSA	368.6	SSA	26.2
EL1	377.9	EL2	188.5	ALF	147.74

LAUNCH DATE AUG 24 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 286.294

RL	151.25	LAL	-.00	LOL	330.42	VL	26.594	GAL	-1.78	AZL	88.66	HCA	124.84	SMA	126.68	ECC	.19635	INC	1.3380	V1	29.458
RP	107.61	LAP	1.10	LOP	95.27	VP	37.667	GAP	-7.33	AZP	90.76	TAL	187.30	TAP	312.14	RCA	101.80	APO	151.55	V2	35.214
RC	55.612	GL	12.01	GP	-26.94	ZAL	98.75	ZAP	35.33	EIS	42.02	ZAE	140.23	ETE	318.21	ZAC	75.20	ETC	261.58	CLP	-23.77

PLANETOCENTRIC CONIC

C3	8.896	VHL	2.983	DLA	-6.52	RAL	232.18	RAD	6567.3	VEL	11.414	PTH	1.98	VHP	5.720	DPA	-48.13	RAP	242.48	ECC	1.1464

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 31 30	1835.81	-8.94	18.77	81.40	116.98	6 2 6	1235.8	-5.25	12.03
90.00	15 51 53	4886.49	20.24	212.21	83.11	69.76	17 13 20	4286.5	17.30	204.77
100.00	6 49 44	1583.41	-9.72	359.79	80.98	118.41	7 16 8	983.4	-5.86	353.14
100.00	17 16 20	4614.12	21.06	191.84	82.77	68.28	18 33 14	4014.1	17.92	184.45
110.00	7 50 53	1391.96	-11.79	344.04	79.75	122.32	8 14 5	792.0	-7.44	337.64
110.00	18 31 40	4378.33	23.25	172.90	81.73	64.20	19 44 39	3778.3	19.58	165.67

DIFFERENTIAL CORRECTIONS

TDE	.0299	TRA	-.5379	TC3	1.4707	BAU	.2459
RDE	-.0910	RRA	.1412	RC3	-1.4530	FAU	.05808
FDE	.3801	FRA	.8137	FC3	-5.6525	BSP	5018
BDE	.0958	BRA	.5561	BC3	2.0674	FSP	-944

MID-COURSE EXECUTION ACCURACY

SGT	1361.9	SGR	925.4	SG3	327.6		
RRT	-.8366	RRF	.9189	RTF	-.8816		
SGB	1646.5	R23	-.1756	R13	.9252		
SG1	1588.1	SG2	434.7	THA	147.67		

ORBIT DETERMINATION ACCURACY

ST	318.3	SR	194.9	SS	432.6
CRT	-.5847	CRS	.5067	CST	.3877
LSA	464.7	MSA	331.3	SSA	25.4
EL1	343.2	EL2	146.6	ALF	155.57

LAUNCH DATE AUG 24 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 292.958

RL	151.25	LAL	-.00	LOL	330.42	VL	26.668	GAL	-1.87	AZL	88.38	HCA	128.07	SMA	127.15	ECC	.19217	INC	1.6233	VI	29.458
RP	107.59	LAP	1.28	LOP	98.51	VP	37.727	GAP	-6.69	AZP	91.00	TAL	187.90	TAP	315.98	RCA	102.72	APO	151.59	V2	35.222
RC	57.469	GL	14.81	GP	-29.55	ZAL	99.74	ZAP	39.02	ETS	40.52	ZAE	138.64	ETE	314.95	ZAC	72.62	ETC	261.49	CLP	-26.73

PLANETOCENTRIC CONIC

C3	8.731	VHL	2.955	DLA	-3.53	RAL	231.82	RAD	6567.3	VEL	11.407	PTH	1.97	VHP	5.494	DPA	-50.71	RAP	241.74	ECC	1.1437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 7 30	1925.85	-11.68	23.97	80.96	115.98	5 39 35	1325.8	-8.09	17.13
90.00	16 13 0	4789.28	17.83	206.09	81.88	67.63	17 32 50	4189.3	14.64	198.87
100.00	6 27 11	1668.78	-12.45	4.67	80.56	117.40	6 55 0	1068.8	-8.68	357.91
100.00	17 36 0	4521.58	18.62	186.05	81.52	66.18	18 51 22	3921.6	15.24	178.89
110.00	7 31 38	1467.01	-14.48	348.18	79.39	121.31	7 56 5	867.0	-10.23	341.66
110.00	18 48 2	4296.12	20.72	167.85	80.44	62.18	19 59 38	3696.1	16.84	160.88

DIFFERENTIAL CORRECTIONS

TDE	.0033	TRA	-.5248	TC3	1.4780	BAU	.2608
RDE	-.0429	RRA	.1663	RC3	-1.6756	FAU	.06151
FDE	.5159	FRA	.8639	FC3	-6.0994	BSP	5181
BDE	.0430	BRA	.5505	BC3	2.2343	FSP	-1029

MID-COURSE EXECUTION ACCURACY

SGT	1342.5	SGR	1044.9	SG3	354.2		
RRT	-.8517	RRF	.9403	RTF	-.8817		
SGB	1701.2	R23	-.1783	R13	.9360		
SG1	1641.2	SG2	447.9	THA	143.28		

ORBIT DETERMINATION ACCURACY

ST	307.1	SR	131.1	SS	534.1		
CRT	-.7691	CRS	.2110	CST	.4355		
LSA	555.9	MSA	295.1	SSA	23.8		
EL1	324.3	EL2	79.3	ALF	160.62		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 299.602

RL	151.25	LAL	-.00	LOL	330.42	VL	26.734	GAL	-1.95	AZL	88.06	HCA	131.31	SMA	127.58	ECC	.18849	INC	1.9351	VI	29.458
RP	107.57	LAP	1.45	LOP	101.74	VP	37.779	GAP	-6.08	AZP	91.28	TAL	188.46	TAP	319.77	RCA	103.53	APO	151.63	V2	35.229
RC	59.382	GL	17.83	GP	-32.45	ZAL	100.57	ZAP	42.97	ETS	39.04	ZAE	136.91	ETE	311.37	ZAC	69.73	ETC	261.31	CLP	-29.88

PLANETOCENTRIC CONIC

C3	8.685	VHL	2.947	DLA	-.36	RAL	231.64	RAD	6567.3	VEL	11.405	PTH	1.97	VHP	5.306	DPA	-53.51	RAP	240.49	ECC	1.1429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 43 11	2023.39	-14.52	29.73	81.03	114.58	5 16 54	1423.4	-11.08	22.73
90.00	16 35 53	4689.74	15.15	200.02	81.12	65.79	17 54 2	4089.7	11.75	192.99
100.00	6 4 22	1761.55	-15.29	10.09	80.65	116.00	6 33 43	1161.5	-11.67	3.17
100.00	17 57 23	4426.82	15.92	180.31	80.75	64.36	19 11 10	3826.8	12.34	173.35
110.00	7 12 13	1549.13	-17.33	352.84	79.52	119.94	7 38 2	949.1	-13.22	346.14
110.00	19 6 1	4212.00	17.97	162.88	79.63	60.42	20 16 13	3612.0	13.89	156.14

DIFFERENTIAL CORRECTIONS

TDE	-.0212	TRA	-.5115	TC3	1.4464	BAU	.2779
RDE	.0163	RRA	.1973	RC3	-1.9066	FAU	.06463
FDE	.6713	FRA	.9180	FC3	-6.4425	BSP	5399
BDE	.0268	BRA	.5482	BC3	2.3932	FSP	-1113

MID-COURSE EXECUTION ACCURACY

SGT	1310.5	SGR	1187.9	SG3	379.6		
RRT	-.8613	RRF	.9566	RTF	-.8797		
SGB	1768.8	R23	-.1734	R13	.9472		
SG1	1707.0	SG2	463.4	THA	138.26		

ORBIT DETERMINATION ACCURACY

ST	302.3	SR	124.0	SS	648.8		
CRT	-.9737	CRS	-.6084	CST	.5061		
LSA	675.2	MSA	267.1	SSA	21.5		
EL1	325.7	EL2	26.2	ALF	158.07		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 306.224

RL	151.25	LAL	-.00	LOL	330.42	VL	26.791	GAL	-2.02	AZL	87.72	HCA	134.54	SMA	127.96	ECC	.18527	INC	2.2797	VI	29.458
RP	107.55	LAP	1.62	LOP	104.98	VP	37.826	GAP	-5.48	AZP	91.60	TAL	188.96	TAP	323.50	RCA	104.25	APO	151.67	V2	35.235
RC	61.346	GL	21.08	GP	-35.65	ZAL	101.21	ZAP	47.18	ETS	37.50	ZAE	134.98	ETE	307.47	ZAC	66.54	ETC	261.03	CLP	-33.24

PLANETOCENTRIC CONIC

C3	8.770	VHL	2.961	DLA	3.00	RAL	231.66	RAD	6567.3	VEL	11.409	PTH	1.97	VHP	5.160	DPA	-56.52	RAP	238.60	ECC	1.1443

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 18 19	2129.53	-17.42	36.17	81.68	112.68	4 53 48	1529.5	-14.19	28.97
90.00	17 0 55	4587.29	12.20	193.94	80.89	64.25	18 17 22	3987.3	8.63	187.07
100.00	5 41 3	1862.64	-18.21	16.18	81.32	114.13	6 12 6	1262.6	-14.79	9.05
100.00	18 20 51	4329.41	12.96	174.59	80.50	62.83	19 33 1	3729.4	9.22	167.80
110.00	6 52 31	1638.98	-20.30	358.11	80.23	118.11	7 19 50	1039.0	-16.38	351.18
110.00	19 25 53	4125.84	15.00	157.96	79.33	58.92	20 34 39	3525.8	10.78	151.41

DIFFERENTIAL CORRECTIONS

TDE	-.0428	TRA	-.4981	TC3	1.3621	BAU	.2966
RDE	.0898	RRA	.2357	RC3	-2.1314	FAU	.06702
FDE	.8451	FRA	.9748	FC3	-6.6158	BSP	5649
BDE	.0995	BRA	.5511	BC3	2.5295	FSP	-1188

MID-COURSE EXECUTION ACCURACY

SGT	1260.6	SGR	1353.6	SG3	401.5		
RRT	-.8635	RRF	.9686	RTF	-.8739		
SGB	1849.7	R23	-.1615	R13	.9580		
SG1	1785.8	SG2	481.9	THA	132.64		

ORBIT DETERMINATION ACCURACY

ST	302.1	SR	224.5	SS	773.2		
CRT	-.8104	CRS	-.9405	CST	.5768		
LSA	823.7	MSA	246.4	SSA	18.7		
EL1	359.8	EL2	110.4	ALF	145.19		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 312.825

RL	151.25	LAL	-.00	LOL	330.42	VL	26.841	GAL	-2.08	AZL	87.34	HCA	137.77	SMA	128.29	ECC	.18246	INC	2.6650	VI	29.458
RP	107.53	LAP	1.79	LOP	108.22	VP	37.867	GAP	-4.90	AZP	91.97	TAL	189.40	TAP	327.17	RCA	104.88	APO	151.70	V2	35.240
RC	63.355	GL	24.56	GP	-39.14	ZAL	101.63	ZAP	51.61	ETS	35.81	ZAE	132.78	ETE	303.30	ZAC	63.03	ETC	260.62	CLP	-36.81

PLANETOCENTRIC CONIC

C3	9.004	VHL	3.001	DLA	6.55	RAL	231.89	RAD	6567.3	VEL	11.419	PTH	1.98	VHP	5.062	DPA	-59.72	RAP	235.89	ECC	1.1482

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 52 28	2245.82	-20.31	43.47	82.99	110.16	4 29 54	1645.8	-17.39	36.02
90.00	17 28 39	4481.11	8.98	187.80	81.26	63.03	18 43 20	3881.1	5.30	181.06
100.00	5 16 56	1973.40	-21.14	23.10	82.65	111.64	5 49 49	1373.4	-18.02	15.70
100.00	18 46 52	4228.76	9.77	168.82	80.84	61.61	19 57 21	3628.8	5.90	162.17
110.00	6 32 18	1737.50	-23.34	4.14	81.61	115.71	7 1 16	1137.5	-19.69	356.91
110.00	19 47 59	4037.43	11.84	153.07	79.60	57.70	20 55 16	3437.4	7.49	146.67

DIFFERENTIAL CORRECTIONS

TDE	-.0590	TRA	-.4834	TC3	1.2273	BAU	.3175
RDE	.1821	RRA	.2832	RC3	-2.3345	FAU	.06836
FDE	1.0339	FRA	1.0317	FC3	-6.5731	BSP	5951
BDE	.1914	BRA	.5603	BC3	2.6374	FSP	-1246

MID-COURSE EXECUTION ACCURACY

SGT	1191.0	SGR	1542.7	SG3	417.9		
RRT	-.8582	RRF	.9774	RTF	-.8629		
SGB	1949.0	R23	-.1427	R13	.9680		
SG1	1883.5	SG2	500.8	THA	126.52		

ORBIT DETERMINATION ACCURACY

ST	301.5	SR	386.4	SS	903.2		
CRT	-.7349	CRS	-.9881	CST	.6278		
LSA	1001.0	MSA	231.7	SSA	16.0		
EL1	458.9	EL2	172.2	ALF	125.58		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 319.402

RL	151.25	LAL	-.00	LOL	330.42	VL	26.885	GAL	-2.13	AZL	86.90	HCA	141.00	SMA	128.58	ECC	.18004	INC	3.1014	V1	29.458
RP	107.52	LAP	1.95	LOP	111.47	VP	37.902	GAP	-4.34	AZP	92.41	TAL	189.78	TAP	330.78	RCA	105.43	APO	151.73	V2	35.245
RC	65.403	GL	28.27	GP	-42.92	ZAL	101.81	ZAP	56.23	ETS	33.87	ZAE	130.25	ETE	298.92	ZAC	59.23	ETC	260.05	CLP	-40.61

PLANETOCENTRIC CONIC

C3	9.421	VHL	3.069	DLA	10.27	RAL	232.36	RAD	6567.3	VEL	11.437	PTH	1.98	VHP	5.020	DPA	-63.05	RAP	232.06	ECC	1.1550

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 25 2	2374.55	-23.10	51.88	85.05	106.85	4 4 36	1774.6	-20.58	44.12
90.00	17 59 50	4369.95	5.50	181.49	82.30	62.18	19 12 40	3770.0	1.73	174.83
100.00	4 51 28	2095.78	-24.00	31.06	84.74	108.38	5 26 24	1495.8	-21.26	23.33
100.00	19 16 5	4123.96	6.32	162.95	81.85	60.72	20 24 49	3524.0	2.37	156.39
110.00	6 11 16	1846.02	-26.37	11.12	83.76	112.59	6 42 3	1246.0	-23.07	3.51
110.00	20 12 46	3946.48	8.49	148.16	80.53	56.76	21 18 32	3346.5	4.05	141.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0659	TRA	-.4671	TC3	1.0425	BAU	.3405	SGT 1100.0 SGR 1753.5 SG3 426.3	ST 293.6	SR 590.2	SS 1031.3
RDE	.2974	RRA	.3425	RC3	-2.4942	FAU	.06829	RRT -.8420 RRF .9836 RTF -.8429	CRT -.6985	CRS -.9968	CST .6430
FDE	1.2283	FRA	1.0870	FC3	-6.2750	BSP	6315	SGB 2070.0 R23 -.1191 R13 .9768	LSA 1203.6	MSA 221.7	SSA 13.4
BDE	.3046	BRA	.5792	BC3	2.7033	FSP	-1282	SG1 2003.7 SG2 519.3 THA 120.07	EL1 629.0	EL2 197.1	ALF 111.36

LAUNCH DATE AUG 24 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 325.955

RL	151.25	LAL	-.00	LOL	330.42	VL	26.921	GAL	-2.16	AZL	86.40	HCA	144.24	SMA	128.83	ECC	.17796	INC	3.6035	V1	29.458
RP	107.51	LAP	2.11	LOP	114.71	VP	37.931	GAP	-3.80	AZP	92.93	TAL	190.08	TAP	334.32	RCA	105.90	APO	151.75	V2	35.249
RC	67.486	GL	32.19	GP	-46.96	ZAL	101.74	ZAP	60.95	ETS	31.59	ZAE	127.36	ETE	294.37	ZAC	55.15	ETC	259.28	CLP	-44.65

PLANETOCENTRIC CONIC

C3	10.073	VHL	3.174	DLA	14.15	RAL	233.08	RAD	6567.4	VEL	11.466	PTH	1.99	VHP	5.043	DPA	-66.44	RAP	226.71	ECC	1.1658

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 54 57	2519.29	-25.61	61.74	87.98	102.52	3 36 57	1919.3	-23.63	53.63
90.00	18 35 38	4251.63	1.71	174.86	84.16	61.73	19 46 30	3651.6	-2.09	168.23
100.00	4 23 49	2232.71	-26.61	40.39	87.71	104.14	5 1 2	1632.7	-24.41	32.29
100.00	19 49 27	4013.47	2.61	156.85	83.65	60.21	20 56 21	3413.5	-1.37	150.33
110.00	5 48 55	1966.45	-29.25	19.30	86.84	108.53	6 21 41	1366.4	-26.44	11.24
110.00	20 40 51	3852.49	4.95	143.18	82.20	56.13	21 45 4	3252.5	.47	136.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0584	TRA	-.4468	TC3	.8185	BAU	.3657	SGT 986.3 SGR 1983.3 SG3 424.8	ST 271.3	SR 830.1	SS 1148.5
RDE	.4406	RRA	.4156	RC3	-2.5897	FAU	.06656	RRT -.8084 RRF .9881 RTF -.8066	CRT -.6327	CRS -.9990	CST .6000
FDE	1.4160	FRA	1.1340	FC3	-5.7207	BSP	6755	SGB 2215.1 R23 -.0930 R13 .9838	LSA 1426.7	MSA 215.0	SSA 11.1
BDE	.4445	BRA	.6102	BC3	2.7160	FSP	-1288	SG1 2149.3 SG2 535.7 THA 113.45	EL1 848.8	EL2 205.5	ALF 102.42

LAUNCH DATE AUG 24 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 332.483

RL	151.25	LAL	-.00	LOL	330.42	VL	26.952	GAL	-2.18	AZL	85.81	HCA	147.47	SMA	129.04	ECC	.17619	INC	4.1911	V1	29.458
RP	107.50	LAP	2.25	LOP	117.96	VP	37.956	GAP	-3.28	AZP	93.54	TAL	190.31	TAP	337.78	RCA	106.30	APO	151.77	V2	35.253
RC	69.600	GL	36.32	GP	-51.22	ZAL	101.41	ZAP	65.70	ETS	28.88	ZAE	124.08	ETE	289.71	ZAC	50.85	ETC	258.25	CLP	-48.93

PLANETOCENTRIC CONIC

C3	11.044	VHL	3.323	DLA	18.18	RAL	234.06	RAD	6567.4	VEL	11.508	PTH	2.00	VHP	5.145	DPA	-69.73	RAP	219.23	ECC	1.1817

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 20 23	2686.31	-27.53	73.57	91.85	96.89	3 5 9	2086.3	-26.29	65.13
90.00	19 18 2	4121.92	-2.48	167.62	87.01	61.78	20 26 44	3521.9	-6.23	160.96
100.00	3 52 33	2389.11	-28.73	51.53	91.66	98.65	4 32 22	1789.1	-27.23	43.04
100.00	20 28 34	3894.35	-1.43	150.31	86.42	60.14	21 33 28	3294.4	-5.39	143.77
110.00	5 24 25	2101.66	-31.78	29.01	90.98	103.30	5 59 27	1501.7	-29.63	20.46
110.00	21 13 11	3754.57	1.21	138.06	84.77	55.84	22 15 45	3154.6	-3.28	131.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0282	TRA	-.4197	TC3	.5693	BAU	.3924	SGT 851.8 SGR 2224.5 SG3 411.5	ST 233.9	SR 1099.1	SS 1244.6
RDE	.6164	RRA	.5056	RC3	-2.5960	FAU	.06296	RRT -.7406 RRF .9912 RTF -.7366	CRT -.4481	CRS -.9996	CST .4261
FDE	1.5806	FRA	1.1680	FC3	-4.9353	BSP	7260	SGB 2382.1 R23 -.0671 R13 .9890	LSA 1663.5	MSA 211.1	SSA 9.1
BDE	.6171	BRA	.6571	BC3	2.6577	FSP	-1258	SG1 2317.8 SG2 549.3 THA 106.81	EL1 1104.3	EL2 208.1	ALF 95.65

LAUNCH DATE AUG 24 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 338.985

RL	151.25	LAL	-.00	LOL	330.42	VL	26.977	GAL	-2.19	AZL	85.11	HCA	150.69	SMA	129.21	ECC	.17472	INC	4.8928	V1	29.458
RP	107.49	LAP	2.39	LOP	121.20	VP	37.977	GAP	-2.77	AZP	94.27	TAL	190.47	TAP	341.16	RCA	106.63	APO	151.78	V2	35.255
RC	71.740	GL	40.63	GP	-55.66	ZAL	100.82	ZAP	70.36	ETS	25.64	ZAE	120.44	ETE	284.96	ZAC	46.35	ETC	256.88	CLP	-53.42

PLANETOCENTRIC CONIC

C3	12.469	VHL	3.531	DLA	22.32	RAL	235.33	RAD	6567.5	VEL	11.570	PTH	2.02	VHP	5.342	DPA	-72.73	RAP	208.76	ECC	1.2052

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 37 12	2888.97	-28.31	88.33	96.62	89.55	2 25 21	2289.0	-28.08	79.67
90.00	20 11 18	3970.09	-7.32	159.09	91.18	62.57	21 17 28	3370.1	-10.93	152.28
100.00	3 14 44	2574.48	-29.86	65.17	96.61	91.56	3 57 39	1974.5	-29.32	56.41
100.00	21 16 27	3759.81	-5.96	142.90	90.45	60.65	22 19 6	3159.8	-9.83	136.24
110.00	4 56 26	2256.31	-33.61	40.69	96.29	96.62	5 34 2	1656.3	-32.33	31.70
110.00	21 51 14	3650.74	-2.75	132.64	88.46	55.91	22 52 5	3050.7	-7.21	126.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	.0340	TRA	-.3827	TC3	.3128	BAU	.4186	SGT 708.7 SGR 2467.8 SG3 385.8	ST 208.9	SR 1389.4	SS 1313.0
RDE	.8319	RRA	.6170	RC3	-2.4917	FAU	.05738	RRT -.5950 RRF .9934 RTF -.5891	CRT .0298	CRS -.9999	CST -.0450
FDE	1.7098	FRA	1.1854	FC3	-3.9842	BSP	7806	SGB 2567.5 R23 -.0426 R13 .9925	LSA 1911.6	MSA 209.2	SSA 7.5
BDE	.8326	BRA	.7260	BC3	2.5113	FSP	-1187	SG1 2505.5 SG2 561.1 THA 100.22	EL1 1389.4	EL2 208.8	ALF 89.74

LAUNCH DATE AUG 24 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 345.459

RL	151.25	LAL	-.00	LOL	330.42	VL	26.997	GAL	-2.19	AZL	84.25	HCA	153.92	SMA	129.34	ECC	.17350	INC	5.7512	V1	29.458
RP	107.48	LAP	2.53	LOP	124.45	VP	37.993	GAP	-2.28	AZP	95.17	TAL	190.54	TAP	344.46	RCA	106.90	APO	151.78	V2	35.257
RC	73.903	GL	45.07	GP	-60.24	ZAL	99.99	ZAP	74.80	ETS	21.78	ZAE	116.44	ETE	280.12	ZAC	41.71	ETC	255.07	CLP	-58.11

PLANETOCENTRIC CONIC

C3	14.581	VHL	3.819	DLA	26.53	RAL	236.88	RAD	6567.6	VEL	11.660	PTH	2.05	VHP	5.661	DPA	-75.13	RAP	194.33	ECC	1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 30 29	3174.99	-26.42	108.98	101.75	79.41	1 23 24	2575.0	-27.61	100.52
90.00	21 30 26	3752.18	-13.89	146.46	97.49	65.07	22 32 59	3152.2	-17.14	139.29
100.00	2 22 15	2814.69	-28.97	82.94	102.21	82.28	3 9 10	2214.7	-29.73	74.22
100.00	22 21 22	3587.71	-11.57	133.21	96.31	62.25	23 21 9	2987.7	-15.20	126.29
110.00	4 22 15	2439.20	-34.14	54.93	102.72	88.23	5 2 54	1839.2	-34.01	45.68
110.00	22 37 51	3535.96	-7.11	126.61	93.63	56.48	23 36 47	2936.0	-11.47	120.23

DIFFERENTIAL CORRECTIONS

TDE	.1446	TRA	-.3293	TC3	.0762	BAU	.4433
RDE	1.0915	RRA	.7539	RC3	-2.2730	FAU	.05019
FDE	1.7876	FRA	1.1810	FC3	-2.9799	BSP	8428
BDE	1.1010	BRA	.8227	BC3	2.2742	FSP	-1085

MID-COURSE EXECUTION ACCURACY

SGT	596.3	SGR	2700.8	SG3	348.8		
RRT	-.2757	RRF	.9949	RTF	-.2677		
SGB	2765.8	R23	-.0203	R13	.9948		
SG1	2706.0	SG2	572.1	THA	93.65		

ORBIT DETERMINATION ACCURACY

ST	273.1	SR	1681.9	SS	1344.2
CRT	.6369	CRS	-.9999	CST	-.6444
LSA	2160.2	MSA	209.4	SSA	6.1
EL1	1691.0	EL2	209.4	ALF	84.00

LAUNCH DATE AUG 24 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 351.903

RL	151.25	LAL	-.00	LOL	330.42	VL	27.013	GAL	-2.18	AZL	83.17	HCA	157.13	SMA	129.45	ECC	.17253	INC	6.8326	V1	29.458
RP	107.48	LAP	2.65	LOP	127.70	VP	38.005	GAP	-1.81	AZP	96.30	TAL	190.54	TAP	347.67	RCA	107.11	APO	151.78	V2	35.258
RC	76.087	GL	49.59	GP	-64.93	ZAL	98.94	ZAP	78.89	ETS	17.20	ZAE	112.11	ETE	275.11	ZAC	36.96	ETC	252.61	CLP	-62.95

PLANETOCENTRIC CONIC

C3	17.789	VHL	4.218	DLA	30.75	RAL	238.75	RAD	6567.7	VEL	11.797	PTH	2.09	VHP	6.143	DPA	-76.52	RAP	175.68	ECC	1.2928

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.48	21 25 55	3830.58	-21.96	155.89	106.12	67.91	22 29 46	3230.6	-24.76	148.15
102.52	0 49 53	3187.07	-21.94	108.43	106.11	67.90	1 43 0	2587.1	-24.75	100.68
77.48	21 25 55	3830.58	-21.96	155.89	106.12	67.91	22 29 46	3230.6	-24.76	148.15
102.52	0 49 53	3187.07	-21.94	108.43	106.11	67.90	1 43 0	2587.1	-24.75	100.68
110.00	3 34 28	2673.18	-32.19	72.86	109.65	77.81	4 19 1	2073.2	-33.53	63.89
110.00	23 40 31	3392.47	-12.41	118.88	101.01	57.89	24 37 3	2792.5	-16.56	112.23

DIFFERENTIAL CORRECTIONS

TDE	.3281	TRA	-.2503	TC3	-.1166	BAU	.4629
RDE	1.4021	RRA	.9250	RC3	-1.9430	FAU	.04170
FDE	1.8083	FRA	1.1556	FC3	-2.0292	BSP	9049
BDE	1.4399	BRA	.9583	BC3	1.9465	FSP	-951

MID-COURSE EXECUTION ACCURACY

SGT	604.1	SGR	2907.3	SG3	303.0		
RRT	.2457	RRF	.9959	RTF	.2551		
SGB	2969.4	R23	-.0001	R13	.9960		
SG1	2911.2	SG2	584.8	THA	86.95		

ORBIT DETERMINATION ACCURACY

ST	461.2	SR	1955.1	SS	1336.0
CRT	.8838	CRS	-1.0000	CST	-.8870
LSA	2403.2	MSA	211.9	SSA	5.0
EL1	1997.6	EL2	211.2	ALF	78.09

LAUNCH DATE AUG 24 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 358.314

RL	151.25	LAL	-.00	LOL	330.42	VL	27.024	GAL	-2.15	AZL	81.75	HCA	160.34	SMA	129.52	ECC	.17176	INC	8.2460	V1	29.458
RP	107.48	LAP	2.77	LOP	130.95	VP	38.013	GAP	-1.35	AZP	97.77	TAL	190.45	TAP	350.79	RCA	107.27	APO	151.77	V2	35.259
RC	78.289	GL	54.09	GP	-69.76	ZAL	97.72	ZAP	82.52	ETS	11.73	ZAE	107.47	ETE	269.77	ZAC	32.10	ETC	249.15	CLP	-67.88

PLANETOCENTRIC CONIC

C3	22.870	VHL	4.782	DLA	34.88	RAL	240.93	RAD	6567.9	VEL	12.010	PTH	2.14	VHP	6.853	DPA	-76.55	RAP	154.65	ECC	1.3764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.73	20 37 37	4067.19	-22.92	174.51	113.61	62.95	21 45 25	3467.2	-26.35	166.98
111.27	1 55 34	3070.18	-22.90	99.95	113.61	62.94	2 46 44	2470.2	-26.34	92.42
68.73	20 37 37	4067.19	-22.92	174.51	113.61	62.95	21 45 25	3467.2	-26.35	166.98
111.27	1 55 34	3070.18	-22.90	99.95	113.61	62.94	2 46 44	2470.2	-26.34	92.42
68.73	20 37 37	4067.19	-22.92	174.51	113.61	62.95	21 45 25	3467.2	-26.35	166.98
111.27	1 55 34	3070.18	-22.90	99.95	113.61	62.94	2 46 44	2470.2	-26.34	92.42

DIFFERENTIAL CORRECTIONS

TDE	.6271	TRA	-.1276	TC3	-.2444	BAU	.4739
RDE	1.7667	RRA	1.1401	RC3	-1.5307	FAU	.03258
FDE	1.7707	FRA	1.1093	FC3	-1.2332	BSP	9700
BDE	1.8747	BRA	1.1472	BC3	1.5501	FSP	-802

MID-COURSE EXECUTION ACCURACY

SGT	808.7	SGR	3065.3	SG3	252.1		
RRT	.6545	RRF	.9966	RTF	.6644		
SGB	3170.2	R23	.0186	R13	.9965		
SG1	3112.5	SG2	602.1	THA	79.82		

ORBIT DETERMINATION ACCURACY

ST	753.5	SR	2175.3	SS	1288.8
CRT	.9535	CRS	-1.0000	CST	-.9555
LSA	2629.3	MSA	217.3	SSA	4.1
EL1	2291.9	EL2	215.5	ALF	71.55

LAUNCH DATE AUG 24 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 364.685

RL	151.25	LAL	-.00	LOL	330.42	VL	27.030	GAL	-2.10	AZL	79.82	HCA	163.53	SMA	129.57	ECC	.17119	INC	10.1838	V1	29.458
RP	107.48	LAP	2.87	LOP	134.20	VP	38.017	GAP	-.90	AZP	99.77	TAL	190.27	TAP	353.81	RCA	107.39	APO	151.75	V2	35.258
RC	80.507	GL	58.42	GP	-74.81	ZAL	96.37	ZAP	85.56	ETS	4.94	ZAE	102.46	ETE	263.59	ZAC	27.07	ETC	243.87	CLP	-72.80

PLANETOCENTRIC CONIC

C3	31.429	VHL	5.606	DLA	38.78	RAL	243.40	RAD	6568.3	VEL	12.361	PTH	2.23	VHP	7.909	DPA	-75.11	RAP	134.68	ECC	1.5172

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.32	20 13 34	4246.13	-22.43	188.67	122.49	57.50	21 24 20	3646.1	-26.55	181.54
117.68	2 39 21	3048.92	-22.42	97.94	122.48	57.50	3 30 10	2448.9	-26.54	90.82
62.32	20 13 34	4246.13	-22.43	188.67	122.49	57.50	21 24 20	3646.1	-26.55	181.54
117.68	2 39 21	3048.92	-22.42	97.94	122.48	57.50	3 30 10	2448.9	-26.54	90.82
62.32	20 13 34	4246.13	-22.43	188.67	122.49	57.50	21 24 20	3646.1	-26.55	181.54
117.68	2 39 21	3048.92	-22.42	97.94	122.48	57.50	3 30 10	2448.9	-26.54	90.82

DIFFERENTIAL CORRECTIONS

TDE	1.1295	TRA	.0796	TC3	-.2967	BAU	.4669
RDE	2.1773	RRA	1.4180	RC3	-1.0708	FAU	.02330
FDE	1.6869	FRA	1.0511	FC3	-.6419	BSP	10297
BDE	2.4529	BRA	1.4203	BC3	1.1111	FSP	-645

MID-COURSE EXECUTION ACCURACY

SGT	1205.9	SGR	3138.3	SG3	200.6		
RRT	.8356	RRF	.9968	RTF	.8478		
SGB	3362.0	R23	.0363	R13	.9965		
SG1	3302.5	SG2	629.5	THA	71.50		

ORBIT DETERMINATION ACCURACY

ST	1154.9	SR	2294.4	SS	1211.6
CRT	.9762	CRS	-.9999	CST	-.9784
LSA	2830.9	MSA	227.4	SSA	3.5
EL1	2558.8	EL2	224.5	ALF	63.61

LAUNCH DATE AUG 24 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 371.006

RL	151.25	LAL	-.00	LOL	330.42	VL	27.033	GAL	-2.04	AZL	76.98	HCA	166.70	SMA	129.59	ECC	.17079	INC	13.0179	V1	29.458		
RP	107.48	LAP	2.97	LOP	137.45	VP	38.019	GAP	-.48	AZP	102.68	TAL	190.00	TAP	356.70	RCA	107.46	APO	151.72	V2	35.257		
RC	82.739	GL	62.34	GP	-80.25	ZAL	94.95	ZAP	87.92	ETS	355.19	ZAE	96.95	ETE	254.87	ZAC	21.75	ETC	234.31	CLP	-77.64		

PLANETOCENTRIC CONIC

C3	47.208	VHL	6.871	DLA	42.20	RAL	246.09	RAD	6568.8	VEL	12.984	PTH	2.37	VHP	9.543	DPA	-72.33	RAP	117.82	ECC	1.7769		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.30	20 1 43	4412.03	-19.97	200.94	132.49	52.02	21 15 15	3812.0	-24.75	194.42
122.70	3 12 41	3088.15	-19.95	99.41	132.47	52.01	4 4 9	2488.2	-24.74	92.89
57.30	20 1 43	4412.03	-19.97	200.94	132.49	52.02	21 15 15	3812.0	-24.75	194.42
122.70	3 12 41	3088.15	-19.95	99.41	132.47	52.01	4 4 9	2488.2	-24.74	92.89
57.30	20 1 43	4412.03	-19.97	200.94	132.49	52.02	21 15 15	3812.0	-24.75	194.42
122.70	3 12 41	3088.15	-19.95	99.41	132.47	52.01	4 4 9	2488.2	-24.74	92.89

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.0656	TRA	.4941	TC3	-.2768	BAU	.4251	SGT	1849.6	SGR	3016.5	SG3	152.5	ST	1730.6	SR	2189.0	SS	1120.9
RDE	2.5256	RRA	1.7659	RC3	-.6140	FAU	.01442	RRT	.9059	RRF	.9958	RTF	.9276	CRT	.9839	CRS	-.9996	CST	-.9884
FDE	1.5798	FRA	.9931	FC3	-.2644	BSP	10808	SGB	3538.4	R23	.0536	R13	.9962	LSA	2997.0	MSA	247.1	SSA	2.9
BDE	3.2627	BRA	1.8337	BC3	.6735	FSP	-493	SG1	3472.3	SG2	680.4	THA	59.66	EL1	2779.9	EL2	243.2	ALF	51.78

LAUNCH DATE AUG 24 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 377.249

RL	151.25	LAL	-.00	LOL	330.42	VL	27.033	GAL	-1.96	AZL	72.44	HCA	169.81	SMA	129.59	ECC	.17053	INC	17.5633	V1	29.458		
RP	107.49	LAP	3.06	LOP	140.70	VP	38.016	GAP	-.09	AZP	107.30	TAL	189.60	TAP	359.42	RCA	107.49	APO	151.68	V2	35.255		
RC	84.985	GL	65.36	GP	-86.52	ZAL	93.54	ZAP	89.55	ETS	332.00	ZAE	90.58	ETE	233.00	ZAC	15.89	ETC	207.61	CLP	-82.59		

PLANETOCENTRIC CONIC

C3	80.452	VHL	8.969	DLA	44.70	RAL	248.79	RAD	6569.6	VEL	14.206	PTH	2.59	VHP	12.259	DPA	-68.14	RAP	103.90	ECC	2.3240		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.85	19 58 38	4577.72	-15.14	211.47	142.93	47.42	21 14 56	3977.7	-20.46	205.61
126.15	3 37 15	3179.87	-15.12	103.31	142.92	47.42	4 30 15	2579.9	-20.44	97.45
53.85	19 58 38	4577.72	-15.14	211.47	142.93	47.42	21 14 56	3977.7	-20.46	205.61
126.15	3 37 15	3179.87	-15.12	103.31	142.92	47.42	4 30 15	2579.9	-20.44	97.45
53.85	19 58 38	4577.72	-15.14	211.47	142.93	47.42	21 14 56	3977.7	-20.46	205.61
126.15	3 37 15	3179.87	-15.12	103.31	142.92	47.42	4 30 15	2579.9	-20.44	97.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	4.1873	TRA	1.7118	TC3	-.1973	BAU	.2960	SGT	3105.9	SGR	2008.8	SG3	112.1	ST	2714.4	SR	1173.7	SS	1051.3
RDE	1.6613	RRA	1.8589	RC3	-.1918	FAU	.00572	RRT	.8864	RRF	.9611	RTF	.9769	CRT	.9637	CRS	-.9846	CST	-.9955
FDE	1.4993	FRA	.9662	FC3	-.0616	BSP	10962	SGB	3698.9	R23	.0721	R13	.9957	LSA	3124.7	MSA	293.9	SSA	2.3
BDE	4.5049	BRA	2.5270	BC3	.2752	FSP	-352	SG1	3611.4	SG2	799.8	THA	31.55	EL1	2943.1	EL2	289.1	ALF	22.85

LAUNCH DATE AUG 24 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 383.341

RL	151.25	LAL	-.00	LOL	330.42	VL	27.029	GAL	-1.84	AZL	64.06	HCA	172.81	SMA	129.56	ECC	.17036	INC	25.9426	V1	29.458		
RP	107.50	LAP	3.14	LOP	143.95	VP	38.011	GAP	.27	AZP	115.77	TAL	189.02	TAP	1.84	RCA	107.49	APO	151.63	V2	35.253		
RC	87.241	GL	66.30	GP	-85.34	ZAL	92.21	ZAP	90.41	ETS	226.75	ZAE	82.34	ETE	129.16	ZAC	9.32	ETC	83.18	CLP	95.08		

PLANETOCENTRIC CONIC

C3	166.580	VHL	12.907	DLA	45.18	RAL	250.87	RAD	6570.8	VEL	16.968	PTH	2.92	VHP	17.351	DPA	-61.75	RAP	91.90	ECC	3.7415		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.20	20 4 30	4730.77	-8.35	218.93	152.50	45.44	21 23 21	4130.8	-13.91	213.48
126.80	3 48 1	3320.12	-8.33	109.59	152.49	45.44	4 43 22	2720.1	-13.90	104.15
53.20	20 4 30	4730.77	-8.35	218.93	152.50	45.44	21 23 21	4130.8	-13.91	213.48
126.80	3 48 1	3320.12	-8.33	109.59	152.49	45.44	4 43 22	2720.1	-13.90	104.15
53.20	20 4 30	4730.77	-8.35	218.93	152.50	45.44	21 23 21	4130.8	-13.91	213.48
126.80	3 48 1	3320.12	-8.33	109.59	152.49	45.44	4 43 22	2720.1	-13.90	104.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.8577	TRA	2.5713	TC3	-.0001	BAU	.0666	SGT	2057.0	SGR	3184.3	SG3	81.2	ST	1358.4	SR	2698.4	SS	1059.6
RDE	-5.9596	RRA	-2.8113	RC3	-.0299	FAU	-.00373	RRT	-.9501	RRF	-.9851	RTF	.9880	CRT	-.9860	CRS	.9968	CST	-.9961
FDE	1.5310	FRA	1.0264	FC3	.0194	BSP	11425	SGB	3790.9	R23	-.0760	R13	-.9962	LSA	3194.7	MSA	208.0	SSA	1.7
BDE	6.6093	BRA	3.8099	BC3	.0299	FSP	-260	SG1	3751.5	SG2	544.9	THA	122.30	EL1	3014.2	EL2	202.8	ALF	116.53

LAUNCH DATE AUG 24 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 389.026

RL	151.25	LAL	-.00	LOL	330.42	VL	27.023	GAL	-1.64	AZL	45.07	HCA	175.46	SMA	129.51	ECC	.17015	INC	44.9331	V1	29.458		
RP	107.51	LAP	3.21	LOP	147.20	VP	38.004	GAP	.51	AZP	134.84	TAL	188.03	TAP	3.49	RCA	107.48	APO	151.55	V2	35.249		
RC	89.506	GL	61.54	GP	-72.08	ZAL	91.06	ZAP	90.54	ETS	192.68	ZAE	69.04	ETE	96.26	ZAC	9.93	ETC	325.86	CLP	91.75		

PLANETOCENTRIC CONIC

C3	470.910	VHL	21.700	DLA	40.20	RAL	250.80	RAD	6572.3	VEL	24.335	PTH	3.32	VHP	28.711	DPA	-50.01	RAP	80.72	ECC	8.7500		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.18	20 33 6	4783.79	-1.86	217.66	158.62	49.84	21 52 50	4183.8	-7.00	211.92
119.82	3 18 52	3529.73	-1.84	122.15	158.61	49.84	4 17 42	2929.7	-6.98	116.41
60.18	20 33 6	4783.79	-1.86	217.66	158.62	49.84	21 52 50	4183.8	-7.00	211.92
119.82	3 18 52	3529.73	-1.84	122.15	158.61	49.84	4 17 42	2929.7	-6.98	116.41
60.18	20 33 6	4783.79	-1.86	217.66	158.62	49.84	21 52 50	4183.8	-7.00	211.92
119.82	3 18 52	3529.73	-1.84	122.15	158.61	49.84	4 17 42	2929.7	-6.98	116.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.9019	TRA	.7787	TC3	-.0410	BAU	1.3319	SGT	596.9	SGR	3684.1	SG3	62.7	ST	508.6	SR	2821.5	SS	1303.9
RDE	-10.3622	RRA	-6.6447	RC3	-.2076	FAU	-.02381	RRT	.4165	RRF	-.9977	RTF	-.3613	CRT	.9186	CRS	.9994	CST	.9046
FDE	1.9125	FRA	1.4056	FC3	.0438	BSP	11308	SGB	3732.2	R23	-.0697	R13	-.9970	LSA	3142.8	MSA	205.5	SSA	1.6
BDE	10.5353	BRA	6.6902	BC3	.2116	FSP	-200	SG1	3692.7	SG2	541.4	THA	86.05	EL1	2860.1	EL2	198.2	ALF	80.55

LAUNCH DATE AUG 24 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 400.304

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RL  151.25 LAL   -.00 LOL 330.42 VL  27.013 GAL  -2.50 AZL 179.48 HCA 183.26 SMA 129.45 ECC .17377 INC89.4339 V1  29.458
RP  107.52 LAP   3.26 LOP 150.45 VP  37.993 GAP   2.25 AZP    .52 TAL 192.01 TAP  15.28 RCA 106.96 APO 151.94 V2  35.245
RC  91.778 GL  -42.74 GP   47.91 ZAL  91.16 ZAP  91.58 ETS 183.09 ZAE  51.13 ETE 278.03 ZAC 126.37 ETC 282.60 CLP  92.36
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PLANETOCENTRIC CONIC

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C31580.942 VHL 39.761 DLA -60.78 RAL 218.89 RAD 6573.2 VEL 41.258 PTH   3.57 VHP 51.141 DPA  64.73 RAP  35.30 ECC27.0183
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.68	4 59 37	2416.44	-1.38	72.59	129.66	150.77	5 39 54	1816.4	5.60	69.09
146.32	14 37 47	739.51	-1.37	294.68	129.67	150.77	14 50 6	139.5	5.61	291.18
33.68	4 59 37	2416.44	-1.38	72.59	129.66	150.77	5 39 54	1816.4	5.60	69.09
146.32	14 37 47	739.51	-1.37	294.68	129.67	150.77	14 50 6	139.5	5.61	291.18
33.68	4 59 37	2416.44	-1.38	72.59	129.66	150.77	5 39 54	1816.4	5.60	69.09
146.32	14 37 47	739.51	-1.37	294.68	129.67	150.77	14 50 6	139.5	5.61	291.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.9966 TRA 1.4472 TC3 -.1185 BAU 5.1092   SGT 1444.5 SGR 2738.2 SG3   57.6     ST  1016.7 SR  2143.9 SS  2362.5
 RD-14.8583 RRA 1.1029 RC3  .2107 FAU-.09015   RRT -.9097 RRF  .9995 RTF -.9109     CRT -.9852 CRS-1.0000 CST  .9861
 FDE-3.7064 FRA  .2459 FC3  .0494 BSP   8943   SGB 3095.9 R23 -.0840 R13  .9960     LSA 3344.3 MSA  163.7 SSA    2.5
 BDE16.4232 BRA 1.8196 BC3  .2417 FSP   -173   SG1 3048.6 SG2  538.7 THA 116.53     EL1 2367.5 EL2  157.6 ALF 115.16
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 404.599

```
RL  151.25 LAL   -.00 LOL 330.42 VL  27.001 GAL  -2.01 AZL 135.30 HCA 184.66 SMA 129.37 ECC .17262 INC45.2994 V1  29.458
RP  107.53 LAP   3.31 LOP 153.70 VP  37.980 GAP   2.10 AZP   44.80 TAL 189.72 TAP  14.38 RCA 107.04 APO 151.70 V2  35.240
RC  94.056 GL  -61.32 GP   72.75 ZAL  91.51 ZAP  92.68 ETS 182.48 ZAE  76.09 ETE 275.44 ZAC 150.29 ETC 289.68 CLP  99.08
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PLANETOCENTRIC CONIC

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C3 477.953 VHL 21.862 DLA -74.91 RAL 184.69 RAD 6572.3 VEL 24.480 PTH   3.33 VHP 27.834 DPA  78.83 RAP 317.39 ECC 8.8659
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.20	2 6 32	2403.83	2.68	80.34	93.96	164.89	2 46 36	1803.8	10.40	78.64
162.80	12 58 1	624.18	2.68	284.48	93.98	164.89	13 8 25	24.2	10.40	282.78
17.20	2 6 32	2403.83	2.68	80.34	93.96	164.89	2 46 36	1803.8	10.40	78.64
162.80	12 58 1	624.18	2.68	284.48	93.98	164.89	13 8 25	24.2	10.40	282.78
17.20	2 6 32	2403.83	2.68	80.34	93.96	164.89	2 46 36	1803.8	10.40	78.64
162.80	12 58 1	624.18	2.68	284.48	93.98	164.89	13 8 25	24.2	10.40	282.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.7462 TRA 1.1826 TC3 -.0914 BAU 1.4853   SGT 1594.1 SGR 3595.6 SG3   68.3     ST  1044.8 SR  2997.2 SS  1610.5
 RD-11.2407 RRA-1.8254 RC3  .2137 FAU-.02275   RRT -.9515 RRF  .9994 RTF -.9463     CRT -.9866 CRS-1.0000 CST  .9856
 FDE-2.5143 FRA -.3950 FC3  .0412 BSP  12162   SGB 3933.1 R23 -.0641 R13  .9974     LSA 3555.5 MSA  164.7 SSA    1.7
 BDE11.8485 BRA 2.1750 BC3  .2324 FSP   -215   SG1 3907.1 SG2  451.4 THA 113.20     EL1 3170.0 EL2  161.2 ALF 109.03
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 410.258

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.987 GAL  -1.78 AZL 117.22 HCA 187.34 SMA 129.27 ECC .17273 INC27.2172 V1  29.458
RP  107.55 LAP   3.35 LOP 156.95 VP  37.965 GAP   2.33 AZP   62.97 TAL 188.58 TAP  15.92 RCA 106.94 APO 151.60 V2  35.235
RC  96.339 GL  -66.02 GP   83.51 ZAL  91.99 ZAP  94.85 ETS 163.08 ZAE  88.82 ETE 255.22 ZAC 160.99 ETC 285.56 CLP 138.38
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PLANETOCENTRIC CONIC

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C3 182.327 VHL 13.503 DLA -76.30 RAL 166.31 RAD 6571.0 VEL 17.426 PTH   2.96 VHP 17.016 DPA  71.62 RAP 271.62 ECC 4.0006
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.60	0 49 58	2289.28	10.46	79.77	73.72	166.07	1 28 8	1689.3	18.22	78.16
164.40	11 47 54	5791.78	10.47	260.22	73.74	166.07	13 24 26	5191.8	18.22	258.62
15.60	0 49 58	2289.28	10.46	79.77	73.72	166.07	1 28 8	1689.3	18.22	78.16
164.40	11 47 54	5791.78	10.47	260.22	73.74	166.07	13 24 26	5191.8	18.22	258.62
15.60	0 49 58	2289.28	10.46	79.77	73.72	166.07	1 28 8	1689.3	18.22	78.16
164.40	11 47 54	5791.78	10.47	260.22	73.74	166.07	13 24 26	5191.8	18.22	258.62

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .1444 TRA  .3095 TC3 -.0077 BAU  .1710   SGT  558.3 SGR 4158.4 SG3   90.9     ST   177.3 SR  2669.6 SS  1054.3
 RDE-5.8323 RRA-1.8619 RC3  .0697 FAU-.00050   RRT -.8639 RRF  .9975 RTF -.8325     CRT -.6723 CRS -.9992 CST  .6421
 FDE-1.5909 FRA -.4503 FC3  .0024 BSP  13102   SGB 4195.7 R23 -.0660 R13  .9970     LSA 2872.4 MSA  137.5 SSA    1.7
 BDE 5.8341 BRA 1.8874 BC3  .0702 FSP   -290   SG1 4186.4 SG2  279.3 THA  96.65     EL1 2672.2 EL2  131.1 ALF  92.56
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 416.252

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RL  151.25 LAL   -.00 LOL 330.42 VL  26.971 GAL  -1.61 AZL 109.14 HCA 190.34 SMA 129.16 ECC .17322 INC19.1422 V1  29.458
RP  107.57 LAP   3.37 LOP 160.20 VP  37.948 GAP   2.64 AZP   71.15 TAL 187.71 TAP  18.05 RCA 106.79 APO 151.53 V2  35.229
RC  98.624 GL  -65.63 GP   81.56 ZAL  92.28 ZAP  97.72 ETS  54.67 ZAE  96.62 ETE 146.58 ZAC 164.89 ETC 200.04 CLP-156.11
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PLANETOCENTRIC CONIC

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C3  94.199 VHL  9.706 DLA -75.93 RAL 167.49 RAD 6569.8 VEL 14.681 PTH   2.66 VHP 12.151 DPA  64.67 RAP 257.95 ECC 2.5503
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.03	0 55 33	2162.04	18.78	77.77	72.59	165.12	1 31 35	1562.0	26.50	75.90
163.97	11 51 45	5666.05	18.79	258.66	72.61	165.12	13 26 11	5066.0	26.50	256.78
16.03	0 55 33	2162.04	18.78	77.77	72.59	165.12	1 31 35	1562.0	26.50	75.90
163.97	11 51 45	5666.05	18.79	258.66	72.61	165.12	13 26 11	5066.0	26.50	256.78
16.03	0 55 33	2162.04	18.78	77.77	72.59	165.12	1 31 35	1562.0	26.50	75.90
163.97	11 51 45	5666.05	18.79	258.66	72.61	165.12	13 26 11	5066.0	26.50	256.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.3950 TRA-1.3691 TC3 -.1963 BAU  .2592   SGT 3900.2 SGR 1885.8 SG3  125.8     ST  2238.6 SR  1622.1 SS  1057.0
 RDE 2.7002 RRA  .4120 RC3  .0619 FAU .01142   RRT -.8927 RRF -.9563 RTF  .9832     CRT -.9623 CRS  .9899 CST -.9911
 FDE-1.6144 FRA -.4456 FC3 -.1050 BSP  13677   SGB 4332.2 R23  .0933 R13 -.9942     LSA 2937.4 MSA  362.6 SSA    2.3
 BDE 4.3379 BRA 1.4297 BC3  .2058 FSP   -408   SG1 4261.8 SG2  777.6 THA 155.80     EL1 2740.9 EL2  360.5 ALF 144.40
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 422.346

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RL  151.25 LAL   -.00 LOL 330.42 VL  26.952 GAL  -1.45 AZL 104.72 HCA 193.45 SMA 129.04 ECC .17391 INC14.7222 V1  29.458
RP  107.59 LAP   3.39 LOP 163.45 VP  37.928 GAP   2.98 AZP  75.66 TAL 186.89 TAP  20.35 RCA 106.60 APO 151.48 V2  35.222
RC 100.910 GL  -63.52 GP   75.60 ZAL  92.32 ZAP 101.11 ETS  40.03 ZAE 102.46 ETE 132.28 ZAC 164.53 ETC 208.71 CLP-140.76
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PLANETOCENTRIC CONIC

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C3  58.520 VHL  7.650 DLA -75.22 RAL 175.47 RAD 6569.1 VEL 13.412 PTH   2.45 VHP  9.566 DPA  58.70 RAP 250.51 ECC 1.9631
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.85	1 29 2	2049.81	25.96	75.33	78.08	163.51	2 3 12	1449.8	33.61	73.03
163.15	12 21 57	5556.83	25.97	257.03	78.10	163.51	13 54 34	4956.8	33.61	254.73
16.85	1 29 2	2049.81	25.96	75.33	78.08	163.51	2 3 12	1449.8	33.61	73.03
163.15	12 21 57	5556.83	25.97	257.03	78.10	163.51	13 54 34	4956.8	33.61	254.73
16.85	1 29 2	2049.81	25.96	75.33	78.08	163.51	2 3 12	1449.8	33.61	73.03
163.15	12 21 57	5556.83	25.97	257.03	78.10	163.51	13 54 34	4956.8	33.61	254.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7343 TRA -.9489 TC3 -.4825 BAU  .4384   SGT 3534.9 SGR 2614.2 SG3  168.3      ST  2211.9 SR  2185.6 SS  1237.4
RDE 2.8611 RRA  .4881 RC3  .2849 FAU .02119   RRT -.9414 RRF -.9916 RTF  .9713     CRT -.9821 CRS  .9989 CST -.9898
FDE-1.9396 FRA -.4111 FC3 -.3134 BSP  13787   SGB 4396.6 R23  .1113 R13 -.9916     LSA 3333.3 MSA  299.6 SSA    3.0
BDE 3.9575 BRA 1.0671 BC3  .5603 FSP   -542   SG1 4337.5 SG2  718.3 THA 144.01     EL1 3095.6 EL2  294.2 ALF 135.35
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 428.471

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.932 GAL  -1.28 AZL 101.95 HCA 196.61 SMA 128.90 ECC .17476 INC11.9503 V1  29.458
RP  107.61 LAP   3.39 LOP 166.70 VP  37.907 GAP   3.32 AZP  78.54 TAL 186.07 TAP  22.69 RCA 106.37 APO 151.43 V2  35.215
RC 103.196 GL  -60.75 GP   69.73 ZAL  92.09 ZAP 104.86 ETS  38.42 ZAE 107.21 ETE 131.59 ZAC 161.70 ETC 223.25 CLP-137.72
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PLANETOCENTRIC CONIC

```
C3  40.836 VHL  6.390 DLA -74.13 RAL 185.30 RAD 6568.6 VEL 12.736 PTH   2.32 VHP  8.030 DPA  53.22 RAP 245.45 ECC 1.6720
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.09	2 10 46	1957.63	31.62	72.39	85.21	161.27	2 43 23	1357.6	39.16	69.51
161.91	12 58 37	5469.58	31.63	255.33	85.23	161.27	14 29 46	4869.6	39.16	252.45
18.09	2 10 46	1957.63	31.62	72.39	85.21	161.27	2 43 23	1357.6	39.16	69.51
161.91	12 58 37	5469.58	31.63	255.33	85.23	161.27	14 29 46	4869.6	39.16	252.45
18.09	2 10 46	1957.63	31.62	72.39	85.21	161.27	2 43 23	1357.6	39.16	69.51
161.91	12 58 37	5469.58	31.63	255.33	85.23	161.27	14 29 46	4869.6	39.16	252.45

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7514 TRA -.7261 TC3 -.8452 BAU  .5355   SGT 3595.1 SGR 2642.1 SG3  216.5      ST  2568.5 SR  2343.5 SS  1456.5
RDE 2.5879 RRA  .3329 RC3  .4977 FAU .03049   RRT -.9487 RRF -.9938 RTF  .9685     CRT -.9900 CRS  .9997 CST -.9931
FDE-2.3099 FRA -.3487 FC3 -.6463 BSP  14012   SGB 4461.5 R23  .1280 R13 -.9888     LSA 3761.0 MSA  255.4 SSA    3.8
BDE 3.7773 BRA  .7988 BC3  .9809 FSP   -697   SG1 4409.2 SG2  681.0 THA 144.13     EL1 3468.3 EL2  245.2 ALF 137.65
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 434.603

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.910 GAL  -1.11 AZL 100.05 HCA 199.80 SMA 128.75 ECC .17575 INC10.0475 V1  29.458
RP  107.64 LAP   3.39 LOP 169.94 VP  37.884 GAP   3.67 AZP  80.54 TAL 185.23 TAP  25.03 RCA 106.13 APO 151.38 V2  35.207
RC 105.482 GL  -57.70 GP   64.19 ZAL  91.58 ZAP 108.82 ETS  38.73 ZAE 111.18 ETE 133.38 ZAC 157.86 ETC 233.13 CLP-137.82
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PLANETOCENTRIC CONIC

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C3  30.839 VHL  5.553 DLA -72.70 RAL 195.01 RAD 6568.2 VEL 12.337 PTH   2.22 VHP  7.056 DPA  48.07 RAP 241.74 ECC 1.5075
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.75	2 52 55	1883.20	35.86	68.91	91.98	158.47	3 24 18	1283.2	43.24	65.31
160.25	13 33 56	5402.31	35.87	253.53	92.00	158.46	15 3 59	4802.3	43.25	249.93
19.75	2 52 55	1883.20	35.86	68.91	91.98	158.47	3 24 18	1283.2	43.24	65.31
160.25	13 33 56	5402.31	35.87	253.53	92.00	158.46	15 3 59	4802.3	43.25	249.93
19.75	2 52 55	1883.20	35.86	68.91	91.98	158.47	3 24 18	1283.2	43.24	65.31
160.25	13 33 56	5402.31	35.87	253.53	92.00	158.46	15 3 59	4802.3	43.25	249.93

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7896 TRA -.5559 TC3-1.2750 BAU  .5965   SGT 3742.5 SGR 2539.1 SG3  265.5      ST  2936.0 SR  2337.7 SS  1641.1
RDE 2.2573 RRA  .1926 RC3  .6837 FAU .03911   RRT -.9541 RRF -.9939 RTF  .9686     CRT -.9937 CRS  .9999 CST -.9950
FDE-2.5961 FRA -.2547 FC3-1.0979 BSP  14230   SGB 4522.5 R23  .1405 R13 -.9862     LSA 4090.0 MSA  222.3 SSA    4.6
BDE 3.5884 BRA  .5883 BC3 1.4467 FSP   -853   SG1 4477.6 SG2  635.5 THA 146.32     EL1 3747.3 EL2  205.7 ALF 141.51
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 440.730

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.887 GAL   -.94 AZL  98.66 HCA 203.00 SMA 128.60 ECC .17686 INC 8.6556 V1  29.458
RP  107.66 LAP   3.37 LOP 173.18 VP  37.860 GAP   4.02 AZP  82.02 TAL 184.36 TAP  27.36 RCA 105.85 APO 151.34 V2  35.198
RC 107.765 GL  -54.56 GP   59.02 ZAL  90.79 ZAP 112.87 ETS  39.41 ZAE 114.49 ETE 136.00 ZAC 153.74 ETC 239.52 CLP-139.02
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PLANETOCENTRIC CONIC

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C3  24.660 VHL  4.966 DLA -70.97 RAL 203.90 RAD 6568.0 VEL 12.085 PTH   2.16 VHP  6.417 DPA  43.18 RAP 238.96 ECC 1.4058
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.74	3 32 33	1822.77	38.91	64.96	97.72	155.22	4 2 56	1222.8	46.08	60.55
158.26	14 5 13	5351.48	38.92	251.64	97.74	155.22	15 34 24	4751.5	46.09	247.23
21.74	3 32 33	1822.77	38.91	64.96	97.72	155.22	4 2 56	1222.8	46.08	60.55
158.26	14 5 13	5351.48	38.92	251.64	97.74	155.22	15 34 24	4751.5	46.09	247.23
21.74	3 32 33	1822.77	38.91	64.96	97.72	155.22	4 2 56	1222.8	46.08	60.55
158.26	14 5 13	5351.48	38.92	251.64	97.74	155.22	15 34 24	4751.5	46.09	247.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7719 TRA -.4038 TC3-1.7505 BAU  .6382   SGT 3910.4 SGR 2377.8 SG3  310.2      ST  3227.1 SR  2215.6 SS  1759.9
RDE 1.9188 RRA  .0795 RC3  .8263 FAU .04650   RRT -.9581 RRF -.9932 RTF  .9695     CRT -.9955 CRS 1.0000 CST -.9960
FDE-2.7483 FRA -.1292 FC3-1.6323 BSP  14398   SGB 4576.6 R23  .1491 R13 -.9839     LSA 4287.4 MSA  198.3 SSA    5.5
BDE 3.3712 BRA  .4115 BC3 1.9358 FSP   -994   SG1 4538.9 SG2  586.6 THA 149.20     EL1 3910.7 EL2  173.9 ALF 145.57
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 446.845

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.863 GAL   -.75 AZL  97.59 HCA 206.20 SMA 128.43 ECC .17810 INC 7.5885 V1  29.458
RP  107.69 LAP   3.34 LOP 176.42 VP  37.834 GAP   4.36 AZP  83.18 TAL 183.45 TAP  29.66 RCA 105.56 APO 151.31 V2  35.189
RC 110.046 GL  -51.41 GP   54.22 ZAL  89.75 ZAP 116.88 ETS  40.06 ZAE 117.21 ETE 138.95 ZAC 149.68 ETC 243.80 CLP-140.67
PLANETOCENTRIC CONIC
C3  20.597 VHL  4.538 DLA -69.03 RAL 211.82 RAD 6567.8 VEL 11.915 PTH   2.12 VHP  5.993 DPA  38.56 RAP 236.89 ECC 1.3390
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.99	4 8 58	1773.00	40.98	60.68	102.36	151.70	4 38 31	1173.0	47.89	55.45
156.01	14 32 0	5313.83	40.99	249.72	102.38	151.69	16 0 34	4713.8	47.90	244.49
23.99	4 8 58	1773.00	40.98	60.68	102.36	151.70	4 38 31	1173.0	47.89	55.45
156.01	14 32 0	5313.83	40.99	249.72	102.38	151.69	16 0 34	4713.8	47.90	244.49
23.99	4 8 58	1773.00	40.98	60.68	102.36	151.70	4 38 31	1173.0	47.89	55.45
156.01	14 32 0	5313.83	40.99	249.72	102.38	151.69	16 0 34	4713.8	47.90	244.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7056 TRA -.2637 TC3-2.2604 BAU  .6727   SGT 4091.7 SGR 2197.1 SG3  348.4      ST  3427.7 SR  2029.8 SS  1811.4
RDE 1.6077 RRA -.0051 RC3  .9268 FAU .05259   RRT -.9613 RRF -.9918 RTF  .9709      CRT -.9964 CRS 1.0000 CST -.9963
FDE-2.7705 FRA  .0132 FC3-2.2104 BSP  14644   SGB 4644.3 R23  .1526 R13 -.9821      LSA 4372.4 MSA  180.7 SSA    6.5
BDE 3.1472 BRA  .2638 BC3 2.4430 FSP  -1120   SGI 4613.1 SG2  537.1 THA 152.29      EL1 3980.9 EL2  147.3 ALF 149.41
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 160.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 452.947

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.837 GAL   -.55 AZL  96.74 HCA 209.41 SMA 128.26 ECC .17946 INC 6.7400 V1  29.458
RP  107.72 LAP   3.30 LOP 179.66 VP  37.806 GAP   4.71 AZP  84.12 TAL 182.51 TAP  31.92 RCA 105.24 APO 151.28 V2  35.179
RC 112.324 GL  -48.28 GP   49.81 ZAL  68.47 ZAP 120.78 ETS  40.59 ZAE 119.41 ETE 142.00 ZAC 145.84 ETC 246.79 CLP-142.48
PLANETOCENTRIC CONIC
C3  17.806 VHL  4.220 DLA -66.94 RAL 218.86 RAD 6567.7 VEL 11.798 PTH   2.09 VHP  5.716 DPA  34.23 RAP 235.39 ECC 1.2930
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.42	4 42 24	1731.25	42.25	56.21	106.10	148.05	5 11 15	1131.3	48.87	50.20
153.58	14 54 44	5286.84	42.26	247.87	106.12	148.05	16 22 51	4686.8	48.88	241.86
26.42	4 42 24	1731.25	42.25	56.21	106.10	148.05	5 11 15	1131.3	48.87	50.20
153.58	14 54 44	5286.84	42.26	247.87	106.12	148.05	16 22 51	4686.8	48.88	241.86
26.42	4 42 24	1731.25	42.25	56.21	106.10	148.05	5 11 15	1131.3	48.87	50.20
153.58	14 54 44	5286.84	42.26	247.87	106.12	148.05	16 22 51	4686.8	48.88	241.86

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6048 TRA -.1259 TC3-2.7829 BAU  .7026   SGT 4268.0 SGR 2011.1 SG3  377.8      ST  3540.0 SR  1817.4 SS  1801.9
RDE 1.3373 RRA -.0702 RC3  .9830 FAU .05712   RRT -.9628 RRF -.9899 RTF  .9720      CRT -.9970 CRS 1.0000 CST -.9964
FDE-2.6837 FRA  .1691 FC3-2.7775 BSP  14879   SGB 4718.1 R23  .1528 R13 -.9805      LSA 4365.0 MSA  168.7 SSA    7.6
BDE 2.9281 BRA  .1441 BC3 2.9514 FSP  -1216   SGI 4692.2 SG2  494.0 THA 155.30      EL1 3977.3 EL2  125.1 ALF 152.86
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 459.032

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.810 GAL   -.34 AZL  96.05 HCA 212.62 SMA 128.08 ECC .18096 INC 6.0455 V1  29.458
RP  107.75 LAP   3.26 LOP 182.90 VP  37.777 GAP   5.05 AZP  84.90 TAL 181.54 TAP  34.16 RCA 104.90 APO 151.26 V2  35.169
RC 114.599 GL  -45.20 GP   45.79 ZAL  86.96 ZAP 124.51 ETS  40.99 ZAE 121.13 ETE 145.01 ZAC 142.30 ETC 248.97 CLP-144.34
PLANETOCENTRIC CONIC
C3  15.833 VHL  3.979 DLA -64.76 RAL 225.16 RAD 6567.6 VEL 11.714 PTH   2.06 VHP  5.541 DPA  30.19 RAP 234.37 ECC 1.2606
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.97	5 13 20	1695.54	42.88	51.70	109.19	144.42	5 41 36	1095.5	49.18	45.00
151.03	15 14 4	5268.61	42.89	246.19	109.20	144.41	16 41 52	4668.6	49.19	239.49
28.97	5 13 20	1695.54	42.88	51.70	109.19	144.42	5 41 36	1095.5	49.18	45.00
151.03	15 14 4	5268.61	42.89	246.19	109.20	144.41	16 41 52	4668.6	49.19	239.49
28.97	5 13 20	1695.54	42.88	51.70	109.19	144.42	5 41 36	1095.5	49.18	45.00
151.03	15 14 4	5268.61	42.89	246.19	109.20	144.41	16 41 52	4668.6	49.19	239.49

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4820 TRA  .0110 TC3-3.3034 BAU  .7308   SGT 4436.8 SGR 1831.1 SG3  398.0      ST  3574.8 SR  1603.4 SS  1742.4
RDE 1.1103 RRA -.1183 RC3 1.0033 FAU .06026   RRT -.9635 RRF -.9872 RTF  .9729      CRT -.9974 CRS  .9998 CST -.9961
FDE-2.5164 FRA  .3265 FC3-3.2949 BSP  15203   SGB 4799.8 R23  .1487 R13 -.9793      LSA 4284.9 MSA  160.0 SSA    8.7
BDE 2.7190 BRA  .1188 BC3 3.4524 FSP  -1296   SGI 4778.2 SG2  455.4 THA 158.11      EL1 3916.5 EL2  105.3 ALF 155.88
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 465.100

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.782 GAL   -.12 AZL  95.46 HCA 215.84 SMA 127.90 ECC .18259 INC 5.4633 V1  29.458
RP  107.79 LAP   3.20 LOP 186.14 VP  37.748 GAP   5.39 AZP  85.57 TAL 180.53 TAP  36.37 RCA 104.55 APO 151.25 V2  35.158
RC 116.871 GL  -42.18 GP   42.15 ZAL  85.24 ZAP 128.02 ETS  41.26 ZAE 122.44 ETE 147.90 ZAC 139.09 ETC 250.61 CLP-146.19
PLANETOCENTRIC CONIC
C3  14.418 VHL  3.797 DLA -62.52 RAL 230.85 RAD 6567.6 VEL 11.653 PTH   2.05 VHP  5.443 DPA  26.46 RAP 233.76 ECC 1.2373
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.62	5 42 16	1664.38	42.98	47.23	111.84	140.89	6 10 0	1064.4	48.95	39.96
148.38	15 30 32	5257.81	42.99	244.76	111.86	140.88	16 58 10	4657.8	48.96	237.49
31.62	5 42 16	1664.38	42.98	47.23	111.84	140.89	6 10 0	1064.4	48.95	39.96
148.38	15 30 32	5257.81	42.99	244.76	111.86	140.88	16 58 10	4657.8	48.96	237.49
31.62	5 42 16	1664.38	42.98	47.23	111.84	140.89	6 10 0	1064.4	48.95	39.96
148.38	15 30 32	5257.81	42.99	244.76	111.86	140.88	16 58 10	4657.8	48.96	237.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3520 TRA  .1529 TC3-3.8001 BAU  .7569   SGT 4601.5 SGR 1670.8 SG3  411.2      ST  3553.3 SR  1410.3 SS  1655.0
RDE  .9289 RRA -.1566 RC3  .9895 FAU .06191   RRT -.9624 RRF -.9836 RTF  .9732      CRT -.9977 CRS  .9996 CST -.9956
FDE-2.3101 FRA  .4867 FC3-3.7175 BSP  15458   SGB 4895.4 R23  .1430 R13 -.9781      LSA 4162.8 MSA  155.7 SSA    9.8
BDE 2.5288 BRA  .2188 BC3 3.9268 FSP  -1338   SGI 4876.7 SG2  428.1 THA 160.58      EL1 3821.9 EL2   88.3 ALF 158.38
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 471.148
RL 151.25 LAL -.00 LOL 330.42 VL 26.753 GAL .12 AZL 94.97 HCA 219.05 SMA 127.71 ECC .18435 INC 4.9655 V1 29.458
RP 107.82 LAP 3.13 LOP 189.37 VP 37.717 GAP 5.73 AZP 86.14 TAL 179.49 TAP 38.54 RCA 104.16 APO 151.25 V2 35.147
RC 119.138 GL -39.24 GP 38.87 ZAL 83.35 ZAP 131.31 ETS 41.45 ZAE 123.42 ETE 150.60 ZAC 136.20 ETC 251.90 CLP-148.00
PLANETOCENTRIC CONIC
C3 13.402 VHL 3.661 DLA -60.23 RAL 236.05 RAD 6567.5 VEL 11.610 PTH 2.03 VHP 5.401 DPA 23.02 RAP 233.49 ECC 1.2206

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.33	6 9 40	1636.56	42.65	42.87	114.24	137.54	6 36 56	1036.6	48.28	35.17
145.67	15 44 35	5253.54	42.66	243.65	114.25	137.53	17 12 9	4653.5	48.29	235.95
34.33	6 9 40	1636.56	42.65	42.87	114.24	137.54	6 36 56	1036.6	48.28	35.17
145.67	15 44 35	5253.54	42.66	243.65	114.25	137.53	17 12 9	4653.5	48.29	235.95
34.33	6 9 40	1636.56	42.65	42.87	114.24	137.54	6 36 56	1036.6	48.28	35.17
145.67	15 44 35	5253.54	42.66	243.65	114.25	137.53	17 12 9	4653.5	48.29	235.95

DIFFERENTIAL CORRECTIONS
TDE-2.2056 TRA .3004 TC3-4.2283 BAU .7757
RDE .7757 RRA -.1871 RC3 .9290 FAU .06133
FDE-2.0556 FRA .6445 FC3-3.9617 BSP 15576
BDE 2.3380 BRA .3540 BC3 4.3291 FSP -1333

MID-COURSE EXECUTION ACCURACY
SGT 4732.6 SGR 1511.4 SG3 413.4
RRT -.9584 RRF -.9787 RTF .9720
SGB 4968.1 R23 .1399 R13 -.9759
SG1 4950.9 SG2 412.5 THA 162.86

ORBIT DETERMINATION ACCURACY
ST 3464.9 SR 1227.0 SS 1528.5
CRT -.9980 CRS .9990 CST -.9945
LSA 3977.8 MSA 156.2 SSA 11.1
EL1 3675.0 EL2 73.3 ALF 160.53

LAUNCH DATE AUG 24 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 477.177
RL 151.25 LAL -.00 LOL 330.42 VL 26.723 GAL .36 AZL 94.53 HCA 222.27 SMA 127.51 ECC .18625 INC 4.5323 V1 29.458
RP 107.86 LAP 3.05 LOP 192.60 VP 37.685 GAP 6.07 AZP 86.64 TAL 178.42 TAP 40.69 RCA 103.76 APO 151.26 V2 35.136
RC 121.402 GL -36.36 GP 35.94 ZAL 81.30 ZAP 134.38 ETS 41.59 ZAE 124.12 ETE 153.08 ZAC 133.63 ETC 252.94 CLP-149.74
PLANETOCENTRIC CONIC
C3 12.685 VHL 3.562 DLA -57.92 RAL 240.83 RAD 6567.5 VEL 11.579 PTH 2.02 VHP 5.403 DPA 19.85 RAP 233.51 ECC 1.2088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.10	6 35 51	1611.25	41.97	38.67	116.50	134.42	7 2 43	1011.3	47.28	30.66
142.90	15 56 32	5255.15	41.98	242.91	116.51	134.41	17 24 7	4655.1	47.29	234.90
37.10	6 35 51	1611.25	41.97	38.67	116.50	134.42	7 2 43	1011.3	47.28	30.66
142.90	15 56 32	5255.15	41.98	242.91	116.51	134.41	17 24 7	4655.1	47.29	234.90
37.10	6 35 51	1611.25	41.97	38.67	116.50	134.42	7 2 43	1011.3	47.28	30.66
142.90	15 56 32	5255.15	41.98	242.91	116.51	134.41	17 24 7	4655.1	47.29	234.90

DIFFERENTIAL CORRECTIONS
TDE-2.0607 TRA .4420 TC3-4.6505 BAU .8028
RDE .6572 RRA -.2045 RC3 .8844 FAU .06130
FDE-1.8049 FRA .7714 FC3-4.1838 BSP 16027
BDE 2.1629 BRA .4870 BC3 4.7338 FSP -1359

MID-COURSE EXECUTION ACCURACY
SGT 4874.0 SGR 1377.9 SG3 412.3
RRT -.9562 RRF -.9726 RTF .9728
SGB 5065.0 R23 .1244 R13 -.9756
SG1 5050.0 SG2 389.3 THA 164.78

ORBIT DETERMINATION ACCURACY
ST 3340.8 SR 1073.7 SS 1395.0
CRT -.9985 CRS .9979 CST -.9932
LSA 3773.0 MSA 154.1 SSA 12.3
EL1 3508.6 EL2 55.9 ALF 162.20

LAUNCH DATE AUG 24 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 483.186
RL 151.25 LAL -.00 LOL 330.42 VL 26.693 GAL .62 AZL 94.15 HCA 225.48 SMA 127.31 ECC .18830 INC 4.1499 V1 29.458
RP 107.89 LAP 2.96 LOP 195.83 VP 37.652 GAP 6.41 AZP 87.09 TAL 177.32 TAP 42.80 RCA 103.34 APO 151.29 V2 35.124
RC 123.660 GL -33.57 GP 33.31 ZAL 79.12 ZAP 137.22 ETS 41.71 ZAE 124.60 ETE 155.33 ZAC 131.36 ETC 253.80 CLP-151.42
PLANETOCENTRIC CONIC
C3 12.202 VHL 3.493 DLA -55.61 RAL 245.26 RAD 6567.5 VEL 11.558 PTH 2.02 VHP 5.439 DPA 16.94 RAP 233.79 ECC 1.2008

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.92	7 1 9	1587.60	41.01	34.64	118.71	131.53	7 27 37	987.6	46.01	26.43
140.08	16 6 36	5262.25	41.02	242.57	118.72	131.52	17 34 18	4662.2	46.02	234.36
39.92	7 1 9	1587.60	41.01	34.64	118.71	131.53	7 27 37	987.6	46.01	26.43
140.08	16 6 36	5262.25	41.02	242.57	118.72	131.52	17 34 18	4662.2	46.02	234.36
39.92	7 1 9	1587.60	41.01	34.64	118.71	131.53	7 27 37	987.6	46.01	26.43
140.08	16 6 36	5262.25	41.02	242.57	118.72	131.52	17 34 18	4662.2	46.02	234.36

DIFFERENTIAL CORRECTIONS
TDE-1.9096 TRA .6001 TC3-4.9734 BAU .8219
RDE .5618 RRA -.2223 RC3 .8076 FAU .05946
FDE-1.5514 FRA .9043 FC3-4.2187 BSP 16218
BDE 1.9905 BRA .6400 BC3 5.0386 FSP -1335

MID-COURSE EXECUTION ACCURACY
SGT 4992.0 SGR 1258.8 SG3 405.8
RRT -.9504 RRF -.9648 RTF .9719
SGB 5148.2 R23 .1145 R13 -.9741
SG1 5134.1 SG2 380.7 THA 166.45

ORBIT DETERMINATION ACCURACY
ST 3177.2 SR 941.9 SS 1252.4
CRT -.9990 CRS .9956 CST -.9909
LSA 3539.1 MSA 158.2 SSA 13.5
EL1 3313.7 EL2 40.0 ALF 163.50

LAUNCH DATE AUG 24 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 489.173
RL 151.25 LAL -.00 LOL 330.42 VL 26.662 GAL .89 AZL 93.81 HCA 228.69 SMA 127.11 ECC .19051 INC 3.8077 V1 29.458
RP 107.93 LAP 2.86 LOP 199.05 VP 37.619 GAP 6.76 AZP 87.48 TAL 176.20 TAP 44.89 RCA 102.90 APO 151.33 V2 35.112
RC 125.912 GL -30.86 GP 30.96 ZAL 76.83 ZAP 139.85 ETS 41.84 ZAE 124.91 ETE 157.36 ZAC 129.35 ETC 254.54 CLP-153.03
PLANETOCENTRIC CONIC
C3 11.911 VHL 3.451 DLA -53.29 RAL 249.39 RAD 6567.5 VEL 11.546 PTH 2.02 VHP 5.502 DPA 14.27 RAP 234.29 ECC 1.1960

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.76	7 25 45	1565.10	39.83	30.79	120.93	128.90	7 51 50	965.1	44.53	22.47
137.24	16 14 56	5274.59	39.84	242.64	120.94	128.88	17 42 50	4674.6	44.54	234.32
42.76	7 25 45	1565.10	39.83	30.79	120.93	128.90	7 51 50	965.1	44.53	22.47
137.24	16 14 56	5274.59	39.84	242.64	120.94	128.88	17 42 50	4674.6	44.54	234.32
42.76	7 25 45	1565.10	39.83	30.79	120.93	128.90	7 51 50	965.1	44.53	22.47
137.24	16 14 56	5274.59	39.84	242.64	120.94	128.88	17 42 50	4674.6	44.54	234.32

DIFFERENTIAL CORRECTIONS
TDE-1.7630 TRA .7587 TC3-5.2460 BAU .8436
RDE .4891 RRA -.2344 RC3 .7356 FAU .05755
FDE-1.3186 FRA 1.0164 FC3-4.1829 BSP 16514
BDE 1.8296 BRA .7941 BC3 5.2973 FSP -1313

MID-COURSE EXECUTION ACCURACY
SGT 5110.7 SGR 1158.1 SG3 396.8
RRT -.9440 RRF -.9553 RTF .9717
SGB 5240.2 R23 .1002 R13 -.9734
SG1 5226.9 SG2 373.5 THA 167.86

ORBIT DETERMINATION ACCURACY
ST 2996.3 SR 835.3 SS 1116.5
CRT -.9996 CRS .9910 CST -.9878
LSA 3300.8 MSA 163.2 SSA 14.7
EL1 3110.5 EL2 23.8 ALF 164.43

LAUNCH DATE AUG 24 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 495.136
RL 151.25 LAL -.00 LOL 330.42 VL 26.630 GAL 1.18 AZL 93.50 HCA 231.90 SMA 126.91 ECC .19288 INC 3.4978 V1 29.458
RP 107.97 LAP 2.75 LOP 202.27 VP 37.585 GAP 7.10 AZP 87.84 TAL 175.05 TAP 46.95 RCA 102.43 APO 151.38 V2 35.099
RC 128.158 GL -28.24 GP 28.86 ZAL 74.47 ZAP 142.28 ETS 41.99 ZAE 125.09 ETE 159.16 ZAC 127.59 ETC 255.20 CLP-154.58
PLANETOCENTRIC CONIC
C3 11.785 VHL 3.433 DLA -50.99 RAL 253.24 RAD 6567.4 VEL 11.540 PTH 2.01 VHP 5.588 DPA 11.81 RAP 234.99 ECC 1.1940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.64	7 49 52	1543.14	38.46	27.09	123.18	126.50	8 15 35	943.1	42.90	18.72
134.36	16 21 35	5292.07	38.48	243.15	123.19	126.49	17 49 47	4692.1	42.92	234.78
45.64	7 49 52	1543.14	38.46	27.09	123.18	126.50	8 15 35	943.1	42.90	18.72
134.36	16 21 35	5292.07	38.48	243.15	123.19	126.49	17 49 47	4692.1	42.92	234.78
45.64	7 49 52	1543.14	38.46	27.09	123.18	126.50	8 15 35	943.1	42.90	18.72
134.36	16 21 35	5292.07	38.48	243.15	123.19	126.49	17 49 47	4692.1	42.92	234.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.6265 TRA .9138 TC3-5.4761 BAU .8693 SGT 5232.3 SGR 1073.3 SG3 386.1 ST 2812.5 SR 752.1 SS 994.5
RDE .4356 RRA -.2417 RC3 .6715 FAU .05577 RRT -.9367 RRF -.9442 RTF .9722 CRT -.9998 CRS .9831 CST -.9839
FDE-1.1149 FRA 1.1055 FC3-4.0970 BSP 17051 SGB 5341.2 R23 .0830 R13 -.9734 LSA 3071.8 MSA 168.7 SSA 15.7
BDE 1.6838 BRA .9452 BC3 5.5171 FSP -1309 SG1 5328.4 SG2 369.1 THA 169.07 EL1 2911.3 EL2 15.9 ALF 165.03

LAUNCH DATE AUG 24 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 501.078
RL 151.25 LAL -.00 LOL 330.42 VL 26.598 GAL 1.48 AZL 93.21 HCA 235.11 SMA 126.70 ECC .19542 INC 3.2143 V1 29.458
RP 108.01 LAP 2.64 LOP 205.49 VP 37.550 GAP 7.45 AZP 88.16 TAL 173.87 TAP 48.98 RCA 101.94 APO 151.46 V2 35.086
RC 130.397 GL -25.72 GP 26.98 ZAL 72.05 ZAP 144.54 ETS 42.19 ZAE 125.18 ETE 160.77 ZAC 126.04 ETC 255.79 CLP-156.07
PLANETOCENTRIC CONIC
C3 11.805 VHL 3.436 DLA -48.72 RAL 256.86 RAD 6567.5 VEL 11.541 PTH 2.01 VHP 5.693 DPA 9.55 RAP 235.86 ECC 1.1943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.54	8 13 41	1521.24	36.97	23.52	125.49	124.34	8 39 2	921.2	41.17	15.16
131.46	16 26 38	5314.69	36.98	244.10	125.50	124.33	17 55 13	4714.7	41.18	235.74
48.54	8 13 41	1521.24	36.97	23.52	125.49	124.34	8 39 2	921.2	41.17	15.16
131.46	16 26 38	5314.69	36.98	244.10	125.50	124.33	17 55 13	4714.7	41.18	235.74
48.54	8 13 41	1521.24	36.97	23.52	125.49	124.34	8 39 2	921.2	41.17	15.16
131.46	16 26 38	5314.69	36.98	244.10	125.50	124.33	17 55 13	4714.7	41.18	235.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.4732 TRA 1.0944 TC3-5.5706 BAU .8841 SGT 5323.6 SGR 997.6 SG3 372.9 ST 2595.6 SR 677.4 SS 870.3
RDE .3895 RRA -.2530 RC3 .5902 FAU .05263 RRT -.9258 RRF -.9310 RTF .9709 CRT -.9989 CRS .9668 CST -.9763
FDE -.9069 FRA 1.2066 FC3-3.8599 BSP 17147 SGB 5416.3 R23 .0733 R13 -.9718 LSA 2814.2 MSA 183.3 SSA 16.7
BDE 1.5238 BRA 1.1232 BC3 5.6017 FSP -1253 SG1 5403.5 SG2 371.5 THA 170.11 EL1 2682.4 EL2 30.6 ALF 165.39

LAUNCH DATE AUG 24 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 506.996
RL 151.25 LAL -.00 LOL 330.42 VL 26.565 GAL 1.80 AZL 92.95 HCA 238.32 SMA 126.49 ECC .19815 INC 2.9523 V1 29.458
RP 108.05 LAP 2.51 LOP 208.71 VP 37.515 GAP 7.80 AZP 88.45 TAL 172.68 TAP 50.99 RCA 101.42 APO 151.55 V2 35.074
RC 132.627 GL -23.29 GP 25.30 ZAL 69.61 ZAP 146.64 ETS 42.45 ZAE 125.19 ETE 162.19 ZAC 124.69 ETC 256.35 CLP-157.49
PLANETOCENTRIC CONIC
C3 11.961 VHL 3.458 DLA -46.49 RAL 260.26 RAD 6567.5 VEL 11.548 PTH 2.02 VHP 5.815 DPA 7.46 RAP 236.89 ECC 1.1968

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.45	8 37 21	1498.85	35.37	20.05	127.87	122.40	9 2 20	898.9	39.35	11.73
128.55	16 30 4	5342.58	35.39	245.50	127.88	122.38	17 59 7	4742.6	39.36	237.18
51.45	8 37 21	1498.85	35.37	20.05	127.87	122.40	9 2 20	898.9	39.35	11.73
128.55	16 30 4	5342.58	35.39	245.50	127.88	122.38	17 59 7	4742.6	39.36	237.18
51.45	8 37 21	1498.85	35.37	20.05	127.87	122.40	9 2 20	898.9	39.35	11.73
128.55	16 30 4	5342.58	35.39	245.50	127.88	122.38	17 59 7	4742.6	39.36	237.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.3274 TRA 1.2753 TC3-5.6171 BAU .9021 SGT 5417.5 SGR 934.6 SG3 359.3 ST 2386.8 SR 619.4 SS 765.8
RDE .3561 RRA -.2613 RC3 .5216 FAU .04982 RRT -.9141 RRF -.9162 RTF .9703 CRT -.9957 CRS .9396 CST -.9662
FDE -.7272 FRA 1.2891 FC3-3.6062 BSP 17407 SGB 5497.5 R23 .0616 R13 -.9710 LSA 2574.2 MSA 200.1 SSA 17.3
BDE 1.3743 BRA 1.3018 BC3 5.6413 FSP -1211 SG1 5484.7 SG2 374.3 THA 171.00 EL1 2465.3 EL2 55.3 ALF 165.50

LAUNCH DATE AUG 24 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 512.887
RL 151.25 LAL -.00 LOL 330.42 VL 26.532 GAL 2.13 AZL 92.71 HCA 241.53 SMA 126.28 ECC .20108 INC 2.7080 V1 29.458
RP 108.09 LAP 2.38 LOP 211.92 VP 37.480 GAP 8.15 AZP 88.71 TAL 171.46 TAP 52.98 RCA 100.89 APO 151.67 V2 35.061
RC 134.850 GL -20.98 GP 23.80 ZAL 67.16 ZAP 148.58 ETS 42.79 ZAE 125.15 ETE 163.44 ZAC 123.49 ETC 256.87 CLP-158.86
PLANETOCENTRIC CONIC
C3 12.246 VHL 3.499 DLA -44.30 RAL 263.45 RAD 6567.5 VEL 11.560 PTH 2.02 VHP 5.952 DPA 5.53 RAP 238.05 ECC 1.2015

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.38	9 1 3	1475.50	33.71	16.65	130.31	120.65	9 25 38	875.5	37.49	8.39
125.62	16 31 51	5375.89	33.72	247.36	130.32	120.64	18 1 27	4775.9	37.50	239.09
54.38	9 1 3	1475.50	33.71	16.65	130.31	120.65	9 25 38	875.5	37.49	8.39
125.62	16 31 51	5375.89	33.72	247.36	130.32	120.64	18 1 27	4775.9	37.50	239.09
54.38	9 1 3	1475.50	33.71	16.65	130.31	120.65	9 25 38	875.5	37.49	8.39
125.62	16 31 51	5375.89	33.72	247.36	130.32	120.64	18 1 27	4775.9	37.50	239.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.1832 TRA 1.4636 TC3-5.5938 BAU .9189 SGT 5503.9 SGR 880.9 SG3 345.2 ST 2185.4 SR 573.0 SS 678.6
RDE .3313 RRA -.2691 RC3 .4581 FAU .04692 RRT -.9008 RRF -.8998 RTF .9697 CRT -.9881 CRS .8955 CST -.9525
FDE -.5674 FRA 1.3618 FC3-3.3167 BSP 17657 SGB 5574.0 R23 .0509 R13 -.9702 LSA 2348.5 MSA 221.1 SSA 17.8
BDE 1.2287 BRA 1.4882 BC3 5.6125 FSP -1168 SG1 5561.1 SG2 378.6 THA 171.76 EL1 2257.6 EL2 85.4 ALF 165.45

LAUNCH DATE AUG 24 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 518.752
RL 151.25 LAL -.00 LOL 330.42 VL 26.499 GAL 2.49 AZL 92.48 HCA 244.73 SMA 126.07 ECC .20422 INC 2.4782 V1 29.458
RP 108.13 LAP 2.24 LOP 215.13 VP 37.444 GAP 8.51 AZP 88.94 TAL 170.23 TAP 54.95 RCA 100.32 APO 151.81 V2 35.047
RC 137.063 GL -18.77 GP 22.45 ZAL 64.72 ZAP 150.40 ETS 43.22 ZAE 125.07 ETE 164.54 ZAC 122.45 ETC 257.37 CLP-160.19
PLANETOCENTRIC CONIC
C3 12.660 VHL 3.558 DLA -42.18 RAL 266.46 RAD 6567.5 VEL 11.578 PTH 2.02 VHP 6.102 DPA 3.74 RAP 239.33 ECC 1.2084

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.33	9 24 56	1450.65	32.01	13.27	132.81	119.08	9 49 7	850.6	35.61	5.09
122.67	16 31 56	5414.89	32.02	249.67	132.82	119.06	18 2 11	4814.9	35.62	241.48
57.33	9 24 56	1450.65	32.01	13.27	132.81	119.08	9 49 7	850.6	35.61	5.09
122.67	16 31 56	5414.89	32.02	249.67	132.82	119.06	18 2 11	4814.9	35.62	241.48
57.33	9 24 56	1450.65	32.01	13.27	132.81	119.08	9 49 7	850.6	35.61	5.09
122.67	16 31 56	5414.89	32.02	249.67	132.82	119.06	18 2 11	4814.9	35.62	241.48

DIFFERENTIAL CORRECTIONS
TOE-1.0404 TRA 1.6598 TC3-5.5106 BAU .9351
RDE .3133 RRA -.2769 RC3 .4015 FAU .04406
FDE -.4261 FRA 1.4268 FC3-3.0127 BSP 17918
BDE 1.0865 BRA 1.6828 BC3 5.5252 FSP -1126

MID-COURSE EXECUTION ACCURACY
SGT 5585.0 SGR 835.6 SG3 331.0
RRT -.8862 RRF -.8821 RTF .9692
SGB 5647.2 R23 .0414 R13 -.9696
SG1 5634.1 SG2 383.7 THA 172.41

ORBIT DETERMINATION ACCURACY
ST 1997.8 SR 535.9 SS 610.3
CRT -.9728 CRS .8295 CST -.9355
LSA 2142.4 MSA 246.5 SSA 17.9
EL1 2064.9 EL2 120.1 ALF 165.32

LAUNCH DATE AUG 24 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 524.588
RL 151.25 LAL -.00 LOL 330.42 VL 26.465 GAL 2.85 AZL 92.26 HCA 247.93 SMA 125.85 ECC .20759 INC 2.2605 V1 29.458
RP 108.17 LAP 2.09 LOP 218.34 VP 37.408 GAP 8.88 AZP 89.15 TAL 168.97 TAP 56.90 RCA 99.73 APO 151.98 V2 35.034
RC 139.266 GL -16.67 GP 21.24 ZAL 62.32 ZAP 152.09 ETS 43.76 ZAE 124.97 ETE 165.52 ZAC 121.53 ETC 257.87 CLP-161.46
PLANETOCENTRIC CONIC
C3 13.203 VHL 3.634 DLA -40.12 RAL 269.29 RAD 6567.5 VEL 11.601 PTH 2.03 VHP 6.265 DPA 2.08 RAP 240.73 ECC 1.2173

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.31	9 49 14	1423.63	30.29	9.86	135.38	117.67	10 12 57	823.6	33.73	1.75
119.69	16 30 13	5460.00	30.30	252.48	135.38	117.65	18 1 13	4860.0	33.74	244.37
60.31	9 49 14	1423.63	30.29	9.86	135.38	117.67	10 12 57	823.6	33.73	1.75
119.69	16 30 13	5460.00	30.30	252.48	135.38	117.65	18 1 13	4860.0	33.74	244.37
60.31	9 49 14	1423.63	30.29	9.86	135.38	117.67	10 12 57	823.6	33.73	1.75
119.69	16 30 13	5460.00	30.30	252.48	135.38	117.65	18 1 13	4860.0	33.74	244.37

DIFFERENTIAL CORRECTIONS
TOE -.8977 TRA 1.8655 TC3-5.3708 BAU .9501
RDE .3007 RRA -.2851 RC3 .3509 FAU .04120
FDE -.3004 FRA 1.4859 FC3-2.7017 BSP 18155
BDE .9467 BRA 1.8871 BC3 5.3823 FSP -1082

MID-COURSE EXECUTION ACCURACY
SGT 5659.8 SGR 797.1 SG3 317.1
RRT -.8706 RRF -.8636 RTF .9687
SGB 5715.6 R23 .0332 R13 -.9690
SG1 5702.3 SG2 389.3 THA 172.98

ORBIT DETERMINATION ACCURACY
ST 1830.0 SR 506.0 SS 560.6
CRT -.9456 CRS .7388 CST -.9170
LSA 1960.2 MSA 276.3 SSA 17.9
EL1 1892.0 EL2 159.2 ALF 165.24

LAUNCH DATE AUG 24 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 530.393
RL 151.25 LAL -.00 LOL 330.42 VL 26.431 GAL 3.24 AZL 92.05 HCA 251.13 SMA 125.64 ECC .21121 INC 2.0525 V1 29.458
RP 108.21 LAP 1.94 LOP 221.54 VP 37.371 GAP 9.25 AZP 89.34 TAL 167.71 TAP 58.84 RCA 99.10 APO 152.18 V2 35.021
RC 141.459 GL -14.70 GP 20.15 ZAL 59.96 ZAP 153.68 ETS 44.41 ZAE 124.85 ETE 166.38 ZAC 120.72 ETC 258.36 CLP-162.70
PLANETOCENTRIC CONIC
C3 13.882 VHL 3.726 DLA -38.13 RAL 271.95 RAD 6567.5 VEL 11.630 PTH 2.04 VHP 6.440 DPA .54 RAP 242.22 ECC 1.2285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.32	10 14 13	1393.55	28.58	6.34	137.99	116.40	10 37 26	793.5	31.87	358.32
116.68	16 26 30	5511.92	28.59	255.81	138.00	116.38	17 58 22	4911.9	31.88	247.79
63.32	10 14 13	1393.55	28.58	6.34	137.99	116.40	10 37 26	793.5	31.87	358.32
116.68	16 26 30	5511.92	28.59	255.81	138.00	116.38	17 58 22	4911.9	31.88	247.79
63.32	10 14 13	1393.55	28.58	6.34	137.99	116.40	10 37 26	793.5	31.87	358.32
116.68	16 26 30	5511.92	28.59	255.81	138.00	116.38	17 58 22	4911.9	31.88	247.79

DIFFERENTIAL CORRECTIONS
TOE -.7560 TRA 2.0799 TC3-5.1845 BAU .9639
RDE .2925 RRA -.2936 RC3 .3060 FAU .03839
FDE -.1896 FRA 1.5391 FC3-2.3941 BSP 18388
BDE .8106 BRA 2.1005 BC3 5.1935 FSP -1039

MID-COURSE EXECUTION ACCURACY
SGT 5727.9 SGR 764.1 SG3 303.3
RRT -.8540 RRF -.8445 RTF .9681
SGB 5778.7 R23 .0264 R13 -.9684
SG1 5765.1 SG2 395.0 THA 173.47

ORBIT DETERMINATION ACCURACY
ST 1689.0 SR 481.7 SS 528.6
CRT -.9019 CRS .6270 CST -.9012
LSA 1808.0 MSA 308.7 SSA 17.8
EL1 1744.8 EL2 201.5 ALF 165.38

LAUNCH DATE AUG 24 1970 FLIGHT TIME 188.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 536.165
RL 151.25 LAL -.00 LOL 330.42 VL 26.397 GAL 3.65 AZL 91.85 HCA 254.33 SMA 125.43 ECC .21509 INC 1.8526 V1 29.458
RP 108.25 LAP 1.78 LOP 224.74 VP 37.335 GAP 9.64 AZP 89.50 TAL 166.43 TAP 60.76 RCA 98.45 APO 152.40 V2 35.008
RC 143.643 GL -12.83 GP 19.16 ZAL 57.66 ZAP 155.16 ETS 45.19 ZAE 124.72 ETE 167.15 ZAC 120.01 ETC 258.85 CLP-163.89
PLANETOCENTRIC CONIC
C3 14.703 VHL 3.834 DLA -36.22 RAL 274.46 RAD 6567.6 VEL 11.666 PTH 2.05 VHP 6.627 DPA -.88 RAP 243.80 ECC 1.2420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.41	10 40 13	1359.31	26.87	2.63	140.66	115.25	11 2 52	759.3	30.04	354.68
113.59	16 20 31	5571.56	26.89	259.73	140.67	115.24	17 53 23	4971.6	30.05	251.78
66.41	10 40 13	1359.31	26.87	2.63	140.66	115.25	11 2 52	759.3	30.04	354.68
113.59	16 20 31	5571.56	26.89	259.73	140.67	115.24	17 53 23	4971.6	30.05	251.78
66.41	10 40 13	1359.31	26.87	2.63	140.66	115.25	11 2 52	759.3	30.04	354.68
113.59	16 20 31	5571.56	26.89	259.73	140.67	115.24	17 53 23	4971.6	30.05	251.78

DIFFERENTIAL CORRECTIONS
TOE -.6218 TRA 2.2970 TC3-4.9804 BAU .9804
RDE .2891 RRA -.3016 RC3 .2701 FAU .03596
FDE -.0982 FRA 1.5818 FC3-2.1175 BSP 18785
BDE .6857 BRA 2.3167 BC3 4.9877 FSP -1011

MID-COURSE EXECUTION ACCURACY
SGT 5792.3 SGR 735.9 SG3 289.7
RRT -.8373 RRF -.8253 RTF .9682
SGB 5838.9 R23 .0197 R13 -.9683
SG1 5825.1 SG2 400.1 THA 173.90

ORBIT DETERMINATION ACCURACY
ST 1582.8 SR 463.4 SS 511.0
CRT -.8398 CRS .5102 CST -.8946
LSA 1692.9 MSA 339.2 SSA 17.5
EL1 1631.1 EL2 244.2 ALF 165.86

LAUNCH DATE AUG 24 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 541.904

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.363 GAL   4.08 AZL  91.66 HCA 257.52 SMA 125.21 ECC .21926 INC 1.6589 V1  29.458
RP  108.29 LAP   1.62 LOP 227.94 VP  37.299 GAP  10.04 AZP  89.64 TAL 165.14 TAP  62.66 RCA  97.76 APO 152.67 V2  34.995
RC 145.816 GL  -11.09 GP   18.27 ZAL  55.44 ZAP 156.56 ETS  46.11 ZAE 124.59 ETE 167.82 ZAC 119.37 ETC 259.34 CLP-165.06
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PLANETOCENTRIC CONIC

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C3  15.677 VHL  3.959 DLA -34.39 RAL 276.83 RAD 6567.6 VEL 11.707 PTH   2.06 VHP  6.827 DPA  -2.21 RAP 245.46 ECC 1.2580
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.61	11 7 49	1319.11	25.20	358.59	143.37	114.21	11 29 48	719.1	28.25	350.72
110.39	16 11 48	5640.55	25.22	264.34	143.38	114.20	17 45 48	5040.5	28.26	256.47
69.61	11 7 49	1319.11	25.20	358.59	143.37	114.21	11 29 48	719.1	28.25	350.72
110.39	16 11 48	5640.55	25.22	264.34	143.38	114.20	17 45 48	5040.5	28.26	256.47
69.61	11 7 49	1319.11	25.20	358.59	143.37	114.21	11 29 48	719.1	28.25	350.72
110.39	16 11 48	5640.55	25.22	264.34	143.38	114.20	17 45 48	5040.5	28.26	256.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE -.4736 TRA 2.5383 TC3-4.7093 BAU  .9882   SGT 5847.3 SGR  711.0 SG3  277.0      ST  1505.1 SR   445.7 SS   507.0
ROE  .2863 RRA -.3123 RC3  .2327 FAU .03305   RRT -.8199 RRF -.8060 RTF  .9674     CRT -.7511 CRS  .3786 CST -.8947
FOE -.0064 FRA 1.6318 FC3-1.8251 BSP  18840   SGB 5890.3 R23  .0158 R13 -.9675     LSA 1607.2 MSA  370.9 SSA   17.2
BOE  .5534 BRA 2.5575 BC3 4.7151 FSP   -958   SG1 5876.4 SG2  405.0 THA 174.28     EL1 1543.3 EL2  287.0 ALF 167.00
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 547.604

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.329 GAL   4.53 AZL  91.47 HCA 260.72 SMA 125.00 ECC .22374 INC 1.4700 V1  29.458
RP  108.33 LAP   1.45 LOP 231.13 VP  37.262 GAP  10.44 AZP  89.76 TAL 163.84 TAP  64.56 RCA  97.03 APO 152.97 V2  34.982
RC 147.979 GL   -9.45 GP   17.47 ZAL  53.29 ZAP 157.87 ETS  47.19 ZAE 124.45 ETE 168.42 ZAC 118.81 ETC 259.84 CLP-166.19
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PLANETOCENTRIC CONIC

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C3  16.818 VHL  4.101 DLA -32.65 RAL 279.06 RAD 6567.7 VEL 11.756 PTH   2.07 VHP  7.040 DPA  -3.45 RAP 247.19 ECC 1.2768
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.02	11 37 54	1270.06	23.57	354.00	146.12	113.27	11 59 4	670.1	26.52	346.20
106.98	15 59 30	5721.62	23.59	269.83	146.13	113.26	17 34 51	5121.6	26.53	262.03
73.02	11 37 54	1270.06	23.57	354.00	146.12	113.27	11 59 4	670.1	26.52	346.20
106.98	15 59 30	5721.62	23.59	269.83	146.13	113.26	17 34 51	5121.6	26.53	262.03
110.00	15 1 5	613.81	17.15	302.37	142.68	120.03	15 11 19	13.8	21.01	295.37
110.00	17 35 29	5425.88	30.35	249.75	148.87	106.55	19 5 55	4825.9	32.31	241.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE -.3297 TRA 2.7858 TC3-4.4302 BAU  .9971   SGT 5897.9 SGR  689.1 SG3  264.7      ST  1465.4 SR   431.7 SS   511.2
ROE  .2867 RRA -.3228 RC3  .2021 FAU .03044   RRT -.8028 RRF -.7872 RTF  .9670     CRT -.6449 CRS  .2601 CST -.9050
FOE  .0711 FRA 1.6747 FC3-1.5669 BSP  18994   SGB 5938.0 R23  .0120 R13 -.9671     LSA 1561.7 MSA  394.7 SSA   16.8
BOE  .4370 BRA 2.8045 BC3 4.4348 FSP   -916   SG1 5923.9 SG2  409.0 THA 174.62     EL1 1492.9 EL2  323.8 ALF 168.70
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 553.262

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.295 GAL   5.01 AZL  91.28 HCA 263.91 SMA 124.79 ECC .22857 INC 1.2848 V1  29.458
RP  108.37 LAP   1.28 LOP 234.33 VP  37.226 GAP  10.87 AZP  89.86 TAL 162.54 TAP  66.45 RCA  96.27 APO 153.31 V2  34.969
RC 150.132 GL   -7.93 GP   16.74 ZAL  51.23 ZAP 159.10 ETS  48.44 ZAE 124.30 ETE 168.95 ZAC 118.30 ETC 260.34 CLP-167.29
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PLANETOCENTRIC CONIC

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C3  18.141 VHL  4.259 DLA -31.00 RAL 281.16 RAD 6567.7 VEL 11.812 PTH   2.09 VHP  7.266 DPA  -4.59 RAP 248.99 ECC 1.2986
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.83	12 12 17	1206.22	21.99	348.43	148.90	112.41	12 32 23	606.2	24.84	340.70
103.17	15 41 52	5820.57	22.00	276.62	148.91	112.40	17 18 53	5220.6	24.85	268.89
76.83	12 12 17	1206.22	21.99	348.43	148.90	112.41	12 32 23	606.2	24.84	340.70
103.17	15 41 52	5820.57	22.00	276.62	148.91	112.40	17 18 53	5220.6	24.85	268.89
110.00	14 35 47	739.50	12.73	309.43	143.93	121.99	14 48 6	139.5	16.87	302.77
110.00	18 17 34	5335.29	31.92	243.16	152.45	102.94	19 46 29	4735.3	33.37	234.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE -.1857 TRA 3.0441 TC3-4.1396 BAU 1.0049   SGT 5942.9 SGR  669.5 SG3  252.9      ST  1458.6 SR   419.6 SS   520.6
ROE  .2892 RRA -.3339 RC3  .1756 FAU .02795   RRT -.7861 RRF -.7690 RTF  .9666     CRT -.5276 CRS  .1555 CST -.9206
FOE  .1393 FRA 1.7145 FC3-1.3336 BSP  19163   SGB 5980.5 R23  .0088 R13 -.9667     LSA 1551.3 MSA  409.8 SSA   16.4
BOE  .3437 BRA 3.0624 BC3 4.1433 FSP   -877   SG1 5966.3 SG2  412.2 THA 174.92     EL1 1476.3 EL2  352.2 ALF 170.84
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 558.874

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.261 GAL   5.52 AZL  91.10 HCA 267.09 SMA 124.58 ECC .23377 INC 1.1018 V1  29.458
RP  108.41 LAP   1.10 LOP 237.52 VP  37.190 GAP  11.31 AZP  89.94 TAL 161.23 TAP  68.33 RCA  95.46 APO 153.70 V2  34.956
RC 152.275 GL   -6.51 GP   16.07 ZAL  49.25 ZAP 160.25 ETS  49.88 ZAE 124.16 ETE 169.43 ZAC 117.85 ETC 260.85 CLP-168.38
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PLANETOCENTRIC CONIC

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C3  19.668 VHL  4.435 DLA -29.43 RAL 283.14 RAD 6567.8 VEL 11.876 PTH   2.11 VHP  7.506 DPA  -5.65 RAP 250.85 ECC 1.3237
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.63	12 56 12	1110.59	20.46	340.64	151.72	111.63	13 14 42	510.6	23.22	332.96
98.37	15 13 46	666.20	20.47	308.01	151.72	111.62	15 24 52	66.2	23.23	300.34
100.00	14 42 7	767.56	16.92	313.91	150.11	115.02	14 54 55	167.6	20.15	306.61
100.00	16 10 31	5772.51	24.10	273.87	153.14	108.25	17 46 44	5172.5	26.36	265.81
110.00	14 19 35	838.55	9.10	314.81	145.66	123.09	14 33 34	238.5	13.40	308.34
110.00	18 49 33	5274.29	32.76	238.60	155.65	100.36	20 17 27	4674.3	33.84	229.53

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE -.0405 TRA 3.3149 TC3-3.8423 BAU 1.0111   SGT 5982.9 SGR  651.5 SG3  241.6      ST  1479.6 SR   408.9 SS   533.1
ROE  .2933 RRA -.3454 RC3  .1524 FAU .02556   RRT -.7697 RRF -.7515 RTF  .9665     CRT -.4083 CRS  .0660 CST -.9373
FOE  .1998 FRA 1.7525 FC3-1.1250 BSP  19321   SGB 6018.3 R23  .0063 R13 -.9665     LSA 1570.7 MSA  416.2 SSA   15.9
BOE  .2961 BRA 3.3328 BC3 3.8453 FSP   -839   SG1 6004.0 SG2  414.4 THA 175.19     EL1 1489.6 EL2  370.8 ALF 173.14
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 564.436

RL	151.25	LAL	-.00	LOL	330.42	VL	26.227	GAL	6.05	AZL	90.92	HCA	270.28	SMA	124.37	ECC	.23938	INC	.9200	V1	29.458
RP	108.45	LAP	.92	LOP	240.70	VP	37.154	GAP	11.77	AZP	90.00	TAL	159.92	TAP	70.20	RCA	94.60	APO	154.14	V2	34.943
RC	154.408	GL	-5.19	GP	15.47	ZAL	47.36	ZAP	161.34	ETS	51.53	ZAE	124.01	ETE	169.86	ZAC	117.44	ETC	261.37	CLP	-169.44

PLANETOCENTRIC CONIC

C3	21.421	VHL	4.628	DLA	-27.95	RAL	285.00	RAD	6567.9	VEL	11.950	PTH	2.13	VHP	7.762	DPA	-6.64	RAP	252.75	ECC	1.3525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 32 12	1039.50	15.82	333.39	153.20	113.80	13 49 32	439.5	18.90	326.07
90.00	14 52 38	778.14	22.22	316.90	155.78	108.02	15 5 36	178.1	24.48	308.96
100.00	14 3 24	938.60	11.74	323.96	151.17	117.69	14 19 3	338.6	15.35	317.04
100.00	17 4 7	5642.30	26.58	265.00	157.16	104.21	18 38 10	5042.3	28.27	256.60
110.00	14 7 53	924.54	5.88	319.38	147.65	123.73	14 23 17	324.5	10.27	313.04
110.00	19 16 8	5229.13	33.26	235.17	158.70	98.39	20 43 17	4629.1	34.06	226.02

DIFFERENTIAL CORRECTIONS

TDE	.1060	TRA	3.5985	TC3	-3.5437	BAU	1.0155
RDE	.2988	RRA	-.3575	RC3	.1322	FAU	.02328
FDE	.2534	FRA	1.7888	FC3	-.9410	BSP	19479
BDE	.3170	BRA	3.6162	BC3	3.5462	FSP	-804

MID-COURSE EXECUTION ACCURACY

SGT	6017.3	SGR	634.6	SG3	230.9		
RRT	-.7540	RRF	-.7349	RTF	.9664		
SGB	6050.6	R23	.0042	R13	-.9664		
SG1	6036.3	SG2	415.6	THA	175.43		

ORBIT DETERMINATION ACCURACY

ST	1521.7	SR	399.3	SS	546.7		
CRT	-.2949	CRS	-.0090	CST	-.9523		
LSA	1612.9	MSA	415.2	SSA	15.5		
EL1	1526.6	EL2	380.3	ALF	175.28		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 569.940

RL	151.25	LAL	-.00	LOL	330.42	VL	26.192	GAL	6.62	AZL	90.74	HCA	273.46	SMA	124.16	ECC	.24544	INC	.7382	V1	29.458
RP	108.49	LAP	.74	LOP	243.89	VP	37.118	GAP	12.25	AZP	90.04	TAL	158.61	TAP	72.08	RCA	93.69	APO	154.64	V2	34.931
RC	156.530	GL	-3.97	GP	14.92	ZAL	45.57	ZAP	162.36	ETS	53.42	ZAE	123.86	ETE	170.24	ZAC	117.07	ETC	261.90	CLP	-170.48

PLANETOCENTRIC CONIC

C3	23.430	VHL	4.840	DLA	-26.55	RAL	286.76	RAD	6568.0	VEL	12.034	PTH	2.15	VHP	8.034	DPA	-7.54	RAP	254.71	ECC	1.3856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 51 42	1218.07	10.65	343.95	154.35	116.39	13 12 0	618.1	14.11	336.98
90.00	15 47 10	643.05	24.78	307.83	159.81	104.16	15 57 53	43.0	26.48	299.57
100.00	13 42 31	1053.91	8.01	330.49	152.95	118.90	14 0 5	453.9	11.80	323.76
100.00	17 39 1	5570.48	27.68	259.94	160.56	101.77	19 11 52	4970.5	29.02	251.40
110.00	13 58 55	1002.44	2.92	323.47	149.82	124.07	14 15 38	402.4	7.37	317.21
110.00	19 39 7	5194.72	33.57	232.53	161.68	96.86	21 5 41	4594.7	34.15	223.34

DIFFERENTIAL CORRECTIONS

TDE	.2546	TRA	3.8965	TC3	-3.2479	BAU	1.0180
RDE	.3054	RRA	-.3699	RC3	.1144	FAU	.02110
FDE	.3013	FRA	1.8243	FC3	-.7798	BSP	19623
BDE	.3976	BRA	3.9140	BC3	3.2500	FSP	-770

MID-COURSE EXECUTION ACCURACY

SGT	6046.6	SGR	618.5	SG3	220.7		
RRT	-.7387	RRF	-.7192	RTF	.9665		
SGB	6078.1	R23	.0026	R13	-.9665		
SG1	6063.9	SG2	415.7	THA	175.66		

ORBIT DETERMINATION ACCURACY

ST	1578.7	SR	390.2	SS	560.6		
CRT	-.1923	CRS	-.0716	CST	-.9646		
LSA	1670.7	MSA	409.0	SSA	15.1		
EL1	1580.6	EL2	382.5	ALF	177.11		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 575.382

RL	151.25	LAL	-.00	LOL	330.42	VL	26.158	GAL	7.22	AZL	90.56	HCA	276.65	SMA	123.96	ECC	.25200	INC	.5555	V1	29.458
RP	108.53	LAP	.55	LOP	247.07	VP	37.083	GAP	12.76	AZP	90.06	TAL	157.31	TAP	73.96	RCA	92.72	APO	155.19	V2	34.919
RC	158.641	GL	-2.84	GP	14.41	ZAL	43.87	ZAP	163.32	ETS	55.56	ZAE	123.71	ETE	170.58	ZAC	116.72	ETC	262.43	CLP	-171.52

PLANETOCENTRIC CONIC

C3	25.728	VHL	5.072	DLA	-25.23	RAL	288.42	RAD	6568.0	VEL	12.129	PTH	2.17	VHP	8.325	DPA	-8.38	RAP	256.70	ECC	1.4234

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 30 17	1335.83	7.01	350.69	156.21	117.51	12 52 33	735.8	10.64	343.89
90.00	16 21 46	5859.32	25.88	280.77	163.22	101.91	17 59 26	5259.3	27.26	272.37
100.00	13 27 58	1149.59	4.83	335.81	155.02	119.54	13 47 8	549.6	8.73	329.19
100.00	18 6 46	5520.79	28.32	256.39	163.75	100.00	19 38 47	4920.8	29.41	247.75
110.00	13 51 51	1074.70	.16	327.24	152.12	124.18	14 9 45	474.7	4.64	321.02
110.00	19 59 23	5168.44	33.77	230.50	164.63	95.68	21 25 32	4568.4	34.18	221.28

DIFFERENTIAL CORRECTIONS

TDE	.4046	TRA	4.2081	TC3	-2.9602	BAU	1.0187
RDE	.3132	RRA	-.3824	RC3	.0987	FAU	.01904
FDE	.3437	FRA	1.8586	FC3	-.6407	BSP	19792
BDE	.5116	BRA	4.2254	BC3	2.9618	FSP	-739

MID-COURSE EXECUTION ACCURACY

SGT	6069.4	SGR	602.7	SG3	210.9		
RRT	-.7240	RRF	-.7042	RTF	.9668		
SGB	6099.3	R23	.0014	R13	-.9668		
SG1	6085.2	SG2	414.7	THA	175.87		

ORBIT DETERMINATION ACCURACY

ST	1643.8	SR	381.7	SS	573.6		
CRT	-.1027	CRS	-.1234	CST	-.9740		
LSA	1736.9	MSA	399.5	SSA	14.7		
EL1	1644.3	EL2	379.6	ALF	178.56		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 580.751

RL	151.25	LAL	-.00	LOL	330.42	VL	26.125	GAL	7.86	AZL	90.37	HCA	279.82	SMA	123.75	ECC	.25910	INC	.3702	V1	29.458
RP	108.56	LAP	.37	LOP	250.25	VP	37.048	GAP	13.29	AZP	90.06	TAL	156.02	TAP	75.84	RCA	91.69	APO	155.81	V2	34.907
RC	160.740	GL	-1.80	GP	13.95	ZAL	42.26	ZAP	164.21	ETS	58.00	ZAE	123.55	ETE	170.90	ZAC	116.40	ETC	262.97	CLP	-172.54

PLANETOCENTRIC CONIC

C3	28.357	VHL	5.325	DLA	-23.99	RAL	289.97	RAD	6568.1	VEL	12.236	PTH	2.20	VHP	8.637	DPA	-9.14	RAP	258.73	ECC	1.4667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 15 21	1433.08	3.92	356.16	158.35	118.07	12 39 14	833.1	7.64	349.46
90.00	16 49 8	5810.40	26.52	277.33	166.44	100.30	18 25 58	5210.4	27.68	268.85
100.00	13 16 56	1234.28	1.97	340.48	157.27	119.83	13 37 31	634.3	5.93	333.92
100.00	18 30 14	5484.43	28.72	253.76	166.85	98.67	20 1 38	4884.4	29.62	245.07
110.00	13 46 8	1142.75	-2.45	330.79	154.52	124.11	14 5 10	542.8	2.05	324.58
110.00	20 17 32	5148.73	33.89	228.98	167.56	94.78	21 43 20	4548.7	34.18	219.74

DIFFERENTIAL CORRECTIONS

TDE	.5577	TRA	4.5361	TC3	-2.6813	BAU	1.0170
RDE	.3217	RRA	-.3951	RC3	.0847	FAU	.01707
FDE	.3822	FRA	1.8930	FC3	-.5210	BSP	19957
BDE	.6439	BRA	4.5532	BC3	2.6826	FSP	-710

MID-COURSE EXECUTION ACCURACY

SGT	6087.1	SGR	586.9	SG3	201.6		
RRT	-.7098	RRF	-.6899	RTF	.9672		
SGB	6115.4	R23	.0004	R13	-.9672		
SG1	6101.4	SG2	412.5	THA	176.07		

ORBIT DETERMINATION ACCURACY

ST	1713.5	SR	373.2	SS	586.0		
CRT	-.0254	CRS	-.1670	CST	-.9810		
LSA	1807.7	MSA	388.2	SSA	14.3		
EL1	1713.5	EL2	373.1	ALF	179.67		

LAUNCH DATE AUG 24 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 586.039

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RL  151.25 LAL   -.00 LOL 330.42 VL  26.091 GAL   8.54 AZL  90.18 HCA 283.00 SMA 123.55 ECC .26682 INC  .1814 V1  29.458
RP  108.60 LAP    .18 LOP 253.42 VP  37.013 GAP  13.86 AZP  90.04 TAL 154.73 TAP  77.73 RCA  90.58 APO 156.51 V2  34.896
RC 162.826 GL    -.84 GP   13.53 ZAL  40.74 ZAP 165.04 ETS  60.75 ZAE 123.39 ETE 171.18 ZAC 116.10 ETC 263.52 CLP-173.55
PLANETOCENTRIC CONIC
C3  31.365 VHL  5.600 DLA -22.83 RAL 291.44 RAD 6568.2 VEL 12.359 PTH   2.23 VHP  8.970 DPA  -9.84 RAP 260.79 ECC 1.5162
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 3 59	1518.95	1.16	.96	160.66	118.30	12 29 18	918.9	4.93	354.32
90.00	17 12 10	5775.06	26.93	274.82	169.56	99.11	18 48 25	5175.1	27.91	266.29
100.00	13 8 12	1311.71	-.65	344.72	159.65	119.89	13 30 3	711.7	3.33	338.20
100.00	18 50 39	5457.54	28.98	251.80	169.90	97.67	20 21 36	4857.5	29.74	243.08
110.00	13 41 26	1207.50	-4.91	334.18	157.00	123.87	14 1 33	607.5	-.43	327.96
110.00	20 33 54	5134.51	33.96	227.87	170.50	94.13	21 59 29	4534.5	34.16	218.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .7136 TRA 4.8807 TC3-2.4149 BAU 1.0131   SGT 6099.2 SGR  571.0 SG3  192.8     ST  1783.6 SR   364.9 SS   597.3
RDE  .3311 RRA -.4076 RC3  .0724 FAU .01520   RRT -.6959 RRF -.6763 RTF  .9678     CRT  .0406 CRS -.2036 CST -.9862
FDE  .4168 FRA 1.9275 FC3 -.4195 BSP  20138   SGB 6125.9 R23 -.0003 R13 -.9678     LSA 1878.7 MSA  375.9 SSA   13.9
BDE  .7866 BRA 4.8977 BC3 2.4160 FSP   -683   SG1 6112.2 SG2  409.2 THA 176.26     EL1 1783.6 EL2  364.6 ALF    .50
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 591.233

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RL  151.25 LAL   -.00 LOL 330.42 VL  26.058 GAL   9.26 AZL  89.99 HCA 286.18 SMA 123.35 ECC .27522 INC  .0000 V1  29.458
RP  108.63 LAP   -.01 LOP 256.60 VP  36.980 GAP  14.47 AZP  90.00 TAL 153.47 TAP  79.64 RCA  89.40 APO 157.30 V2  34.885
RC 164.900 GL     .05 GP   13.15 ZAL  39.32 ZAP 165.79 ETS  63.85 ZAE 123.22 ETE 171.44 ZAC 115.82 ETC 264.07 CLP-174.57
PLANETOCENTRIC CONIC
C3  34.812 VHL  5.900 DLA -21.74 RAL 292.81 RAD 6568.4 VEL 12.497 PTH   2.26 VHP  9.329 DPA -10.47 RAP 262.87 ECC 1.5729
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 54 56	1597.28	-1.37	5.33	163.08	118.29	12 21 33	997.3	2.42	358.70
90.00	17 32 11	5749.28	27.19	272.98	172.63	98.22	19 8 1	5149.3	28.05	264.42
100.00	13 1 4	1383.85	-3.10	348.69	162.13	119.75	13 24 7	783.8	.88	342.16
100.00	19 8 44	5437.95	29.15	250.37	172.92	96.94	20 39 22	4838.0	29.80	241.63
110.00	13 37 32	1269.54	-7.25	337.45	159.56	123.50	13 58 41	669.5	-2.80	331.20
110.00	20 48 46	5125.03	34.01	227.14	173.45	93.70	22 14 11	4525.0	34.14	217.89

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .8731 TRA 5.2445 TC3-2.1606 BAU 1.0060   SGT 6105.7 SGR  554.7 SG3  184.4     ST  1852.1 SR   356.5 SS   607.9
RDE  .3411 RRA -.4200 RC3  .0613 FAU .01340   RRT -.6822 RRF -.6632 RTF  .9687     CRT  .0970 CRS -.2348 CST -.9899
FDE  .4485 FRA 1.9630 FC3 -.3334 BSP  20335   SGB 6130.8 R23 -.0008 R13 -.9687     LSA 1948.0 MSA  363.3 SSA   13.5
BDE  .9374 BRA 5.2613 BC3 2.1615 FSP   -658   SG1 6117.5 SG2  404.8 THA 176.44     EL1 1852.4 EL2  354.7 ALF   1.11
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 596.319

```
RL  151.25 LAL   -.00 LOL 330.42 VL  26.025 GAL  10.04 AZL  89.79 HCA 289.35 SMA 123.15 ECC .28438 INC  .2104 V1  29.458
RP  108.66 LAP   -.20 LOP 259.77 VP  36.946 GAP  15.11 AZP  89.93 TAL 152.22 TAP  81.57 RCA  88.13 APO 158.17 V2  34.874
RC 166.961 GL     .87 GP   12.79 ZAL  37.98 ZAP 166.48 ETS  67.33 ZAE 123.03 ETE 171.68 ZAC 115.55 ETC 264.63 CLP-175.58
PLANETOCENTRIC CONIC
C3  38.769 VHL  6.226 DLA -20.72 RAL 294.10 RAD 6568.5 VEL 12.655 PTH   2.30 VHP  9.716 DPA -11.04 RAP 264.97 ECC 1.6380
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 47 30	1670.14	-3.72	9.40	165.60	118.09	12 15 20	1070.1	.07	2.77
90.00	17 49 53	5730.83	27.37	271.66	175.66	97.58	19 25 24	5130.8	28.13	263.08
100.00	12 55 7	1451.89	-5.39	352.44	164.68	119.45	13 19 19	851.9	-1.42	345.90
100.00	19 24 56	5424.31	29.26	249.37	175.93	96.42	20 55 21	4824.3	29.84	240.62
110.00	13 34 14	1329.29	-9.48	340.64	162.17	123.00	13 56 24	729.3	-5.07	334.33
110.00	21 2 19	5119.67	34.03	226.72	176.41	93.45	22 27 38	4519.7	34.13	217.48

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0384 TRA 5.6299 TC3-1.9185 BAU  .9947   SGT 6107.3 SGR  537.8 SG3  176.5     ST  1918.1 SR   347.8 SS   618.2
RDE  .3516 RRA -.4319 RC3  .0512 FAU .01166   RRT -.6687 RRF -.6504 RTF  .9696     CRT  .1458 CRS -.2620 CST -.9927
FDE  .4782 FRA 2.0004 FC3 -.2604 BSP  20508   SGB 6130.9 R23 -.0011 R13 -.9696     LSA 2014.8 MSA  350.4 SSA   13.1
BDE 1.0963 BRA 5.6465 BC3 1.9192 FSP   -634   SG1 6117.9 SG2  399.2 THA 176.62     EL1 1918.8 EL2  343.9 ALF   1.56
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 601.279

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RL  151.25 LAL   -.00 LOL 330.42 VL  25.992 GAL  10.88 AZL  89.58 HCA 292.52 SMA 122.96 ECC .29439 INC  .4181 V1  29.458
RP  108.69 LAP   -.39 LOP 262.94 VP  36.914 GAP  15.81 AZP  89.84 TAL 151.01 TAP  83.53 RCA  86.76 APO 159.16 V2  34.864
RC 169.007 GL    1.62 GP   12.47 ZAL  36.73 ZAP 167.08 ETS  71.21 ZAE 122.83 ETE 171.90 ZAC 115.28 ETC 265.18 CLP-176.60
PLANETOCENTRIC CONIC
C3  43.322 VHL  6.582 DLA -19.76 RAL 295.30 RAD 6568.6 VEL 12.833 PTH   2.34 VHP 10.135 DPA -11.55 RAP 267.07 ECC 1.7130
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 41 16	1738.72	-5.90	13.26	168.18	117.74	12 10 15	1138.7	-2.14	6.59
90.00	18 5 41	5718.29	27.47	270.76	178.67	97.14	19 41 .0	5118.3	28.18	262.16
100.00	12 50 6	1516.60	-7.54	356.04	167.29	119.01	13 15 23	916.6	-3.61	349.45
100.00	19 39 33	5415.64	29.32	248.74	178.92	96.09	21 9 48	4815.6	29.86	239.97
110.00	13 31 27	1387.04	-11.61	343.77	164.84	122.38	13 54 34	787.0	-7.25	337.38
110.00	21 14 41	5117.97	34.04	226.59	179.38	93.37	22 39 59	4518.0	34.13	217.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.2104 TRA 6.0399 TC3-1.6890 BAU  .9785   SGT 6104.5 SGR  520.3 SG3  169.0     ST  1980.8 SR   338.8 SS   628.5
RDE  .3626 RRA -.4432 RC3  .0421 FAU .00994   RRT -.6550 RRF -.6376 RTF  .9708     CRT  .1884 CRS -.2862 CST -.9947
FDE  .5067 FRA 2.0403 FC3 -.1987 BSP  20657   SGB 6126.7 R23 -.0012 R13 -.9708     LSA 2078.3 MSA  337.4 SSA   12.7
BDE 1.2636 BRA 6.0561 BC3 1.6896 FSP   -610   SG1 6114.1 SG2  392.6 THA 176.79     EL1 1981.9 EL2  332.5 ALF   1.90
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LAUNCH DATE AUG 24 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 606.092

RL	151.25	LAL	-.00	LOL	330.42	VL	25.960	GAL	11.78	AZL	89.36	HCA	295.69	SMA	122.77	ECC	.30536	INC	.6351
RP	108.72	LAP	-.57	LOP	266.11	VP	36.882	GAP	16.56	AZP	89.72	TAL	149.83	TAP	85.52	RCA	85.28	APO	160.26
RC	171.039	GL	2.32	GP	12.17	ZAL	35.57	ZAP	167.60	ETS	75.52	ZAE	122.62	ETE	172.11	ZAC	115.03	ETC	265.74

PLANETOCENTRIC CONIC

C3	48.578	VHL	6.970	DLA	-18.87	RAL	296.41	RAD	6568.8	VEL	13.036	PTH	2.38	VHP	10.590	DPA	-12.00	RAP	269.19

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 35 58	1803.80	-7.95	16.94	170.81	117.27	12 6 2	1203.8	-4.23	10.23
90.00	18 19 54	5710.70	27.54	270.21	181.66	96.87	19 55 5	5110.7	28.20	261.61
100.00	12 45 48	1578.49	-9.56	359.52	169.94	118.46	13 12 6	978.5	-5.69	352.87
100.00	19 52 46	5411.25	29.35	248.41	181.89	95.93	21 22 57	4811.2	29.86	239.65
110.00	13 29 3	1442.98	-13.63	346.84	167.54	121.66	13 53 6	843.0	-9.34	340.37
110.00	21 26 1	5119.51	34.03	226.71	182.34	93.45	22 51 20	4519.5	34.13	217.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	1.3913	TRA	6.4780	TC3	-1.4715	BAU	.9559	SGT	6098.2	SGR	502.1	SG3	161.9	ST	2040.2	SR	329.4	SS	639.4
ROE	.3741	RRA	-.4536	RC3	.0337	FAU	.00823	RRT	-.6410	RRF	-.6247	RTF	.9721	CRT	.2262	CRS	-.3083	CST	-.9962
FOE	.5348	FRA	2.0839	FC3	-.1467	BSP	20751	SG8	6118.8	R23	-.0012	R13	-.9721	LSA	2138.8	MSA	324.3	SSA	12.3
BOE	1.4407	BRA	6.4939	BC3	1.4719	FSP	-585	SG1	6106.7	SG2	384.8	THA	176.97	EL1	2041.6	EL2	320.7	ALF	2.14

LAUNCH DATE AUG 24 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 610.730

RL	151.25	LAL	-.00	LOL	330.42	VL	25.928	GAL	12.75	AZL	89.14	HCA	298.85	SMA	122.58	ECC	.31742	INC	.8638
RP	108.75	LAP	-.76	LOP	269.28	VP	36.851	GAP	17.37	AZP	89.58	TAL	148.69	TAP	87.55	RCA	83.67	APO	161.49
RC	173.056	GL	2.96	GP	11.90	ZAL	34.50	ZAP	168.03	ETS	80.26	ZAE	122.38	ETE	172.31	ZAC	114.77	ETC	266.30

PLANETOCENTRIC CONIC

C3	54.668	VHL	7.394	DLA	-18.04	RAL	297.45	RAD	6569.0	VEL	13.268	PTH	2.42	VHP	11.086	DPA	-12.39	RAP	271.30

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 31 24	1865.88	-9.87	20.50	173.47	116.68	12 2 30	1265.9	-6.21	13.73
90.00	18 32 44	5707.30	27.56	269.97	184.61	96.75	20 7 51	5107.3	28.21	261.36
100.00	12 42 4	1637.87	-11.47	2.89	172.63	117.79	13 9 22	1037.9	-7.66	356.18
100.00	20 4 45	5410.55	29.36	248.36	184.84	95.90	21 34 56	4810.5	29.86	239.59
110.00	13 26 57	1497.24	-15.54	349.88	170.28	120.83	13 51 54	897.2	-11.34	343.30
110.00	21 36 21	5123.94	34.01	227.05	185.30	93.65	23 1 45	4523.9	34.14	217.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	1.5826	TRA	6.9482	TC3	-1.2663	BAU	.9257	SGT	6089.0	SGR	483.0	SG3	155.3	ST	2096.0	SR	319.7	SS	651.1
ROE	.3859	RRA	-.4629	RC3	.0262	FAU	.00650	RRT	-.6264	RRF	-.6114	RTF	.9737	CRT	.2602	CRS	-.3289	CST	-.9972
FOE	.5631	FRA	2.1319	FC3	-.1029	BSP	20767	SG8	6108.2	R23	-.0010	R13	-.9737	LSA	2196.0	MSA	311.2	SSA	11.9
BOE	1.6289	BRA	6.9636	BC3	1.2666	FSP	-559	SG1	6096.6	SG2	376.0	THA	177.14	EL1	2097.6	EL2	308.5	ALF	2.32

LAUNCH DATE AUG 24 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 615.162

RL	151.25	LAL	-.00	LOL	330.42	VL	25.897	GAL	13.81	AZL	88.89	HCA	302.02	SMA	122.40	ECC	.33070	INC	1.1067
RP	108.78	LAP	-.94	LOP	272.45	VP	36.821	GAP	18.26	AZP	89.41	TAL	147.61	TAP	89.63	RCA	81.92	APO	162.88
RC	175.059	GL	3.54	GP	11.64	ZAL	33.52	ZAP	168.35	ETS	85.42	ZAE	122.11	ETE	172.50	ZAC	114.53	ETC	266.86

PLANETOCENTRIC CONIC

C3	61.753	VHL	7.858	DLA	-17.27	RAL	298.40	RAD	6569.2	VEL	13.532	PTH	2.47	VHP	11.630	DPA	-12.73	RAP	273.40

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 27 24	1925.28	-11.66	23.94	176.16	115.99	11 59 29	1325.3	-8.07	17.09
90.00	18 44 18	5707.54	27.56	269.98	187.53	96.76	20 19 26	5107.5	28.21	261.38
100.00	12 38 47	1694.97	-13.26	6.19	175.34	117.04	13 7 2	1095.0	-9.53	359.38
100.00	20 15 37	5413.08	29.34	248.55	187.76	96.00	21 45 50	4813.1	29.86	239.78
110.00	13 25 5	1549.86	-17.36	352.88	173.04	119.92	13 50 55	949.9	-13.25	346.18
110.00	21 45 47	5130.95	33.98	227.60	188.23	93.97	23 11 18	4530.9	34.16	218.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	1.7869	TRA	7.4551	TC3	-1.0722	BAU	.8853	SGT	6077.7	SGR	463.0	SG3	149.2	ST	2148.5	SR	309.7	SS	664.2
ROE	.3982	RRA	-.4706	RC3	.0194	FAU	.00472	RRT	-.6108	RRF	-.5972	RTF	.9754	CRT	.2917	CRS	-.3487	CST	-.9980
FOE	.5922	FRA	2.1853	FC3	-.0662	BSP	20741	SG8	6095.3	R23	-.0008	R13	-.9754	LSA	2250.4	MSA	297.9	SSA	11.4
BOE	1.8307	BRA	7.4700	BC3	1.0724	FSP	-533	SG1	6084.3	SG2	366.2	THA	177.33	EL1	2150.4	EL2	295.9	ALF	2.45

LAUNCH DATE AUG 24 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 619.345

RL	151.25	LAL	-.00	LOL	330.42	VL	25.866	GAL	14.96	AZL	88.63	HCA	305.18	SMA	122.22	ECC	.34539	INC	1.3670
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.792	GAP	19.24	AZP	89.21	TAL	146.59	TAP	91.77	RCA	80.01	APO	164.43
RC	177.047	GL	4.09	GP	11.41	ZAL	32.63	ZAP	168.56	ETS	90.95	ZAE	121.81	ETE	172.68	ZAC	114.28	ETC	267.40

PLANETOCENTRIC CONIC

C3	70.038	VHL	8.369	DLA	-16.56	RAL	299.26	RAD	6569.3	VEL	13.834	PTH	2.53	VHP	12.227	DPA	-13.02	RAP	275.48

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 23 51	1982.17	-13.34	27.28	178.85	115.21	11 56 54	1382.2	-9.83	20.35
90.00	18 54 44	5710.93	27.54	270.23	190.41	96.88	20 29 55	5110.9	28.20	261.62
100.00	12 35 51	1749.88	-14.94	9.40	178.05	116.20	13 5 1	1149.9	-11.30	2.51
100.00	20 25 25	5418.46	29.30	248.94	190.64	96.20	21 55 44	4818.5	29.85	240.18
110.00	13 23 25	1600.86	-19.06	355.85	175.80	118.93	13 50 6	1000.9	-15.06	349.02
110.00	21 54 21	5140.25	33.93	228.32	191.14	94.39	23 20 1	4540.2	34.17	219.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	2.0053	TRA	8.0025	TC3	-.8913	BAU	.8347	SGT	6064.7	SGR	442.1	SG3	143.4	ST	2197.1	SR	299.3	SS	678.9
ROE	.4110	RRA	-.4763	RC3	.0133	FAU	.00288	RRT	-.5936	RRF	-.5817	RTF	.9772	CRT	.3213	CRS	-.3682	CST	-.9986
FOE	.6225	FRA	2.2448	FC3	-.0356	BSP	20510	SG8	6080.8	R23	-.0005	R13	-.9772	LSA	2301.4	MSA	284.6	SSA	11.0
BOE	2.0470	BRA	8.0167	BC3	.8914	FSP	-505	SG1	6070.4	SG2	355.4	THA	177.51	EL1	2199.2	EL2	283.2	ALF	2.55

LAUNCH DATE AUG 25 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 3 1970

HELIOCENTRIC CONIC DISTANCE 159.692

RL	151.22	LAL	-.00	LOL	331.39	VL	22.537	GAL	1.08	AZL	92.45	HCA	64.38	SMA	106.40	ECC	.42161	INC	2.4546	V1	29.465
RP	108.27	LAP	-2.21	LOP	35.75	VP	34.700	GAP	-24.92	AZP	91.06	TAL	178.52	TAP	242.91	RCA	61.54	APO	151.25	V2	35.000
RC	41.583	GL	-7.85	GP	-7.67	ZAL	83.50	ZAP	15.95	ETS	148.84	ZAE	177.60	ETE	188.50	ZAC	91.91	ETC	258.31	CLP	14.02

PLANETOCENTRIC CONIC

C3	49.867	VHL	7.062	DLA	-29.38	RAL	244.73	RAD	6568.8	VEL	13.085	PTH	2.39	VHP	14.958	DPA	-23.46	RAP	225.09	ECC	1.8207		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.81	10 20 26	1337.55	14.03	354.41	128.38	116.09	10 42 44	737.5	17.42	347.30
98.19	12 35 15	901.99	14.04	322.44	128.39	116.08	12 50 17	302.0	17.43	315.33
100.00	12 2 53	1005.72	9.58	327.78	126.04	118.45	12 19 38	405.7	13.31	320.98
100.00	13 35 29	709.06	18.57	310.35	130.58	113.86	13 47 18	109.1	21.63	302.89
110.00	11 41 49	1072.04	.26	327.10	120.36	124.18	11 59 41	472.0	4.74	320.88
110.00	16 13 2	5503.54	28.71	255.20	134.97	109.40	17 44 46	4903.5	31.08	246.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1751	TRA	-.8379	TC3	-.0047	BAU	.0050	SGT	793.1	SGR	442.4	SG3	51.5	ST	273.8
RDE	-.5451	RRA	-.0094	RC3	-.0058	FAU	.01816	RRT	-.1594	RRF	.1679	RTF	-.6562	CRT	-.5137
FDE	-.1226	FRA	.4113	FC3	-.3153	BSP	2067	SGB	908.1	R23	-.0187	R13	.6590	LSA	497.7
BDE	.5725	BRA	.8380	BC3	.0074	FSP	-111	SG1	797.5	SG2	434.3	THA	172.76	EL1	471.1

SR	442.3	SS	197.2												
CRS	-.6476	CST	.9820												
MSA	248.1	SSA	14.6												
EL2	220.5	ALF	112.94												

LAUNCH DATE AUG 25 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 166.259

RL	151.22	LAL	-.00	LOL	331.39	VL	22.954	GAL	.93	AZL	92.24	HCA	67.58	SMA	108.04	ECC	.39993	INC	2.2351	V1	29.465		
RP	108.23	LAP	-2.07	LOP	38.95	VP	34.985	GAP	-23.57	AZP	90.85	TAL	178.61	TAP	246.19	RCA	64.83	APO	151.25	V2	35.013		
RC	40.971	GL	-7.76	GP	-8.02	ZAL	83.53	ZAP	14.68	ETS	144.38	ZAE	178.89	ETE	277.69	ZAC	91.78	ETC	258.53	CLP	12.34		

PLANETOCENTRIC CONIC

C3	43.981	VHL	6.632	DLA	-29.28	RAL	244.71	RAD	6568.7	VEL	12.859	PTH	2.34	VHP	14.218	DPA	-24.29	RAP	226.51	ECC	1.7238		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.22	10 23 34	1295.74	14.91	351.77	126.34	115.50	10 45 10	695.7	18.22	344.58
97.78	12 31 57	880.83	14.93	321.32	126.35	115.49	12 46 38	280.8	18.24	314.14
100.00	11 58 22	988.55	10.14	326.81	123.87	118.27	12 14 50	388.5	13.84	319.97
100.00	13 39 51	663.26	19.80	307.51	128.64	112.86	13 50 54	63.3	22.73	299.93
110.00	11 40 20	1045.32	1.28	325.71	118.48	124.16	11 57 45	445.3	5.75	319.48
110.00	16 14 22	5467.29	29.51	252.68	132.62	108.10	17 45 29	4867.3	31.69	244.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1688	TRA	-.8287	TC3	.0103	BAU	.0096	SGT	833.8	SGR	446.9	SG3	56.7	ST	286.2
RDE	-.5169	RRA	-.0029	RC3	-.0127	FAU	.01889	RRT	-.1691	RRF	.1860	RTF	-.6703	CRT	-.5079
FDE	-.1230	FRA	.4239	FC3	-.3719	BSP	2032	SGB	946.1	R23	-.0298	R13	.6737	LSA	505.9
BDE	.5438	BRA	.8288	BC3	.0164	FSP	-123	SG1	838.6	SG2	438.0	THA	172.86	EL1	477.8

SR	446.6	SS	203.2												
CRS	-.6408	CST	.9824												
MSA	257.9	SSA	15.1												
EL2	230.5	ALF	113.92												

LAUNCH DATE AUG 25 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 172.866

RL	151.22	LAL	-.00	LOL	331.39	VL	23.339	GAL	.76	AZL	92.03	HCA	70.78	SMA	109.63	ECC	.37954	INC	2.0253	V1	29.465		
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.253	GAP	-22.29	AZP	90.67	TAL	178.76	TAP	249.54	RCA	68.02	APO	151.24	V2	35.027		
RC	40.525	GL	-7.60	GP	-8.41	ZAL	83.69	ZAP	13.53	ETS	138.98	ZAE	176.65	ETE	325.20	ZAC	91.61	ETC	258.75	CLP	10.64		

PLANETOCENTRIC CONIC

C3	38.843	VHL	6.232	DLA	-29.10	RAL	244.56	RAD	6568.5	VEL	12.657	PTH	2.30	VHP	13.511	DPA	-25.14	RAP	227.93	ECC	1.6393		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.98	10 29 3	1244.81	15.73	348.41	124.14	114.81	10 49 48	644.8	18.94	341.15
97.02	12 25 15	869.09	15.74	320.86	124.15	114.80	12 39 44	269.1	18.96	313.60
100.00	11 50 51	979.56	10.43	326.30	121.43	118.17	12 7 10	379.6	14.12	319.45
100.00	13 46 8	609.57	21.19	304.12	126.61	111.59	13 56 18	9.6	23.93	296.40
110.00	11 37 18	1022.17	2.16	324.50	116.42	124.12	11 54 21	422.2	6.63	318.25
110.00	16 16 10	5427.76	30.31	249.88	130.11	106.62	17 46 38	4827.8	32.28	241.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1718	TRA	-.8101	TC3	.0384	BAU	.0230	SGT	868.2	SGR	451.4	SG3	62.6	ST	300.6
RDE	-.4901	RRA	.0029	RC3	-.0221	FAU	.01977	RRT	-.1916	RRF	.2092	RTF	-.6913	CRT	-.5272
FDE	-.1251	FRA	.4350	FC3	-.4406	BSP	2214	SGB	978.5	R23	-.0314	R13	.6949	LSA	517.7
BDE	.5193	BRA	.8101	BC3	.0444	FSP	-139	SG1	874.0	SG2	440.1	THA	172.36	EL1	487.5

SR	450.6	SS	209.9												
CRS	-.6411	CST	.9859												
MSA	263.0	SSA	15.4												
EL2	236.1	ALF	115.86												

LAUNCH DATE AUG 25 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 179.509

RL	151.22	LAL	-.00	LOL	331.39	VL	23.695	GAL	.58	AZL	91.82	HCA	73.98	SMA	111.16	ECC	.36042	INC	1.8233	V1	29.465		
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.502	GAP	-21.07	AZP	90.50	TAL	178.97	TAP	252.95	RCA	71.10	APO	151.23	V2	35.040		
RC	40.252	GL	-7.39	GP	-8.83	ZAL	83.98	ZAP	12.54	ETS	132.51	ZAE	173.91	ETE	332.64	ZAC	91.40	ETC	258.98	CLP	8.94		

PLANETOCENTRIC CONIC

C3	34.363	VHL	5.862	DLA	-28.84	RAL	244.27	RAD	6568.4	VEL	12.479	PTH	2.26	VHP	12.833	DPA	-26.02	RAP	229.34	ECC	1.5655		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.29	10 38 25	1180.01	16.46	343.98	121.80	114.02	10 58 5	580.0	19.57	336.64
95.71	12 13 36	871.97	16.48	321.41	121.80	114.01	12 28 8	272.0	19.58	314.08
100.00	11 40 51	977.41	10.50	326.18	118.80	118.15	11 57 8	377.4	14.18	319.32
100.00	13 53 52	5837.83	22.64	278.17	124.45	110.06	15 31 10	5237.8	25.16	270.29
110.00	11 32 42	1003.05	2.89	323.50	114.18	124.08	11 49 25	403.1	7.35	317.24
110.00	16 18 30	5384.96	31.10	246.80	127.44	104.95	17 48 15	4785.0	32.84	238.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.1736	TRA	-.7925	TC3	.0727	BAU	.0369	SGT	904.4	SGR	455.5	SG3	69.0	ST	314.9
RDE	-.4641	RRA	.0083	RC3	-.0344	FAU	.02074	RRT	-.2150	RRF	.2338	RTF	-.7104	CRT	-.5440
FDE	-.1258	FRA	.4462	FC3	-.5225	BSP	2385	SGB	1012.6	R23	-.0340	R13	.7145	LSA	528.5
BDE	.4955	BRA	.7925	BC3	.0804	FSP	-156	SG1	911.4	SG2	441.5	THA	171.91	EL1	496.7

SR	453.6	SS	215.5												
CRS	-.6377	CST	.9891												
MSA	267.9	SSA	15.8												
EL2	241.3	ALF	117.78												

LAUNCH DATE AUG 25 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 186.182

RL	151.22	LAL	-.00	LOL	331.39	VL	24.022	GAL	.39	AZL	91.63	HCA	77.18	SMA	112.64	ECC	.34253	INC	1.6277	V1	29.465
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.735	GAP	-19.90	AZP	90.36	TAL	179.25	TAP	256.43	RCA	74.06	APO	151.22	V2	35.053
RC	40.156	GL	-7.10	GP	-9.31	ZAL	84.40	ZAP	11.75	ETS	124.85	ZAE	171.09	ETE	335.10	ZAC	91.13	ETC	259.21	CLP	7.21

PLANETOCENTRIC CONIC

C3	30.458	VHL	5.519	DLA	-28.48	RAL	243.86	RAD	6568.2	VEL	12.322	PTH	2.22	VHP	12.185	DPA	-26.92	RAP	230.73	ECC	1.5013

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.78	10 57 17	1083.40	17.09	337.18	119.32	113.14	11 15 20	483.4	20.08	329.76
93.22	11 51 28	907.84	17.11	324.33	119.32	113.13	12 6 36	307.8	20.09	316.92
100.00	11 28 48	981.04	10.38	326.38	116.00	118.19	11 45 9	381.0	14.07	319.54
100.00	14 2 37	5773.46	24.07	273.94	122.13	108.27	15 38 51	5173.5	26.35	265.87
110.00	11 26 29	988.37	3.45	322.73	111.79	124.03	11 42 57	388.4	7.90	316.46
110.00	16 21 26	5338.90	31.86	243.42	124.61	103.09	17 50 25	4738.9	33.33	234.50

DIFFERENTIAL CORRECTIONS

TDE	.1754	TRA	-.7751	TC3	.1136	BAU	.0506
RDE	-.4392	RRA	.0134	RC3	-.0502	FAU	.02182
FDE	-.1264	FRA	.4585	FC3	-.6203	BSP	2535
BDE	.4729	BRA	.7752	BC3	.1242	FSP	-177

MID-COURSE EXECUTION ACCURACY

SGT	941.9	SGR	459.6	SG3	76.3		
RRT	-.2413	RRF	.2622	RTF	-.7283		
SGB	1048.0	R23	-.0378	R13	.7327		
SG1	950.2	SG2	442.1	THA	171.41		

ORBIT DETERMINATION ACCURACY

ST	329.6	SR	456.0	SS	220.9
CRT	-.5612	CRS	-.6338	CST	.9918
LSA	539.6	MSA	272.0	SSA	16.3
EL1	506.1	EL2	245.8	ALF	119.75

LAUNCH DATE AUG 25 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 192.881

RL	151.22	LAL	-.00	LOL	331.39	VL	24.324	GAL	.20	AZL	91.44	HCA	80.39	SMA	114.05	ECC	.32585	INC	1.4368	V1	29.465
RP	108.07	LAP	-1.42	LOP	51.77	VP	35.951	GAP	-18.79	AZP	90.24	TAL	179.59	TAP	259.98	RCA	76.89	APO	151.22	V2	35.066
RC	40.238	GL	-6.73	GP	-9.83	ZAL	84.94	ZAP	11.23	ETS	116.07	ZAE	168.26	ETE	336.05	ZAC	90.80	ETC	259.44	CLP	5.47

PLANETOCENTRIC CONIC

C3	27.058	VHL	5.202	DLA	-28.02	RAL	243.33	RAD	6568.1	VEL	12.183	PTH	2.19	VHP	11.566	DPA	-27.86	RAP	232.11	ECC	1.4453

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 46 31	1082.02	14.64	335.95	115.39	114.51	11 4 33	482.0	17.82	328.72
90.00	11 57 57	850.07	20.63	321.58	117.95	109.84	12 12 7	250.1	23.15	313.81
100.00	11 15 3	989.77	10.10	326.88	113.08	118.28	11 31 32	389.8	13.80	320.05
100.00	14 12 6	5705.60	25.45	269.36	119.65	106.24	15 47 12	5105.6	27.43	261.12
110.00	11 18 38	978.47	3.83	322.21	109.27	123.99	11 34 57	378.5	8.27	315.93
110.00	16 25 0	5289.66	32.56	239.75	121.62	101.02	17 53 10	4689.7	33.74	230.72

DIFFERENTIAL CORRECTIONS

TDE	.1787	TRA	-.7574	TC3	.1648	BAU	.0649
RDE	-.4155	RRA	.0180	RC3	-.0705	FAU	.02305
FDE	-.1273	FRA	.4699	FC3	-.7374	BSP	2664
BDE	.4523	BRA	.7576	BC3	.1793	FSP	-198

MID-COURSE EXECUTION ACCURACY

SGT	980.4	SGR	464.1	SG3	84.3		
RRT	-.2724	RRF	.2952	RTF	-.7457		
SGB	1084.7	R23	-.0417	R13	.7506		
SG1	990.6	SG2	441.9	THA	170.81		

ORBIT DETERMINATION ACCURACY

ST	345.2	SR	457.7	SS	226.0
CRT	-.5824	CRS	-.6320	CST	.9940
LSA	551.6	MSA	274.3	SSA	16.7
EL1	516.6	EL2	248.6	ALF	121.92

LAUNCH DATE AUG 25 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 199.595

RL	151.22	LAL	-.00	LOL	331.39	VL	24.603	GAL	.00	AZL	91.25	HCA	83.60	SMA	115.40	ECC	.31033	INC	1.2493	V1	29.465
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.152	GAP	-17.72	AZP	90.14	TAL	180.00	TAP	263.59	RCA	79.59	APO	151.22	V2	35.079
RC	40.497	GL	-6.27	GP	-10.40	ZAL	85.61	ZAP	11.04	ETS	106.46	ZAE	165.46	ETE	336.32	ZAC	90.40	ETC	259.68	CLP	3.71

PLANETOCENTRIC CONIC

C3	24.102	VHL	4.909	DLA	-27.45	RAL	242.67	RAD	6568.0	VEL	12.061	PTH	2.16	VHP	10.974	DPA	-28.84	RAP	233.46	ECC	1.3967

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 18 9	1137.87	13.03	339.26	111.82	115.36	10 37 6	537.9	16.34	332.15
90.00	12 21 7	737.09	23.06	314.18	115.89	106.90	12 33 24	137.1	25.16	306.14
100.00	10 59 48	1003.25	9.66	327.64	110.08	118.42	11 16 31	403.3	13.39	320.83
100.00	14 22 8	5634.98	26.70	264.49	117.00	103.97	15 56 3	5035.0	28.36	256.08
110.00	11 9 13	973.67	4.01	321.96	106.64	123.98	11 25 27	373.7	8.45	315.68
110.00	16 29 13	5237.32	33.18	235.79	118.50	98.75	17 56 30	4637.3	34.03	226.66

DIFFERENTIAL CORRECTIONS

TDE	.1989	TRA	-.7426	TC3	.0998	BAU	.0411
RDE	-.3999	RRA	.0237	RC3	-.0795	FAU	.02178
FDE	-.1670	FRA	.4882	FC3	-.7822	BSP	481
BDE	.4466	BRA	.7430	BC3	.1276	FSP	-64

MID-COURSE EXECUTION ACCURACY

SGT	1008.6	SGR	474.2	SG3	88.1		
RRT	-.3060	RRF	.3532	RTF	-.7268		
SGB	1114.5	R23	-.0804	R13	.7353		
SG1	1021.5	SG2	445.8	THA	169.86		

ORBIT DETERMINATION ACCURACY

ST	373.8	SR	466.8	SS	260.7
CRT	-.6366	CRS	-.7229	CST	.9898
LSA	595.0	MSA	267.1	SSA	16.8
EL1	544.6	EL2	247.1	ALF	125.31

LAUNCH DATE AUG 25 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 206.337

RL	151.22	LAL	-.00	LOL	331.39	VL	24.858	GAL	-.19	AZL	91.06	HCA	86.81	SMA	116.69	ECC	.29594	INC	1.0641	V1	29.465
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.339	GAP	-16.69	AZP	90.06	TAL	180.46	TAP	267.27	RCA	82.15	APO	151.22	V2	35.092
RC	40.930	GL	-5.71	GP	-11.04	ZAL	86.40	ZAP	11.20	ETS	96.56	ZAE	162.73	ETE	336.19	ZAC	89.94	ETC	259.91	CLP	1.91

PLANETOCENTRIC CONIC

C3	21.535	VHL	4.641	DLA	-26.75	RAL	241.91	RAD	6567.9	VEL	11.955	PTH	2.13	VHP	10.408	DPA	-29.85	RAP	234.77	ECC	1.3544

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 53 57	1180.58	11.77	341.77	108.44	115.94	10 13 38	580.6	15.17	334.74
90.00	12 39 14	639.60	24.83	307.59	113.44	104.06	12 49 54	39.6	26.53	299.33
100.00	10 43 15	1021.35	9.08	328.66	107.03	118.60	11 0 16	421.4	12.83	321.88
100.00	14 32 37	5562.11	27.79	259.35	114.18	101.47	16 5 19	4962.1	29.09	250.79
110.00	10 58 16	974.20	3.99	321.99	103.92	123.98	11 14 30	374.2	8.43	315.71
110.00	16 34 5	5182.02	33.67	231.55	115.25	96.29	18 0 27	4582.0	34.17	222.35

DIFFERENTIAL CORRECTIONS

TDE	.1777	TRA	-.7214	TC3	.2941	BAU	.0923
RDE	-.3709	RRA	.0267	RC3	-.1279	FAU	.02590
FDE	-.1237	FRA	.4932	FC3	-1.0412	BSP	3010
BDE	.4112	BRA	.7219	BC3	.3207	FSP	-256

MID-COURSE EXECUTION ACCURACY

SGT	1057.1	SGR	474.5	SG3	103.0		
RRT	-.3383	RRF	.3708	RTF	-.7753		
SGB	1158.7	R23	-.0566	R13	.7818		
SG1	1071.8	SG2	440.4	THA	169.59		

ORBIT DETERMINATION ACCURACY

ST	371.1	SR	458.1	SS	231.0
CRT	-.6106	CRS	-.6144	CST	.9958
LSA	568.5	MSA	278.3	SSA	17.9
EL1	532.6	EL2	252.8	ALF	125.43

LAUNCH DATE AUG 25 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 213.087

RL	151.22	LAL	-.00	LOL	331.39	VL	25.093	GAL	-.39	AZL	90.88	HCA	90.02	SMA	117.90	ECC	.28263	INC	.8798	V1	29.465
RP	107.95	LAP	-.88	LOP	61.41	VP	36.513	GAP	-15.71	AZP	90.00	TAL	180.98	TAP	271.00	RCA	84.58	APO	151.23	V2	35.105
RC	41.530	GL	-5.03	GP	-11.75	ZAL	87.31	ZAP	11.75	ETS	87.02	ZAE	160.09	ETE	335.79	ZAC	89.39	ETC	260.15	CLP	.07

PLANETOCENTRIC CONIC

C3	19.311	VHL	4.394	DLA	-25.91	RAL	241.06	RAD	6567.8	VEL	11.861	PTH	2.10	VHP	9.868	DPA	-30.92	RAP	236.05	ECC	1.3178

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 30 52	1220.66	10.57	344.10	105.15	116.42	9 51 12	620.7	14.03	337.14
90.00	12 55 30	5835.49	26.20	279.10	110.73	101.13	14 32 46	5235.5	27.48	270.66
100.00	10 25 33	1044.07	8.33	329.94	103.96	118.81	10 42 57	444.1	12.12	323.19
100.00	14 43 30	5487.32	28.69	253.97	111.22	98.78	16 14 57	4887.3	29.60	245.29
110.00	10 45 53	980.26	3.76	322.31	101.16	124.00	11 2 13	380.3	8.20	316.03
110.00	16 39 39	5123.90	34.01	227.05	111.90	93.65	18 5 3	4523.9	34.14	217.81

DIFFERENTIAL CORRECTIONS

TDE	.1752	TRA	-.7031	TC3	.3697	BAU	.1047
RDE	-.3495	RRA	.0313	RC3	-.1668	FAU	.02751
FDE	-.1168	FRA	.5075	FC3	-1.2331	BSP	3132
BDE	.3909	BRA	.7038	BC3	.4056	FSP	-282

MID-COURSE EXECUTION ACCURACY

SGT	1093.8	SGR	480.9	SG3	113.9		
RRT	-.3764	RRF	.4127	RTF	-.7880		
SGB	1194.8	R23	-.0638	R13	.7954		
SG1	1111.5	SG2	438.4	THA	168.85		

ORBIT DETERMINATION ACCURACY

ST	381.8	SR	455.9	SS	230.3
CRT	-.6222	CRS	-.5891	CST	.9948
LSA	572.6	MSA	280.0	SSA	18.5
EL1	538.0	EL2	253.3	ALF	127.00

LAUNCH DATE AUG 25 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 219.844

RL	151.22	LAL	-.00	LOL	331.39	VL	25.308	GAL	-.57	AZL	90.70	HCA	93.24	SMA	119.05	ECC	.27036	INC	.6954	V1	29.465
RP	107.91	LAP	-.69	LOP	64.62	VP	36.673	GAP	-14.76	AZP	89.96	TAL	181.55	TAP	274.79	RCA	86.86	APO	151.24	V2	35.117
RC	42.291	GL	-4.22	GP	-12.54	ZAL	88.33	ZAP	12.67	ETS	78.36	ZAE	157.57	ETE	335.17	ZAC	88.75	ETC	260.38	CLP	-1.81

PLANETOCENTRIC CONIC

C3	17.389	VHL	4.170	DLA	-24.92	RAL	240.12	RAD	6567.7	VEL	11.780	PTH	2.08	VHP	9.353	DPA	-32.05	RAP	237.26	ECC	1.2862

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 8 1	1261.36	9.33	346.44	101.93	116.86	9 29 2	661.4	12.86	339.54
90.00	13 10 54	5745.72	27.23	272.73	107.84	98.10	14 46 39	5145.7	28.07	264.16
100.00	10 6 50	1071.45	7.43	331.47	100.92	119.04	10 24 41	471.5	11.25	324.77
100.00	14 54 45	5410.86	29.36	248.39	108.14	95.91	16 24 56	4810.9	29.86	239.62
110.00	10 32 10	991.97	3.32	322.92	98.38	124.04	10 48 42	392.0	7.76	316.65
110.00	16 45 54	5063.11	34.17	222.31	108.47	90.85	18 10 17	4463.1	33.91	213.07

DIFFERENTIAL CORRECTIONS

TDE	.1683	TRA	-.6891	TC3	.4544	BAU	.1168
RDE	-.3288	RRA	.0362	RC3	-.2148	FAU	.02931
FDE	-.1069	FRA	.5235	FC3	-1.4591	BSP	3210
BDE	.3694	BRA	.6901	BC3	.5026	FSP	-316

MID-COURSE EXECUTION ACCURACY

SGT	1134.5	SGR	489.1	SG3	126.1		
RRT	-.4138	RRF	.4591	RTF	-.7989		
SGB	1235.4	R23	-.0776	R13	.8076		
SG1	1155.5	SG2	437.2	THA	168.17		

ORBIT DETERMINATION ACCURACY

ST	389.4	SR	452.1	SS	227.9
CRT	-.6228	CRS	-.5527	CST	.9915
LSA	572.0	MSA	283.7	SSA	19.3
EL1	539.3	EL2	255.5	ALF	128.24

LAUNCH DATE AUG 25 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 226.607

RL	151.22	LAL	-.00	LOL	331.39	VL	25.506	GAL	-.76	AZL	90.51	HCA	96.45	SMA	120.13	ECC	.25909	INC	.5097	V1	29.465
RP	107.88	LAP	-.51	LOP	67.84	VP	36.821	GAP	-13.85	AZP	89.94	TAL	182.17	TAP	278.62	RCA	89.01	APO	151.25	V2	35.129
RC	43.202	GL	-3.28	GP	-13.42	ZAL	89.45	ZAP	13.92	ETS	70.88	ZAE	155.19	ETE	334.37	ZAC	88.01	ETC	260.60	CLP	-3.74

PLANETOCENTRIC CONIC

C3	15.733	VHL	3.966	DLA	-23.77	RAL	239.13	RAD	6567.6	VEL	11.710	PTH	2.06	VHP	8.864	DPA	-33.24	RAP	238.42	ECC	1.2589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 45 5	1304.24	8.00	348.89	98.82	117.25	9 6 50	704.2	11.59	342.05
90.00	13 25 52	5657.03	27.91	266.33	104.83	94.96	15 0 10	5057.0	28.31	257.69
100.00	9 47 15	1103.61	6.37	333.27	97.93	119.27	10 5 38	503.6	10.22	326.60
100.00	15 6 24	5332.89	29.76	242.63	104.97	92.91	16 35 17	4732.9	29.85	233.82
110.00	10 17 17	1009.43	2.65	323.83	95.64	124.09	10 34 6	409.4	7.11	317.58
110.00	16 52 52	4999.84	34.13	217.37	105.01	87.92	18 16 12	4399.8	33.46	208.19

DIFFERENTIAL CORRECTIONS

TDE	.1593	TRA	-.6746	TC3	.5443	BAU	.1281
RDE	-.3085	RRA	.0413	RC3	-.2727	FAU	.03127
FDE	-.0924	FRA	.5400	FC3	-1.7205	BSP	3279
BDE	.3472	BRA	.6758	BC3	.6088	FSP	-352

MID-COURSE EXECUTION ACCURACY

SGT	1171.7	SGR	499.7	SG3	139.5		
RRT	-.4532	RRF	.5085	RTF	-.8074		
SGB	1273.8	R23	-.0937	R13	.8177		
SG1	1196.9	SG2	436.0	THA	167.36		

ORBIT DETERMINATION ACCURACY

ST	393.9	SR	446.1	SS	223.1
CRT	-.6196	CRS	-.4980	CST	.9840
LSA	566.3	MSA	287.7	SSA	20.2
EL1	536.8	EL2	256.9	ALF	129.30

LAUNCH DATE AUG 25 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 233.369

RL	151.22	LAL	-.00	LOL	331.39	VL	25.686	GAL	-.93	AZL	90.32	HCA	99.67	SMA	121.14	ECC	.24876	INC	.3214	V1	29.465
RP	107.84	LAP	-.32	LOP	71.06	VP	36.957	GAP	-12.98	AZP	89.95	TAL	182.83	TAP	282.50	RCA	91.01	APO	151.28	V2	35.141
RC	44.254	GL	-2.18	GP	-14.40	ZAL	90.66	ZAP	15.48	ETS	64.60	ZAE	152.97	ETE	333.37	ZAC	87.16	ETC	260.81	CLP	-5.73

PLANETOCENTRIC CONIC

C3	14.312	VHL	3.783	DLA	-22.44	RAL	238.09	RAD	6567.6	VEL	11.649	PTH	2.04	VHP	8.398	DPA	-34.51	RAP	239.49	ECC	1.2355

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 57	1350.25	6.55	351.50	95.82	117.61	8 44 27	750.2	10.20	344.72
90.00	13 40 43	5568.64	28.27	259.89	101.74	91.75	15 13 31	4968.6	28.21	251.22
100.00	9 26 53	1140.66	5.13	335.32	95.04	119.49	9 45 53	540.7	9.02	328.69
100.00	15 18 28	5253.46	29.89	236.73	101.76	89.81	16 46 1	4653.5	29.54	227.94
110.00	10 1 19	1032.71	1.76	325.05	92.95	124.14	10 18 31	432.7	6.23	318.81
110.00	17 0 31	4934.18	33.85	212.26	101.55	84.91	18 22 45	4334.2	32.77	203.19

DIFFERENTIAL CORRECTIONS

TDE	.1647	TRA	-.6436	TC3	.6895	BAU	.1476
RDE	-.2898	RRA	.0457	RC3	-.3464	FAU	.03378
FDE	-.0800	FRA	.5517	FC3	-2.0436	BSP	3752
BDE	.3333	BRA	.6452	BC3	.7716	FSP	-409

MID-COURSE EXECUTION ACCURACY

SGT	1202.8	SGR	516.6	SG3	155.1		
RRT	-.5233	RRF	.5673	RTF	-.8292		
SGB	1309.0	R23	-.0824	R13	.8398		
SG1	1237.0	SG2	428.0	THA	165.57		

ORBIT DETERMINATION ACCURACY

ST	403.2	SR	439.5	SS	218.2
CRT	-.6586	CRS	-.4512	CST	.9632
LSA	569.5	MSA	280.3	SSA	20.9
EL1	543.7	EL2	245.3	ALF	131.27

LAUNCH DATE AUG 25 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 240.130

RL	151.22	LAL	-.00	LOL	331.39	VL	25.850	GAL	-1.10	AZL	90.13	HCA	102.89	SMA	122.09	ECC	.23934	INC	.1292	V1	29.465
RP	107.81	LAP	-.13	LOP	74.28	VP	37.082	GAP	-12.14	AZP	89.97	TAL	183.51	TAP	286.41	RCA	92.87	APO	151.31	V2	35.152
RC	45.436	GL	-.93	GP	-15.50	ZAL	91.94	ZAP	17.30	ETS	59.44	ZAE	150.90	ETE	332.19	ZAC	86.17	ETC	261.01	CLP	-7.79

PLANETOCENTRIC CONIC

C3	13.099	VHL	3.619	DLA	-20.94	RAL	237.03	RAD	6567.5	VEL	11.597	PTH	2.03	VHP	7.958	DPA	-35.86	RAP	240.46	ECC	1.2156

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 37	1399.93	4.98	354.30	92.98	117.91	8 21 57	799.9	8.68	347.57
90.00	13 55 38	5480.26	28.28	253.42	98.64	88.51	15 26 58	4880.3	27.78	244.80
100.00	9 5 56	1182.67	3.72	337.64	92.28	119.68	9 25 39	582.7	7.64	331.05
100.00	15 31 0	5172.75	29.72	230.73	98.58	86.66	16 57 12	4572.8	28.94	222.02
110.00	9 44 30	1061.81	.65	326.57	90.37	124.18	10 2 12	461.8	5.13	320.35
110.00	17 8 55	4866.37	33.32	207.04	98.15	81.87	18 30 2	4266.4	31.83	198.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1552	TRA	-.6257	TC3	.8098	BAU	.1607	SGT	1236.4	SGR	536.7	SG3	171.8	ST	402.4	SR	428.4	SS	211.6
RDE	-.2700	RRA	.0516	RC3	-.4317	FAU	.03629	RRT	-.5741	RRF	.6231	RTF	-.8395	CRT	-.6587	CRS	-.3505	CST	.9292
FDE	-.0563	FRA	.5701	FC3	-2.3986	BSP	3905	SGB	1347.9	R23	-.0933	R13	.8519	LSA	556.3	MSA	283.2	SSA	21.9
BDE	.3114	BRA	.6278	BC3	.9177	FSP	-458	SG1	1279.2	SG2	424.7	THA	164.23	EL1	535.5	EL2	242.2	ALF	132.29

LAUNCH DATE AUG 25 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 246.885

RL	151.22	LAL	-.00	LOL	331.39	VL	26.000	GAL	-1.26	AZL	89.93	HCA	106.12	SMA	122.96	ECC	.23077	INC	.0656	V1	29.465
RP	107.77	LAP	.06	LOP	77.50	VP	37.197	GAP	-11.33	AZP	90.02	TAL	184.22	TAP	290.34	RCA	94.59	APO	151.34	V2	35.163
RC	46.738	GL	.50	GP	-16.73	ZAL	93.27	ZAP	19.38	ETS	55.21	ZAE	148.98	ETE	330.80	ZAC	85.05	ETC	261.19	CLP	-9.93

PLANETOCENTRIC CONIC

C3	12.071	VHL	3.474	DLA	-19.25	RAL	235.99	RAD	6567.5	VEL	11.552	PTH	2.02	VHP	7.542	DPA	-37.32	RAP	241.33	ECC	1.1987

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 35 7	1453.73	3.26	357.32	90.33	118.14	7 59 21	853.7	7.00	350.64
90.00	14 10 47	5391.55	27.95	246.96	95.60	85.29	15 40 38	4791.6	27.01	238.42
100.00	8 44 32	1229.75	2.12	340.23	89.70	119.82	9 5 2	629.7	6.08	333.67
100.00	15 44 3	5090.77	29.24	224.69	95.46	83.51	17 8 54	4490.8	28.04	216.09
110.00	9 26 59	1096.74	-.69	328.39	87.95	124.18	9 45 16	496.7	3.80	322.18
110.00	17 18 6	4796.54	32.52	201.75	94.87	78.83	18 38 2	4196.5	30.64	193.04

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1426	TRA	-.6076	TC3	.9343	BAU	.1736	SGT	1266.3	SGR	563.0	SG3	190.3	ST	396.3	SR	413.0	SS	206.6
RDE	-.2496	RRA	.0582	RC3	-.5330	FAU	.03906	RRT	-.6243	RRF	.6790	RTF	-.8484	CRT	-.6522	CRS	-.2023	CST	.8669
FDE	-.0242	FRA	.5897	FC3	-2.8017	BSP	4057	SGB	1385.8	R23	-.1059	R13	.8632	LSA	535.3	MSA	288.5	SSA	23.0
BDE	.2875	BRA	.6104	BC3	1.0756	FSP	-514	SG1	1320.0	SG2	421.9	THA	162.66	EL1	520.3	EL2	238.4	ALF	133.20

LAUNCH DATE AUG 25 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 253.633

RL	151.22	LAL	-.00	LOL	331.39	VL	26.136	GAL	-1.42	AZL	89.73	HCA	109.34	SMA	123.78	ECC	.22300	INC	.2706	V1	29.465
RP	107.74	LAP	.26	LOP	80.73	VP	37.302	GAP	-10.55	AZP	90.09	TAL	184.94	TAP	294.29	RCA	96.17	APO	151.38	V2	35.174
RC	48.150	GL	2.12	GP	-18.11	ZAL	94.62	ZAP	21.69	ETS	51.75	ZAE	147.21	ETE	329.20	ZAC	83.77	ETC	261.35	CLP	-12.15

PLANETOCENTRIC CONIC

C3	11.208	VHL	3.348	DLA	-17.38	RAL	234.97	RAD	6567.4	VEL	11.515	PTH	2.01	VHP	7.151	DPA	-38.90	RAP	242.05	ECC	1.1845

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 11 31	1511.99	1.38	.57	87.91	118.29	7 36 43	912.0	5.15	353.92
90.00	14 26 18	5302.32	27.29	240.51	92.68	82.12	15 54 41	4702.3	25.92	232.12
100.00	8 22 48	1281.99	.35	343.09	87.34	119.89	8 44 10	682.0	4.33	336.56
100.00	15 57 43	5007.55	28.45	218.63	92.48	80.42	17 21 10	4407.6	26.83	210.20
110.00	9 8 55	1137.48	-2.24	330.51	85.72	124.12	9 27 53	537.5	2.25	324.31
110.00	17 28 4	4724.82	31.45	196.43	91.75	75.85	18 46 49	4124.8	29.18	187.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1276	TRA	-.5910	TC3	1.0581	BAU	.1862	SGT	1293.4	SGR	597.3	SG3	210.6	ST	386.3	SR	392.4	SS	208.5
RDE	-.2282	RRA	.0661	RC3	-.6514	FAU	.04206	RRT	-.6729	RRF	.7331	RTF	-.8563	CRT	-.6391	CRS	-.0070	CST	.7648
FDE	.0174	FRA	.6130	FC3	-3.2493	BSP	4207	SGB	1424.6	R23	-.1196	R13	.8740	LSA	507.7	MSA	297.3	SSA	24.2
BDE	.2615	BRA	.5947	BC3	1.2426	FSP	-576	SG1	1361.4	SG2	419.8	THA	160.84	EL1	498.5	EL2	233.9	ALF	134.30

LAUNCH DATE AUG 25 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 260.370

RL	151.22	LAL	-.00	LOL	331.39	VL	26.259	GAL	-1.56	AZL	89.52	HCA	112.57	SMA	124.52	ECC	.21599	INC	.4829	V1	29.465
RP	107.71	LAP	.45	LOP	83.96	VP	37.397	GAP	-9.79	AZP	90.19	TAL	185.67	TAP	298.24	RCA	97.63	APO	151.42	V2	35.184
RC	49.661	GL	3.92	GP	-19.65	ZAL	95.98	ZAP	24.24	ETS	48.90	ZAE	145.55	ETE	327.35	ZAC	82.30	ETC	261.48	CLP	-14.48

PLANETOCENTRIC CONIC

C3	10.493	VHL	3.239	DLA	-15.31	RAL	234.02	RAD	6567.4	VEL	11.484	PTH	2.00	VHP	6.786	DPA	-40.61	RAP	242.62	ECC	1.1727

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 47 52	1574.97	-.65	4.09	85.76	118.31	7 14 7	975.0	3.14	357.46
90.00	14 42 21	5212.38	26.29	234.12	89.94	79.07	16 9 14	4612.4	24.51	225.90
100.00	8 0 51	1339.48	-1.60	346.25	85.23	119.85	8 23 10	739.5	2.39	339.73
100.00	16 12 3	4923.11	27.34	212.60	89.69	77.43	17 34 7	4323.1	25.34	204.37
110.00	8 50 28	1184.02	-4.02	332.95	83.72	123.97	9 10 12	584.0	.47	326.74
110.00	17 38 55	4651.33	30.10	191.13	88.86	72.98	18 56 26	4051.3	27.48	182.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1094	TRA	-.5744	TC3	1.1782	BAU	.1989	SGT	1315.2	SGR	641.8	SG3	232.8	ST	371.3	SR	365.1	SS	223.1
RDE	-.2049	RRA	.0754	RC3	-.7892	FAU	.04534	RRT	-.7180	RRF	.7837	RTF	-.8633	CRT	-.6167	CRS	.2159	CST	.6255
FDE	.0713	FRA	.6391	FC3	-3.7408	BSP	4359	SGB	1463.4	R23	-.1338	R13	.8848	LSA	472.3	MSA	311.8	SSA	25.3
BDE	.2323	BRA	.5793	BC3	1.4181	FSP	-644	SG1	1402.2	SG2	419.0	THA	158.70	EL1	468.2	EL2	227.9	ALF	135.78

LAUNCH DATE AUG 25 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 267.094

RL 151.22 LAL -.00 LOL 331.39 VL 26.370 GAL -1.69 AZL 89.29 HCA 115.80 SMA 125.21 ECC .20968 INC .7055 V1 29.465
RP 107.68 LAP .64 LOP 87.19 VP 37.484 GAP -9.07 AZP 90.31 TAL 186.39 TAP 302.19 RCA 98.96 APO 151.47 V2 35.193
RC 51.263 GL 5.92 GP -21.38 ZAL 97.32 ZAP 27.03 ETS 46.53 ZAE 144.00 ETE 325.23 ZAC 80.64 ETC 261.58 CLP -16.93

PLANETOCENTRIC CONIC

C3 9.912 VHL 3.148 DLA -13.04 RAL 233.15 RAD 6567.4 VEL 11.459 PTH 1.99 VHP 6.448 DPA -42.47 RAP 242.98 ECC 1.1631

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 24 12	1642.94	-2.84	7.88	83.90	118.19	6 51 35	1042.9	.95	1.25
90.00	14 59 5	5121.58	24.96	227.81	87.44	76.17	16 24 27	4521.6	22.81	219.79
100.00	7 38 46	1402.35	-3.72	349.71	83.42	119.68	8 2 9	802.4	.26	343.18
100.00	16 27 12	4837.40	25.93	206.62	87.15	74.58	17 47 50	4237.4	23.56	198.62
110.00	8 31 46	1236.36	-6.00	335.70	82.00	123.72	8 52 23	636.4	-1.53	329.47
110.00	17 50 42	4576.16	28.49	185.87	86.24	70.25	19 6 58	3976.2	25.53	177.94

DIFFERENTIAL CORRECTIONS
TDE .0885 TRA -.5588 TC3 1.2860 BAU .2116
RDE -.1789 RRA .0865 RC3 -.9467 FAU .04881
FDE .1391 FRA .6686 FC3-4.2635 BSP 4498
BDE .1996 BRA .5655 BC3 1.5969 FSP -718

MID-COURSE EXECUTION ACCURACY
SGT 1330.9 SGR 698.2 SG3 256.8
RRT -.7575 RRF .8289 RTF -.8690
SG8 1502.9 R23 -.1484 R13 .8952
SG1 1442.9 SG2 420.4 THA 156.18

ORBIT DETERMINATION ACCURACY
ST 353.0 SR 329.6 SS 255.9
CRT -.5850 CRS .4149 CST .4841
LSA 431.3 MSA 334.6 SSA 26.3
EL1 430.3 EL2 219.3 ALF 138.35

LAUNCH DATE AUG 25 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 273.804

RL 151.22 LAL -.00 LOL 331.39 VL 26.470 GAL -1.81 AZL 89.06 HCA 119.03 SMA 125.84 ECC .20404 INC .9404 V1 29.465
RP 107.65 LAP .82 LOP 90.42 VP 37.563 GAP -8.37 AZP 90.46 TAL 187.09 TAP 306.12 RCA 100.16 APO 151.51 V2 35.202
RC 52.948 GL 8.12 GP -23.33 ZAL 98.59 ZAP 30.05 ETS 44.52 ZAE 142.51 ETE 322.82 ZAC 78.75 ETC 261.64 CLP -19.50

PLANETOCENTRIC CONIC

C3 9.455 VHL 3.075 DLA -10.59 RAL 232.39 RAD 6567.3 VEL 11.439 PTH 1.98 VHP 6.138 DPA -44.51 RAP 243.11 ECC 1.1556

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 0 35	1716.17	-5.19	11.99	82.39	117.88	6 29 11	1116.2	-1.42	5.33
90.00	15 16 40	5029.75	23.32	221.58	85.23	73.47	16 40 30	4429.8	20.83	213.79
100.00	7 16 39	1470.76	-6.02	353.49	81.94	119.34	7 41 10	870.8	-2.06	346.93
100.00	16 43 17	4750.39	24.22	200.72	84.92	71.93	18 2 27	4150.4	21.53	192.96
110.00	8 12 56	1294.54	-8.19	338.78	80.61	123.30	8 34 30	694.5	-3.75	332.51
110.00	18 3 30	4499.38	26.61	180.69	83.95	67.71	19 18 29	3899.4	23.35	173.05

DIFFERENTIAL CORRECTIONS
TDE .0637 TRA -.5462 TC3 1.3658 BAU .2234
RDE -.1485 RRA .1006 RC3-1.1221 FAU .05234
FDE .2252 FRA .7052 FC3-4.7923 BSP 4597
BDE .1616 BRA .5554 BC3 1.7677 FSP -794

MID-COURSE EXECUTION ACCURACY
SGT 1338.5 SGR 767.6 SG3 281.9
RRT -.7884 RRF .8674 RTF -.8722
SG8 1543.0 R23 -.1644 R13 .9051
SG1 1482.9 SG2 426.2 THA 153.29

ORBIT DETERMINATION ACCURACY
ST 333.5 SR 283.3 SS 311.4
CRT -.5414 CRS .5490 CST .3931
LSA 387.5 MSA 370.9 SSA 26.9
EL1 386.2 EL2 205.7 ALF 143.41

LAUNCH DATE AUG 25 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 280.497

RL 151.22 LAL -.00 LOL 331.39 VL 26.559 GAL -1.92 AZL 88.81 HCA 122.26 SMA 126.41 ECC .19901 INC 1.1907 V1 29.465
RP 107.63 LAP 1.01 LOP 93.65 VP 37.634 GAP -7.69 AZP 90.64 TAL 187.76 TAP 310.02 RCA 101.25 APO 151.56 V2 35.210
RC 54.707 GL 10.53 GP -25.50 ZAL 99.78 ZAP 33.33 ETS 42.76 ZAE 141.04 ETE 320.08 ZAC 76.62 ETC 261.64 CLP -22.22

PLANETOCENTRIC CONIC

C3 9.116 VHL 3.019 DLA -7.94 RAL 231.77 RAD 6567.3 VEL 11.424 PTH 1.98 VHP 5.858 DPA -46.73 RAP 242.95 ECC 1.1500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 36 59	1795.03	-7.68	16.44	81.26	117.34	6 6 54	1195.0	-3.95	9.74
90.00	15 35 16	4936.66	21.38	215.44	83.37	70.98	16 57 33	4336.7	18.59	207.88
100.00	6 54 29	1544.97	-8.47	357.63	80.83	118.77	7 20 14	945.0	-4.57	351.02
100.00	17 0 27	4661.94	22.23	194.91	83.04	69.49	18 18 9	4061.9	19.24	187.39
110.00	7 53 59	1358.67	-10.57	342.23	79.57	122.70	8 16 38	758.7	-6.18	335.88
110.00	18 17 26	4421.01	24.48	175.59	82.02	65.37	19 31 7	3821.0	20.95	168.23

DIFFERENTIAL CORRECTIONS
TDE .0423 TRA -.5291 TC3 1.4431 BAU .2385
RDE -.1139 RRA .1167 RC3-1.3214 FAU .05619
FDE .3247 FRA .7411 FC3-5.3367 BSP 4828
BDE .1215 BRA .5418 BC3 1.9567 FSP -885

MID-COURSE EXECUTION ACCURACY
SGT 1339.2 SGR 856.4 SG3 308.9
RRT -.8190 RRF .9001 RTF -.8769
SG8 1589.6 R23 -.1708 R13 .9167
SG1 1530.3 SG2 430.0 THA 149.72

ORBIT DETERMINATION ACCURACY
ST 315.6 SR 227.5 SS 382.3
CRT -.5341 CRS .5951 CST .3468
LSA 421.5 MSA 345.2 SSA 26.6
EL1 347.7 EL2 174.6 ALF 150.97

LAUNCH DATE AUG 25 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 287.173

RL 151.22 LAL -.00 LOL 331.39 VL 26.639 GAL -2.02 AZL 88.54 HCA 125.49 SMA 126.92 ECC .19454 INC 1.4597 V1 29.465
RP 107.60 LAP 1.19 LOP 96.89 VP 37.698 GAP -7.04 AZP 90.85 TAL 188.40 TAP 313.89 RCA 102.23 APO 151.61 V2 35.218
RC 56.533 GL 13.15 GP -27.93 ZAL 100.85 ZAP 36.87 ETS 41.17 ZAE 139.54 ETE 317.02 ZAC 74.23 ETC 261.59 CLP -25.11

PLANETOCENTRIC CONIC

C3 8.889 VHL 2.981 DLA -5.11 RAL 231.30 RAD 6567.3 VEL 11.414 PTH 1.98 VHP 5.610 DPA -49.16 RAP 242.44 ECC 1.1463

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 13 21	1879.94	-10.30	21.31	80.56	116.52	5 44 41	1279.9	-6.65	14.52
90.00	15 55 8	4842.06	19.16	209.39	81.90	68.75	17 15 50	4242.1	16.11	202.05
100.00	6 32 17	1625.31	-11.07	2.18	80.15	117.94	6 59 22	1025.3	-7.25	355.47
100.00	17 18 53	4571.92	19.97	189.18	81.56	67.29	18 35 5	3971.9	16.72	181.89
110.00	7 35 1	1428.94	-13.12	346.07	78.94	121.85	7 58 49	828.9	-8.82	339.61
110.00	18 32 39	4341.06	22.12	170.59	80.49	63.25	19 45 0	3741.1	18.36	163.48

DIFFERENTIAL CORRECTIONS
TDE .0169 TRA -.5154 TC3 1.4747 BAU .2530
RDE -.0714 RRA .1371 RC3-1.5352 FAU .05988
FDE .4475 FRA .7845 FC3-5.8324 BSP 4996
BDE .0733 BRA .5333 BC3 2.1288 FSP -972

MID-COURSE EXECUTION ACCURACY
SGT 1327.9 SGR 962.7 SG3 336.0
RRT -.8389 RRF .9257 RTF -.8783
SG8 1640.1 R23 -.1767 R13 .9277
SG1 1579.9 SG2 440.3 THA 145.65

ORBIT DETERMINATION ACCURACY
ST 301.2 SR 160.8 SS 474.1
CRT -.5954 CRS .5027 CST .3744
LSA 496.8 MSA 306.4 SSA 25.5
EL1 318.9 EL2 122.1 ALF 159.18

LAUNCH DATE AUG 25 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 293.828

RL	151.22	LAL	-.00	LOL	331.39	VL	26.709	GAL	-2.10	AZL	88.25	HCA	128.73	SMA	127.38	ECC	.19059	INC	1.7514
RP	107.58	LAP	1.37	LOP	100.12	VP	37.754	GAP	-6.41	AZP	91.10	TAL	188.99	TAP	317.72	RCA	103.10	APO	151.65
RC	58.419	GL	15.98	GP	-30.64	ZAL	101.77	ZAP	40.66	ETS	39.66	ZAE	137.94	ETE	313.61	ZAC	71.55	ETC	261.46

V1	29.465	V2	35.225	CLP	-28.17														

PLANETOCENTRIC CONIC

C3	8.777	VHL	2.963	DLA	-2.10	RAL	231.00	RAD	6567.3	VEL	11.409	PTH	1.97	VHP	5.397	DPA	-51.80	RAP	241.49
ECC	1.1444																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 49 35	1971.52	-13.03	26.65	80.32	115.37	5 22 27	1371.5	-9.50	19.74
90.00	16 16 31	4745.61	16.68	203.41	80.87	66.78	17 35 37	4145.6	13.39	196.27
100.00	6 9 57	1712.28	-13.79	7.20	79.94	116.78	6 38 30	1112.3	-10.09	.36
100.00	17 38 50	4480.09	17.46	183.52	80.51	65.34	18 53 30	3880.1	13.99	176.44
110.00	7 15 58	1505.66	-15.84	350.36	78.78	120.70	7 41 3	905.7	-11.65	343.75
110.00	18 49 19	4259.47	19.54	165.67	79.41	61.38	20 0 19	3659.5	15.57	158.80

DIFFERENTIAL CORRECTIONS

TDE	-.0083	TRA	-.5024	TC3	1.4650	BAU	.2686
RDE	-.0192	RRA	.1624	RC3	-1.7594	FAU	.06331
FDE	.5917	FRA	.8331	FC3	-6.2446	BSP	5185
BDE	.0210	BRA	.5280	BC3	2.2895	FSP	-1058

MID-COURSE EXECUTION ACCURACY

SGT	1303.6	SGR	1089.5	SG3	362.5		
RRT	-.8520	RRF	.9455	RTF	-.8773		
SGB	1698.9	R23	-.1765	R13	.9389		
SG1	1637.0	SG2	454.2	THA	140.98		

ORBIT DETERMINATION ACCURACY

ST	293.3	SR	106.1	SS	581.7		
CRT	-.8910	CRS	-.0490	CST	.4438		
LSA	599.7	MSA	274.7	SSA	23.5		
EL1	308.5	EL2	45.8	ALF	161.72		

LAUNCH DATE AUG 25 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 300.464

RL	151.22	LAL	-.00	LOL	331.39	VL	26.772	GAL	-2.18	AZL	87.93	HCA	131.96	SMA	127.79	ECC	.18713	INC	2.0708
RP	107.56	LAP	1.54	LOP	103.36	VP	37.804	GAP	-5.80	AZP	91.38	TAL	189.54	TAP	321.50	RCA	103.87	APO	151.70
RC	60.358	GL	19.04	GP	-33.63	ZAL	102.50	ZAP	44.72	ETS	38.14	ZAE	136.19	ETE	309.88	ZAC	68.57	ETC	261.24

V1	29.465	V2	35.232	CLP	-31.42														

PLANETOCENTRIC CONIC

C3	8.784	VHL	2.964	DLA	1.09	RAL	230.89	RAD	6567.3	VEL	11.409	PTH	1.97	VHP	5.223	DPA	-54.65	RAP	239.99
ECC	1.1446																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 25 30	2070.62	-15.83	32.57	80.62	113.79	5 0 1	1470.6	-12.49	25.49
90.00	16 39 45	4646.84	13.93	197.45	80.33	65.10	17 57 12	4046.8	10.46	190.50
100.00	5 47 21	1806.60	-16.61	12.78	80.25	115.21	6 17 28	1206.6	-13.08	5.77
100.00	18 0 35	4386.09	14.70	177.90	79.95	63.68	19 13 41	3786.1	11.05	171.01
110.00	6 56 46	1589.33	-18.68	355.17	79.14	119.16	7 23 15	989.3	-14.65	348.38
110.00	19 7 40	4176.12	16.75	160.81	78.81	59.76	20 17 16	3576.1	12.61	154.16

DIFFERENTIAL CORRECTIONS

TDE	-.0320	TRA	-.4901	TC3	1.4071	BAU	.2858
RDE	.0455	RRA	.1940	RC3	-1.9857	FAU	.06622
FDE	.7570	FRA	.8862	FC3	-6.5260	BSP	5390
BDE	.0556	BRA	.5271	BC3	2.4337	FSP	-1137

MID-COURSE EXECUTION ACCURACY

SGT	1263.9	SGR	1238.5	SG3	386.8		
RRT	-.8578	RRF	.9603	RTF	-.8732		
SGB	1769.6	R23	-.1691	R13	.9502		
SG1	1705.5	SG2	471.8	THA	135.68		

ORBIT DETERMINATION ACCURACY

ST	292.0	SR	147.1	SS	701.9		
CRT	-.8921	CRS	-.8329	CST	.5276		
LSA	732.3	MSA	250.7	SSA	20.9		
EL1	321.3	EL2	60.4	ALF	154.85		

LAUNCH DATE AUG 25 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 307.077

RL	151.22	LAL	-.00	LOL	331.39	VL	26.826	GAL	-2.24	AZL	87.58	HCA	135.19	SMA	128.15	ECC	.18410	INC	2.4245
RP	107.54	LAP	1.71	LOP	106.60	VP	37.848	GAP	-5.21	AZP	91.72	TAL	190.02	TAP	325.21	RCA	104.55	APO	151.74
RC	62.346	GL	22.31	GP	-36.91	ZAL	103.02	ZAP	49.02	ETS	36.51	ZAE	134.21	ETE	305.84	ZAC	65.28	ETC	260.91

V1	29.465	V2	35.238	CLP	-34.89														

PLANETOCENTRIC CONIC

C3	8.925	VHL	2.987	DLA	4.46	RAL	230.99	RAD	6567.3	VEL	11.416	PTH	1.98	VHP	5.093	DPA	-57.70	RAP	237.79
ECC	1.1469																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 0 48	2178.43	-18.68	39.21	81.51	111.68	4 37 6	1578.4	-15.57	31.91
90.00	17 5 16	4545.10	10.94	191.48	80.33	63.72	18 21 1	3945.1	7.32	184.67
100.00	5 24 14	1909.30	-19.48	19.06	81.16	113.13	5 56 3	1309.3	-16.18	11.82
100.00	18 24 31	4289.46	11.71	172.28	79.93	62.30	19 36 0	3689.5	7.91	165.55
110.00	6 37 17	1680.68	-21.62	.63	80.09	117.15	7 5 17	1080.7	-17.81	353.58
110.00	19 27 57	4090.85	13.76	156.01	78.73	58.40	20 36 8	3490.8	9.48	149.52

DIFFERENTIAL CORRECTIONS

TDE	-.0509	TRA	-.4771	TC3	1.2996	BAU	.3049
RDE	.1257	RRA	.2334	RC3	-2.2006	FAU	.06828
FDE	.9383	FRA	.9422	FC3	-6.6234	BSP	5642
BDE	.1356	BRA	.5311	BC3	2.5557	FSP	-1205

MID-COURSE EXECUTION ACCURACY

SGT	1206.1	SGR	1410.1	SG3	406.9		
RRT	-.8564	RRF	.9712	RTF	-.8647		
SGB	1855.6	R23	-.1543	R13	.9610		
SG1	1789.5	SG2	490.7	THA	129.81		

ORBIT DETERMINATION ACCURACY

ST	293.1	SR	278.9	SS	828.9		
CRT	-.7530	CRS	-.9739	CST	.5947		
LSA	892.1	MSA	233.8	SSA	18.0		
EL1	378.8	EL2	142.0	ALF	136.88		

LAUNCH DATE AUG 25 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 313.668

RL	151.22	LAL	-.00	LOL	331.39	VL	26.873	GAL	-2.29	AZL	87.18	HCA	138.43	SMA	128.46	ECC	.18148	INC	2.8211
RP	107.53	LAP	1.87	LOP	109.85	VP	37.887	GAP	-4.64	AZP	92.11	TAL	190.44	TAP	328.86	RCA	105.15	APO	151.77
RC	64.375	GL	25.80	GP	-40.47	ZAL	103.31	ZAP	53.52	ETS	34.70	ZAE	131.94	ETE	301.55	ZAC	61.70	ETC	260.44

V1	29.465	V2	35.243	CLP	-38.59														

PLANETOCENTRIC CONIC

C3	9.221	VHL	3.037	DLA	8.00	RAL	231.32	RAD	6567.3	VEL	11.428	PTH	1.98	VHP	5.014	DPA	-60.91	RAP	234.67
ECC	1.1517																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 35 0	2296.68	-21.47	46.75	83.09	108.92	4 13 16	1696.7	-18.69	39.18
90.00	17 33 39	4439.45	7.69	185.42	80.95	62.66	18 47 39	3839.5	3.97	178.72
100.00	5 0 12	2021.87	-22.33	26.21	82.76	110.41	5 33 54	1421.9	-19.35	18.68
100.00	18 51 8	4189.49	8.49	166.61	80.52	61.23	20 0 58	3589.5	4.58	160.00
110.00	6 17 15	1780.73	-24.59	6.88	81.74	114.53	6 46 56	1180.7	-21.07	359.50
110.00	19 50 34	4003.40	10.60	151.22	79.25	57.31	20 57 18	3403.4	6.21	144.87

DIFFERENTIAL CORRECTIONS

TDE	-.0625	TRA	-.4623	TC3	1.1454	BAU	.3267
RDE	.2255	RRA	.2818	RC3	-2.3901	FAU	.06926
FDE	1.1301	FRA	.9968	FC3	-6.5026	BSP	5981
BDE	.2340	BRA	.5414	BC3	2.6504	FSP	-1260

MID-COURSE EXECUTION ACCURACY

SGT	1128.6	SGR	1605.1	SG3	421.1		
RRT	-.8462	RRF	.9792	RTF	-.8494		
SGB	1962.1	R23	-.1330	R13	.9709		
SG1	1894.9	SG2	509.4	THA	123.49		

ORBIT DETERMINATION ACCURACY

ST	290.2	SR	457.0	SS	957.5		
CRT	-.7065	CRS	-.9941	CST	.6310		
LSA	1077.1	MSA	222.1	SSA	15.3		
EL1	508.9	EL2	184.4	ALF	118.18		

LAUNCH DATE AUG 25 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 320.235

RL	151.22	LAL	-.00	LOL	331.39	VL	26.914	GAL	-2.33	AZL	86.73	HCA	141.66	SMA	128.73	ECC	.17922	INC	3.2716	VI	29.465
RP	107.51	LAP	2.03	LOP	113.09	VP	37.919	GAP	-4.09	AZP	92.57	TAL	190.79	TAP	332.45	RCA	105.66	APO	151.80	V2	35.247
RC	66.441	GL	29.51	GP	-44.31	ZAL	103.35	ZAP	58.17	ETS	32.60	ZAE	129.34	ETE	297.05	ZAC	57.83	ETC	259.79	CLP	-42.53

PLANETOCENTRIC CONIC

C3	9.709	VHL	3.116	DLA	11.70	RAL	231.88	RAD	6567.4	VEL	11.450	PTH	1.99	VHP	4.992	DPA	-64.22	RAP	230.32	ECC	1.1598

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 7 24	2427.92	-24.11	55.46	85.43	105.32	3 47 52	1827.9	-21.77	47.57
90.00	18 5 45	4328.42	4.17	179.15	82.26	61.97	19 17 53	3728.4	.39	172.52
100.00	4 34 40	2146.45	-25.04	34.47	85.13	106.88	5 10 26	1546.5	-22.49	26.60
100.00	19 21 10	4085.12	5.03	160.80	81.79	60.49	20 29 15	3485.1	1.06	154.26
110.00	5 56 19	1890.93	-27.51	14.12	84.19	111.14	6 27 50	1290.9	-24.38	6.34
110.00	20 16 0	3913.40	7.25	146.40	80.42	56.50	21 21 13	3313.4	2.79	140.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0628	TRA	-.4453	TC3	.9440	BAU	.3505	SGT	1028.9	SGR	1819.7	SG3	426.5	ST	276.7	SR	672.7	SS	1080.9				
RDE	.3495	RRA	.3423	RC3	-2.5296	FAU	.06868	RRT	-.8220	RRF	.9849	RTF	-.8217	CRT	-.6632	CRS	-.9983	CST	.6219				
FDE	1.3232	FRA	1.0490	FC3	-6.1243	BSP	6361	SGB	2090.4	R23	-.1079	R13	.9792	LSA	1285.1	MSA	214.3	SSA	12.8				
BDE	.3551	BRA	.5616	BC3	2.7000	FSP	-1286	SG1	2022.9	SG2	527.0	THA	116.90	EL1	699.6	EL2	199.2	ALF	106.65				

LAUNCH DATE AUG 25 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 326.777

RL	151.22	LAL	-.00	LOL	331.39	VL	26.948	GAL	-2.36	AZL	86.21	HCA	144.89	SMA	128.96	ECC	.17729	INC	3.7916	VI	29.465
RP	107.50	LAP	2.18	LOP	116.33	VP	37.947	GAP	-3.56	AZP	93.10	TAL	191.07	TAP	335.95	RCA	106.10	APO	151.82	V2	35.251
RC	68.539	GL	33.42	GP	-48.38	ZAL	103.12	ZAP	62.91	ETS	30.13	ZAE	126.36	ETE	292.41	ZAC	53.71	ETC	258.93	CLP	-46.71

PLANETOCENTRIC CONIC

C3	10.449	VHL	3.232	DLA	15.55	RAL	232.70	RAD	6567.4	VEL	11.482	PTH	2.00	VHP	5.037	DPA	-67.53	RAP	224.29	ECC	1.1720

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 36 47	2576.29	-26.39	65.73	88.64	100.67	3 19 44	1976.3	-24.65	57.49
90.00	18 42 53	4209.38	.34	172.50	84.42	61.68	19 53 2	3609.4	-3.45	165.87
100.00	4 6 40	2286.42	-27.45	44.16	88.40	102.32	4 44 47	1686.4	-25.48	35.92
100.00	19 55 40	3974.48	1.29	154.71	83.89	60.13	21 1 55	3374.5	-2.69	148.19
110.00	5 33 55	2013.43	-30.22	22.61	87.58	106.79	6 7 29	1413.4	-27.63	14.38
110.00	20 44 55	3820.24	3.72	141.49	82.38	56.00	21 48 35	3220.2	-.77	135.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0455	TRA	-.4235	TC3	.7087	BAU	.3762	SGT	907.4	SGR	2050.0	SG3	421.3	ST	247.6	SR	920.9	SS	1190.0				
RDE	.5023	RRA	.4168	RC3	-2.5983	FAU	.06636	RRT	-.7735	RRF	.9889	RTF	-.7706	CRT	-.5535	CRS	-.9994	CST	.5275				
FDE	1.5034	FRA	1.0926	FC3	-5.4985	BSP	6817	SGB	2241.8	R23	-.0814	R13	.9856	LSA	1510.5	MSA	209.2	SSA	10.6				
BDE	.5043	BRA	.5942	BC3	2.6932	FSP	-1280	SG1	2175.3	SG2	542.0	THA	110.21	EL1	931.6	EL2	203.9	ALF	98.89				

LAUNCH DATE AUG 25 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 333.294

RL	151.22	LAL	-.00	LOL	331.39	VL	26.976	GAL	-2.37	AZL	85.60	HCA	148.12	SMA	129.15	ECC	.17566	INC	4.4025	VI	29.465
RP	107.49	LAP	2.32	LOP	119.58	VP	37.970	GAP	-3.04	AZP	93.74	TAL	191.27	TAP	339.38	RCA	106.46	APO	151.84	V2	35.254
RC	70.666	GL	37.53	GP	-52.65	ZAL	102.62	ZAP	67.62	ETS	27.18	ZAE	123.01	ETE	287.66	ZAC	49.39	ETC	257.80	CLP	-51.13

PLANETOCENTRIC CONIC

C3	11.534	VHL	3.396	DLA	19.53	RAL	233.78	RAD	6567.4	VEL	11.529	PTH	2.01	VHP	5.165	DPA	-70.68	RAP	215.92	ECC	1.1898

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 0 55	2749.30	-27.96	78.13	92.78	94.65	2 46 45	2149.3	-27.03	69.59
90.00	19 27 25	4076.90	-3.93	165.11	87.64	61.93	20 35 22	3476.9	-7.65	158.41
100.00	3 34 31	2447.51	-29.25	55.79	92.63	96.46	4 15 18	1847.5	-28.05	47.19
100.00	20 36 31	3853.91	-2.80	148.09	87.01	60.23	21 40 45	3253.9	-6.74	141.52
110.00	5 9 9	2151.43	-32.50	32.71	92.04	101.22	5 45 0	1551.4	-30.62	24.00
110.00	21 18 22	3722.76	-.00	136.40	85.27	55.82	22 20 25	3122.8	-4.49	130.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0026	TRA	-.3947	TC3	.4536	BAU	.4027	SGT	770.9	SGR	2288.3	SG3	404.3	ST	212.2	SR	1195.8	SS	1277.0				
RDE	.6893	RRA	.5095	RC3	-2.5721	FAU	.06210	RRT	-.6734	RRF	.9917	RTF	-.6683	CRT	-.2505	CRS	-.9998	CST	.2325				
FDE	1.6571	FRA	1.1249	FC3	-4.6613	BSP	7346	SGB	2414.6	R23	-.0557	R13	.9902	LSA	1750.1	MSA	206.5	SSA	8.7				
BDE	.6893	BRA	.6445	BC3	2.6118	FSP	-1239	SG1	2350.0	SG2	554.9	THA	103.55	EL1	1197.0	EL2	205.3	ALF	92.62				

LAUNCH DATE AUG 25 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 339.785

RL	151.22	LAL	-.00	LOL	331.39	VL	26.999	GAL	-2.38	AZL	84.86	HCA	151.34	SMA	129.31	ECC	.17431	INC	5.1353	VI	29.465
RP	107.48	LAP	2.46	LOP	122.83	VP	37.988	GAP	-2.54	AZP	94.51	TAL	191.39	TAP	342.73	RCA	106.77	APO	151.85	V2	35.256
RC	72.818	GL	41.81	GP	-57.07	ZAL	101.86	ZAP	72.19	ETS	23.68	ZAE	119.31	ETE	282.83	ZAC	44.91	ETC	256.30	CLP	-55.77

PLANETOCENTRIC CONIC

C3	13.117	VHL	3.622	DLA	23.61	RAL	235.16	RAD	6567.5	VEL	11.598	PTH	2.03	VHP	5.392	DPA	-73.44	RAP	204.37	ECC	1.2159

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 14 20	2964.60	-28.15	93.85	97.72	86.79	2 3 45	2364.6	-28.30	85.19
90.00	20 24 58	3916.20	-8.99	156.02	92.30	63.04	21 30 14	3316.2	-12.54	149.13
100.00	2 54 30	2641.65	-29.88	70.17	97.79	88.93	3 38 32	2041.7	-29.70	61.37
100.00	21 27 29	3714.38	-7.47	140.37	91.48	60.97	22 29 23	3114.4	-11.28	133.66
110.00	4 40 24	2310.34	-33.96	44.87	97.66	94.17	5 18 54	1710.3	-33.01	35.76
110.00	21 58 4	3618.46	-3.98	130.95	89.34	56.02	22 58 23	3018.5	-8.42	124.67

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0783	TRA	-.3538	TC3	.2026	BAU	.4291	SGT	640.3	SGR	2523.6	SG3	375.2	ST	221.2	SR	1483.2	SS	1331.8				
RDE	.9145	RRA	.6226	RC3	-2.4384	FAU	.05605	RRT	-.4560	RRF	.9937	RTF	-.4486	CRT	.3652	CRS	-.9999	CST	-.3761				
FDE	1.7674	FRA	1.1380	FC3	-3.6991	BSP	7921	SGB	2603.5	R23	-.0320	R13	.9932	LSA	1995.0	MSA	205.7	SSA	7.1				
BDE	.9178	BRA	.7161	BC3	2.4469	FSP	-1160	SG1	2541.3	SG2	565.9	THA	96.95	EL1	1485.4	EL2	205.6	ALF	86.82				

LAUNCH DATE AUG 25 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 346.247

RL	151.22	LAL	-.00	LOL	331.39	VL	27.016	GAL	-2.37	AZL	83.96	HCA	154.57	SMA	129.43	ECC	.17321	INC	6.0366	V1	29.465
RP	107.48	LAP	2.59	LOP	126.08	VP	38.002	GAP	-2.06	AZP	95.46	TAL	191.43	TAP	345.99	RCA	107.01	APO	151.84	V2	35.258
RC	74.992	GL	46.21	GP	-61.60	ZAL	100.85	ZAP	76.50	ETS	19.52	ZAE	115.26	ETE	277.89	ZAC	40.30	ETC	254.31	CLP	-60.60

PLANETOCENTRIC CONIC

C3	15.462	VHL	3.932	DLA	27.75	RAL	236.83	RAD	6567.6	VEL	11.698	PTH	2.06	VHP	5.749	DPA	-75.49	RAP	188.88	ECC	1.2545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 44 2	3315.14	-24.30	118.70	102.37	74.99	24 39 17	2715.1	-26.12	110.50
90.00	22 4 42	3638.29	-17.04	139.58	99.71	67.04	23 5 20	3038.3	-20.01	132.16
100.00	1 54 24	2907.58	-27.93	89.64	103.31	78.90	2 42 51	2307.6	-29.18	81.06
100.00	22 40 57	3521.09	-13.66	129.35	98.08	63.15	23 39 38	2921.1	-17.15	122.30
110.00	4 4 21	2500.88	-33.91	59.73	104.27	85.39	4 46 2	1900.9	-34.17	50.49
110.00	22 47 30	3500.55	-8.43	124.72	95.00	56.75	23 45 50	2900.5	-12.75	118.29

DIFFERENTIAL CORRECTIONS

TDE	.2142	TRA	-.2949	TC3	-.0220	BAU	.4526
RDE	1.1846	RRA	.7635	RC3	-2.1894	FAU	.04840
FDE	1.8260	FRA	1.1327	FC3	-2.7098	BSP	8531
BDE	1.2038	BRA	.8185	BC3	2.1895	FSP	-1048

MID-COURSE EXECUTION ACCURACY

SGT	577.5	SGR	2743.0	SG3	335.7		
RRT	-.0264	RRF	.9951	RTF	-.0170		
SGB	2803.2	R23	-.0105	R13	.9951		
SG1	2743.1	SG2	577.3	THA	90.33		

ORBIT DETERMINATION ACCURACY

ST	344.5	SR	1767.5	SS	1350.8
CRT	.7947	CRS	-1.0000	CST	-.7996
LSA	2241.5	MSA	206.9	SSA	5.9
EL1	1788.8	EL2	206.6	ALF	81.08

LAUNCH DATE AUG 25 1970 FLIGHT TIME 128.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 352.678

RL	151.22	LAL	-.00	LOL	331.39	VL	27.030	GAL	-2.34	AZL	82.82	HCA	157.78	SMA	129.52	ECC	.17233	INC	7.1798	V1	29.465
RP	107.48	LAP	2.71	LOP	129.33	VP	38.012	GAP	-1.59	AZP	96.65	TAL	191.39	TAP	349.17	RCA	107.20	APO	151.84	V2	35.259
RC	77.186	GL	50.68	GP	-66.25	ZAL	99.63	ZAP	80.42	ETS	14.61	ZAE	110.90	ETE	272.74	ZAC	35.59	ETC	251.61	CLP	-65.59

PLANETOCENTRIC CONIC

C3	19.039	VHL	4.363	DLA	31.88	RAL	238.82	RAD	6567.8	VEL	11.850	PTH	2.10	VHP	6.278	DPA	-76.46	RAP	169.76	ECC	1.3133

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.70	21 2 52	3907.62	-22.29	161.86	107.61	66.60	22 7 59	3307.6	-25.26	154.16
105.30	1 5 41	3141.84	-22.28	105.17	107.60	66.58	1 58 3	2541.8	-25.25	97.47
74.70	21 2 52	3907.62	-22.29	161.86	107.61	66.60	22 7 59	3307.6	-25.26	154.16
105.30	1 5 41	3141.84	-22.28	105.17	107.60	66.58	1 58 3	2541.8	-25.25	97.47
110.00	3 10 18	2755.77	-30.84	78.92	110.98	74.46	3 56 14	2155.8	-32.66	70.17
110.00	0 1 21	3341.69	-14.23	116.07	103.21	58.59	0 57 2	2741.7	-18.28	109.30

DIFFERENTIAL CORRECTIONS

TDE	.4340	TRA	-.2064	TC3	-.1944	BAU	.4710
RDE	1.5027	RRA	.9387	RC3	-1.8404	FAU	.03973
FDE	1.8261	FRA	1.1062	FC3	-1.8064	BSP	9176
BDE	1.5641	BRA	.9611	BC3	1.8507	FSP	-912

MID-COURSE EXECUTION ACCURACY

SGT	674.8	SGR	2929.2	SG3	288.6		
RRT	.4724	RRF	.9960	RTF	.4826		
SGB	3005.9	R23	.0089	R13	.9960		
SG1	2947.2	SG2	591.1	THA	83.53		

ORBIT DETERMINATION ACCURACY

ST	577.9	SR	2021.3	SS	1330.4
CRT	.9272	CRS	-1.0000	CST	-.9296
LSA	2478.9	MSA	210.4	SSA	4.8
EL1	2091.8	EL2	209.1	ALF	75.00

LAUNCH DATE AUG 25 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 359.075

RL	151.22	LAL	-.00	LOL	331.39	VL	27.038	GAL	-2.31	AZL	81.31	HCA	160.99	SMA	129.58	ECC	.17166	INC	8.6867	V1	29.465
RP	107.48	LAP	2.82	LOP	132.58	VP	38.019	GAP	-1.13	AZP	98.22	TAL	191.26	TAP	352.25	RCA	107.33	APO	151.82	V2	35.259
RC	79.396	GL	55.10	GP	-71.05	ZAL	98.24	ZAP	83.83	ETS	8.73	ZAE	106.22	ETE	267.15	ZAC	30.76	ETC	247.76	CLP	-70.67

PLANETOCENTRIC CONIC

C3	24.751	VHL	4.975	DLA	35.90	RAL	241.13	RAD	6568.0	VEL	12.088	PTH	2.16	VHP	7.055	DPA	-76.07	RAP	149.35	ECC	1.4073

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.95	20 24 28	4116.65	-22.91	178.43	115.43	61.57	21 33 5	3516.7	-26.52	170.99
113.05	2 2 29	3059.40	-22.89	99.09	115.42	61.56	2 53 28	2459.4	-26.51	91.65
66.95	20 24 28	4116.65	-22.91	178.43	115.43	61.57	21 33 5	3516.7	-26.52	170.99
113.05	2 2 29	3059.40	-22.89	99.09	115.42	61.56	2 53 28	2459.4	-26.51	91.65
66.95	20 24 28	4116.65	-22.91	178.43	115.43	61.57	21 33 5	3516.7	-26.52	170.99
113.05	2 2 29	3059.40	-22.89	99.09	115.42	61.56	2 53 28	2459.4	-26.51	91.65

DIFFERENTIAL CORRECTIONS

TDE	.7882	TRA	-.0666	TC3	-.2982	BAU	.4781
RDE	1.8702	RRA	1.1606	RC3	-1.4137	FAU	.03047
FDE	1.7720	FRA	1.0625	FC3	-1.0658	BSP	9791
BDE	2.0295	BRA	1.1625	BC3	1.4449	FSP	-759

MID-COURSE EXECUTION ACCURACY

SGT	959.7	SGR	3056.2	SG3	237.7		
RRT	.7557	RRF	.9965	RTF	.7666		
SGB	3203.4	R23	.0271	R13	.9963		
SG1	3144.6	SG2	610.9	THA	76.12		

ORBIT DETERMINATION ACCURACY

ST	908.2	SR	2210.4	SS	1274.3
CRT	.9671	CRS	-1.0000	CST	-.9690
LSA	2699.6	MSA	217.0	SSA	4.0
EL1	2380.1	EL2	214.6	ALF	68.14

LAUNCH DATE AUG 25 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 365.431

RL	151.22	LAL	-.00	LOL	331.39	VL	27.043	GAL	-2.26	AZL	79.22	HCA	164.17	SMA	129.61	ECC	.17117	INC	10.7764	V1	29.465
RP	107.48	LAP	2.92	LOP	135.83	VP	38.021	GAP	-.70	AZP	100.38	TAL	191.04	TAP	355.22	RCA	107.43	APO	151.80	V2	35.258
RC	81.621	GL	59.33	GP	-76.08	ZAL	96.74	ZAP	86.63	ETS	1.26	ZAE	101.17	ETE	260.45	ZAC	25.74	ETC	241.72	CLP	-75.85

PLANETOCENTRIC CONIC

C3	34.508	VHL	5.874	DLA	39.65	RAL	243.73	RAD	6568.4	VEL	12.485	PTH	2.26	VHP	8.213	DPA	-74.32	RAP	130.62	ECC	1.5679

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.00	20 4 44	4287.48	-21.99	191.82	124.58	56.14	21 16 11	3687.5	-26.28	184.83
119.00	2 42 59	3054.67	-21.98	98.11	124.57	56.13	3 33 54	2454.7	-26.27	91.12
61.00	20 4 44	4287.48	-21.99	191.82	124.58	56.14	21 16 11	3687.5	-26.28	184.83
119.00	2 42 59	3054.67	-21.98	98.11	124.57	56.13	3 33 54	2454.7	-26.27	91.12
61.00	20 4 44	4287.48	-21.99	191.82	124.58	56.14	21 16 11	3687.5	-26.28	184.83
119.00	2 42 59	3054.67	-21.98	98.11	124.57	56.13	3 33 54	2454.7	-26.27	91.12

DIFFERENTIAL CORRECTIONS

TDE	1.3853	TRA	.1759	TC3	-.3254	BAU	.4653
RDE	2.2623	RRA	1.4441	RC3	-.9547	FAU	.02130
FDE	1.6768	FRA	1.0082	FC3	-.5344	BSP	10365
BDE	2.6527	BRA	1.4548	BC3	1.0086	FSP	-603

MID-COURSE EXECUTION ACCURACY

SGT	1421.8	SGR	3077.9	SG3	187.3		
RRT	.8724	RRF	.9965	RTF	.8871		
SGB	3390.4	R23	.0446	R13	.9961		
SG1	3328.9	SG2	642.5	THA	67.15		

ORBIT DETERMINATION ACCURACY

ST	1352.9	SR	2274.0	SS	1192.0
CRT	.9812	CRS	-.9999	CST	-.9837
LSA	2893.1	MSA	228.9	SSA	3.4
EL1	2636.4	EL2	225.4	ALF	59.48

LAUNCH DATE AUG 25 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 371.731

```
RL  151.22 LAL   -.00 LOL 331.39 VL  27.045 GAL  -2.19 AZL  76.12 HCA 167.33 SMA 129.62 ECC .17083 INC13.8813 V1  29.465
RP  107.48 LAP   3.02 LOP 139.08 VP  38.021 GAP   -.28 AZP 103.56 TAL 190.73 TAP 358.06 RCA 107.48 APO 151.76 V2  35.256
RC  83.861 GL   63.08 GP  -81.59 ZAL  95.18 ZAP  88.74 ETS 349.77 ZAE  95.56 ETE 250.10 ZAC  20.38 ETC 230.07 CLP -81.33
```

PLANETOCENTRIC CONIC

```
C3  52.879 VHL  7.272 DLA  42.86 RAL 246.54 RAD 6568.9 VEL 13.200 PTH   2.41 VHP 10.022 DPA -71.30 RAP 114.87 ECC 1.8703
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.37	19 55 44	4450.76	-19.03	203.56	134.75	50.84	21 9 54	3850.8	-23.95	197.19
123.63	3 14 24	3105.97	-19.01	100.18	134.73	50.83	4 6 10	2506.0	-23.93	93.82
56.37	19 55 44	4450.76	-19.03	203.56	134.75	50.84	21 9 54	3850.8	-23.95	197.19
123.63	3 14 24	3105.97	-19.01	100.18	134.73	50.83	4 6 10	2506.0	-23.93	93.82
56.37	19 55 44	4450.76	-19.03	203.56	134.75	50.84	21 9 54	3850.8	-23.95	197.19
123.63	3 14 24	3105.97	-19.01	100.18	134.73	50.83	4 6 10	2506.0	-23.93	93.82

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.5214 TRA  .6878 TC3 -.2833 BAU  .4124   SGT 2159.4 SGR 2827.7 SG3  141.2    ST  1999.0 SR  2034.1 SS  1101.5
RDE 2.4773 RRA 1.7739 RC3 -.5100 FAU .01263   RRT  .9160 RRF  .9938 RTF  .9452    CRT  .9849 CRS -.9992 CST -.9910
FDE 1.5663 FRA  .9572 FC3 -.2068 BSP  10907   SGB 3558.0 R23  .0617 R13  .9957    LSA 3046.9 MSA  252.1 SSA    2.8
BDE 3.5347 BRA 1.9026 BC3  .5834 FSP   -460   SG1 3487.9 SG2  702.5 THA  53.30    EL1 2841.2 EL2  247.7 ALF  45.51
```

LAUNCH DATE AUG 25 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 377.945

```
RL  151.22 LAL   -.00 LOL 331.39 VL  27.042 GAL  -2.09 AZL  71.02 HCA 170.43 SMA 129.60 ECC .17062 INC18.9781 V1  29.465
RP  107.49 LAP   3.10 LOP 142.33 VP  38.017 GAP   .10 AZP 108.73 TAL 190.28 TAP    .71 RCA 107.49 APO 151.72 V2  35.254
RC  86.111 GL   65.77 GP  -88.06 ZAL  93.65 ZAP  90.10 ETS 316.11 ZAE  88.95 ETE 217.82 ZAC  14.37 ETC 191.60 CLP -92.86
```

PLANETOCENTRIC CONIC

```
C3  92.877 VHL  9.637 DLA  45.01 RAL 249.30 RAD 6569.8 VEL 14.636 PTH   2.65 VHP 13.084 DPA -66.81 RAP 101.65 ECC 2.5285
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.43	19 55 9	4614.02	-13.73	213.45	145.17	46.70	21 12 3	4014.0	-19.13	207.71
126.57	3 36 56	3207.89	-13.71	104.53	145.16	46.70	4 30 24	2607.9	-19.12	98.79
53.43	19 55 9	4614.02	-13.73	213.45	145.17	46.70	21 12 3	4014.0	-19.13	207.71
126.57	3 36 56	3207.89	-13.71	104.53	145.16	46.70	4 30 24	2607.9	-19.12	98.79
53.43	19 55 9	4614.02	-13.73	213.45	145.17	46.70	21 12 3	4014.0	-19.13	207.71
126.57	3 36 56	3207.89	-13.71	104.53	145.16	46.70	4 30 24	2607.9	-19.12	98.79

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.8943 TRA 2.2744 TC3 -.1775 BAU  .2531   SGT 3498.8 SGR 1233.5 SG3  103.5    ST  2965.8 SR   453.2 SS  1043.7
RDE  .4724 RRA 1.4098 RC3 -.1002 FAU .00398   RRT  .7300 RRF  .8180 RTF  .9885    CRT  .7598 CRS -.8017 CST -.9977
FDE 1.5000 FRA  .9474 FC3 -.0371 BSP  11010   SGB 3709.8 R23  .0803 R13  .9952    LSA 3162.6 MSA  297.7 SSA    2.1
BDE 4.9170 BRA 2.6759 BC3  .2038 FSP   -326   SG1 3619.2 SG2  815.0 THA  15.22    EL1 2985.9 EL2  292.6 ALF   6.69
```

LAUNCH DATE AUG 25 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 383.979

```
RL  151.22 LAL   -.00 LOL 331.39 VL  27.037 GAL  -1.96 AZL  61.29 HCA 173.38 SMA 129.57 ECC .17047 INC28.7131 V1  29.465
RP  107.50 LAP   3.17 LOP 145.58 VP  38.011 GAP    .44 AZP 118.55 TAL 189.62 TAP   3.01 RCA 107.48 APO 151.65 V2  35.251
RC  88.372 GL   65.96 GP  -83.15 ZAL  92.22 ZAP  90.70 ETS 214.65 ZAE  80.10 ETE 117.80 ZAC   7.79 ETC  62.09 CLP  95.85
```

PLANETOCENTRIC CONIC

```
C3 202.045 VHL 14.214 DLA  44.72 RAL 251.27 RAD 6571.1 VEL 17.982 PTH   3.01 VHP 19.002 DPA -59.75 RAP  90.02 ECC 4.3251
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.82	20 4 30	4756.01	-6.80	219.71	154.38	45.69	21 23 46	4156.0	-12.34	214.28
126.18	3 43 21	3357.57	-6.78	111.50	154.36	45.69	4 39 18	2757.6	-12.32	106.07
53.82	20 4 30	4756.01	-6.80	219.71	154.38	45.69	21 23 46	4156.0	-12.34	214.28
126.18	3 43 21	3357.57	-6.78	111.50	154.36	45.69	4 39 18	2757.6	-12.32	106.07
53.82	20 4 30	4756.01	-6.80	219.71	154.38	45.69	21 23 46	4156.0	-12.34	214.28
126.18	3 43 21	3357.57	-6.78	111.50	154.36	45.69	4 39 18	2757.6	-12.32	106.07

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.8182 TRA 2.1044 TC3  .0040 BAU  .2037   SGT 1400.9 SGR 3511.2 SG3   75.5    ST   815.7 SR  2919.0 SS  1085.4
RDE-7.0817 RRA-3.5842 RC3 -.0753 FAU-.00625   RRT -.9193 RRF -.9910 RTF  .9611    CRT -.9704 CRS  .9980 CST -.9836
FDE 1.5793 FRA 1.0481 FC3  .0268 BSP  11504   SGB 3780.3 R23 -.0759 R13 -.9962    LSA 3213.4 MSA  195.8 SSA    1.7
BDE 7.3114 BRA 4.1563 BC3  .0754 FSP   -244   SG1 3744.8 SG2  516.9 THA 110.55    EL1 3024.9 EL2  190.2 ALF 105.23
```

LAUNCH DATE AUG 25 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 389.487

```
RL  151.22 LAL   -.00 LOL 331.39 VL  27.029 GAL  -1.72 AZL  38.28 HCA 175.88 SMA 129.51 ECC .17020 INC51.7214 V1  29.465
RP  107.51 LAP   3.24 LOP 148.83 VP  38.001 GAP    .63 AZP 141.65 TAL 188.44 TAP   4.32 RCA 107.47 APO 151.55 V2  35.247
RC  90.641 GL   59.02 GP  -67.99 ZAL  91.01 ZAP  90.60 ETS 190.51 ZAE  64.91 ETE  94.71 ZAC  12.84 ETC 310.68 CLP  91.61
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PLANETOCENTRIC CONIC

```
C3 611.930 VHL 24.737 DLA  37.61 RAL 250.70 RAD 6572.6 VEL 27.078 PTH   3.39 VHP 32.592 DPA -46.04 RAP  79.11 ECC11.0708
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.14	20 47 47	4749.51	-.91	214.04	159.53	52.40	22 6 57	4149.5	-5.78	208.10
115.86	2 55 30	3604.55	-.90	127.62	159.52	52.40	3 55 35	3004.5	-5.76	121.67
64.14	20 47 47	4749.51	-.91	214.04	159.53	52.40	22 6 57	4149.5	-5.78	208.10
115.86	2 55 30	3604.55	-.90	127.62	159.52	52.40	3 55 35	3004.5	-5.76	121.67
64.14	20 47 47	4749.51	-.91	214.04	159.53	52.40	22 6 57	4149.5	-5.78	208.10
115.86	2 55 30	3604.55	-.90	127.62	159.52	52.40	3 55 35	3004.5	-5.76	121.67

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7285 TRA  .5770 TC3 -.0538 BAU 1.8829   SGT  706.1 SGR 3590.9 SG3   60.3    ST   634.0 SR  2697.7 SS  1404.0
RD-11.2933 RRA-7.5141 RC3 -.2238 FAU-.03212   RRT  .6219 RRF -.9983 RTF -.5804    CRT  .9471 CRS  .9995 CST  .9369
FDE 2.0703 FRA 1.5558 FC3  .0454 BSP  10717   SGB 3659.6 R23 -.0706 R13 -.9971    LSA 3099.7 MSA  206.9 SSA    1.6
BDE11.6182 BRA 7.5362 BC3  .2302 FSP   -186   SG1 3618.3 SG2  548.8 THA  82.86    EL1 2764.1 EL2  198.6 ALF  77.38
```

LAUNCH DATE AUG 25 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 400.402

```
RL  151.22 LAL   -.00 LOL 331.39 VL  27.018 GAL  -2.51 AZL 168.11 HCA 183.36 SMA 129.44 ECC .17371 INC78.1132 V1  29.465
RP  107.53 LAP   3.29 LOP 152.08 VP  37.989 GAP   2.27 AZP  11.91 TAL 192.08 TAP  15.44 RCA 106.95 APO 151.92 V2  35.243
RC  92.917 GL  -47.84 GP   54.00 ZAL  91.30 ZAP  91.78 ETS 183.12 ZAE  57.22 ETE 276.93 ZAC 132.20 ETC 283.39 CLP  93.02
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PLANETOCENTRIC CONIC

```
C31269.634 VHL 35.632 DLA -65.51 RAL 214.61 RAO 6573.1 VEL 37.295 PTH   3.54 VHP 45.767 DPA  70.45 RAP  28.66 ECC21.8950
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.09	4 25 18	2431.31	-.99	75.54	125.05	155.51	5 5 49	1831.3	6.29	72.63
151.91	14 30 5	710.05	-.98	291.14	125.07	155.51	14 41 55	110.1	6.30	288.23
28.09	4 25 18	2431.31	-.99	75.54	125.05	155.51	5 5 49	1831.3	6.29	72.63
151.91	14 30 5	710.05	-.98	291.14	125.07	155.51	14 41 55	110.1	6.30	288.23
28.09	4 25 18	2431.31	-.99	75.54	125.05	155.51	5 5 49	1831.3	6.29	72.63
151.91	14 30 5	710.05	-.98	291.14	125.07	155.51	14 41 55	110.1	6.30	288.23

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.8495 TRA 1.4330 TC3 -.1159 BAU 4.2758   SGT 1484.7 SGR 2977.5 SG3   58.7      ST  1114.2 SR  2514.8 SS  2313.3
RD-15.6360 RRA  .1490 RC3  .2237 FAU-.07100   RRT -.9170 RRF  .9995 RTF -.9173     CRT -.9877 CRS-1.0000 CST  .9881
FDE-3.6375 FRA  .0200 FC3  .0484 BSP  10110   SGB 3327.1 R23 -.0750 R13  .9966     LSA 3590.2 MSA  164.7 SSA    2.4
BOE17.0705 BRA 1.4407 BC3  .2519 FSP   -184   SG1 3283.5 SG2  537.2 THA 115.30     EL1 2745.9 EL2  159.7 ALF 113.72
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LAUNCH DATE AUG 25 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 405.124

```
RL  151.22 LAL   -.00 LOL 331.39 VL  27.004 GAL  -2.10 AZL 130.25 HCA 185.16 SMA 129.34 ECC .17291 INC40.2472 V1  29.465
RP  107.54 LAP   3.33 LOP 155.33 VP  37.975 GAP   2.24 AZP  49.87 TAL 190.13 TAP  15.29 RCA 106.98 APO 151.71 V2  35.238
RC  95.197 GL  -63.00 GP   75.79 ZAL  91.80 ZAP  93.19 ETS 180.96 ZAE  79.31 ETE 273.29 ZAC 153.10 ETC 290.33 CLP 103.11
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PLANETOCENTRIC CONIC

```
C3 382.957 VHL 19.569 DLA -75.85 RAL 179.20 RAO 6572.0 VEL 22.456 PTH   3.25 VHP 24.888 DPA  78.13 RAP 300.66 ECC 7.3025
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.12	1 38 31	2385.36	4.04	80.66	88.17	165.81	2 18 17	1785.4	11.79	79.08
163.88	12 34 20	601.68	4.05	283.73	88.19	165.81	12 44 22	1.7	11.80	282.15
16.12	1 38 31	2385.36	4.04	80.66	88.17	165.81	2 18 17	1785.4	11.79	79.08
163.88	12 34 20	601.68	4.05	283.73	88.19	165.81	12 44 22	1.7	11.80	282.15
16.12	1 38 31	2385.36	4.04	80.66	88.17	165.81	2 18 17	1785.4	11.79	79.08
163.88	12 34 20	601.68	4.05	283.73	88.19	165.81	12 44 22	1.7	11.80	282.15

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.7563 TRA 1.0397 TC3 -.0771 BAU 1.0712   SGT 1514.1 SGR 3690.9 SG3   71.2      ST   889.3 SR  2893.8 SS  1418.6
RDE-9.6070 RRA-1.8916 RC3  .1945 FAU-.01615   RRT -.9520 RRF  .9992 RTF -.9447     CRT -.9808 CRS-1.0000 CST  .9788
FDE-2.1953 FRA -.4136 FC3  .0365 BSP  12258   SGB 3989.4 R23 -.0644 R13  .9974     LSA 3339.0 MSA  169.6 SSA    1.6
BOE 9.9946 BRA 2.1585 BC3  .2092 FSP   -223   SG1 3966.0 SG2  431.4 THA 111.60     EL1 3022.8 EL2  166.2 ALF 106.83
```

LAUNCH DATE AUG 25 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 410.882

```
RL  151.22 LAL   -.00 LOL 331.39 VL  26.989 GAL  -1.88 AZL 115.14 HCA 187.94 SMA 129.24 ECC .17311 INC25.1427 V1  29.465
RP  107.56 LAP   3.36 LOP 158.58 VP  37.959 GAP   2.49 AZP  65.07 TAL 189.06 TAP  17.00 RCA 106.87 APO 151.61 V2  35.232
RC  97.481 GL  -66.14 GP   83.84 ZAL  92.34 ZAP  95.58 ETS 144.14 ZAE  90.58 ETE 235.82 ZAC 162.05 ETC 270.36 CLP 155.07
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PLANETOCENTRIC CONIC

```
C3 157.047 VHL 12.532 DLA -76.36 RAL 165.85 RAO 6570.7 VEL 16.685 PTH   2.89 VHP 15.798 DPA  70.19 RAP 267.17 ECC 3.5846
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.53	0 44 4	2264.09	12.14	79.50	72.85	166.05	1 21 48	1664.1	19.89	77.87
164.47	11 42 17	5766.33	12.14	259.88	72.87	166.05	13 18 23	5166.3	19.90	258.26
15.53	0 44 4	2264.09	12.14	79.50	72.85	166.05	1 21 48	1664.1	19.89	77.87
164.47	11 42 17	5766.33	12.14	259.88	72.87	166.05	13 18 23	5166.3	19.90	258.26
15.53	0 44 4	2264.09	12.14	79.50	72.85	166.05	1 21 48	1664.1	19.89	77.87
164.47	11 42 17	5766.33	12.14	259.88	72.87	166.05	13 18 23	5166.3	19.90	258.26

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.4183 TRA -.2976 TC3  .0007 BAU  .0461   SGT  868.1 SGR 4115.0 SG3   95.8      ST   671.2 SR  2521.9 SS  1009.3
RDE-5.0422 RRA-1.7573 RC3  .0220 FAU .00233   RRT  .9691 RRF  .9959 RTF  .9854     CRT  .9878 CRS -.9983 CST -.9952
FDE-1.5144 FRA -.4461 FC3 -.0128 BSP  13072   SGB 4205.6 R23 -.0717 R13  .9967     LSA 2795.8 MSA  111.1 SSA    1.5
BOE 5.2379 BRA 1.7823 BC3  .0220 FSP   -305   SG1 4200.3 SG2  209.6 THA  78.42     EL1 2607.7 EL2  101.2 ALF  75.25
```

LAUNCH DATE AUG 25 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 416.898

```
RL  151.22 LAL   -.00 LOL 331.39 VL  26.971 GAL  -1.71 AZL 108.07 HCA 190.97 SMA 129.12 ECC .17365 INC18.0700 V1  29.465
RP  107.58 LAP   3.38 LOP 161.83 VP  37.940 GAP   2.80 AZP  72.24 TAL 188.19 TAP  19.16 RCA 106.70 APO 151.54 V2  35.226
RC  99.767 GL  -65.24 GP   80.22 ZAL  92.68 ZAP  98.63 ETS  50.35 ZAE  97.86 ETE 141.93 ZAC 164.96 ETC 200.22 CLP-152.11
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PLANETOCENTRIC CONIC

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C3  84.800 VHL  9.209 DLA -75.83 RAL 169.03 RAO 6569.7 VEL 14.358 PTH   2.61 VHP 11.556 DPA  63.40 RAP 255.73 ECC 2.3956
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.14	0 58 0	2138.52	20.30	77.34	73.66	164.87	1 33 38	1538.5	28.01	75.40
163.86	11 53 43	5642.96	20.31	258.34	73.68	164.87	13 27 46	5043.0	28.01	256.40
16.14	0 58 0	2138.52	20.30	77.34	73.66	164.87	1 33 38	1538.5	28.01	75.40
163.86	11 53 43	5642.96	20.31	258.34	73.68	164.87	13 27 46	5043.0	28.01	256.40
16.14	0 58 0	2138.52	20.30	77.34	73.66	164.87	1 33 38	1538.5	28.01	75.40
163.86	11 53 43	5642.96	20.31	258.34	73.68	164.87	13 27 46	5043.0	28.01	256.40

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-3.1433 TRA-1.2741 TC3 -.2562 BAU  .3129   SGT 3812.5 SGR 2068.0 SG3  132.1      ST  2183.8 SR  1719.7 SS  1064.6
RDE 2.7040 RRA  .4673 RC3  .1025 FAU .01358   RRT -.9165 RRF -.9735 RTF  .9809     CRT -.9683 CRS  .9938 CST -.9900
FDE-1.6269 FRA -.4395 FC3 -.1387 BSP  13674   SGB 4337.3 R23 -.0983 R13 -.9935     LSA 2956.7 MSA  342.9 SSA    2.4
BOE 4.1463 BRA 1.3571 BC3  .2760 FSP   -428   SG1 4274.0 SG2  738.1 THA 152.68     EL1 2758.8 EL2  339.9 ALF 141.99
```

LAUNCH DATE AUG 25 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 422.995
RL 151.22 LAL -.00 LOL 331.39 VL 26.952 GAL -1.55 AZL 104.07 HCA 194.09 SMA 128.99 ECC .17438 INC14.0686 V1 29.465
RP 107.60 LAP 3.39 LOP 165.07 VP 37.920 GAP 3.14 AZP 76.34 TAL 187.36 TAP 21.45 RCA 106.49 APO 151.48 V2 35.218
RC 102.053 GL -62.93 GP 74.24 ZAL 92.74 ZAP 102.15 ETS 40.60 ZAE 103.44 ETE 132.68 ZAC 163.96 ETC 212.54 CLP-140.81
PLANETOCENTRIC CONIC
C3 54.093 VHL 7.355 DLA -74.99 RAL 177.61 RAD 6569.0 VEL 13.246 PTH 2.42 VHP 9.238 DPA 57.49 RAP 249.08 ECC 1.8902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.11	1 34 8	2029.98	27.19	74.75	79.68	163.07	2 7 58	1430.0	34.82	72.34
162.89	12 26 1	5537.99	27.20	256.71	79.70	163.07	13 58 19	4938.0	34.82	254.29
17.11	1 34 8	2029.98	27.19	74.75	79.68	163.07	2 7 58	1430.0	34.82	72.34
162.89	12 26 1	5537.99	27.20	256.71	79.70	163.07	13 58 19	4938.0	34.82	254.29
17.11	1 34 8	2029.98	27.19	74.75	79.68	163.07	2 7 58	1430.0	34.82	72.34
162.89	12 26 1	5537.99	27.20	256.71	79.70	163.07	13 58 19	4938.0	34.82	254.29

DIFFERENTIAL CORRECTIONS
TDE-2.7466 TRA -.9169 TC3 -.5615 BAU .4680
RDE 2.7038 RRA .4458 RC3 .3219 FAU .02311
FDE-1.9651 FRA -.4008 FC3 -.3699 BSP 13762
BDE 3.8541 BRA 1.0195 BC3 .6472 FSP -562

MID-COURSE EXECUTION ACCURACY
SGT 3587.2 SGR 2541.5 SG3 174.8
RRT -.9430 RRF -.9917 RTF .9715
SGB 4396.2 R23 .1177 R13 -.9907
SG1 4340.3 SG2 699.3 THA 145.22

ORBIT DETERMINATION ACCURACY
ST 2294.2 SR 2144.4 SS 1255.6
CRT -.9838 CRS .9991 CST -.9906
LSA 3369.8 MSA 288.8 SSA 3.1
EL1 3127.7 EL2 282.1 ALF 136.97

LAUNCH DATE AUG 25 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 429.116
RL 151.22 LAL -.00 LOL 331.39 VL 26.930 GAL -1.38 AZL 101.50 HCA 197.26 SMA 128.84 ECC .17526 INC11.5048 V1 29.465
RP 107.63 LAP 3.39 LOP 168.32 VP 37.897 GAP 3.48 AZP 79.00 TAL 186.52 TAP 23.78 RCA 106.26 APO 151.42 V2 35.211
RC 104.339 GL -60.06 GP 68.43 ZAL 92.52 ZAP 105.99 ETS 39.39 ZAE 108.01 ETE 132.54 ZAC 160.86 ETC 225.92 CLP-138.55
PLANETOCENTRIC CONIC
C3 38.397 VHL 6.197 DLA -73.79 RAL 187.47 RAD 6568.5 VEL 12.640 PTH 2.29 VHP 7.839 DPA 52.04 RAP 244.47 ECC 1.6319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.48	2 16 17	1941.27	32.56	71.64	86.76	160.66	2 48 39	1341.3	40.06	68.61
161.52	13 2 33	5454.84	32.57	254.98	86.78	160.66	14 33 27	4854.8	40.07	251.94
18.48	2 16 17	1941.27	32.56	71.64	86.76	160.66	2 48 39	1341.3	40.06	68.61
161.52	13 2 33	5454.84	32.57	254.98	86.78	160.66	14 33 27	4854.8	40.07	251.94
18.48	2 16 17	1941.27	32.56	71.64	86.76	160.66	2 48 39	1341.3	40.06	68.61
161.52	13 2 33	5454.84	32.57	254.98	86.78	160.66	14 33 27	4854.8	40.07	251.94

DIFFERENTIAL CORRECTIONS
TDE-2.7689 TRA -.7077 TC3 -.9442 BAU .5556
RDE 2.4371 RRA .2992 RC3 .5291 FAU .03220
FDE-2.3150 FRA -.3349 FC3 -.7260 BSP 14006
BDE 3.6887 BRA .7683 BC3 1.0823 FSP -716

MID-COURSE EXECUTION ACCURACY
SGT 3663.5 SGR 2547.6 SG3 222.3
RRT -.9494 RRF -.9935 RTF .9689
SGB 4462.2 R23 .1340 R13 -.9878
SG1 4412.5 SG2 664.5 THA 145.68

ORBIT DETERMINATION ACCURACY
ST 2655.4 SR 2273.0 SS 1467.3
CRT -.9906 CRS .9997 CST -.9935
LSA 3782.7 MSA 248.1 SSA 3.9
EL1 3487.4 EL2 236.3 ALF 139.48

LAUNCH DATE AUG 25 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 435.241
RL 151.22 LAL -.00 LOL 331.39 VL 26.908 GAL -1.21 AZL 99.72 HCA 200.45 SMA 128.69 ECC .17627 INC 9.7187 V1 29.465
RP 107.65 LAP 3.38 LOP 171.56 VP 37.873 GAP 3.83 AZP 80.88 TAL 185.65 TAP 26.10 RCA 106.01 APO 151.37 V2 35.202
RC 106.624 GL -56.97 GP 62.97 ZAL 92.02 ZAP 110.01 ETS 39.68 ZAE 111.83 ETE 134.43 ZAC 156.93 ETC 234.84 CLP-138.84
PLANETOCENTRIC CONIC
C3 29.342 VHL 5.417 DLA -72.26 RAL 197.01 RAD 6568.2 VEL 12.277 PTH 2.21 VHP 6.944 DPA 46.90 RAP 241.07 ECC 1.4829

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.25	2 57 59	1869.56	36.55	68.00	93.27	157.71	3 29 9	1269.6	43.88	64.22
159.75	13 36 55	5391.00	36.56	253.14	93.30	157.71	15 6 46	4791.0	43.89	249.35
20.25	2 57 59	1869.56	36.55	68.00	93.27	157.71	3 29 9	1269.6	43.88	64.22
159.75	13 36 55	5391.00	36.56	253.14	93.30	157.71	15 6 46	4791.0	43.89	249.35
20.25	2 57 59	1869.56	36.55	68.00	93.27	157.71	3 29 9	1269.6	43.88	64.22
159.75	13 36 55	5391.00	36.56	253.14	93.30	157.71	15 6 46	4791.0	43.89	249.35

DIFFERENTIAL CORRECTIONS
TDE-2.7881 TRA -.5413 TC3-1.3896 BAU .6113
RDE 2.1179 RRA .1687 RC3 .7054 FAU .04046
FDE-2.5674 FRA -.2368 FC3-1.1937 BSP 14203
BDE 3.5013 BRA .5670 BC3 1.5584 FSP -865

MID-COURSE EXECUTION ACCURACY
SGT 3807.1 SGR 2438.3 SG3 269.4
RRT -.9542 RRF -.9934 RTF .9688
SGB 4521.0 R23 .1461 R13 -.9851
SG1 4478.2 SG2 620.3 THA 147.88

ORBIT DETERMINATION ACCURACY
ST 3002.8 SR 2247.1 SS 1636.1
CRT -.9939 CRS .9999 CST -.9952
LSA 4086.1 MSA 217.5 SSA 4.8
EL1 3745.3 EL2 199.0 ALF 143.24

LAUNCH DATE AUG 25 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 441.359
RL 151.22 LAL -.00 LOL 331.39 VL 26.883 GAL -1.02 AZL 98.40 HCA 203.64 SMA 128.53 ECC .17741 INC 8.3982 V1 29.465
RP 107.68 LAP 3.36 LOP 174.80 VP 37.848 GAP 4.17 AZP 82.30 TAL 184.75 TAP 28.40 RCA 105.73 APO 151.33 V2 35.193
RC 108.906 GL -53.80 GP 57.88 ZAL 91.23 ZAP 114.06 ETS 40.26 ZAE 115.01 ETE 137.04 ZAC 152.82 ETC 240.67 CLP-140.07
PLANETOCENTRIC CONIC
C3 23.667 VHL 4.865 DLA -70.46 RAL 205.67 RAD 6568.0 VEL 12.043 PTH 2.15 VHP 6.354 DPA 42.04 RAP 238.53 ECC 1.3895

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.33	3 36 57	1811.16	39.39	63.92	98.72	154.36	4 7 8	1211.2	46.50	59.32
157.67	14 7 6	5342.92	39.39	251.21	98.74	154.35	15 36 9	4742.9	46.50	246.61
22.33	3 36 57	1811.16	39.39	63.92	98.72	154.36	4 7 8	1211.2	46.50	59.32
157.67	14 7 6	5342.92	39.39	251.21	98.74	154.35	15 36 9	4742.9	46.50	246.61
22.33	3 36 57	1811.16	39.39	63.92	98.72	154.36	4 7 8	1211.2	46.50	59.32
157.67	14 7 6	5342.92	39.39	251.21	98.74	154.35	15 36 9	4742.9	46.50	246.61

DIFFERENTIAL CORRECTIONS
TDE-2.7556 TRA -.3938 TC3-1.8833 BAU .6528
RDE 1.7982 RRA .0659 RC3 .8427 FAU .04762
FDE-2.6896 FRA -.1129 FC3-1.7421 BSP 14439
BDE 3.2904 BRA .3993 BC3 2.0632 FSP -1004

MID-COURSE EXECUTION ACCURACY
SGT 3976.5 SGR 2282.8 SG3 312.3
RRT -.9581 RRF -.9926 RTF .9697
SGB 4585.1 R23 .1532 R13 -.9829
SG1 4549.4 SG2 571.5 THA 150.68

ORBIT DETERMINATION ACCURACY
ST 3272.4 SR 2119.1 SS 1740.5
CRT -.9955 CRS 1.0000 CST -.9960
LSA 4265.0 MSA 194.9 SSA 5.7
EL1 3895.0 EL2 168.4 ALF 147.12

LAUNCH DATE AUG 25 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 447.466

RL	151.22	LAL	-.00	LOL	331.39	VL	26.858	GAL	-.83	AZL	97.38	HCA	206.85	SMA	128.36	ECC	.17867	INC	7.3774
RP	107.71	LAP	3.32	LOP	178.04	VP	37.821	GAP	4.52	AZP	83.41	TAL	183.82	TAP	30.67	RCA	105.42	APO	151.29
RC	111.186	GL	-50.63	GP	53.16	ZAL	90.17	ZAP	118.06	ETS	40.81	ZAE	117.62	ETE	139.95	ZAC	148.82	ETC	244.60

V1	29.465	V2	35.184	CLP	-141.69														

PLANETOCENTRIC CONIC

C3	19.897	VHL	4.461	DLA	-68.47	RAL	213.39	RAD	6567.8	VEL	11.886	PTH	2.11	VHP	5.963	DPA	37.46	RAP	236.67
ECC	1.3275																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.64	4 12 44	1762.87	41.28	59.55	103.11	150.76	4 42 7	1162.9	48.12	54.12
155.36	14 32 56	5307.47	41.29	249.28	103.13	150.76	16 1 24	4707.5	48.13	243.86
24.64	4 12 44	1762.87	41.28	59.55	103.11	150.76	4 42 7	1162.9	48.12	54.12
155.36	14 32 56	5307.47	41.29	249.28	103.13	150.76	16 1 24	4707.5	48.13	243.86
24.64	4 12 44	1762.87	41.28	59.55	103.11	150.76	4 42 7	1162.9	48.12	54.12
155.36	14 32 56	5307.47	41.29	249.28	103.13	150.76	16 1 24	4707.5	48.13	243.86

DIFFERENTIAL CORRECTIONS

TDE	-2.6774	TRA	-.2530	TC3	-2.4022	BAU	.6855
RDE	1.5056	RRA	-.0144	RC3	.9326	FAU	.05324
FDE	-2.6862	FRA	.0317	FC3	-2.3164	BSP	14666
BDE	3.0717	BRA	.2534	BC3	2.5769	FSP	-1119

MID-COURSE EXECUTION ACCURACY

SGT	4147.7	SGR	2105.8	SG3	347.6		
RRT	-.9605	RRF	-.9911	RTF	.9705		
SGB	4651.7	R23	.1568	R13	-.9809		
SG1	4621.8	SG2	526.2	THA	153.64		

ORBIT DETERMINATION ACCURACY

ST	3449.9	SR	1934.1	SS	1778.1
CRT	-.9964	CRS	1.0000	CST	-.9962
LSA	4332.7	MSA	179.3	SSA	6.7
EL1	3952.5	EL2	143.4	ALF	150.77

LAUNCH DATE AUG 25 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 453.559

RL	151.22	LAL	-.00	LOL	331.39	VL	26.831	GAL	-.63	AZL	96.56	HCA	210.06	SMA	128.18	ECC	.18006	INC	6.5606
RP	107.74	LAP	3.28	LOP	181.28	VP	37.793	GAP	4.86	AZP	84.32	TAL	182.86	TAP	32.92	RCA	105.10	APO	151.26
RC	113.462	GL	-47.49	GP	48.84	ZAL	88.87	ZAP	121.92	ETS	41.24	ZAE	119.71	ETE	142.94	ZAC	145.06	ETC	247.38

V1	29.465	V2	35.174	CLP	-143.45														

PLANETOCENTRIC CONIC

C3	17.291	VHL	4.158	DLA	-66.35	RAL	220.28	RAD	6567.7	VEL	11.776	PTH	2.08	VHP	5.709	DPA	33.17	RAP	235.35
ECC	1.2846																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.11	4 45 41	1722.15	42.41	55.03	106.68	147.09	5 14 23	1122.2	48.95	48.83
152.89	14 54 53	5282.31	42.42	247.45	106.70	147.08	16 22 56	4682.3	48.96	241.25
27.11	4 45 41	1722.15	42.41	55.03	106.68	147.09	5 14 23	1122.2	48.95	48.83
152.89	14 54 53	5282.31	42.42	247.45	106.70	147.08	16 22 56	4682.3	48.96	241.25
27.11	4 45 41	1722.15	42.41	55.03	106.68	147.09	5 14 23	1122.2	48.95	48.83
152.89	14 54 53	5282.31	42.42	247.45	106.70	147.08	16 22 56	4682.3	48.96	241.25

DIFFERENTIAL CORRECTIONS

TDE	-2.5694	TRA	-.1158	TC3	-2.9307	BAU	.7143
RDE	1.2531	RRA	-.0749	RC3	.9799	FAU	.05731
FDE	-2.5827	FRA	.1853	FC3	-2.8695	BSP	14905
BDE	2.8587	BRA	.1379	BC3	3.0902	FSP	-1207

MID-COURSE EXECUTION ACCURACY

SGT	4316.5	SGR	1926.5	SG3	374.3		
RRT	-.9616	RRF	-.9889	RTF	.9713		
SGB	4726.9	R23	.1563	R13	-.9793		
SG1	4702.0	SG2	485.2	THA	156.51		

ORBIT DETERMINATION ACCURACY

ST	3543.1	SR	1728.5	SS	1758.2
CRT	-.9969	CRS	.9999	CST	-.9962
LSA	4313.3	MSA	168.1	SSA	7.8
EL1	3940.4	EL2	122.0	ALF	154.04

LAUNCH DATE AUG 25 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 459.634

RL	151.22	LAL	-.00	LOL	331.39	VL	26.803	GAL	-.41	AZL	95.89	HCA	213.27	SMA	127.99	ECC	.18157	INC	5.8886
RP	107.77	LAP	3.23	LOP	184.52	VP	37.763	GAP	5.20	AZP	85.07	TAL	181.86	TAP	35.13	RCA	104.75	APO	151.23
RC	115.736	GL	-44.41	GP	44.91	ZAL	87.33	ZAP	125.59	ETS	41.56	ZAE	121.35	ETE	145.87	ZAC	141.60	ETC	249.43

V1	29.465	V2	35.164	CLP	-145.26														

PLANETOCENTRIC CONIC

C3	15.441	VHL	3.929	DLA	-64.14	RAL	226.46	RAD	6567.6	VEL	11.697	PTH	2.06	VHP	5.551	DPA	29.19	RAP	234.48
ECC	1.2541																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.70	5 16 16	1687.18	42.92	50.48	109.66	143.44	5 44 24	1087.2	49.13	43.62
150.30	15 13 37	5265.62	42.92	245.80	109.67	143.44	16 41 23	4665.6	49.14	238.94
29.70	5 16 16	1687.18	42.92	50.48	109.66	143.44	5 44 24	1087.2	49.13	43.62
150.30	15 13 37	5265.62	42.92	245.80	109.67	143.44	16 41 23	4665.6	49.14	238.94
29.70	5 16 16	1687.18	42.92	50.48	109.66	143.44	5 44 24	1087.2	49.13	43.62
150.30	15 13 37	5265.62	42.92	245.80	109.67	143.44	16 41 23	4665.6	49.14	238.94

DIFFERENTIAL CORRECTIONS

TDE	-2.4428	TRA	.0218	TC3	-3.4564	BAU	.7425
RDE	1.0426	RRA	-.1207	RC3	.9947	FAU	.06010
FDE	-2.4084	FRA	.3414	FC3	-3.3699	BSP	15239
BDE	2.6560	BRA	.1227	BC3	3.5967	FSP	-1280

MID-COURSE EXECUTION ACCURACY

SGT	4480.1	SGR	1756.4	SG3	392.6		
RRT	-.9617	RRF	-.9860	RTF	.9719		
SGB	4812.1	R23	.1523	R13	-.9780		
SG1	4791.0	SG2	450.1	THA	159.15		

ORBIT DETERMINATION ACCURACY

ST	3562.9	SR	1525.2	SS	1692.7
CRT	-.9973	CRS	.9998	CST	-.9959
LSA	4226.1	MSA	160.8	SSA	8.9
EL1	3874.2	EL2	103.3	ALF	156.86

LAUNCH DATE AUG 25 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 465.693

RL	151.22	LAL	-.00	LOL	331.39	VL	26.774	GAL	-.19	AZL	95.32	HCA	216.49	SMA	127.80	ECC	.18322	INC	5.3228
RP	107.80	LAP	3.16	LOP	187.75	VP	37.733	GAP	5.54	AZP	85.72	TAL	180.83	TAP	37.31	RCA	104.39	APO	151.22
RC	118.005	GL	-41.39	GP	41.36	ZAL	85.59	ZAP	129.04	ETS	41.78	ZAE	122.59	ETE	148.67	ZAC	138.47	ETC	250.99

V1	29.465	V2	35.153	CLP	-147.06														

PLANETOCENTRIC CONIC

C3	14.111	VHL	3.757	DLA	-61.87	RAL	232.07	RAD	6567.6	VEL	11.640	PTH	2.04	VHP	5.465	DPA	25.51	RAP	233.99
ECC	1.2322																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.38	5 45 1	1656.45	42.91	46.00	112.25	139.93	6 12 38	1056.5	48.79	38.60
147.62	15 29 36	5256.22	42.92	244.43	112.27	139.93	16 57 12	4656.2	48.80	237.03
32.38	5 45 1	1656.45	42.91	46.00	112.25	139.93	6 12 38	1056.5	48.79	38.60
147.62	15 29 36	5256.22	42.92	244.43	112.27	139.93	16 57 12	4656.2	48.80	237.03
32.38	5 45 1	1656.45	42.91	46.00	112.25	139.93	6 12 38	1056.5	48.79	38.60
147.62	15 29 36	5256.22	42.92	244.43	112.27	139.93	16 57 12	4656.2	48.80	237.03

DIFFERENTIAL CORRECTIONS

TDE	-2.3060	TRA	.1586	TC3	-3.9557	BAU	.7688
RDE	.8713	RRA	-.1531	RC3	.9786	FAU	.06153
FDE	-2.1914	FRA	.4871	FC3	-3.7751	BSP	15562
BDE	2.4651	BRA	.2204	BC3	4.0749	FSP	-1324

MID-COURSE EXECUTION ACCURACY

SGT	4633.1	SGR	1597.5	SG3	402.5		
RRT	-.9611	RRF	-.9820	RTF	.9727		
SGB	4900.8	R23	.1427	R13	-.9772		
SG1	4882.9	SG2	418.7	THA	161.52		

ORBIT DETERMINATION ACCURACY

ST	3521.7	SR	1337.4	SS	1594.4
CRT	-.9977	CRS	.9995	CST	-.9953
LSA	4087.7	MSA	154.6	SSA	10.1
EL1	3766.1	EL2	85.2	ALF	159.24

LAUNCH DATE AUG 25 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 471.731

RL	151.22	LAL	-.00	LOL	331.39	VL	26.745	GAL	.05	AZL	94.84	HCA	219.70	SMA	127.61	ECC	.18501	INC	4.8372
RP	107.84	LAP	3.09	LOP	190.98	VP	37.701	GAP	5.87	AZP	86.27	TAL	179.76	TAP	39.46	RCA	104.00	APO	151.22
RC	120.271	GL	-38.44	GP	38.17	ZAL	83.66	ZAP	132.26	ETS	41.93	ZAE	123.51	ETE	151.28	ZAC	135.67	ETC	252.21

PLANETOCENTRIC CONIC

C3	13.158	VHL	3.627	DLA	-59.57	RAL	237.20	RAD	6567.5	VEL	11.599	PTH	2.03	VHP	5.432	DPA	22.13	RAP	233.83

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.12	6 12 19	1628.91	42.50	41.64	114.63	136.62	6 39 28	1028.9	48.04	33.84
144.88	15 43 16	5253.22	42.51	243.39	114.64	136.61	17 10 49	4653.2	48.04	235.58
35.12	6 12 19	1628.91	42.50	41.64	114.63	136.62	6 39 28	1028.9	48.04	33.84
144.88	15 43 16	5253.22	42.51	243.39	114.64	136.61	17 10 49	4653.2	48.04	235.58
35.12	6 12 19	1628.91	42.50	41.64	114.63	136.62	6 39 28	1028.9	48.04	33.84
144.88	15 43 16	5253.22	42.51	243.39	114.64	136.61	17 10 49	4653.2	48.04	235.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1553	TRA	.3105	TC3	-4.3611	BAU	.7834	SGT	4747.4	SGR	1442.3	SG3	401.8	ST	3418.1	SR	1162.6	SS	1462.6
RDE	.7278	RRA	-.1843	RC3	.9021	FAU	.06008	RRT	-.9552	RRF	-.9763	RTF	.9706	CRT	-.9979	CRS	.9989	CST	-.9939
FDE	-1.9347	FRA	.6467	FC3	-3.9531	BSP	15485	SGB	4961.7	R23	.1427	R13	-.9743	LSA	3892.2	MSA	157.0	SSA	11.3
BDE	2.2749	BRA	.3611	BC3	4.4534	FSP	-1288	SG1	4944.7	SG2	409.6	THA	163.70	EL1	3609.7	EL2	71.2	ALF	161.24

LAUNCH DATE AUG 25 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 477.751

RL	151.22	LAL	-.00	LOL	331.39	VL	26.714	GAL	.31	AZL	94.41	HCA	222.91	SMA	127.41	ECC	.18693	INC	4.4133
RP	107.87	LAP	3.00	LOP	194.21	VP	37.668	GAP	6.21	AZP	86.76	TAL	178.67	TAP	41.58	RCA	103.59	APO	151.23
RC	122.531	GL	-35.57	GP	35.31	ZAL	81.57	ZAP	135.26	ETS	42.04	ZAE	124.17	ETE	153.68	ZAC	133.18	ETC	253.21

PLANETOCENTRIC CONIC

C3	12.488	VHL	3.534	DLA	-57.25	RAL	241.94	RAD	6567.5	VEL	11.570	PTH	2.02	VHP	5.441	DPA	19.02	RAP	233.96

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.92	6 38 30	1603.66	41.74	37.45	116.89	133.53	7 5 14	1003.7	46.96	29.37
142.08	15 54 54	5256.04	41.76	242.73	116.91	133.52	17 22 30	4656.0	46.97	234.64
37.92	6 38 30	1603.66	41.74	37.45	116.89	133.53	7 5 14	1003.7	46.96	29.37
142.08	15 54 54	5256.04	41.76	242.73	116.91	133.52	17 22 30	4656.0	46.97	234.64
37.92	6 38 30	1603.66	41.74	37.45	116.89	133.53	7 5 14	1003.7	46.96	29.37
142.08	15 54 54	5256.04	41.76	242.73	116.91	133.52	17 22 30	4656.0	46.97	234.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0126	TRA	.4556	TC3	-4.7871	BAU	.8122	SGT	4894.8	SGR	1324.9	SG3	402.3	ST	3290.2	SR	1023.6	SS	1336.0
RDE	.6212	RRA	-.2024	RC3	.8642	FAU	.06023	RRT	-.9531	RRF	-.9700	RTF	.9714	CRT	-.9985	CRS	.9975	CST	-.9925
FDE	-1.6986	FRA	.7745	FC3	-4.1756	BSP	16011	SGB	5071.0	R23	.1264	R13	-.9741	LSA	3692.4	MSA	155.9	SSA	12.6
BDE	2.1063	BRA	.4986	BC3	4.8645	FSP	-1322	SG1	5056.1	SG2	388.1	THA	165.45	EL1	3445.3	EL2	54.1	ALF	162.74

LAUNCH DATE AUG 25 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 483.750

RL	151.22	LAL	-.00	LOL	331.39	VL	26.683	GAL	.57	AZL	94.04	HCA	226.12	SMA	127.21	ECC	.18900	INC	4.0380
RP	107.91	LAP	2.91	LOP	197.44	VP	37.635	GAP	6.55	AZP	87.20	TAL	177.55	TAP	43.68	RCA	103.16	APO	151.25
RC	124.786	GL	-32.78	GP	32.75	ZAL	79.35	ZAP	138.03	ETS	42.14	ZAE	124.63	ETE	155.85	ZAC	130.98	ETC	254.05

PLANETOCENTRIC CONIC

C3	12.044	VHL	3.470	DLA	-54.92	RAL	246.34	RAD	6567.5	VEL	11.551	PTH	2.02	VHP	5.482	DPA	16.16	RAP	234.32

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.75	7 3 53	1579.94	40.72	33.43	119.13	130.69	7 30 13	979.9	45.63	25.17
139.25	16 4 39	5264.40	40.73	242.48	119.15	130.67	17 32 23	4664.4	45.64	234.22
40.75	7 3 53	1579.94	40.72	33.43	119.13	130.69	7 30 13	979.9	45.63	25.17
139.25	16 4 39	5264.40	40.73	242.48	119.15	130.67	17 32 23	4664.4	45.64	234.22
40.75	7 3 53	1579.94	40.72	33.43	119.13	130.69	7 30 13	979.9	45.63	25.17
139.25	16 4 39	5264.40	40.73	242.48	119.15	130.67	17 32 23	4664.4	45.64	234.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8642	TRA	.6129	TC3	-5.1098	BAU	.8326	SGT	5015.2	SGR	1216.1	SG3	396.4	ST	3124.6	SR	903.2	SS	1199.9
RDE	.5349	RRA	-.2192	RC3	.7928	FAU	.05855	RRT	-.9474	RRF	-.9618	RTF	.9708	CRT	-.9990	CRS	.9948	CST	-.9900
FDE	-1.4596	FRA	.9014	FC3	-4.2083	BSP	16235	SGB	5160.5	R23	.1147	R13	-.9729	LSA	3463.0	MSA	159.7	SSA	13.8
BDE	1.9394	BRA	.6509	BC3	5.1710	FSP	-1301	SG1	5146.5	SG2	379.5	THA	166.99	EL1	3252.2	EL2	37.9	ALF	163.89

LAUNCH DATE AUG 25 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 489.727

RL	151.22	LAL	-.00	LOL	331.39	VL	26.651	GAL	.85	AZL	93.70	HCA	229.34	SMA	127.00	ECC	.19123	INC	3.7013
RP	107.95	LAP	2.81	LOP	200.66	VP	37.601	GAP	6.89	AZP	87.59	TAL	176.41	TAP	45.74	RCA	102.71	APO	151.29
RC	127.036	GL	-30.07	GP	30.47	ZAL	77.03	ZAP	140.60	ETS	42.25	ZAE	124.92	ETE	157.80	ZAC	129.04	ETC	254.78

PLANETOCENTRIC CONIC

C3	11.785	VHL	3.433	DLA	-52.60	RAL	250.45	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	5.549	DPA	13.54	RAP	234.91

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.63	7 28 38	1557.16	39.49	29.57	121.39	128.09	7 54 35	957.2	44.10	21.22
136.37	16 12 40	5278.06	39.50	242.67	121.40	128.08	17 40 38	4678.1	44.11	234.31
43.63	7 28 38	1557.16	39.49	29.57	121.39	128.09	7 54 35	957.2	44.10	21.22
136.37	16 12 40	5278.06	39.50	242.67	121.40	128.08	17 40 38	4678.1	44.11	234.31
43.63	7 28 38	1557.16	39.49	29.57	121.39	128.09	7 54 35	957.2	44.10	21.22
136.37	16 12 40	5278.06	39.50	242.67	121.40	128.08	17 40 38	4678.1	44.11	234.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7168	TRA	.7717	TC3	-5.3720	BAU	.8540	SGT	5129.4	SGR	1120.9	SG3	387.1	ST	2937.2	SR	803.3	SS	1066.2
RDE	.4675	RRA	-.2308	RC3	.7213	FAU	.05657	RRT	-.9405	RRF	-.9517	RTF	.9706	CRT	-.9996	CRS	.9894	CST	-.9864
FDE	-1.2345	FRA	1.0091	FC3	-4.1552	BSP	16551	SGB	5250.5	R23	.0999	R13	-.9722	LSA	3222.0	MSA	165.0	SSA	15.0
BDE	1.7793	BRA	.8055	BC3	5.4203	FSP	-1282	SG1	5237.2	SG2	373.1	THA	168.33	EL1	3045.0	EL2	21.9	ALF	164.71

LAUNCH DATE AUG 25 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 495.681

RL	151.22	LAL	-.00	LOL	331.39	VL	26.619	GAL	1.14	AZL	93.40	HCA	232.54	SMA	126.79	ECC	.19363	INC	3.3958
RP	107.99	LAP	2.70	LOP	203.88	VP	37.567	GAP	7.23	AZP	87.93	TAL	175.24	TAP	47.78	RCA	102.24	APO	151.34
RC	129.278	GL	-27.46	GP	28.42	ZAL	74.64	ZAP	142.98	ETS	42.40	ZAE	125.09	ETE	159.53	ZAC	127.33	ETC	255.42

V1	29.465	V2	35.093	CLP	-155.21														

PLANETOCENTRIC CONIC

C3	11.687	VHL	3.419	DLA	-50.29	RAL	254.29	RAD	6567.4	VEL	11.536	PTH	2.01	VHP	5.639	DPA	11.13	RAP	235.68

ECC	1.1923																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.53	7 52 56	1534.82	38.08	25.87	123.69	125.75	8 18 31	934.8	42.44	17.49
133.47	16 19 2	5296.88	38.09	243.29	123.70	125.73	17 47 18	4696.9	42.45	234.91
46.53	7 52 56	1534.82	38.08	25.87	123.69	125.75	8 18 31	934.8	42.44	17.49
133.47	16 19 2	5296.88	38.09	243.29	123.70	125.73	17 47 18	4696.9	42.45	234.91
46.53	7 52 56	1534.82	38.08	25.87	123.69	125.75	8 18 31	934.8	42.44	17.49
133.47	16 19 2	5296.88	38.09	243.29	123.70	125.73	17 47 18	4696.9	42.45	234.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-1.5784	TRA	.9290	TC3	-5.5835	BAU	.8784	SGT	5245.1	SGR	1040.8	SG3	376.2	ST	2747.0	SR	725.3	SS	946.7
ROE	.4179	RRA	-.2385	RC3	.6561	FAU	.05462	RRT	-.9324	RRF	-.9399	RTF	.9710	CRT	-.9997	CRS	.9800	CST	-.9818
FOE	-1.0375	FRA	1.0968	FC3	-4.0461	BSP	17062	SGB	5347.4	R23	.0831	R13	-.9721	LSA	2989.7	MSA	171.3	SSA	16.1
BOE	1.6328	BRA	.9591	BC3	5.6219	FSP	-1275	SG1	5334.6	SG2	369.8	THA	169.47	EL1	2841.1	EL2	17.1	ALF	165.21

LAUNCH DATE AUG 25 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 501.613

RL	151.22	LAL	-.00	LOL	331.39	VL	26.586	GAL	1.45	AZL	93.12	HCA	235.75	SMA	126.58	ECC	.19620	INC	3.1157
RP	108.03	LAP	2.58	LOP	207.10	VP	37.531	GAP	7.58	AZP	88.25	TAL	174.04	TAP	49.80	RCA	101.75	APO	151.42
RC	131.513	GL	-24.95	GP	26.60	ZAL	72.19	ZAP	145.18	ETS	42.61	ZAE	125.17	ETE	161.08	ZAC	125.84	ETC	256.01

V1	29.465	V2	35.080	CLP	-156.66														

PLANETOCENTRIC CONIC

C3	11.732	VHL	3.425	DLA	-48.02	RAL	257.90	RAD	6567.4	VEL	11.538	PTH	2.01	VHP	5.747	DPA	8.91	RAP	236.61

ECC	1.1931																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.45	8 17 0	1512.33	36.55	22.29	126.05	123.63	8 42 13	912.3	40.66	13.92
130.55	16 23 45	5320.98	36.56	244.37	126.06	123.61	17 52 26	4721.0	40.67	236.00
49.45	8 17 0	1512.33	36.55	22.29	126.05	123.63	8 42 13	912.3	40.66	13.92
130.55	16 23 45	5320.98	36.56	244.37	126.06	123.61	17 52 26	4721.0	40.67	236.00
49.45	8 17 0	1512.33	36.55	22.29	126.05	123.63	8 42 13	912.3	40.66	13.92
130.55	16 23 45	5320.98	36.56	244.37	126.06	123.61	17 52 26	4721.0	40.67	236.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-1.4254	TRA	1.1093	TC3	-5.6714	BAU	.8942	SGT	5336.1	SGR	970.3	SG3	363.4	ST	2528.1	SR	655.8	SS	827.5
ROE	.3757	RRA	-.2494	RC3	.5794	FAU	.05165	RRT	-.9214	RRF	-.9261	RTF	.9699	CRT	-.9985	CRS	.9611	CST	-.9733
FOE	-.8391	FRA	1.1934	FC3	-3.8117	BSP	17168	SGB	5423.6	R23	.0723	R13	-.9708	LSA	2733.4	MSA	186.3	SSA	17.0
BOE	1.4741	BRA	1.1370	BC3	5.7009	FSP	-1221	SG1	5410.9	SG2	371.9	THA	170.44	EL1	2611.6	EL2	34.4	ALF	165.48

LAUNCH DATE AUG 25 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 507.521

RL	151.22	LAL	-.00	LOL	331.39	VL	26.553	GAL	1.77	AZL	92.86	HCA	238.96	SMA	126.37	ECC	.19896	INC	2.8564
RP	108.07	LAP	2.45	LOP	210.31	VP	37.496	GAP	7.92	AZP	88.53	TAL	172.83	TAP	51.79	RCA	101.23	APO	151.51
RC	133.740	GL	-22.53	GP	24.97	ZAL	69.71	ZAP	147.23	ETS	42.88	ZAE	125.18	ETE	162.44	ZAC	124.52	ETC	256.57

V1	29.465	V2	35.067	CLP	-158.06														

PLANETOCENTRIC CONIC

C3	11.911	VHL	3.451	DLA	-45.78	RAL	261.29	RAD	6567.5	VEL	11.545	PTH	2.02	VHP	5.871	DPA	6.86	RAP	237.69

ECC	1.1960																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.39	8 40 59	1489.20	34.92	18.80	128.47	121.72	9 5 48	889.2	38.82	10.48
127.61	16 26 49	5350.47	34.94	245.90	128.48	121.71	17 56 0	4750.5	38.83	237.58
52.39	8 40 59	1489.20	34.92	18.80	128.47	121.72	9 5 48	889.2	38.82	10.48
127.61	16 26 49	5350.47	34.94	245.90	128.48	121.71	17 56 0	4750.5	38.83	237.58
52.39	8 40 59	1489.20	34.92	18.80	128.47	121.72	9 5 48	889.2	38.82	10.48
127.61	16 26 49	5350.47	34.94	245.90	128.48	121.71	17 56 0	4750.5	38.83	237.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-1.2787	TRA	1.2917	TC3	-5.7004	BAU	.9114	SGT	5426.1	SGR	911.0	SG3	350.1	ST	2317.6	SR	601.7	SS	727.8
ROE	.3450	RRA	-.2580	RC3	.5116	FAU	.04881	RRT	-.9091	RRF	-.9106	RTF	.9692	CRT	-.9946	CRS	.9295	CST	-.9617
FOE	-.6669	FRA	1.2741	FC3	-3.5478	BSP	17422	SGB	5502.0	R23	.0607	R13	-.9699	LSA	2494.3	MSA	204.0	SSA	17.7
BOE	1.3245	BRA	1.3172	BC3	5.7233	FSP	-1181	SG1	5489.2	SG2	375.2	THA	171.28	EL1	2393.7	EL2	60.5	ALF	165.51

LAUNCH DATE AUG 25 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 513.402

RL	151.22	LAL	-.00	LOL	331.39	VL	26.520	GAL	2.11	AZL	92.61	HCA	242.16	SMA	126.15	ECC	.20192	INC	2.6141
RP	108.11	LAP	2.31	LOP	213.53	VP	37.460	GAP	8.28	AZP	88.78	TAL	171.60	TAP	53.76	RCA	100.68	APO	151.63
RC	135.957	GL	-20.23	GP	23.51	ZAL	67.23	ZAP	149.13	ETS	43.24	ZAE	125.15	ETE	163.65	ZAC	123.37	ETC	257.09

V1	29.465	V2	35.054	CLP	-159.40														

PLANETOCENTRIC CONIC

C3	12.219	VHL	3.496	DLA	-43.59	RAL	264.48	RAD	6567.5	VEL	11.559	PTH	2.02	VHP	6.009	DPA	4.96	RAP	238.91

ECC	1.2011																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.36	9 5 3	1464.90	33.24	15.36	130.96	120.01	9 29 28	864.9	36.94	7.11
124.64	16 28 12	5385.55	33.25	247.90	130.97	119.99	17 57 58	4785.6	36.95	239.64
55.36	9 5 3	1464.90	33.24	15.36	130.96	120.01	9 29 28	864.9	36.94	7.11
124.64	16 28 12	5385.55	33.25	247.90	130.97	119.99	17 57 58	4785.6	36.95	239.64
55.36	9 5 3	1464.90	33.24	15.36	130.96	120.01	9 29 28	864.9	36.94	7.11
124.64	16 28 12	5385.55	33.25	247.90	130.97	119.99	17 57 58	4785.6	36.95	239.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	-1.1341	TRA	1.4811	TC3	-5.6649	BAU	.9283	SGT	5511.4	SGR	861.1	SG3	336.5	ST	2116.8	SR	558.6	SS	646.4
ROE	.3224	RRA	-.2662	RC3	.4506	FAU	.04600	RRT	-.8954	RRF	-.8937	RTF	.9687	CRT	-.9855	CRS	.8791	CST	-.9464
FOE	-.5145	FRA	1.3454	FC3	-3.2590	BSP	17673	SGB	5578.2	R23	.0499	R13	-.9692	LSA	2271.4	MSA	226.1	SSA	18.1
BOE	1.1791	BRA	1.5048	BC3	5.6828	FSP	-1139	SG1	5565.3	SG2	379.7	THA	172.00	EL1	2187.3	EL2	91.9	ALF	165.40

LAUNCH DATE AUG 25 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 519.257

RL	151.22	LAL	-.00	LOL	331.39	VL	26.486	GAL	2.47	AZL	92.39	HCA	245.37	SMA	125.94	ECC	.20509	INC	2.3859
RP	108.15	LAP	2.17	LOP	216.73	VP	37.424	GAP	8.64	AZP	89.01	TAL	170.35	TAP	55.71	RCA	100.11	APO	151.77
RC	138.166	GL	-18.04	GP	22.19	ZAL	64.77	ZAP	150.91	ETS	43.69	ZAE	125.08	ETE	164.72	ZAC	122.35	ETC	257.60

V1	29.465	V2	35.041	CLP	-160.69														

PLANETOCENTRIC CONIC

C3	12.656	VHL	3.558	DLA	-41.46	RAL	267.48	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	6.161	DPA	3.21	RAP	240.24
ECC	1.2083																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.35	9 29 25	1438.74	31.52	11.92	133.52	118.47	9 53 24	838.7	35.05	3.74
121.65	16 27 47	5426.66	31.53	250.38	133.52	118.46	17 58 14	4826.7	35.06	242.20
58.35	9 29 25	1438.74	31.52	11.92	133.52	118.47	9 53 24	838.7	35.05	3.74
121.65	16 27 47	5426.66	31.53	250.38	133.52	118.46	17 58 14	4826.7	35.06	242.20
58.35	9 29 25	1438.74	31.52	11.92	133.52	118.47	9 53 24	838.7	35.05	3.74
121.65	16 27 47	5426.66	31.53	250.38	133.52	118.46	17 58 14	4826.7	35.06	242.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9901	TRA	1.6787	TC3	-5.5663	BAU	.9442	SGT	5589.7	SGR	818.4	SG3	322.8	ST	1930.9	SR	523.8
RDE	.3060	RRA	-.2744	RC3	.3953	FAU	.04316	RRT	-.8804	RRF	-.8756	RTF	.9682	CRT	-.9675	CRS	.8043
FDE	-.3784	FRA	1.4093	FC3	-2.9524	BSP	17927	SGB	5649.2	R23	.0405	R13	-.9686	LSA	2068.5	MSA	253.1
BDE	1.0363	BRA	1.7009	BC3	5.5803	FSP	-1098	SG1	5636.1	SG2	385.0	THA	172.62	EL1	1996.6	EL2	128.1

SS	583.4	CST	-.9276
SSA	18.2	ALF	165.23

LAUNCH DATE AUG 25 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 525.082

RL	151.22	LAL	-.00	LOL	331.39	VL	26.452	GAL	2.84	AZL	92.17	HCA	248.57	SMA	125.73	ECC	.20849	INC	2.1694
RP	108.19	LAP	2.02	LOP	219.94	VP	37.387	GAP	9.00	AZP	89.21	TAL	169.08	TAP	57.65	RCA	99.51	APO	151.94
RC	140.364	GL	-15.96	GP	21.01	ZAL	62.35	ZAP	152.56	ETS	44.25	ZAE	124.98	ETE	165.66	ZAC	121.46	ETC	258.10

V1	29.465	V2	35.028	CLP	-161.94														

PLANETOCENTRIC CONIC

C3	13.223	VHL	3.636	DLA	-39.41	RAL	270.31	RAD	6567.5	VEL	11.602	PTH	2.03	VHP	6.325	DPA	1.59	RAP	241.68
ECC	1.2176																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.37	9 54 17	1410.06	29.79	8.41	136.13	117.09	10 17 47	810.1	33.16	.32
118.63	16 25 28	5474.21	29.80	253.38	136.13	117.08	17 56 42	4874.2	33.17	245.28
61.37	9 54 17	1410.06	29.79	8.41	136.13	117.09	10 17 47	810.1	33.16	.32
118.63	16 25 28	5474.21	29.80	253.38	136.13	117.08	17 56 42	4874.2	33.17	245.28
61.37	9 54 17	1410.06	29.79	8.41	136.13	117.09	10 17 47	810.1	33.16	.32
118.63	16 25 28	5474.21	29.80	253.38	136.13	117.08	17 56 42	4874.2	33.17	245.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8472	TRA	1.8852	TC3	-5.4141	BAU	.9591	SGT	5662.6	SGR	782.2	SG3	309.3	ST	1768.1	SR	495.8
RDE	.2949	RRA	-.2829	RC3	.3461	FAU	.04037	RRT	-.8644	RRF	-.8567	RTF	.9677	CRT	-.9361	CRS	.7048
FDE	-.2586	FRA	1.4671	FC3	-2.6430	BSP	18171	SGB	5716.4	R23	.0324	R13	-.9680	LSA	1892.6	MSA	284.0
BDE	.8971	BRA	1.9063	BC3	5.4251	FSP	-1056	SG1	5703.1	SG2	390.6	THA	173.16	EL1	1828.5	EL2	168.6

SS	539.6	CST	-.9084
SSA	18.2	ALF	165.16

LAUNCH DATE AUG 25 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 530.875

RL	151.22	LAL	-.00	LOL	331.39	VL	26.418	GAL	3.24	AZL	91.96	HCA	251.77	SMA	125.51	ECC	.21215	INC	1.9622
RP	108.23	LAP	1.86	LOP	223.14	VP	37.350	GAP	9.38	AZP	89.39	TAL	167.80	TAP	59.57	RCA	98.88	APO	152.14
RC	142.552	GL	-14.01	GP	19.95	ZAL	59.97	ZAP	154.11	ETS	44.94	ZAE	124.87	ETE	166.49	ZAC	120.67	ETC	258.60

V1	29.465	V2	35.014	CLP	-163.16														

PLANETOCENTRIC CONIC

C3	13.926	VHL	3.732	DLA	-37.42	RAL	272.97	RAD	6567.5	VEL	11.632	PTH	2.04	VHP	6.502	DPA	.08	RAP	243.21
ECC	1.2292																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.44	10 19 57	1377.93	28.06	4.77	138.79	115.84	10 42 55	777.9	31.29	356.76
115.56	16 21 2	5528.94	28.08	256.92	138.79	115.83	17 53 11	4928.9	31.30	248.91
64.44	10 19 57	1377.93	28.06	4.77	138.79	115.84	10 42 55	777.9	31.29	356.76
115.56	16 21 2	5528.94	28.08	256.92	138.79	115.83	17 53 11	4928.9	31.30	248.91
64.44	10 19 57	1377.93	28.06	4.77	138.79	115.84	10 42 55	777.9	31.29	356.76
115.56	16 21 2	5528.94	28.08	256.92	138.79	115.83	17 53 11	4928.9	31.30	248.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7279	TRA	2.0775	TC3	-5.2825	BAU	.9852	SGT	5738.0	SGR	752.2	SG3	295.4	ST	1647.6	SR	478.1
RDE	.2917	RRA	-.2880	RC3	.3144	FAU	.03861	RRT	-.8485	RRF	-.8377	RTF	.9689	CRT	-.8920	CRS	.6079
FDE	-.1733	FRA	1.5002	FC3	-2.4004	BSP	18969	SGB	5787.1	R23	.0221	R13	-.9691	LSA	1763.3	MSA	309.8
BDE	.7842	BRA	2.0974	BC3	5.2918	FSP	-1058	SG1	5773.5	SG2	395.6	THA	173.62	EL1	1702.8	EL2	209.1

SS	512.0	CST	-.9003
SSA	17.8	ALF	165.26

LAUNCH DATE AUG 25 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 536.639

RL	151.22	LAL	-.00	LOL	331.39	VL	26.383	GAL	3.65	AZL	91.76	HCA	254.96	SMA	125.29	ECC	.21607	INC	1.7627
RP	108.27	LAP	1.70	LOP	226.34	VP	37.314	GAP	9.76	AZP	89.54	TAL	166.51	TAP	61.47	RCA	98.22	APO	152.37
RC	144.730	GL	-12.16	GP	18.99	ZAL	57.66	ZAP	155.57	ETS	45.75	ZAE	124.75	ETE	167.23	ZAC	119.98	ETC	259.10

V1	29.465	V2	35.001	CLP	-164.33														

PLANETOCENTRIC CONIC

C3	14.775	VHL	3.844	DLA	-35.52	RAL	275.48	RAD	6567.6	VEL	11.669	PTH	2.05	VHP	6.690	DPA	-1.32	RAP	244.82
ECC	1.2432																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.60	10 46 56	1340.75	26.36	.88	141.50	114.72	11 9 17	740.7	29.46	352.95
112.40	16 14 4	5592.29	26.37	261.11	141.51	114.71	17 47 16	4992.3	29.47	253.18
67.60	10 46 56	1340.75	26.36	.88	141.50	114.72	11 9 17	740.7	29.46	352.95
112.40	16 14 4	5592.29	26.37	261.11	141.51	114.71	17 47 16	4992.3	29.47	253.18
67.60	10 46 56	1340.75	26.36	.88	141.50	114.72	11 9 17	740.7	29.46	352.95
112.40	16 14 4	5592.29	26.37	261.11	141.51	114.71	17 47 16	4992.3	29.47	253.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5675	TRA	2.3217	TC3	-4.9942	BAU	.9879	SGT	5791.0	SGR	724.7	SG3	282.9	ST	1534.9	SR	455.7
RDE	-.2849	RRA	-.3005	RC3	.2665	FAU	.03516	RRT	-.8306	RRF	-.8180	RTF	.9672	CRT	-.8157	CRS	.4625
FDE	-.0637	FRA	1.5639	FC3	-2.0603	BSP	18754	SGB	5836.2	R23	.0193	R13	-.9674	LSA	1640.8	MSA	348.5
BDE	.6350	BRA	2.3411	BC3	5.0013	FSP	-985	SG1	5822.4	SG2	401.4	THA	174.04	EL1	1580.5	EL2	256.0

SS	500.5	CST	-.8893
SSA	17.6	ALF	166.01

LAUNCH DATE AUG 25 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 542.366
RL 151.22 LAL -.00 LOL 331.39 VL 26.349 GAL 4.09 AZL 91.57 HCA 258.16 SMA 125.08 ECC .22029 INC 1.5692 V1 29.465
RP 108.31 LAP 1.54 LOP 229.54 VP 37.277 GAP 10.16 AZP 89.68 TAL 165.20 TAP 63.36 RCA 97.53 APO 152.63 V2 34.988
RC 146.899 GL -10.44 GP 18.12 ZAL 55.42 ZAP 156.93 ETS 46.71 ZAE 124.62 ETE 167.88 ZAC 119.36 ETC 259.60 CLP-165.47
PLANETOCENTRIC CONIC
C3 15.778 VHL 3.972 DLA -33.70 RAL 277.85 RAD 6567.6 VEL 11.712 PTH 2.06 VHP 6.892 DPA -2.62 RAP 246.52 ECC 1.2597

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.91	11 15 48	1296.58	24.69	356.58	144.25	113.70	11 37 25	696.6	27.68	348.72
109.09	16 4 4	5665.98	24.70	266.07	144.26	113.69	17 38 30	5066.0	27.69	258.21
70.91	11 15 48	1296.58	24.69	356.58	144.25	113.70	11 37 25	696.6	27.68	348.72
109.09	16 4 4	5665.98	24.70	266.07	144.26	113.69	17 38 30	5066.0	27.69	258.21
110.00	15 26 8	5781.94	21.09	273.21	142.38	117.55	17 2 30	5181.9	24.60	265.83
110.00	16 52 54	5516.66	28.41	256.11	145.92	109.86	18 24 51	4916.7	30.85	247.75

DIFFERENTIAL CORRECTIONS
TDE -.4192 TRA 2.5636 TC3-4.7161 BAU .9960
RDE .2829 RRA -.3114 RC3 .2305 FAU .03236
FDE .0238 FRA 1.6130 FC3-1.7753 BSP 18829
BDE .5057 BRA 2.5824 BC3 4.7217 FSP -936

MID-COURSE EXECUTION ACCURACY
SGT 5844.5 SGR 701.1 SG3 270.6
RRT -.8133 RRF -.7987 RTF .9665
SGB 5886.4 R23 .0153 R13 -.9666
SG1 5872.4 SG2 406.0 THA 174.40

ORBIT DETERMINATION ACCURACY
ST 1468.4 SR 439.1 SS 500.6
CRT -.7186 CRS .3307 CST -.8932
LSA 1567.1 MSA 378.9 SSA 17.2
EL1 1503.4 EL2 298.3 ALF 167.37

LAUNCH DATE AUG 25 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 548.054
RL 151.22 LAL -.00 LOL 331.39 VL 26.314 GAL 4.55 AZL 91.38 HCA 261.35 SMA 124.87 ECC .22482 INC 1.3804 V1 29.465
RP 108.35 LAP 1.36 LOP 232.73 VP 37.240 GAP 10.57 AZP 89.79 TAL 163.89 TAP 65.24 RCA 96.79 APO 152.94 V2 34.975
RC 149.057 GL -8.83 GP 17.33 ZAL 53.27 ZAP 158.21 ETS 47.82 ZAE 124.49 ETE 168.47 ZAC 118.81 ETC 260.10 CLP-166.59
PLANETOCENTRIC CONIC
C3 16.951 VHL 4.117 DLA -31.97 RAL 280.07 RAD 6567.7 VEL 11.762 PTH 2.08 VHP 7.106 DPA -3.83 RAP 248.28 ECC 1.2790

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.50	11 47 48	1241.41	23.06	351.58	147.04	112.78	12 8 30	641.4	25.94	343.79
105.50	15 49 49	5753.91	23.08	272.06	147.05	112.77	17 25 43	5153.9	25.96	264.27
74.50	11 47 48	1241.41	23.06	351.58	147.04	112.78	12 8 30	641.4	25.94	343.79
105.50	15 49 49	5753.91	23.08	272.06	147.05	112.77	17 25 43	5153.9	25.96	264.27
110.00	14 45 47	664.64	15.39	305.27	142.94	120.90	14 56 52	64.6	19.38	298.41
110.00	17 51 1	5378.68	31.21	246.34	150.15	104.70	19 20 40	4778.7	32.91	237.53

DIFFERENTIAL CORRECTIONS
TDE -.2740 TRA 2.8130 TC3-4.4283 BAU 1.0046
RDE .2839 RRA -.3223 RC3 .2004 FAU .02979
FDE .0984 FRA 1.6562 FC3-1.5214 BSP 18985
BDE .3945 BRA 2.8314 BC3 4.4328 FSP -895

MID-COURSE EXECUTION ACCURACY
SGT 5893.8 SGR 680.3 SG3 258.8
RRT -.7961 RRF -.7799 RTF .9661
SGB 5932.9 R23 .0116 R13 -.9662
SG1 5918.7 SG2 409.9 THA 174.72

ORBIT DETERMINATION ACCURACY
ST 1440.1 SR 425.7 SS 507.9
CRT -.6047 CRS .2140 CST -.9067
LSA 1533.7 MSA 400.6 SSA 16.8
EL1 1464.2 EL2 333.5 ALF 169.30

LAUNCH DATE AUG 25 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 553.699
RL 151.22 LAL -.00 LOL 331.39 VL 26.280 GAL 5.03 AZL 91.19 HCA 264.54 SMA 124.65 ECC .22971 INC 1.1948 V1 29.465
RP 108.39 LAP 1.19 LOP 235.92 VP 37.204 GAP 10.99 AZP 89.89 TAL 162.58 TAP 67.11 RCA 96.02 APO 153.29 V2 34.962
RC 151.205 GL 7.33 GP 16.62 ZAL 51.20 ZAP 159.41 ETS 49.12 ZAE 124.35 ETE 168.98 ZAC 118.31 ETC 260.61 CLP-167.68
PLANETOCENTRIC CONIC
C3 18.311 VHL 4.279 DLA -30.33 RAL 282.17 RAD 6567.7 VEL 11.819 PTH 2.09 VHP 7.333 DPA -4.94 RAP 250.11 ECC 1.3013

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.66	12 25 42	1166.24	21.48	345.21	149.86	111.93	12 45 8	566.2	24.27	337.49
101.34	15 28 40	5864.89	21.50	279.72	149.87	111.92	17 6 25	5264.9	24.28	271.99
78.66	12 25 42	1166.24	21.48	345.21	149.86	111.93	12 45 8	566.2	24.27	337.49
101.34	15 28 40	5864.89	21.50	279.72	149.87	111.92	17 6 25	5264.9	24.28	271.99
110.00	14 24 58	777.60	11.35	311.52	144.45	122.46	14 37 56	177.6	15.55	304.94
110.00	18 28 34	5301.53	32.41	240.65	153.54	101.53	19 56 56	4701.5	33.65	231.63

DIFFERENTIAL CORRECTIONS
TDE -.1413 TRA 3.0605 TC3-4.1577 BAU 1.0187
RDE .2884 RRA -.3321 RC3 .1779 FAU .02775
FDE .1553 FRA 1.6881 FC3-1.3122 BSP 19451
BDE .3211 BRA 3.0785 BC3 4.1615 FSP -876

MID-COURSE EXECUTION ACCURACY
SGT 5936.1 SGR 661.6 SG3 246.8
RRT -.7794 RRF -.7618 RTF .9664
SGB 5972.9 R23 .0079 R13 -.9665
SG1 5958.6 SG2 413.0 THA 175.01

ORBIT DETERMINATION ACCURACY
ST 1440.8 SR 415.9 SS 515.3
CRT -.4900 CRS .1221 CST -.9244
LSA 1531.2 MSA 411.9 SSA 16.3
EL1 1456.1 EL2 358.8 ALF 171.42

LAUNCH DATE AUG 25 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 559.300
RL 151.22 LAL -.00 LOL 331.39 VL 26.245 GAL 5.55 AZL 91.01 HCA 267.72 SMA 124.44 ECC .23497 INC 1.0114 V1 29.465
RP 108.43 LAP 1.01 LOP 239.11 VP 37.168 GAP 11.44 AZP 89.96 TAL 161.26 TAP 68.98 RCA 95.20 APO 153.68 V2 34.949
RC 153.343 GL -5.94 GP 15.97 ZAL 49.21 ZAP 160.55 ETS 50.61 ZAE 124.21 ETE 169.45 ZAC 117.86 ETC 261.13 CLP-168.75
PLANETOCENTRIC CONIC
C3 19.878 VHL 4.458 DLA -28.77 RAL 284.15 RAD 6567.8 VEL 11.885 PTH 2.11 VHP 7.576 DPA -5.98 RAP 251.99 ECC 1.3271

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.68	13 20 43	1034.51	19.96	334.82	152.72	111.16	13 37 57	434.5	22.66	327.16
95.32	14 49 26	747.33	19.98	313.79	152.72	111.15	15 1 53	147.3	22.67	306.12
100.00	14 17 44	849.42	14.50	318.78	150.20	116.43	14 31 54	249.4	17.93	311.67
100.00	16 35 6	5695.70	25.63	268.68	154.78	105.93	18 10 1	5095.7	27.57	260.42
110.00	14 10 51	871.10	7.89	316.55	146.32	123.37	14 25 22	271.1	12.22	310.13
110.00	18 58 29	5246.78	33.08	236.51	156.68	99.17	20 25 55	4646.8	33.99	227.39

DIFFERENTIAL CORRECTIONS
TDE .0180 TRA 3.3458 TC3-3.8272 BAU 1.0179
RDE .2913 RRA -.3454 RC3 .1515 FAU .02501
FDE .2221 FRA 1.7342 FC3-1.0893 BSP 19304
BDE .2918 BRA 3.3635 BC3 3.8302 FSP -821

MID-COURSE EXECUTION ACCURACY
SGT 5975.6 SGR 644.0 SG3 236.5
RRT -.7630 RRF -.7443 RTF .9657
SGB 6010.2 R23 .0061 R13 -.9658
SG1 5995.9 SG2 414.9 THA 175.28

ORBIT DETERMINATION ACCURACY
ST 1475.3 SR 404.0 SS 533.4
CRT -.3613 CRS .0278 CST -.9416
LSA 1565.4 MSA 416.4 SSA 16.0
EL1 1483.0 EL2 374.7 ALF 173.96

LAUNCH DATE AUG 25 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 564.847

RL 151.22 LAL -.00 LOL 331.39 VL 26.211 GAL 6.09 AZL 90.83 HCA 270.91 SMA 124.23 ECC .24065 INC .8289 V1 29.465
RP 108.47 LAP .83 LOP 242.29 VP 37.132 GAP 11.90 AZP 90.01 TAL 159.94 TAP 70.84 RCA 94.33 APO 154.13 V2 34.937
RC 155.470 GL -4.65 GP 15.38 ZAL 47.33 ZAP 161.61 ETS 52.32 ZAE 124.07 ETE 169.86 ZAC 117.46 ETC 261.66 CLP-169.80

PLANETOCENTRIC CONIC

C3 21.677 VHL 4.656 DLA -27.30 RAL 286.01 RAD 6567.9 VEL 11.961 PTH 2.13 VHP 7.834 DPA -6.93 RAP 253.92 ECC 1.3567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 5 58	1128.72	13.30	338.72	153.32	115.23	13 24 47	528.7	16.59	331.59
90.00	15 19 2	694.65	23.87	311.34	157.47	105.70	15 30 37	94.6	25.80	303.20
100.00	13 49 40	987.54	10.17	326.75	151.71	118.26	14 6 7	387.5	13.87	319.92
100.00	17 18 2	5599.10	27.26	261.97	158.42	102.76	18 51 21	4999.1	28.75	253.48
110.00	14 0 23	953.88	4.77	320.92	148.42	123.89	14 16 17	353.9	9.18	314.62
110.00	19 23 48	5205.52	33.48	233.36	159.70	97.35	20 50 33	4605.5	34.13	224.18

DIFFERENTIAL CORRECTIONS
TDE .1663 TRA 3.6318 TC3-3.5236 BAU 1.0218
RDE .2971 RRA -.3577 RC3 .1314 FAU .02277
FDE .2739 FRA 1.7712 FC3 -.9094 BSP 19453
BDE .3404 BRA 3.6494 BC3 3.5260 FSP -787

MID-COURSE EXECUTION ACCURACY
SGT 6008.6 SGR 627.7 SG3 226.1
RRT -.7472 RRF -.7278 RTF .9657
SGB 6041.3 RZ3 .0041 RI3 -.9658
SG1 6027.0 SG2 415.9 THA 175.52

ORBIT DETERMINATION ACCURACY
ST 1525.9 SR 394.6 SS 548.1
CRT -.2487 CRS -.0432 CST -.9564
LSA 1616.7 MSA 413.0 SSA 15.5
EL1 1529.2 EL2 381.4 ALF 176.07

LAUNCH DATE AUG 25 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 570.337

RL 151.22 LAL -.00 LOL 331.39 VL 26.176 GAL 6.66 AZL 90.65 HCA 274.09 SMA 124.02 ECC .24679 INC .6462 V1 29.465
RP 108.51 LAP .64 LOP 245.48 VP 37.096 GAP 12.38 AZP 90.05 TAL 158.62 TAP 72.71 RCA 93.41 APO 154.63 V2 34.925
RC 157.587 GL -3.45 GP 14.84 ZAL 45.53 ZAP 162.61 ETS 54.27 ZAE 123.93 ETE 170.23 ZAC 117.09 ETC 262.19 CLP-170.83

PLANETOCENTRIC CONIC

C3 23.738 VHL 4.872 DLA -25.92 RAL 287.76 RAD 6568.0 VEL 12.046 PTH 2.15 VHP 8.109 DPA -7.82 RAP 255.90 ECC 1.3907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 37 21	1269.77	9.07	346.92	154.93	116.94	12 58 31	669.8	12.61	340.04
90.00	16 1 39	5885.77	25.50	282.61	161.11	102.76	17 39 45	5285.8	27.00	274.26
100.00	13 32 0	1093.31	6.71	332.69	153.66	119.20	13 50 13	493.3	10.55	326.01
100.00	17 49 41	5537.47	28.11	257.59	161.72	100.60	19 21 59	4937.5	29.29	248.98
110.00	13 52 17	1029.64	1.88	324.89	150.68	124.14	14 9 27	429.6	6.35	318.65
110.00	19 45 53	5173.90	33.73	230.93	162.67	95.92	21 12 7	4573.9	34.18	221.71

DIFFERENTIAL CORRECTIONS
TDE .3167 TRA 3.9317 TC3-3.2246 BAU 1.0239
RDE .3039 RRA -.3702 RC3 .1137 FAU .02063
FDE .3205 FRA 1.8071 FC3 -.7524 BSP 19598
BDE .4389 BRA 3.9491 BC3 3.2266 FSP -754

MID-COURSE EXECUTION ACCURACY
SGT 6036.3 SGR 611.8 SG3 216.2
RRT -.7319 RRF -.7120 RTF .9659
SGB 6067.2 RZ3 .0025 RI3 -.9659
SG1 6052.9 SG2 415.7 THA 175.74

ORBIT DETERMINATION ACCURACY
ST 1589.3 SR 385.8 SS 562.6
CRT -.1486 CRS -.1023 CST -.9680
LSA 1681.3 MSA 405.1 SSA 15.1
EL1 1590.4 EL2 381.3 ALF 177.81

LAUNCH DATE AUG 25 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 575.762

RL 151.22 LAL -.00 LOL 331.39 VL 26.142 GAL 7.27 AZL 90.46 HCA 277.27 SMA 123.81 ECC .25344 INC .4622 V1 29.465
RP 108.54 LAP .46 LOP 248.66 VP 37.060 GAP 12.89 AZP 90.06 TAL 157.30 TAP 74.57 RCA 92.43 APO 155.19 V2 34.913
RC 159.692 GL -2.35 GP 14.35 ZAL 43.83 ZAP 163.54 ETS 56.48 ZAE 123.79 ETE 170.57 ZAC 116.74 ETC 262.73 CLP-171.85

PLANETOCENTRIC CONIC

C3 26.095 VHL 5.108 DLA -24.61 RAL 289.42 RAD 6568.1 VEL 12.144 PTH 2.18 VHP 8.402 DPA -8.62 RAP 257.91 ECC 1.4295

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 19 21	1377.19	5.70	353.02	156.96	117.78	12 42 18	777.2	9.38	346.27
90.00	16 32 50	5824.97	26.34	278.36	164.43	100.79	18 9 55	5225.0	27.56	269.90
100.00	13 19 10	1184.07	3.67	337.72	155.85	119.69	13 38 54	584.1	7.59	331.13
100.00	18 15 42	5493.33	28.63	254.41	164.88	99.00	19 47 15	4893.3	29.57	245.73
110.00	13 45 51	1100.38	-.83	328.58	153.05	124.17	14 4 11	500.4	3.66	322.37
110.00	20 5 30	5149.78	33.88	229.06	165.62	94.83	21 31 20	4549.8	34.18	219.83

DIFFERENTIAL CORRECTIONS
TDE .4688 TRA 4.2460 TC3-2.9340 BAU 1.0241
RDE .3119 RRA -.3829 RC3 .0981 FAU .01860
FDE .3617 FRA 1.8422 FC3 -.6172 BSP 19765
BDE .5631 BRA 4.2632 BC3 2.9356 FSP -725

MID-COURSE EXECUTION ACCURACY
SGT 6058.1 SGR 596.3 SG3 206.8
RRT -.7172 RRF -.6971 RTF .9662
SGB 6087.4 RZ3 .0013 RI3 -.9662
SG1 6073.3 SG2 414.5 THA 175.94

ORBIT DETERMINATION ACCURACY
ST 1659.5 SR 377.5 SS 576.1
CRT -.0623 CRS -.1510 CST -.9768
LSA 1752.9 MSA 394.5 SSA 14.7
EL1 1659.7 EL2 376.7 ALF 179.14

LAUNCH DATE AUG 25 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 581.114

RL 151.22 LAL -.00 LOL 331.39 VL 26.108 GAL 7.92 AZL 90.28 HCA 280.45 SMA 123.61 ECC .26064 INC .2754 V1 29.465
RP 108.58 LAP .27 LOP 251.84 VP 37.026 GAP 13.43 AZP 90.05 TAL 156.00 TAP 76.45 RCA 91.39 APO 155.83 V2 34.901
RC 161.784 GL -1.33 GP 13.90 ZAL 42.22 ZAP 164.41 ETS 58.98 ZAE 123.63 ETE 170.88 ZAC 116.42 ETC 263.28 CLP-172.86

PLANETOCENTRIC CONIC

C3 28.793 VHL 5.366 DLA -23.39 RAL 290.97 RAD 6568.2 VEL 12.254 PTH 2.20 VHP 8.717 DPA -9.36 RAP 259.96 ECC 1.4739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 6 12	1469.15	2.76	358.18	159.21	118.19	12 30 41	869.2	6.51	351.51
90.00	16 58 22	5781.95	26.85	275.31	167.60	99.34	18 34 44	5182.0	27.87	266.79
100.00	13 9 15	1265.67	.91	342.20	158.18	119.88	13 30 20	665.7	4.88	335.66
100.00	18 38 1	5460.66	28.95	252.03	167.96	97.79	20 9 2	4860.7	29.73	243.31
110.00	13 40 37	1167.27	-3.38	332.07	155.51	124.04	14 0 5	567.3	1.11	325.86
110.00	20 23 7	5131.84	33.98	227.67	168.57	94.01	21 48 39	4531.8	34.16	218.43

DIFFERENTIAL CORRECTIONS
TDE .6239 TRA 4.5764 TC3-2.6541 BAU 1.0222
RDE .3207 RRA -.3955 RC3 .0842 FAU .01667
FDE .3990 FRA 1.8772 FC3 -.5014 BSP 19932
BDE .7015 BRA 4.5935 BC3 2.6554 FSP -697

MID-COURSE EXECUTION ACCURACY
SGT 6074.6 SGR 580.7 SG3 197.8
RRT -.7028 RRF -.6829 RTF .9667
SGB 6102.3 RZ3 .0004 RI3 -.9667
SG1 6088.4 SG2 412.1 THA 176.14

ORBIT DETERMINATION ACCURACY
ST 1732.7 SR 369.2 SS 588.7
CRT .0116 CRS -.1919 CST -.9832
LSA 1827.1 MSA 382.6 SSA 14.2
EL1 1732.7 EL2 369.2 ALF .15

LAUNCH DATE AUG 25 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 586.382

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RL  151.22 LAL   -.00 LOL 331.39 VL  26.074 GAL   8.61 AZL  90.09 HCA 283.62 SMA 123.40 ECC .26847 INC  .0842 V1  29.465
RP  108.61 LAP    .08 LOP 255.01 VP  36.991 GAP  14.00 AZP  90.02 TAL 154.71 TAP  78.33 RCA  90.27 APO 156.54 V2  34.890
RC 163.865 GL    -.39 GP   13.49 ZAL  40.71 ZAP 165.21 ETS  61.81 ZAE 123.47 ETE 171.16 ZAC 116.12 ETC 263.84 CLP-173.87
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PLANETOCENTRIC CONIC

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C3  31.880 VHL  5.646 DLA -22.24 RAL 292.43 RAD 6568.3 VEL 12.380 PTH   2.23 VHP   9.054 DPA -10.04 RAP 262.03 ECC 1.5247
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 55 59	1551.70	.10	2.79	161.60	118.32	12 21 51	951.7	3.88	356.15
90.00	17 20 14	5750.51	27.18	273.07	170.71	98.26	18 56 4	5150.5	28.04	264.51
100.00	13 1 17	1340.95	-1.65	346.33	160.63	119.85	13 23 38	740.9	2.34	339.81
100.00	18 57 37	5436.50	29.16	250.27	171.01	96.88	20 28 13	4836.5	29.81	241.52
110.00	13 36 20	1231.09	-5.80	335.42	158.05	123.75	13 56 51	631.1	-1.33	329.19
110.00	20 39 4	5119.12	34.03	226.68	171.52	93.43	22 4 23	4519.1	34.13	217.43

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .7819 TRA 4.9240 TC3-2.3862 BAU 1.0175   SGT 6085.3 SGR  564.8 SG3  189.2          ST  1805.2 SR   361.0 SS   600.2
RDE  .3302 RRA -.4081 RC3  .0718 FAU .01483   RRT -.6888 RRF -.6692 RTF  .9674          CRT  .0742 CRS -.2264 CST -.9878
FDE  .4328 FRA 1.9126 FC3 -.4027 BSP  20116   SGB 6111.5 R23 -.0003 R13 -.9674          LSA 1900.6 MSA  370.0 SSA   13.8
BDE  .8488 BRA 4.9409 BC3 2.3873 FSP   -671   SG1 6097.8 SG2  408.6 THA 176.33          EL1 1805.4 EL2  359.9 ALF    .89
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LAUNCH DATE AUG 25 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 591.555

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RL  151.22 LAL   -.00 LOL 331.39 VL  26.040 GAL   9.35 AZL  89.89 HCA 286.80 SMA 123.20 ECC .27700 INC  .1088 V1  29.465
RP  108.65 LAP   -.11 LOP 258.18 VP  36.957 GAP  14.61 AZP  89.97 TAL 153.44 TAP  80.24 RCA  89.08 APO 157.33 V2  34.880
RC 165.932 GL     .47 GP   13.11 ZAL  39.28 ZAP 165.94 ETS  64.98 ZAE 123.30 ETE 171.41 ZAC 115.83 ETC 264.39 CLP-174.88
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PLANETOCENTRIC CONIC

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C3  35.419 VHL  5.951 DLA -21.16 RAL 293.80 RAD 6568.4 VEL 12.522 PTH   2.27 VHP   9.417 DPA -10.64 RAP 264.13 ECC 1.5829
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 47 45	1627.73	-2.35	7.03	164.10	118.23	12 14 52	1027.7	1.44	.40
90.00	17 39 24	5727.58	27.39	271.42	173.77	97.47	19 14 51	5127.6	28.14	262.84
100.00	12 54 45	1411.47	-4.03	350.21	163.17	119.64	13 18 16	811.5	-.05	343.68
100.00	19 15 4	5419.06	29.30	248.99	174.03	96.22	20 45 24	4819.1	29.85	240.23
110.00	13 32 45	1292.37	-8.11	338.67	160.66	123.32	13 54 17	692.4	-3.67	332.39
110.00	20 53 34	5110.93	34.06	226.04	174.49	93.05	22 18 45	4510.9	34.11	216.79

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .9443 TRA 5.2909 TC3-2.1314 BAU 1.0097   SGT 6090.7 SGR  548.5 SG3  181.1          ST  1875.4 SR   352.6 SS   611.0
RDE  .3404 RRA -.4202 RC3  .0606 FAU .01306   RRT -.6750 RRF -.6559 RTF  .9683          CRT  .1278 CRS -.2560 CST -.9912
FDE  .4640 FRA 1.9489 FC3 -.3193 BSP  20301   SGB 6115.3 R23 -.0008 R13 -.9683          LSA 1971.6 MSA  357.2 SSA   13.4
BDE 1.0037 BRA 5.3076 BC3 2.1323 FSP   -646   SG1 6102.0 SG2  403.9 THA 176.51          EL1 1876.0 EL2  349.6 ALF   1.43
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LAUNCH DATE AUG 25 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 596.616

```
RL  151.22 LAL   -.00 LOL 331.39 VL  26.007 GAL  10.14 AZL  89.69 HCA 289.97 SMA 123.01 ECC .28630 INC  .3115 V1  29.465
RP  108.68 LAP   -.29 LOP 261.36 VP  36.924 GAP  15.27 AZP  89.89 TAL 152.19 TAP  82.16 RCA  87.79 APO 158.22 V2  34.869
RC 167.985 GL    1.27 GP   12.76 ZAL  37.95 ZAP 166.60 ETS  68.54 ZAE 123.12 ETE 171.65 ZAC 115.56 ETC 264.95 CLP-175.89
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PLANETOCENTRIC CONIC

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C3  39.484 VHL  6.284 DLA -20.15 RAL 295.08 RAD 6568.5 VEL 12.683 PTH   2.30 VHP   9.809 DPA -11.19 RAP 266.24 ECC 1.6498
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 40 56	1698.84	-4.63	11.01	166.67	117.97	12 9 15	1098.8	-.86	4.37
90.00	17 56 26	5711.36	27.53	270.26	176.81	96.90	19 31 37	5111.4	28.20	261.66
100.00	12 49 17	1478.25	-6.27	353.90	165.77	119.29	13 13 55	878.3	-2.32	347.34
100.00	19 30 46	5407.18	29.38	248.12	177.04	95.77	21 0 53	4807.2	29.87	239.34
110.00	13 29 44	1351.47	-10.30	341.84	163.32	122.77	13 52 16	751.5	-5.91	335.50
110.00	21 6 48	5106.72	34.08	225.71	177.46	92.86	22 31 55	4506.7	34.10	216.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.1124 TRA 5.6800 TC3-1.8894 BAU  .9977   SGT 6091.3 SGR  531.6 SG3  173.4          ST  1942.5 SR   344.0 SS   621.5
RDE  .3511 RRA -.4320 RC3  .0506 FAU .01134   RRT -.6612 RRF -.6429 RTF  .9694          CRT  .1740 CRS -.2819 CST -.9936
FDE  .4934 FRA 1.9874 FC3 -.2487 BSP  20476   SGB 6114.5 R23 -.0010 R13 -.9694          LSA 2039.4 MSA  344.3 SSA   13.0
BDE 1.1665 BRA 5.6964 BC3 1.8901 FSP   -623   SG1 6101.5 SG2  398.2 THA 176.68          EL1 1943.5 EL2  338.6 ALF   1.82
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LAUNCH DATE AUG 25 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 601.548

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RL  151.22 LAL   -.00 LOL 331.39 VL  25.974 GAL  10.99 AZL  89.48 HCA 293.14 SMA 122.81 ECC .29647 INC  .5215 V1  29.465
RP  108.71 LAP   -.48 LOP 264.53 VP  36.892 GAP  15.97 AZP  89.80 TAL 150.97 TAP  84.11 RCA  86.40 APO 159.22 V2  34.859
RC 170.025 GL    2.00 GP   12.45 ZAL  36.71 ZAP 167.18 ETS  72.50 ZAE 122.93 ETE 171.87 ZAC 115.29 ETC 265.52 CLP-176.90
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PLANETOCENTRIC CONIC

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C3  44.164 VHL  6.646 DLA -19.21 RAL 296.28 RAD 6568.7 VEL 12.866 PTH   2.34 VHP  10.233 DPA -11.67 RAP 268.35 ECC 1.7268
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 35 12	1766.05	-6.77	14.80	169.30	117.56	12 4 38	1166.0	-3.02	8.12
90.00	18 11 43	5700.66	27.62	269.49	179.82	96.52	19 46 43	5100.7	28.23	260.87
100.00	12 44 39	1541.92	-8.37	357.46	168.43	118.80	13 10 21	941.9	-4.47	350.85
100.00	19 44 57	5400.02	29.43	247.59	180.04	95.50	21 14 57	4800.0	29.88	238.81
110.00	13 27 11	1408.65	-12.39	344.95	166.03	122.12	13 50 40	808.7	-8.06	338.53
110.00	21 18 54	5106.05	34.08	225.66	180.44	92.83	22 44 0	4506.0	34.10	216.41

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.2878 TRA 6.0940 TC3-1.6600 BAU  .9804   SGT 6087.6 SGR  514.0 SG3  166.1          ST  2005.8 SR   335.1 SS   632.1
RDE  .3623 RRA -.4430 RC3  .0414 FAU .00964   RRT -.6471 RRF -.6298 RTF  .9706          CRT  .2145 CRS -.3051 CST -.9954
FDE  .5218 FRA 2.0285 FC3 -.1890 BSP  20616   SGB 6109.2 R23 -.0011 R13 -.9706          LSA 2103.6 MSA  331.4 SSA   12.6
BDE 1.3378 BRA 6.1101 BC3 1.6605 FSP   -599   SG1 6096.7 SG2  391.3 THA 176.86          EL1 2007.2 EL2  327.1 ALF   2.11
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LAUNCH DATE AUG 25 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 606.328

RL	151.22	LAL	-.00	LOL	331.39	VL	25.942	GAL	11.91	AZL	89.26	HCA	296.31	SMA	122.62	ECC	.30763	INC	.7415	V1	29.465
RP	108.74	LAP	-.66	LOP	267.70	VP	36.860	GAP	16.73	AZP	89.67	TAL	149.79	TAP	86.09	RCA	84.90	APO	160.34	V2	34.850
RC	172.049	GL	2.67	GP	12.15	ZAL	35.55	ZAP	167.67	ETS	76.88	ZAE	122.71	ETE	172.08	ZAC	115.03	ETC	266.08	CLP	-177.93

PLANETOCENTRIC CONIC

C3	49.570	VHL	7.041	DLA	-18.34	RAL	297.39	RAD	6568.8	VEL	13.074	PTH	2.39	VHP	10.695	DPA	-12.09	RAP	270.48	ECC	1.8158		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 30 18	1829.99	-8.76	18.44	171.97	117.03	12 0 48	1230.0	-5.07	11.70
90.00	18 25 29	5694.60	27.66	269.05	182.81	96.30	20 0 24	5094.6	28.25	260.43
100.00	12 40 40	1602.91	-10.35	.90	171.13	118.20	13 7 23	1002.9	-6.51	354.23
100.00	19 57 48	5396.91	29.45	247.36	183.02	95.38	21 27 45	4796.9	29.88	238.58
110.00	13 24 59	1464.08	-14.38	348.02	168.77	121.35	13 49 23	864.1	-10.12	341.50
110.00	21 29 59	5108.51	34.07	225.85	183.42	92.94	22 55 7	4508.5	34.10	216.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4724	TRA	6.5369	TC3	-1.4432	BAU	.9567	SGT	6080.5	SGR	495.6	SG3	159.3	ST	2065.4	SR	325.9	SS	643.3				
RDE	.3740	RRA	-.4530	RC3	.0330	FAU	.00794	RRT	-.6326	RRF	-.6166	RTF	.9720	CRT	.2506	CRS	-.3264	CST	-.9967				
FDE	.5498	FRA	2.0733	FC3	-.1387	BSP	20703	SGB	6100.7	R23	-.0011	R13	-.9720	LSA	2164.4	MSA	318.4	SSA	12.2				
BDE	1.5191	BRA	6.5525	BC3	1.4436	FSP	-575	SG1	6088.6	SG2	383.3	THA	177.04	EL1	2067.1	EL2	315.2	ALF	2.32				

LAUNCH DATE AUG 25 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 610.929

RL	151.22	LAL	-.00	LOL	331.39	VL	25.910	GAL	12.90	AZL	89.03	HCA	299.47	SMA	122.44	ECC	.31989	INC	.9739	V1	29.465		
RP	108.77	LAP	-.85	LOP	270.86	VP	36.830	GAP	17.56	AZP	89.52	TAL	148.65	TAP	88.12	RCA	83.27	APO	161.60	V2	34.841		
RC	174.060	GL	3.29	GP	11.89	ZAL	34.49	ZAP	168.07	ETS	81.68	ZAE	122.47	ETE	172.28	ZAC	114.77	ETC	266.64	CLP	-178.97		

PLANETOCENTRIC CONIC

C3	55.839	VHL	7.473	DLA	-17.52	RAL	298.42	RAD	6569.0	VEL	13.312	PTH	2.43	VHP	11.199	DPA	-12.46	RAP	272.59	ECC	1.9190		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 26 4	1891.09	-10.63	21.95	174.68	116.40	11 57 35	1291.1	-7.00	15.15
90.00	18 37 56	5692.54	27.68	268.90	185.77	96.23	20 12 48	5092.5	28.25	260.28
100.00	12 37 12	1661.52	-12.22	4.25	173.86	117.49	13 4 54	1061.5	-8.44	357.50
100.00	20 9 28	5397.35	29.45	247.39	185.98	95.40	21 39 25	4797.3	29.88	238.61
110.00	13 23 4	1517.85	-16.26	351.05	171.55	120.49	13 48 22	917.8	-12.09	344.42
110.00	21 40 6	5113.78	34.05	226.26	186.39	93.18	23 5 20	4513.8	34.12	217.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6678	TRA	7.0120	TC3	-1.2385	BAU	.9248	SGT	6070.4	SGR	476.4	SG3	152.9	ST	2121.1	SR	316.3	SS	655.4				
RDE	.3860	RRA	-.4618	RC3	.0255	FAU	.00622	RRT	-.6174	RRF	-.6027	RTF	.9736	CRT	.2833	CRS	-.3464	CST	-.9976				
FDE	.5783	FRA	2.1226	FC3	-.0964	BSP	20703	SGB	6089.0	R23	-.0009	R13	-.9736	LSA	2221.6	MSA	305.4	SSA	11.8				
BDE	1.7119	BRA	7.0272	BC3	1.2388	FSP	-550	SG1	6077.5	SG2	374.3	THA	177.22	EL1	2123.1	EL2	303.0	ALF	2.47				

LAUNCH DATE AUG 25 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 615.316

RL	151.22	LAL	-.00	LOL	331.39	VL	25.879	GAL	13.97	AZL	88.78	HCA	302.64	SMA	122.25	ECC	.33342	INC	1.2211	V1	29.465		
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.800	GAP	18.46	AZP	89.34	TAL	147.57	TAP	90.20	RCA	81.49	APO	163.01	V2	34.833		
RC	176.055	GL	3.86	GP	11.64	ZAL	33.52	ZAP	168.36	ETS	86.88	ZAE	122.21	ETE	172.47	ZAC	114.51	ETC	267.20	CLP	179.97		

PLANETOCENTRIC CONIC

C3	63.139	VHL	7.946	DLA	-16.77	RAL	299.36	RAD	6569.2	VEL	13.583	PTH	2.48	VHP	11.751	DPA	-12.77	RAP	274.69	ECC	2.0391		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 22 21	1949.61	-12.38	25.36	177.40	115.67	11 54 50	1349.6	-8.83	18.48
90.00	18 49 10	5693.94	27.67	269.00	188.70	96.28	20 24 4	5093.9	28.25	260.38
100.00	12 34 9	1717.89	-13.97	7.52	176.60	116.70	13 2 47	1117.9	-10.27	.68
100.00	20 20 2	5400.90	29.42	247.65	188.91	95.53	21 50 3	4800.9	29.88	238.88
110.00	13 21 22	1569.99	-18.04	354.05	174.34	119.54	13 47 32	970.0	-13.97	347.30
110.00	21 49 19	5121.55	34.02	226.87	189.33	93.54	23 14 40	4521.6	34.14	217.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8774	TRA	7.5245	TC3	-1.0458	BAU	.8829	SGT	6058.4	SGR	456.3	SG3	146.9	ST	2173.7	SR	306.3	SS	668.8				
RDE	.3986	RRA	-.4689	RC3	.0187	FAU	.00445	RRT	-.6009	RRF	-.5878	RTF	.9754	CRT	.3139	CRS	-.3659	CST	-.9983				
FDE	.6077	FRA	2.1774	FC3	-.0610	BSP	20640	SGB	6075.6	R23	-.0006	R13	-.9754	LSA	2276.1	MSA	292.3	SSA	11.4				
BDE	1.9193	BRA	7.5391	BC3	1.0460	FSP	-524	SG1	6064.6	SG2	364.3	THA	177.40	EL1	2175.9	EL2	290.6	ALF	2.58				

LAUNCH DATE AUG 25 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 619.446

RL	151.22	LAL	-.00	LOL	331.39	VL	25.848	GAL	15.15	AZL	88.51	HCA	305.80	SMA	122.08	ECC	.34838	INC	1.4864	V1	29.465		
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.771	GAP	19.45	AZP	89.13	TAL	146.55	TAP	92.35	RCA	79.55	APO	164.60	V2	34.825		
RC	178.036	GL	4.38	GP	11.41	ZAL	32.64	ZAP	168.54	ETS	92.44	ZAE	121.90	ETE	172.65	ZAC	114.26	ETC	267.75	CLP	178.87		

PLANETOCENTRIC CONIC

C3	71.685	VHL	8.467	DLA	-16.07	RAL	300.21	RAD	6569.4	VEL	13.894	PTH	2.54	VHP	12.358	DPA	-13.04	RAP	276.78	ECC	2.1797		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 19 3	2005.70	-14.01	28.67	180.12	114.86	11 52 28	1405.7	-10.55	21.71
90.00	18 59 17	5698.37	27.63	269.32	191.57	96.44	20 34 16	5098.4	28.24	260.71
100.00	12 31 26	1772.11	-15.60	10.72	179.34	115.83	13 0 58	1172.1	-12.00	3.78
100.00	20 29 35	5407.18	29.38	248.12	191.79	95.77	21 59 42	4807.2	29.87	239.34
110.00	13 19 50	1620.51	-19.71	357.01	177.13	118.51	13 46 50	1020.5	-15.74	350.13
110.00	21 57 40	5131.55	33.98	227.64	192.25	94.00	23 23 12	4531.5	34.16	218.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0998	TRA	8.0780	TC3	-.8660	BAU	.8301	SGT	6044.2	SGR	435.2	SG3	141.3	ST	2221.2	SR	296.1	SS	684.0				
RDE	.4118	RRA	-.4737	RC3	.0128	FAU	.00260	RRT	-.5829	RRF	-.5713	RTF	.9773	CRT	.3424	CRS	-.3852	CST	-.9988				
FDE	.6384	FRA	2.2386	FC3	-.0315	BSP	20419	SGB	6059.8	R23	-.0004	R13	-.9773	LSA	2326.2	MSA	279.2	SSA	11.0				
BDE	2.1398	BRA	8.0919	BC3	.8661	FSP	-496	SG1	6049.5	SG2	353.3	THA	177.59	EL1	2223.5	EL2	277.9	ALF	2.65				

LAUNCH DATE AUG 26 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 4 1970

HELIOCENTRIC CONIC DISTANCE 160.521

RL	151.18	LAL	-.00	LOL	332.35	VL	22.692	GAL	.67	AZL	92.36	HCA	65.02	SMA	106.97	ECC	.41354	INC	2.3615	V1	29.471
RP	108.25	LAP	-2.14	LOP	37.35	VP	34.802	GAP	-24.42	AZP	91.00	TAL	179.04	TAP	244.06	RCA	62.73	APO	151.20	V2	35.007
RC	41.257	GL	-7.80	GP	-7.86	ZAL	84.60	ZAP	15.53	ETS	147.14	ZAE	178.85	ETE	220.69	ZAC	91.87	ETC	258.46	CLP	13.44

PLANETOCENTRIC CONIC

C3	47.493	VHL	6.891	DLA	-29.30	RAL	244.58	RAD	6568.8	VEL	12.994	PTH	2.37	VHP	14.686	DPA	-23.97	RAP	226.06	ECC	1.7816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.14	10 18 27	1317.09	14.35	353.07	127.43	115.82	10 40 24	717.1	17.71	345.93
97.86	12 28 7	898.06	14.36	322.32	127.44	115.82	12 43 5	298.1	17.72	315.18
100.00	11 54 44	1005.09	9.60	327.75	124.95	118.44	12 11 29	405.1	13.33	320.94
100.00	13 34 31	685.30	19.22	308.88	129.76	113.35	13 45 56	85.3	22.21	301.36
110.00	11 36 8	1063.67	.58	326.66	119.45	124.18	11 53 52	463.7	5.06	320.44
110.00	16 9 36	5487.53	29.07	254.09	133.92	108.83	17 41 4	4887.5	31.36	245.64

DIFFERENTIAL CORRECTIONS

TDE	.1688	TRA	-.8211	TC3	.0033	BAU	.0061
RDE	-.5313	RRA	-.0087	RC3	-.0091	FAU	.01839
FDE	-.1190	FRA	.4025	FC3	-.3353	BSP	1950
BDE	.5575	BRA	.8212	BC3	.0096	FSP	-113

MID-COURSE EXECUTION ACCURACY

SGT	795.4	SGR	442.0	SG3	52.6		
RRT	-.1581	RRF	.1720	RTF	-.6535		
SGB	909.9	R23	-.0252	R13	.6567		
SG1	799.7	SG2	434.1	THA	172.87		

ORBIT DETERMINATION ACCURACY

ST	273.6	SR	441.8	SS	193.4
CRT	-.5082	CRS	-.6449	CST	.9813
LSA	495.5	MSA	248.3	SSA	14.8
EL1	470.1	EL2	221.4	ALF	112.80

LAUNCH DATE AUG 26 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 167.104

RL	151.18	LAL	-.00	LOL	332.35	VL	23.100	GAL	.53	AZL	92.14	HCA	68.21	SMA	108.60	ECC	.39220	INC	2.1431	V1	29.471
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.083	GAP	-23.09	AZP	90.80	TAL	179.18	TAP	247.39	RCA	66.01	APO	151.20	V2	35.020
RC	40.727	GL	-7.67	GP	-8.22	ZAL	84.72	ZAP	14.30	ETS	142.33	ZAE	177.73	ETE	317.82	ZAC	91.72	ETC	258.67	CLP	11.73

PLANETOCENTRIC CONIC

C3	41.871	VHL	6.471	DLA	-29.16	RAL	244.47	RAD	6568.6	VEL	12.776	PTH	2.32	VHP	13.954	DPA	-24.81	RAP	227.47	ECC	1.6891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.74	10 22 50	1270.00	15.21	350.01	125.28	115.18	10 44 0	670.0	18.48	342.80
97.26	12 22 54	881.80	15.23	321.54	125.29	115.17	12 37 36	281.8	18.49	314.33
100.00	11 48 35	991.95	10.03	327.00	122.61	118.31	12 5 7	391.9	13.74	320.17
100.00	13 39 49	635.09	20.54	305.74	127.74	112.21	13 50 24	35.1	23.37	298.09
110.00	11 33 45	1038.63	1.54	325.36	117.44	124.15	11 51 4	438.6	6.01	319.12
110.00	16 11 9	5449.22	29.88	251.41	131.45	107.43	17 41 58	4849.2	31.97	242.82

DIFFERENTIAL CORRECTIONS

TDE	.1719	TRA	-.8026	TC3	.0281	BAU	.0184
RDE	-.5040	RRA	-.0028	RC3	-.0171	FAU	.01922
FDE	-.1213	FRA	.4130	FC3	-.3974	BSP	2121
BDE	.5326	BRA	.8026	BC3	.0329	FSP	-127

MID-COURSE EXECUTION ACCURACY

SGT	828.7	SGR	446.9	SG3	58.0		
RRT	-.1793	RRF	.1936	RTF	-.6750		
SGB	941.5	R23	-.0264	R13	.6785		
SG1	834.1	SG2	436.8	THA	172.37		

ORBIT DETERMINATION ACCURACY

ST	287.7	SR	446.3	SS	200.1
CRT	-.5275	CRS	-.6456	CST	.9849
LSA	507.3	MSA	253.8	SSA	15.1
EL1	479.9	EL2	227.3	ALF	114.66

LAUNCH DATE AUG 26 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 173.725

RL	151.18	LAL	-.00	LOL	332.35	VL	23.477	GAL	.37	AZL	91.93	HCA	71.41	SMA	110.18	ECC	.37217	INC	1.9341	V1	29.471
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.345	GAP	-21.83	AZP	90.62	TAL	179.37	TAP	250.78	RCA	69.18	APO	151.19	V2	35.033
RC	40.367	GL	-7.49	GP	-8.63	ZAL	84.96	ZAP	13.20	ETS	136.53	ZAE	175.08	ETE	331.18	ZAC	91.53	ETC	258.90	CLP	10.02

PLANETOCENTRIC CONIC

C3	36.975	VHL	6.081	DLA	-28.93	RAL	244.23	RAD	6568.4	VEL	12.584	PTH	2.28	VHP	13.254	DPA	-25.66	RAP	228.88	ECC	1.6085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.80	10 30 22	1211.26	16.00	346.06	122.97	114.43	10 50 33	611.3	19.16	338.77
96.20	12 13 27	877.73	16.01	321.62	122.98	114.43	12 28 5	277.7	19.17	314.33
100.00	11 39 43	986.20	10.22	326.68	120.04	118.25	11 56 10	386.2	13.91	319.84
100.00	13 46 46	5866.06	21.96	280.00	125.60	110.80	15 24 33	5266.1	24.60	272.19
110.00	11 29 48	1017.41	2.35	324.25	115.25	124.11	11 46 46	417.4	6.81	318.00
110.00	16 13 11	5407.62	30.69	248.44	128.82	105.84	17 43 19	4807.6	32.56	239.72

DIFFERENTIAL CORRECTIONS

TDE	.1722	TRA	-.7850	TC3	.0589	BAU	.0322
RDE	-.4775	RRA	.0026	RC3	-.0278	FAU	.02014
FDE	-.1217	FRA	.4237	FC3	-.4715	BSP	2286
BDE	.5076	BRA	.7850	BC3	.0651	FSP	-143

MID-COURSE EXECUTION ACCURACY

SGT	863.5	SGR	451.2	SG3	64.1		
RRT	-.1995	RRF	.2159	RTF	-.6951		
SGB	974.3	R23	-.0294	R13	.6989		
SG1	869.8	SG2	438.9	THA	172.00		

ORBIT DETERMINATION ACCURACY

ST	301.0	SR	449.9	SS	205.4
CRT	-.5405	CRS	-.6409	CST	.9879
LSA	517.3	MSA	259.5	SSA	15.5
EL1	488.5	EL2	233.3	ALF	116.31

LAUNCH DATE AUG 26 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 180.380

RL	151.18	LAL	-.00	LOL	332.35	VL	23.824	GAL	.20	AZL	91.73	HCA	74.62	SMA	111.71	ECC	.35342	INC	1.7326	V1	29.471
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.590	GAP	-20.62	AZP	90.46	TAL	179.63	TAP	254.25	RCA	72.23	APO	151.19	V2	35.046
RC	40.182	GL	-7.24	GP	-9.07	ZAL	85.33	ZAP	12.27	ETS	129.59	ZAE	172.30	ETE	334.77	ZAC	91.29	ETC	259.13	CLP	8.30

PLANETOCENTRIC CONIC

C3	32.713	VHL	5.720	DLA	-28.62	RAL	243.86	RAD	6568.3	VEL	12.413	PTH	2.24	VHP	12.584	DPA	-26.54	RAP	230.27	ECC	1.5384

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.67	10 44 9	1131.08	16.68	340.49	120.52	113.59	11 3 0	531.1	19.73	333.12
94.33	11 56 42	896.08	16.70	323.29	120.53	113.58	12 11 38	296.1	19.75	315.92
100.00	11 28 37	986.70	10.20	326.70	117.28	118.25	11 45 4	386.7	13.90	319.87
100.00	13 54 55	5803.73	23.41	275.94	123.32	109.13	15 31 39	5203.7	25.81	267.96
110.00	11 24 15	1000.45	2.99	323.36	112.90	124.07	11 40 55	400.4	7.44	317.10
110.00	16 15 47	5362.75	31.48	245.18	126.03	104.06	17 45 10	4762.7	33.09	236.32

DIFFERENTIAL CORRECTIONS

TDE	.1742	TRA	-.7676	TC3	.0948	BAU	.0452
RDE	-.4522	RRA	.0075	RC3	-.0414	FAU	.02111
FDE	-.1227	FRA	.4343	FC3	-.5587	BSP	2423
BDE	.4846	BRA	.7676	BC3	.1035	FSP	-159

MID-COURSE EXECUTION ACCURACY

SGT	899.7	SGR	455.5	SG3	70.7		
RRT	-.2238	RRF	.2419	RTF	-.7132		
SGB	1008.4	R23	-.0328	R13	.7174		
SG1	907.3	SG2	440.2	THA	171.53		

ORBIT DETERMINATION ACCURACY

ST	315.5	SR	453.0	SS	210.8
CRT	-.5580	CRS	-.6386	CST	.9907
LSA	528.4	MSA	264.0	SSA	16.0
EL1	498.0	EL2	238.1	ALF	118.24

LAUNCH DATE AUG 26 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 187.061

RL	151.18	LAL	-.00	LOL	332.35	VL	24.145	GAL	.02	AZL	91.54	HCA	77.82	SMA	113.17	ECC	.33591	INC	1.5370	V1	29.471
RP	108.09	LAP	-1.50	LOP	50.17	VP	35.818	GAP	-19.46	AZP	90.32	TAL	179.95	TAP	257.77	RCA	75.16	APO	151.19	V2	35.060
RC	40.174	GL	-6.91	GP	-9.56	ZAL	85.84	ZAP	11.58	ETS	121.48	ZAE	169.48	ETE	336.13	ZAC	91.00	ETC	259.36	CLP	6.56

PLANETOCENTRIC CONIC

C3	29.006	VHL	5.386	DLA	-28.21	RAL	243.36	RAD	6568.2	VEL	12.263	PTH	2.21	VHP	11.944	DPA	-27.45	RAP	231.65	ECC	1.4774

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 56 25	1054.79	15.40	334.31	117.10	114.06	11 14 0	454.8	18.52	327.03
90.00	11 40 26	911.97	19.15	325.51	118.74	111.26	11 55 38	312.0	21.87	317.90
100.00	11 15 37	992.62	10.01	327.04	114.39	118.31	11 32 10	392.6	13.72	320.21
100.00	14 3 55	5737.41	24.82	271.52	120.88	107.21	15 39 32	5137.4	26.94	263.36
110.00	11 17 3	988.13	3.46	322.72	110.40	124.03	11 33 31	388.1	7.91	316.45
110.00	16 18 59	5314.67	32.22	241.63	123.08	102.08	17 47 33	4714.7	33.55	232.65

DIFFERENTIAL CORRECTIONS

TDE	.1523	TRA	-.7534	TC3	.1245	BAU	.0529
RDE	-.4240	RRA	.0127	RC3	-.0557	FAU	.02163
FDE	-.1010	FRA	.4481	FC3	-.6456	BSP	2074
BDE	.4505	BRA	.7535	BC3	.1364	FSP	-147

MID-COURSE EXECUTION ACCURACY

SGT	933.5	SGR	455.3	SG3	76.7		
RRT	-.2235	RRF	.2436	RTF	-.7274		
SGB	1038.6	R23	-.0353	R13	.7313		
SG1	940.6	SG2	440.4	THA	172.02		

ORBIT DETERMINATION ACCURACY

ST	317.3	SR	451.1	SS	202.0
CRT	-.5192	CRS	-.5576	CST	.9944
LSA	517.2	MSA	277.8	SSA	16.2
EL1	492.4	EL2	248.5	ALF	117.67

LAUNCH DATE AUG 26 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 193.772

RL	151.18	LAL	-.00	LOL	332.35	VL	24.440	GAL	-.16	AZL	91.35	HCA	81.03	SMA	114.57	ECC	.31960	INC	1.3460	V1	29.471
RP	108.05	LAP	-1.33	LOP	53.38	VP	36.030	GAP	-18.36	AZP	90.21	TAL	180.34	TAP	261.37	RCA	77.95	APO	151.19	V2	35.073
RC	40.345	GL	-6.49	GP	-10.11	ZAL	66.47	ZAP	11.18	ETS	112.32	ZAE	166.66	ETE	336.59	ZAC	90.64	ETC	259.59	CLP	4.80

PLANETOCENTRIC CONIC

C3	25.785	VHL	5.078	DLA	-27.68	RAL	242.73	RAD	6568.0	VEL	12.131	PTH	2.17	VHP	11.332	DPA	-28.40	RAP	233.01	ECC	1.4244

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 23 20	1125.29	13.40	338.52	113.31	115.18	10 42 6	525.3	16.68	331.38
90.00	12 8 32	782.91	22.12	317.21	116.95	108.14	12 21 35	182.9	24.40	309.28
100.00	11 1 2	1003.47	9.66	327.65	111.39	118.43	11 17 45	403.5	13.38	320.85
100.00	14 13 32	5668.00	26.14	266.78	118.26	105.05	15 48 0	5068.0	27.95	258.45
110.00	11 8 15	980.77	3.74	322.33	107.78	124.00	11 24 36	380.8	8.18	316.06
110.00	16 22 48	5263.46	32.89	237.78	119.97	99.90	17 50 31	4663.5	33.90	228.69

DIFFERENTIAL CORRECTIONS

TDE	.1817	TRA	-.7308	TC3	.1986	BAU	.0741
RDE	-.4053	RRA	.0158	RC3	-.0820	FAU	.02361
FDE	-.1262	FRA	.4527	FC3	-.7927	BSP	2779
BDE	.4441	BRA	.7309	BC3	.2148	FSP	-211

MID-COURSE EXECUTION ACCURACY

SGT	974.5	SGR	465.2	SG3	86.4		
RRT	-.2853	RRF	.3088	RTF	-.7473		
SGB	1079.9	R23	-.0425	R13	.7527		
SG1	985.8	SG2	440.8	THA	170.28		

ORBIT DETERMINATION ACCURACY

ST	346.6	SR	457.3	SS	220.7
CRT	-.6023	CRS	-.6423	CST	.9944
LSA	553.1	MSA	267.8	SSA	17.0
EL1	519.6	EL2	243.5	ALF	122.50

LAUNCH DATE AUG 26 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 200.500

RL	151.18	LAL	-.00	LOL	332.35	VL	24.711	GAL	-.35	AZL	91.16	HCA	84.24	SMA	115.90	ECC	.30446	INC	1.1583	V1	29.471
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.227	GAP	-17.30	AZP	90.12	TAL	180.79	TAP	265.03	RCA	80.62	APO	151.19	V2	35.086
RC	40.692	GL	-5.98	GP	-10.71	ZAL	87.23	ZAP	11.12	ETS	102.51	ZAE	163.90	ETE	336.59	ZAC	90.21	ETC	259.83	CLP	3.01

PLANETOCENTRIC CONIC

C3	22.990	VHL	4.795	DLA	-27.04	RAL	242.00	RAD	6567.9	VEL	12.015	PTH	2.14	VHP	10.748	DPA	-29.39	RAP	234.34	ECC	1.3784

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 58 21	1169.82	12.09	341.14	109.86	115.80	10 17 51	569.8	15.47	334.09
90.00	12 27 38	682.06	24.10	310.49	114.59	105.33	12 39 0	82.1	25.97	302.32
100.00	10 45 2	1019.05	9.15	328.53	108.32	118.58	11 2 1	419.0	12.90	321.75
100.00	14 23 39	5596.11	27.31	261.76	115.47	102.65	15 56 55	4996.1	28.78	253.26
110.00	10 57 53	978.66	3.82	322.22	105.06	123.99	11 14 12	378.7	8.26	315.94
110.00	16 27 16	5209.26	33.45	233.65	116.74	97.51	17 54 6	4609.3	34.12	224.47

DIFFERENTIAL CORRECTIONS

TDE	.1789	TRA	-.7132	TC3	.2624	BAU	.0875
RDE	-.3825	RRA	.0203	RC3	-.1101	FAU	.02502
FDE	-.1213	FRA	.4657	FC3	-.9420	BSP	2904
BDE	.4222	BRA	.7135	BC3	.2846	FSP	-234

MID-COURSE EXECUTION ACCURACY

SGT	1012.2	SGR	469.9	SG3	95.7		
RRT	-.3161	RRF	.3432	RTF	-.7634		
SGB	1115.9	R23	-.0480	R13	.7695		
SG1	1025.5	SG2	440.0	THA	169.75		

ORBIT DETERMINATION ACCURACY

ST	358.0	SR	457.1	SS	221.5
CRT	-.6115	CRS	-.6225	CST	.9955
LSA	558.8	MSA	271.3	SSA	17.6
EL1	525.8	EL2	246.2	ALF	124.01

LAUNCH DATE AUG 26 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 207.242

RL	151.18	LAL	-.00	LOL	332.35	VL	24.960	GAL	-.53	AZL	90.97	HCA	87.45	SMA	117.17	ECC	.29044	INC	.9725	V1	29.471
RP	107.97	LAP	-.97	LOP	59.80	VP	36.410	GAP	-16.29	AZP	90.04	TAL	181.30	TAP	268.75	RCA	83.14	APO	151.20	V2	35.098
RC	41.209	GL	-5.36	GP	-11.37	ZAL	88.12	ZAP	11.43	ETS	92.67	ZAE	161.22	ETE	336.29	ZAC	89.71	ETC	260.07	CLP	1.19

PLANETOCENTRIC CONIC

C3	20.570	VHL	4.535	DLA	-26.26	RAL	241.15	RAD	6567.8	VEL	11.914	PTH	2.12	VHP	10.190	DPA	-30.42	RAP	235.63	ECC	1.3385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 4	1209.54	10.90	343.45	106.50	116.30	9 55 13	609.5	14.35	336.47
90.00	12 44 13	5876.66	25.63	281.98	111.93	102.47	14 22 9	5276.7	27.09	273.61
100.00	10 27 47	1039.27	8.49	329.67	105.22	118.77	10 45 7	439.3	12.27	322.92
100.00	14 34 10	5522.17	28.30	256.49	112.53	100.05	16 6 12	4922.2	29.40	247.86
110.00	10 46 3	981.98	3.70	322.40	102.28	124.01	11 2 25	382.0	8.14	316.12
110.00	16 32 24	5152.22	33.87	229.25	113.38	94.94	17 58 16	4552.2	34.18	220.02

DIFFERENTIAL CORRECTIONS

TDE	.1762	TRA	-.6955	TC3	.3349	BAU	.1004
RDE	-.3609	RRA	.0244	RC3	-.1451	FAU	.02657
FDE	-.1162	FRA	.4775	FC3	-1.1184	BSP	3051
BDE	.4016	BRA	.6959	BC3	.3650	FSP	-263

MID-COURSE EXECUTION ACCURACY

SGT	1049.6	SGR	475.7	SG3	105.9		
RRT	-.3506	RRF	.3832	RTF	-.7770		
SGB	1152.4	R23	-.0565	R13	.7839		
SG1	1065.6	SG2	438.9	THA	169.10		

ORBIT DETERMINATION ACCURACY

ST	368.8	SR	456.0	SS	221.3
CRT	-.6216	CRS	-.6030	CST	.9951
LSA	563.8	MSA	273.5	SSA	18.2
EL1	531.6	EL2	247.9	ALF	125.51

LAUNCH DATE AUG 26 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 213.996

RL	151.18	LAL	-.00	LOL	332.35	VL	25.189	GAL	-.72	AZL	90.79	HCA	90.66	SMA	118.37	ECC	.27750	INC	.7874	V1	29.471
RP	107.93	LAP	-.79	LOP	63.01	VP	36.579	GAP	-15.32	AZP	89.99	TAL	181.87	TAP	272.53	RCA	85.52	APO	151.22	V2	35.111
RC	41.891	GL	-4.62	GP	-12.11	ZAL	89.12	ZAP	12.13	ETS	83.42	ZAE	158.65	ETE	335.77	ZAC	89.13	ETC	260.30	CLP	-.68

PLANETOCENTRIC CONIC

C3	18.478	VHL	4.299	DLA	-25.34	RAL	240.22	RAD	6567.7	VEL	11.826	PTH	2.09	VHP	9.658	DPA	-31.50	RAP	236.87	ECC	1.3041

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 13	1249.03	9.70	345.73	103.21	116.73	9 33 2	649.0	13.22	338.82
90.00	12 59 38	5786.37	26.80	275.63	109.08	99.49	14 36 5	5186.4	27.84	267.11
100.00	10 9 28	1064.15	7.67	331.07	102.13	118.98	10 27 12	464.1	11.48	324.35
100.00	14 45 4	5446.48	29.08	251.00	109.45	97.26	16 15 50	4846.5	29.78	242.26
110.00	10 32 49	990.91	3.36	322.86	99.47	124.04	10 49 20	390.9	7.80	316.60
110.00	16 38 12	5092.49	34.12	224.60	109.94	92.20	18 3 5	4492.5	34.05	215.36

DIFFERENTIAL CORRECTIONS

TDE	.1737	TRA	-.6787	TC3	.4193	BAU	.1135	SGT	1088.7	SGR	483.1
RDE	-.3400	RRA	.0287	RC3	-.1880	FAU	.02830	RRT	-.3909	RRF	.4274
FDE	-.1084	FRA	.4912	FC3	-1.3257	BSP	3172	SGB	1191.1	R23	-.0638
BDE	.3818	BRA	.6793	BC3	.4595	FSP	-294	SG1	1108.1	SG2	436.9

MID-COURSE EXECUTION ACCURACY

SG3	117.3	RTF	-.7908	R13	.7986
THA	168.32				

ORBIT DETERMINATION ACCURACY

ST	379.3	SR	453.4	SS	219.6
CRT	-.6326	CRS	-.5733	CST	.9924
LSA	567.1	MSA	275.2	SSA	18.9
EL1	536.5	EL2	248.3	ALF	127.08

LAUNCH DATE AUG 26 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 220.756

RL	151.18	LAL	-.00	LOL	332.35	VL	25.398	GAL	-.90	AZL	90.60	HCA	93.88	SMA	119.50	ECC	.26560	INC	.6021	V1	29.471
RP	107.89	LAP	-.60	LOP	66.23	VP	36.735	GAP	-14.38	AZP	89.96	TAL	182.48	TAP	276.36	RCA	87.76	APO	151.24	V2	35.123
RC	42.728	GL	-3.75	GP	-12.94	ZAL	90.22	ZAP	13.19	ETS	75.20	ZAE	156.22	ETE	335.05	ZAC	88.45	ETC	260.52	CLP	-2.59

PLANETOCENTRIC CONIC

C3	16.676	VHL	4.084	DLA	-24.26	RAL	239.22	RAD	6567.7	VEL	11.750	PTH	2.07	VHP	9.151	DPA	-32.65	RAP	238.06	ECC	1.2744

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 49 21	1290.22	8.43	348.09	100.01	117.13	9 10 51	690.2	12.01	341.24
90.00	13 14 30	5697.57	27.64	269.26	106.07	96.41	14 49 28	5097.6	28.24	260.65
100.00	9 50 13	1093.77	6.69	332.72	99.07	119.20	10 8 26	493.8	10.54	326.04
100.00	14 56 20	5369.26	29.61	245.32	106.28	94.32	16 25 49	4769.3	29.89	236.53
110.00	10 18 21	1005.53	2.80	323.63	96.67	124.08	10 35 6	405.5	7.25	317.37
110.00	16 44 41	5030.26	34.18	219.74	106.45	89.33	18 8 32	4430.3	33.71	210.53

DIFFERENTIAL CORRECTIONS

TDE	.1682	TRA	-.6613	TC3	.5125	BAU	.1262	SGT	1125.4	SGR	492.5
RDE	-.3198	RRA	.0330	RC3	-.2405	FAU	.03021	RRT	-.4326	RRF	.4756
FDE	-.0972	FRA	.5042	FC3	-1.5685	BSP	3297	SGB	1228.5	R23	-.0746
BDE	.3614	BRA	.6621	BC3	.5661	FSP	-329	SG1	1148.9	SG2	434.9

MID-COURSE EXECUTION ACCURACY

SG3	129.9	RTF	-.8024	R13	.8115
THA	167.45				

ORBIT DETERMINATION ACCURACY

ST	386.1	SR	449.0	SS	215.5
CRT	-.6381	CRS	-.5308	CST	.9859
LSA	565.6	MSA	277.2	SSA	19.8
EL1	537.6	EL2	248.3	ALF	128.32

LAUNCH DATE AUG 26 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 227.520

RL	151.18	LAL	-.00	LOL	332.35	VL	25.590	GAL	-1.07	AZL	90.42	HCA	97.10	SMA	120.56	ECC	.25469	INC	.4151	V1	29.471
RP	107.86	LAP	-.41	LOP	69.45	VP	36.879	GAP	-13.48	AZP	89.95	TAL	183.13	TAP	280.23	RCA	89.85	APO	151.26	V2	35.135
RC	43.711	GL	-2.73	GP	-13.85	ZAL	91.43	ZAP	14.57	ETS	68.18	ZAE	153.93	ETE	334.15	ZAC	87.66	ETC	260.74	CLP	-4.55

PLANETOCENTRIC CONIC

C3	15.129	VHL	3.890	DLA	-23.02	RAL	238.17	RAD	6567.6	VEL	11.684	PTH	2.05	VHP	8.669	DPA	-33.86	RAP	239.17	ECC	1.2490

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 20	1334.19	7.06	350.59	96.93	117.49	8 48 34	734.2	10.69	343.79
90.00	13 29 8	5609.43	28.15	262.87	102.97	93.24	15 2 37	5009.4	28.30	254.20
100.00	9 30 9	1128.19	5.54	334.63	96.10	119.42	9 48 57	528.2	9.42	327.99
100.00	15 7 59	5290.66	29.87	239.49	103.05	91.26	16 36 10	4690.7	29.72	230.69
110.00	10 2 46	1025.91	2.02	324.69	93.91	124.13	10 19 52	425.9	6.49	318.45
110.00	16 51 51	4965.71	34.01	214.71	102.94	86.35	18 14 37	4365.7	33.13	205.58

DIFFERENTIAL CORRECTIONS

TDE	.1598	TRA	-.6458	TC3	.6106	BAU	.1379	SGT	1161.6	SGR	504.6
RDE	-.2999	RRA	.0378	RC3	-.3036	FAU	.03229	RRT	-.4754	RRF	.5268
FDE	-.0811	FRA	.5199	FC3	-1.8479	BSP	3382	SGB	1266.5	R23	-.0886
BDE	.3398	BRA	.6469	BC3	.6820	FSP	-368	SG1	1190.1	SG2	433.3

MID-COURSE EXECUTION ACCURACY

SG3	143.9	RTF	-.8121	R13	.8230
THA	166.51				

ORBIT DETERMINATION ACCURACY

ST	389.5	SR	442.2	SS	209.8
CRT	-.6368	CRS	-.4652	CST	.9728
LSA	558.7	MSA	280.6	SSA	20.7
EL1	534.3	EL2	248.6	ALF	129.35

LAUNCH DATE AUG 26 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 234.284

RL	151.18	LAL	-.00	LOL	332.35	VL	25.764	GAL	-1.24	AZL	90.23	HCA	100.32	SMA	121.55	ECC	.24472	INC	.2252	V1	29.471
RP	107.82	LAP	-.22	LOP	72.67	VP	37.012	GAP	-12.62	AZP	89.96	TAL	183.83	TAP	284.14	RCA	91.80	APO	151.29	V2	35.146
RC	44.829	GL	-1.56	GP	-14.88	ZAL	92.70	ZAP	16.24	ETS	62.35	ZAE	151.79	ETE	333.07	ZAC	86.76	ETC	260.95	CLP	-6.58

PLANETOCENTRIC CONIC

C3	13.806	VHL	3.716	DLA	-21.61	RAL	237.09	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	8.212	DPA	-35.16	RAP	240.20	ECC	1.2272

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 7	1381.60	5.56	353.27	93.98	117.81	8 26 8	781.6	9.24	346.53
90.00	13 43 44	5521.47	28.32	256.44	99.83	90.02	15 15 45	4921.5	28.02	247.79
100.00	9 9 27	1167.49	4.23	336.80	93.25	119.62	9 28 55	567.5	8.14	330.20
100.00	15 20 4	5210.81	29.84	233.56	99.81	88.14	16 46 55	4610.8	29.26	224.80
110.00	9 46 17	1052.06	1.02	326.06	91.25	124.17	10 3 49	452.1	5.50	319.83
110.00	16 59 44	4899.02	33.60	209.55	99.48	83.32	18 21 23	4299.0	32.31	200.55

DIFFERENTIAL CORRECTIONS

TDE	.1457	TRA	-.6328	TC3	.7087	BAU	.1483	SGT	1195.5	SGR	519.9
RDE	-.2796	RRA	.0433	RC3	-.3786	FAU	.03454	RRT	-.5155	RRF	.5792
FDE	-.0569	FRA	.5381	FC3	-2.1657	BSP	3411	SGB	1303.7	R23	-.1084
BDE	.3153	BRA	.6343	BC3	.8035	FSP	-408	SG1	1229.6	SG2	433.1

MID-COURSE EXECUTION ACCURACY

SG3	159.2	RTF	-.8190	R13	.8322
THA	165.53				

ORBIT DETERMINATION ACCURACY

ST	387.1	SR	431.8	SS	202.8
CRT	-.6208	CRS	-.3566	CST	.9469
LSA	542.5	MSA	287.5	SSA	21.8
EL1	523.0	EL2	250.5	ALF	130.00

LAUNCH DATE AUG 26 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 241.043

RL	151.18	LAL	-.00	LOL	332.35	VL	25.924	GAL	-1.40	AZL	90.03	HCA	103.54	SMA	122.47	ECC	.23563	INC	.0288	V1	29.471
RP	107.79	LAP	-.03	LOP	75.89	VP	37.134	GAP	-11.79	AZP	89.99	TAL	184.55	TAP	288.09	RCA	93.62	APO	151.33	V2	35.158
RC	46.073	GL	-.23	GP	-16.02	ZAL	94.05	ZAP	18.17	ETS	57.55	ZAE	149.82	ETE	331.79	ZAC	85.72	ETC	261.14	CLP	-8.69

PLANETOCENTRIC CONIC

C3	12.682	VHL	3.561	DLA	-20.01	RAL	236.00	RAD	6567.5	VEL	11.579	PTH	2.02	VHP	7.780	DPA	-36.54	RAP	241.12	ECC	1.2087

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 40	1432.96	3.92	356.16	91.21	118.07	8 3 33	833.0	7.65	349.46
90.00	13 58 28	5433.33	28.15	250.00	96.72	86.80	15 29 1	4833.3	27.41	241.41
100.00	8 48 12	1211.80	2.73	339.24	90.55	119.78	9 8 24	611.8	6.67	332.67
100.00	15 32 37	5129.72	29.51	227.55	96.61	85.00	16 58 7	4529.7	28.50	218.89
110.00	9 28 59	1083.99	-.20	327.72	88.72	124.18	9 47 3	484.0	4.29	321.51
110.00	17 8 19	4830.29	32.94	204.29	96.09	80.28	18 28 50	4230.3	31.24	195.48

DIFFERENTIAL CORRECTIONS

TDE	.1479	TRA	-.6018	TC3	.8684	BAU	.1677
RDE	-.2609	RRA	.0477	RC3	-.4735	FAU	.03747
FDE	-.0358	FRA	.5483	FC3	-2.5582	BSP	3888
BDE	.3000	BRA	.6037	BC3	.9891	FSP	-475

MID-COURSE EXECUTION ACCURACY

SGT	1225.1	SGR	544.7	SG3	177.2		
RRT	-.5884	RRF	.6405	RTF	-.8392		
SGB	1340.8	R23	-.0978	R13	.8530		
SG1	1271.9	SG2	424.2	THA	163.45		

ORBIT DETERMINATION ACCURACY

ST	390.6	SR	420.7	SS	196.7
CRT	-.6554	CRS	-.2571	CST	.8906
LSA	537.2	MSA	281.2	SSA	22.7
EL1	522.6	EL2	237.4	ALF	131.77

LAUNCH DATE AUG 26 1970 FLIGHT TIME 96.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 247.796

RL	151.18	LAL	-.00	LOL	332.35	VL	26.069	GAL	-1.55	AZL	89.83	HCA	106.77	SMA	123.33	ECC	.22739	INC	.1673	V1	29.471
RP	107.76	LAP	.16	LOP	79.12	VP	37.245	GAP	-10.99	AZP	90.05	TAL	185.28	TAP	292.05	RCA	95.29	APO	151.37	V2	35.168
RC	47.431	GL	1.27	GP	-17.31	ZAL	95.43	ZAP	20.35	ETS	53.63	ZAE	147.99	ETE	330.31	ZAC	84.54	ETC	261.31	CLP	-10.88

PLANETOCENTRIC CONIC

C3	11.735	VHL	3.426	DLA	-18.23	RAL	234.93	RAD	6567.4	VEL	11.538	PTH	2.01	VHP	7.373	DPA	-38.04	RAP	241.92	ECC	1.1931

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 16 8	1488.51	2.14	359.26	88.65	118.24	7 40 57	888.5	5.90	352.60
90.00	14 13 30	5344.92	27.65	243.58	93.70	83.62	15 42 35	4744.9	26.48	235.11
100.00	8 26 37	1261.10	1.06	341.95	88.05	119.88	8 47 38	661.1	5.03	335.41
100.00	15 45 43	5047.56	28.87	221.53	93.52	81.89	17 9 50	4447.6	27.45	213.02
110.00	9 11 8	1121.63	-1.64	329.69	86.36	124.15	9 29 49	521.6	2.85	323.48
110.00	17 17 41	4759.80	32.00	199.01	92.86	77.29	18 37 1	4159.8	29.92	190.41

DIFFERENTIAL CORRECTIONS

TDE	.1340	TRA	-.5841	TC3	.9914	BAU	.1803
RDE	-.2402	RRA	.0541	RC3	-.5809	FAU	.04035
FDE	.0010	FRA	.5672	FC3	-2.9769	BSP	4035
BDE	.2750	BRA	.5866	BC3	1.1490	FSP	-532

MID-COURSE EXECUTION ACCURACY

SGT	1252.9	SGR	573.5	SG3	196.2		
RRT	-.6380	RRF	.6958	RTF	-.8478		
SGB	1377.9	R23	-.1108	R13	.8643		
SG1	1311.7	SG2	421.8	THA	161.77		

ORBIT DETERMINATION ACCURACY

ST	381.9	SR	402.9	SS	194.8
CRT	-.6439	CRS	-.0698	CST	.7990
LSA	512.4	MSA	288.1	SSA	23.9
EL1	503.5	EL2	233.8	ALF	132.62

LAUNCH DATE AUG 26 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 254.540

RL	151.18	LAL	-.00	LOL	332.35	VL	26.200	GAL	-1.69	AZL	89.63	HCA	109.99	SMA	124.12	ECC	.21994	INC	.3736	V1	29.471
RP	107.72	LAP	.35	LOP	82.34	VP	37.346	GAP	-10.22	AZP	90.13	TAL	186.03	TAP	296.02	RCA	96.82	APO	151.42	V2	35.179
RC	48.893	GL	2.96	GP	-18.74	ZAL	96.82	ZAP	22.76	ETS	50.41	ZAE	146.30	ETE	328.60	ZAC	83.18	ETC	261.45	CLP	-13.16

PLANETOCENTRIC CONIC

C3	10.946	VHL	3.308	DLA	-16.27	RAL	233.92	RAD	6567.4	VEL	11.504	PTH	2.00	VHP	6.991	DPA	-39.66	RAP	242.57	ECC	1.1801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 52 34	1548.54	.20	2.61	86.34	118.32	7 18 23	948.5	3.99	355.98
90.00	14 28 58	5256.03	26.81	237.21	90.84	80.53	15 56 34	4656.0	25.23	228.90
100.00	8 4 48	1315.48	-.78	344.93	85.79	119.88	8 26 43	715.5	3.20	338.41
100.00	15 59 25	4964.32	27.92	215.53	90.61	78.87	17 22 10	4364.3	26.10	207.20
110.00	8 52 51	1164.93	-3.29	331.95	84.22	124.04	9 12 16	564.9	1.20	325.74
110.00	17 27 51	4687.63	30.80	193.73	89.82	74.38	18 45 59	4087.6	28.35	185.39

DIFFERENTIAL CORRECTIONS

TDE	.1173	TRA	-.5673	TC3	1.1129	BAU	.1929
RDE	-.2180	RRA	.0617	RC3	-.7063	FAU	.04350
FDE	.0487	FRA	.5888	FC3	-3.4410	BSP	4185
BDE	.2476	BRA	.5707	BC3	1.3181	FSP	-596

MID-COURSE EXECUTION ACCURACY

SGT	1277.2	SGR	611.0	SG3	217.2		
RRT	-.6854	RRF	.7490	RTF	-.8555		
SGB	1415.8	R23	-.1248	R13	.8754		
SG1	1352.0	SG2	420.3	THA	159.81		

ORBIT DETERMINATION ACCURACY

ST	368.9	SR	379.3	SS	203.3
CRT	-.6239	CRS	.1583	CST	.6623
LSA	480.6	MSA	299.4	SSA	25.2
EL1	476.8	EL2	229.3	ALF	133.72

LAUNCH DATE AUG 26 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 261.273

RL	151.18	LAL	-.00	LOL	332.35	VL	26.318	GAL	-1.83	AZL	89.41	HCA	113.22	SMA	124.85	ECC	.21323	INC	.5884	V1	29.471
RP	107.69	LAP	.54	LOP	85.57	VP	37.439	GAP	-9.48	AZP	90.23	TAL	186.77	TAP	299.99	RCA	98.23	APO	151.47	V2	35.188
RC	50.451	GL	4.83	GP	-20.35	ZAL	98.20	ZAP	25.41	ETS	47.75	ZAE	144.72	ETE	326.64	ZAC	81.65	ETC	261.57	CLP	-15.55

PLANETOCENTRIC CONIC

C3	10.298	VHL	3.209	DLA	-14.12	RAL	232.97	RAD	6567.4	VEL	11.475	PTH	1.99	VHP	6.636	DPA	-41.42	RAP	243.04	ECC	1.1695

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 29 1	1613.26	-1.89	6.22	84.31	118.26	6 55 54	1013.3	1.91	359.59
90.00	14 45 0	5166.54	25.65	230.91	88.19	77.58	16 11 7	4566.5	23.69	222.80
100.00	7 42 51	1375.00	-2.80	348.20	83.80	119.77	8 5 46	775.0	1.18	341.68
100.00	16 13 51	4880.03	26.67	209.57	87.92	75.97	17 35 11	4280.0	24.48	201.46
110.00	8 34 18	1213.86	-5.15	334.51	82.34	123.84	8 54 32	613.9	-.67	328.29
110.00	17 38 53	4613.93	29.33	188.49	87.05	71.60	18 55 47	4013.9	26.53	180.42

DIFFERENTIAL CORRECTIONS

TDE	.0983	TRA	-.5511	TC3	1.2278	BAU	.2056
RDE	-.1937	RRA	.0708	RC3	-.8508	FAU	.04691
FDE	.1089	FRA	.6135	FC3	-3.9435	BSP	4331
BDE	.2172	BRA	.5557	BC3	1.4937	FSP	-667

MID-COURSE EXECUTION ACCURACY

SGT	1296.7	SGR	659.3	SG3	240.0		
RRT	-.7291	RRF	.7981	RTF	-.8622		
SGB	1454.7	R23	-.1388	R13	.8863		
SG1	1392.7	SG2	420.2	THA	157.50		

ORBIT DETERMINATION ACCURACY

ST	352.2	SR	348.4	SS	228.2
CRT	-.5951	CRS	.3803	CST	.5051
LSA	443.0	MSA	317.1	SSA	26.4
EL1	442.4	EL2	222.9	ALF	135.53

LAUNCH DATE AUG 26 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 267.992

RL	151.18	LAL	-.00	LOL	332.35	VL	26.425	GAL	-1.95	AZL	89.19	HCA	116.45	SMA	125.51	ECC	.20722	INC	.8142	V1	29.471
RP	107.67	LAP	.73	LOP	88.80	VP	37.523	GAP	-8.76	AZP	90.36	TAL	187.50	TAP	303.95	RCA	99.50	APO	151.52	V2	35.198
RC	52.096	GL	6.89	GP	-22.16	ZAL	99.53	ZAP	28.30	ETS	45.51	ZAE	143.23	ETE	324.39	ZAC	79.90	ETC	261.65	CLP	-18.07

PLANETOCENTRIC CONIC

C3	9.779	VHL	3.127	DLA	-11.79	RAL	232.13	RAD	6567.4	VEL	11.453	PTH	1.99	VHP	6.308	DPA	-43.34	RAP	243.30	ECC	1.1609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 5 31	1682.89	-4.12	10.12	82.61	118.04	6 33 34	1082.9	-.34	3.48
90.00	15 1 46	5076.29	24.19	224.71	85.81	74.81	16 26 22	4476.3	21.87	216.81
100.00	7 20 53	1439.76	-4.98	351.77	82.14	119.51	7 44 52	839.8	-1.01	345.23
100.00	16 29 6	4794.65	25.13	203.70	85.51	73.25	17 49 0	4194.6	22.59	195.82
110.00	8 15 36	1268.40	-7.21	337.39	80.76	123.50	8 36 44	668.4	-2.76	331.14
110.00	17 50 52	4538.77	27.60	183.33	84.57	68.98	19 6 31	3938.8	24.49	175.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.0766	TRA	-.5360	TC3	1.3253	BAU	.2182	SGT	1308.9	SGR	720.1	SG3	264.5	ST	333.0	SR	308.3	SS	273.2
RDE	-.1661	RRA	.0820	RC3	-1.0143	FAU	.05049	RRT	-.7665	RRF	.8414	RTF	-.8674	CRT	-.5552	CRS	.5474	CST	.3790
FDE	.1844	FRA	.6423	FC3	-4.4694	BSP	4473	SGB	1493.9	R23	-.1530	R13	.8969	LSA	401.0	MSA	344.9	SSA	27.3
BDE	.1829	BRA	.5422	BC3	1.6689	FSP	-743	SG1	1432.9	SG2	422.5	THA	154.79	EL1	400.6	EL2	213.1	ALF	138.94

LAUNCH DATE AUG 26 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 274.696

RL	151.18	LAL	-.00	LOL	332.35	VL	26.521	GAL	-2.06	AZL	88.95	HCA	119.68	SMA	126.12	ECC	.20185	INC	1.0532	V1	29.471
RP	107.64	LAP	.92	LOP	92.04	VP	37.598	GAP	-8.07	AZP	90.52	TAL	188.20	TAP	307.89	RCA	100.66	APO	151.58	V2	35.206
RC	53.818	GL	9.15	GP	-24.18	ZAL	100.78	ZAP	31.43	ETS	43.58	ZAE	141.79	ETE	321.84	ZAC	77.93	ETC	261.68	CLP	-20.72

PLANETOCENTRIC CONIC

C3	9.380	VHL	3.063	DLA	-9.27	RAL	231.41	RAD	6567.3	VEL	11.435	PTH	1.98	VHP	6.008	DPA	-45.43	RAP	243.31	ECC	1.1544

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 42 7	1757.69	-6.50	14.33	81.26	117.62	6 11 25	1157.7	-2.75	7.65
90.00	15 19 26	4985.11	22.42	218.61	83.76	72.24	16 42 31	4385.1	19.79	210.93
100.00	6 58 55	1509.91	-7.32	355.67	80.82	119.06	7 24 5	909.9	-3.39	349.08
100.00	16 45 19	4708.12	23.30	197.92	83.44	70.73	18 3 47	4108.1	20.46	190.28
110.00	7 56 50	1328.57	-9.46	340.60	79.52	123.00	8 18 58	728.6	-5.05	334.29
110.00	18 3 53	4462.22	25.63	178.25	82.44	66.56	19 18 15	3862.2	22.23	170.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.0519	TRA	-.5226	TC3	1.3980	BAU	.2307	SGT	1313.0	SGR	795.4	SG3	290.4	ST	313.7	SR	257.1	SS	339.2
RDE	-.1338	RRA	.0957	RC3	-1.1964	FAU	.05418	RRT	-.7962	RRF	.8780	RTF	-.8706	CRT	-.5087	CRS	.6387	CST	.3226
FDE	.2781	FRA	.6761	FC3	-5.0004	BSP	4590	SGB	1535.1	R23	-.1667	R13	.9075	LSA	390.7	MSA	355.1	SSA	27.6
BDE	.1435	BRA	.5313	BC3	1.8400	FSP	-821	SG1	1474.0	SG2	428.6	THA	151.64	EL1	355.4	EL2	195.3	ALF	145.74

LAUNCH DATE AUG 26 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 281.383

RL	151.18	LAL	-.00	LOL	332.35	VL	26.607	GAL	-2.16	AZL	88.69	HCA	122.91	SMA	126.67	ECC	.19708	INC	1.3081	V1	29.471
RP	107.61	LAP	1.10	LOP	95.27	VP	37.666	GAP	-7.40	AZP	90.71	TAL	188.88	TAP	311.79	RCA	101.70	APO	151.63	V2	35.214
RC	55.612	GL	11.61	GP	-26.44	ZAL	101.92	ZAP	34.81	ETS	41.88	ZAE	140.36	ETE	318.97	ZAC	75.71	ETC	261.66	CLP	-23.52

PLANETOCENTRIC CONIC

C3	9.095	VHL	3.016	DLA	-6.58	RAL	230.84	RAD	6567.3	VEL	11.423	PTH	1.98	VHP	5.740	DPA	-47.71	RAP	243.00	ECC	1.1497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 18 48	1837.98	-9.01	18.89	80.32	116.96	5 49 26	1238.0	-5.32	12.15
90.00	15 38 11	4892.82	20.38	212.61	82.07	69.91	16 59 43	4292.8	17.46	205.16
100.00	6 37 0	1585.69	-9.80	359.92	79.90	118.38	7 3 26	985.7	-5.93	353.27
100.00	17 2 39	4620.35	21.22	192.24	81.73	68.43	18 19 40	4020.3	18.10	184.83
110.00	7 38 5	1394.47	-11.88	344.17	78.66	122.29	8 1 19	794.5	-7.53	337.78
110.00	18 18 4	4384.33	23.42	173.27	80.69	64.36	19 31 9	3784.3	19.78	166.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.0192	TRA	-.5168	TC3	1.4103	BAU	.2406	SGT	1304.6	SGR	883.2	SG3	316.2	ST	299.9	SR	191.1	SS	431.7
RDE	-.0935	RRA	.1145	RC3	-1.3875	FAU	.05751	RRT	-.8115	RRF	.9071	RTF	-.8689	CRT	-.4646	CRS	.6316	CST	.3749
FDE	.3994	FRA	.7233	FC3	-5.4744	BSP	4560	SGB	1575.4	R23	-.1832	R13	.9170	LSA	464.0	MSA	311.2	SSA	27.0
BDE	.0955	BRA	.5294	BC3	1.9785	FSP	-888	SG1	1511.1	SG2	445.6	THA	148.12	EL1	317.7	EL2	159.7	ALF	157.54

LAUNCH DATE AUG 26 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 288.050

RL	151.18	LAL	-.00	LOL	332.35	VL	26.683	GAL	-2.25	AZL	88.42	HCA	126.14	SMA	127.16	ECC	.19285	INC	1.5825	V1	29.471
RP	107.59	LAP	1.28	LOP	98.51	VP	37.727	GAP	-6.76	AZP	90.93	TAL	189.51	TAP	315.66	RCA	102.64	APO	151.68	V2	35.222
RC	57.469	GL	14.27	GP	-28.96	ZAL	102.93	ZAP	38.46	ETS	40.30	ZAE	138.87	ETE	315.75	ZAC	73.22	ETC	261.58	CLP	-26.50

PLANETOCENTRIC CONIC

C3	8.920	VHL	2.987	DLA	-3.72	RAL	230.42	RAD	6567.3	VEL	11.415	PTH	1.98	VHP	5.504	DPA	-50.20	RAP	242.30	ECC	1.1468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 55 26	1924.31	-11.63	23.88	79.81	116.00	5 27 30	1324.3	-8.04	17.04
90.00	15 58 14	4799.04	18.08	206.70	80.79	67.83	17 18 13	4199.0	14.92	199.45
100.00	6 15 2	1667.53	-12.41	4.60	79.41	117.42	6 42 50	1067.5	-8.64	357.84
100.00	17 21 19	4531.06	18.88	186.64	80.44	66.38	18 36 50	3931.1	15.52	179.45
110.00	7 19 17	1466.36	-14.46	348.14	78.22	121.32	7 43 44	866.4	-10.21	341.62
110.00	18 33 33	4304.99	21.00	168.39	79.35	62.39	19 45 18	3705.0	17.14	161.39

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.0041	TRA	-.4939	TC3	1.4656	BAU	.2600	SGT	1291.4	SGR	1001.6	SG3	344.4	ST	286.1	SR	126.1	SS	520.0
RDE	-.0501	RRA	.1324	RC3	-1.6137	FAU	.06169	RRT	-.8398	RRF	.9320	RTF	-.8740	CRT	-.6449	CRS	.4319	CST	.3795
FDE	.5200	FRA	.7536	FC3	-5.9873	BSP	4963	SGB	1634.3	R23	-.1771	R13	.9303	LSA	536.3	MSA	282.6	SSA	25.4
BDE	.0502	BRA	.5113	BC3	2.1799	FSP	-998	SG1	1572.1	SG2	446.7	THA	143.50	EL1	298.7	EL2	92.3	ALF	162.40

LAUNCH DATE AUG 26 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 294.698

RL	151.18	LAL	-.00	LOL	332.35	VL	26.750	GAL	-2.33	AZL	88.12	HCA	129.38	SMA	127.60	ECC	.18913	INC	1.8806	V1	29.471
RP	107.57	LAP	1.45	LOP	101.74	VP	37.781	GAP	-6.13	AZP	91.19	TAL	190.10	TAP	319.47	RCA	103.47	APO	151.73	V2	35.229
RC	59.382	GL	17.14	GP	-31.75	ZAL	103.75	ZAP	42.36	ETS	38.76	ZAE	137.27	ETE	312.19	ZAC	70.45	ETC	261.41	CLP	-29.66

PLANETOCENTRIC CONIC

C3	8.860	VHL	2.977	DLA	-.68	RAL	230.20	RAD	6567.3	VEL	11.413	PTH	1.98	VHP	5.305	DPA	-52.89	RAP	241.13	ECC	1.1458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 31 57	2017.23	-14.34	29.36	79.79	114.68	5 5 35	1417.2	-10.90	22.38
90.00	16 19 53	4703.49	15.53	200.85	79.97	66.02	17 38 17	4103.5	12.16	193.79
100.00	5 52 59	1755.87	-15.12	9.76	79.41	116.10	6 22 15	1155.9	-11.49	2.85
100.00	17 41 33	4440.09	16.31	181.10	79.60	64.59	18 55 33	3840.1	12.75	174.12
110.00	7 0 30	1544.52	-17.17	352.57	78.27	120.02	7 26 14	944.5	-13.06	345.89
110.00	18 50 31	4224.20	18.38	163.59	78.48	60.66	20 0 55	3624.2	14.33	156.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.0234	TRA	-.4853	TC3	1.4163	BAU	.2740	SGT	1259.3	SGR	1131.7	SG3	369.6	ST	285.0	SR	99.0	SS	637.5
RDE	.0078	RRA	.1596	RC3	-1.8295	FAU	.06474	RRT	-.8462	RRF	.9499	RTF	-.8697	CRT	-.9695	CRS	-.4823	CST	.4849
FDE	.6782	FRA	.8070	FC3	-6.3261	BSP	5063	SGB	1693.1	R23	-.1760	R13	.9416	LSA	657.1	MSA	255.0	SSA	23.0
BDE	.0246	BRA	.5109	BC3	2.3136	FSP	-1071	SG1	1627.5	SG2	466.6	THA	138.60	EL1	300.8	EL2	23.0	ALF	161.28

LAUNCH DATE AUG 26 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 301.323

RL	151.18	LAL	-.00	LOL	332.35	VL	26.809	GAL	-2.40	AZL	87.79	HCA	132.61	SMA	127.99	ECC	.18587	INC	2.2079	V1	29.471
RP	107.55	LAP	1.62	LOP	104.98	VP	37.829	GAP	-5.53	AZP	91.50	TAL	190.62	TAP	323.23	RCA	104.20	APO	151.78	V2	35.235
RC	61.346	GL	20.21	GP	-34.82	ZAL	104.38	ZAP	46.51	ETS	37.18	ZAE	135.48	ETE	308.30	ZAC	67.37	ETC	261.14	CLP	-33.04

PLANETOCENTRIC CONIC

C3	8.920	VHL	2.987	DLA	2.52	RAL	230.17	RAD	6567.3	VEL	11.415	PTH	1.98	VHP	5.146	DPA	-55.79	RAP	239.35	ECC	1.1468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 8 6	2117.73	-17.11	35.44	80.32	112.91	4 43 24	1517.7	-13.86	28.27
90.00	16 43 30	4605.59	12.74	195.01	79.65	64.49	18 0 15	4005.6	9.20	188.12
100.00	5 30 37	1851.57	-17.90	15.51	79.95	114.35	6 1 29	1251.6	-14.46	8.40
100.00	18 3 40	4346.98	13.51	175.61	79.26	63.08	19 16 7	3747.0	9.79	168.79
110.00	6 41 33	1629.55	-20.00	357.55	78.85	118.32	7 8 43	1029.5	-16.06	350.64
110.00	19 9 13	4141.78	15.56	158.86	78.09	59.17	20 18 15	3541.8	11.36	152.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.0410	TRA	-.4694	TC3	1.3533	BAU	.2935	SGT	1213.3	SGR	1289.6	SG3	393.2	ST	282.7	SR	187.1	SS	755.5
RDE	.0767	RRA	.1902	RC3	-2.0559	FAU	.06768	RRT	-.8522	RRF	.9636	RTF	-.8650	CRT	-.7960	CRS	-.9337	CST	.5483
FDE	.8456	FRA	.8532	FC3	-6.5689	BSP	5382	SGB	1770.7	R23	-.1637	R13	.9533	LSA	793.3	MSA	236.5	SSA	20.2
BDE	.0869	BRA	.5065	BC3	2.4614	FSP	-1160	SG1	1704.3	SG2	480.3	THA	132.95	EL1	324.3	EL2	98.7	ALF	149.04

LAUNCH DATE AUG 26 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 307.927

RL	151.18	LAL	-.00	LOL	332.35	VL	26.860	GAL	-2.46	AZL	87.43	HCA	135.84	SMA	128.33	ECC	.18304	INC	2.5711	V1	29.471
RP	107.53	LAP	1.79	LOP	108.22	VP	37.870	GAP	-4.95	AZP	91.85	TAL	191.09	TAP	326.93	RCA	104.84	APO	151.82	V2	35.240
RC	63.355	GL	23.50	GP	-38.18	ZAL	104.78	ZAP	50.89	ETS	35.46	ZAE	133.45	ETE	304.13	ZAC	64.00	ETC	260.76	CLP	-36.63

PLANETOCENTRIC CONIC

C3	9.116	VHL	3.019	DLA	5.88	RAL	230.35	RAD	6567.3	VEL	11.424	PTH	1.98	VHP	5.033	DPA	-58.87	RAP	236.80	ECC	1.1500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 43 34	2227.09	-19.87	42.27	81.45	110.60	4 20 41	1627.1	-16.89	34.87
90.00	17 9 31	4504.63	9.71	189.14	79.88	63.27	18 24 36	3904.6	6.04	182.38
100.00	5 7 41	1955.74	-20.69	21.98	81.11	112.07	5 40 17	1355.7	-17.52	14.62
100.00	18 28 5	4251.19	10.49	170.10	79.47	61.85	19 38 56	3651.2	6.65	163.42
110.00	6 22 19	1722.20	-22.89	3.19	80.05	116.11	6 51 1	1122.2	-19.19	356.00
110.00	19 29 57	4057.52	12.57	154.17	78.24	57.95	20 37 34	3457.5	8.24	147.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.0563	TRA	-.4563	TC3	1.2280	BAU	.3138	SGT	1148.4	SGR	1468.3	SG3	411.8	ST	283.0	SR	339.5	SS	882.5
RDE	.1635	RRA	.2299	RC3	-2.2629	FAU	.06952	RRT	-.8470	RRF	.9736	RTF	-.8532	CRT	-.7121	CRS	-.9881	CST	.6047
FDE	1.0321	FRA	.9063	FC3	-6.6019	BSP	5664	SGB	1864.1	R23	-.1457	R13	.9641	LSA	961.3	MSA	223.0	SSA	17.3
BDE	.1729	BRA	.5109	BC3	2.5746	FSP	-1225	SG1	1796.0	SG2	499.2	THA	126.83	EL1	410.3	EL2	164.4	ALF	127.79

LAUNCH DATE AUG 26 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 314.508

RL	151.18	LAL	-.00	LOL	332.35	VL	26.905	GAL	-2.50	AZL	87.02	HCA	139.08	SMA	128.62	ECC	.18059	INC	2.9793	V1	29.471
RP	107.52	LAP	1.95	LOP	111.47	VP	37.906	GAP	-4.39	AZP	92.25	TAL	191.48	TAP	330.56	RCA	105.40	APO	151.85	V2	35.245
RC	65.403	GL	26.99	GP	-41.81	ZAL	104.92	ZAP	55.45	ETS	33.51	ZAE	131.11	ETE	299.71	ZAC	60.35	ETC	260.22	CLP	-40.46

PLANETOCENTRIC CONIC

C3	9.475	VHL	3.078	DLA	9.40	RAL	230.77	RAD	6567.3	VEL	11.440	PTH	1.98	VHP	4.971	DPA	-62.08	RAP	233.24	ECC	1.1559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 17 48	2347.22	-22.55	50.06	83.28	107.59	3 56 55	1747.2	-19.93	42.37
90.00	17 38 36	4399.51	6.43	183.16	80.74	62.36	18 51 55	3799.5	2.68	176.48
100.00	4 43 45	2070.00	-23.43	29.36	82.97	109.11	5 18 15	1470.0	-20.61	21.70
100.00	18 55 20	4151.96	7.25	164.51	80.30	60.92	20 4 32	3552.0	3.32	157.93
110.00	6 2 29	1823.62	-25.77	9.65	81.97	113.27	6 32 53	1223.6	-22.40	2.12
110.00	19 53 5	3971.11	9.40	149.48	78.99	56.98	20 59 16	3371.1	4.99	143.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.0626	TRA	-.4418	TC3	1.0529	BAU	.3360	SGT	1062.3	SGR	1667.4	SG3	423.2	ST	276.6	SR	531.1	SS	1008.8
RDE	.2713	RRA	.2797	RC3	-2.4348	FAU	.07000	RRT	-.8301	RRF	.9808	RTF	-.8318	CRT	-.6762	CRS	-.9970	CST	.6223
FDE	1.2259	FRA	.9603	FC3	-6.3965	BSP	6001	SGB	1977.0	R23	-.1224	R13	.9736	LSA	1153.4	MSA	213.9	SSA	14.6
BDE	.2784	BRA	.5229	BC3	2.6527	FSP	-1268	SG1	1908.0	SG2	517.7	THA	120.34	EL1	567.6	EL2	190.6	ALF	112.01

LAUNCH DATE AUG 26 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 321.065

RL	151.18	LAL	-.00	LOL	332.35	VL	26.942	GAL	-2.53	AZL	86.56	HCA	142.31	SMA	128.88	ECC	.17849	INC	3.4446
RP	107.51	LAP	2.11	LOP	114.71	VP	37.937	GAP	-3.84	AZP	92.73	TAL	191.80	TAP	334.11	RCA	105.87	APO	151.88
RC	67.486	GL	30.69	GP	-45.69	ZAL	104.81	ZAP	60.14	ETS	31.23	ZAE	128.42	ETE	295.10	ZAC	56.43	ETC	259.50

V1	29.471	V2	35.249	CLP	-44.54														

PLANETOCENTRIC CONIC

C3	10.037	VHL	3.168	DLA	13.07	RAL	231.43	RAD	6567.4	VEL	11.464	PTH	1.99	VHP	4.970	DPA	-65.34	RAP	228.32
ECC	1.1652																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 49 59	2481.03	-25.02	59.09	85.90	103.72	3 31 20	1881.0	-22.88	51.07
90.00	18 11 40	4288.48	2.89	176.92	82.33	61.82	19 23 8	3688.5	-.90	170.29
100.00	4 18 8	2196.79	-25.99	37.90	85.62	105.31	4 54 44	1596.8	-23.64	29.90
100.00	19 26 13	4047.95	3.78	158.75	81.84	60.33	20 33 41	3448.0	-.20	152.22
110.00	5 41 39	1935.42	-28.56	17.15	84.71	109.63	6 13 55	1335.4	-25.62	9.21
110.00	20 19 10	3882.09	6.07	144.74	80.42	56.30	21 23 53	3282.1	1.60	138.51

DIFFERENTIAL CORRECTIONS

TDE	-.0552	TRA	-.4243	TC3	.8383	BAU	.3607
RDE	.4041	RRA	.3416	RC3	-2.5538	FAU	.06894
FDE	1.4155	FRA	1.0106	FC3	-5.9462	BSP	6411
BDE	.4079	BRA	.5447	BC3	2.6878	FSP	-1286

MID-COURSE EXECUTION ACCURACY

SGT	955.4	SGR	1885.4	SG3	425.6		
RRT	-.7950	RRF	.9859	RTF	-.7935		
SGB	2113.6	R23	-.0962	R13	.9814		
SG1	2045.0	SG2	534.3	THA	113.65		

ORBIT DETERMINATION ACCURACY

ST	257.0	SR	756.8	SS	1126.5		
CRT	-.6099	CRS	-.9991	CST	.5786		
LSA	1365.4	MSA	208.0	SSA	12.2		
EL1	774.1	EL2	199.1	ALF	102.55		

LAUNCH DATE AUG 26 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 327.597

RL	151.18	LAL	-.00	LOL	332.35	VL	26.974	GAL	-2.55	AZL	86.02	HCA	145.54	SMA	129.09	ECC	.17671	INC	3.9834
RP	107.50	LAP	2.25	LOP	117.96	VP	37.962	GAP	-3.31	AZP	93.29	TAL	192.05	TAP	337.59	RCA	106.28	APO	151.90
RC	69.600	GL	34.60	GP	-49.78	ZAL	104.41	ZAP	64.86	ETS	28.55	ZAE	125.37	ETE	290.37	ZAC	52.28	ETC	258.55

V1	29.471	V2	35.253	CLP	-48.86														

PLANETOCENTRIC CONIC

C3	10.868	VHL	3.297	DLA	16.88	RAL	232.34	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	5.039	DPA	-68.55	RAP	221.56
ECC	1.1789																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 18 45	2633.30	-27.04	69.77	89.39	98.74	3 2 38	2033.3	-25.55	61.42
90.00	18 50 15	4168.37	-.98	170.22	84.80	61.70	19 59 43	3568.4	-4.76	163.57
100.00	3 49 43	2339.94	-28.17	47.98	89.17	100.44	4 28 43	1739.9	-26.44	39.60
100.00	20 1 58	3936.96	.02	152.65	84.24	60.11	21 7 35	3337.0	-3.96	146.12
110.00	5 19 12	2059.96	-31.09	25.96	88.41	104.98	5 53 32	1460.0	-28.72	17.56
110.00	20 48 58	3789.70	2.56	139.89	82.65	55.90	21 52 8	3189.7	-1.94	133.69

DIFFERENTIAL CORRECTIONS

TDE	-.0268	TRA	-.4012	TC3	.5940	BAU	.3868
RDE	.5662	RRA	.4175	RC3	-2.5952	FAU	.06601
FDE	1.5861	FRA	1.0511	FC3	-5.2583	BSP	6897
BDE	.5668	BRA	.5790	BC3	2.6623	FSP	-1271

MID-COURSE EXECUTION ACCURACY

SGT	828.5	SGR	2114.5	SG3	416.7		
RRT	-.7240	RRF	.9896	RTF	-.7200		
SGB	2271.1	R23	-.0696	R13	.9871		
SG1	2203.9	SG2	548.3	THA	106.92		

ORBIT DETERMINATION ACCURACY

ST	223.8	SR	1011.3	SS	1226.5		
CRT	-.4248	CRS	-.9997	CST	.4040		
LSA	1592.2	MSA	204.3	SSA	10.1		
EL1	1015.9	EL2	201.7	ALF	95.59		

LAUNCH DATE AUG 26 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 334.102

RL	151.18	LAL	-.00	LOL	332.35	VL	26.999	GAL	-2.56	AZL	85.38	HCA	148.77	SMA	129.26	ECC	.17522	INC	4.6187
RP	107.49	LAP	2.39	LOP	121.20	VP	37.983	GAP	-2.80	AZP	93.95	TAL	192.22	TAP	340.99	RCA	106.61	APO	151.91
RC	71.740	GL	38.69	GP	-54.04	ZAL	103.74	ZAP	69.52	ETS	25.36	ZAE	121.95	ETE	285.54	ZAC	47.96	ETC	257.30

V1	29.471	V2	35.255	CLP	-53.42														

PLANETOCENTRIC CONIC

C3	12.074	VHL	3.475	DLA	20.81	RAL	233.54	RAD	6567.5	VEL	11.553	PTH	2.02	VHP	5.192	DPA	-71.52	RAP	212.27
ECC	1.1987																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 41 17	2813.20	-28.23	82.79	93.76	92.33	2 28 10	2213.2	-27.61	74.18
90.00	19 37 15	4032.20	-5.35	162.60	88.39	62.15	20 44 27	3432.2	-9.04	155.86
100.00	3 16 28	2506.26	-29.62	60.12	93.67	94.21	3 58 14	1906.3	-28.72	51.43
100.00	20 44 44	3814.37	-4.13	145.91	87.72	60.37	21 48 19	3214.4	-8.05	139.31
110.00	4 54 4	2200.89	-33.10	36.45	93.19	99.08	5 30 45	1600.9	-31.49	27.59
110.00	21 23 37	3692.51	-1.16	134.82	85.87	55.83	22 25 10	3092.5	-5.63	128.60

DIFFERENTIAL CORRECTIONS

TDE	.0309	TRA	-.3699	TC3	.3382	BAU	.4134
RDE	.7633	RRA	.5121	RC3	-2.5388	FAU	.06116
FDE	1.7260	FRA	1.0804	FC3	-4.3849	BSP	7425
BDE	.7639	BRA	.6317	BC3	2.5612	FSP	-1216

MID-COURSE EXECUTION ACCURACY

SGT	695.4	SGR	2348.0	SG3	396.1		
RRT	-.5757	RRF	.9922	RTF	-.5692		
SGB	2448.8	R23	-.0444	R13	.9912		
SG1	2383.9	SG2	560.1	THA	100.25		

ORBIT DETERMINATION ACCURACY

ST	202.4	SR	1288.6	SS	1302.9		
CRT	.0410	CRS	-.9999	CST	-.0551		
LSA	1832.5	MSA	202.6	SSA	8.3		
EL1	1288.6	EL2	202.2	ALF	89.62		

LAUNCH DATE AUG 26 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 340.581

RL	151.18	LAL	-.00	LOL	332.35	VL	27.020	GAL	-2.56	AZL	84.62	HCA	152.00	SMA	129.40	ECC	.17399	INC	5.3846
RP	107.48	LAP	2.53	LOP	124.45	VP	37.999	GAP	-2.31	AZP	94.76	TAL	192.30	TAP	344.30	RCA	106.89	APO	151.92
RC	73.903	GL	42.93	GP	-58.43	ZAL	102.81	ZAP	73.99	ETS	21.58	ZAE	118.18	ETE	280.62	ZAC	43.50	ETC	255.66

V1	29.471	V2	35.257	CLP	-58.21		

PLANETOCENTRIC CONIC

C3	13.828	VHL	3.719	DLA	24.83	RAL	235.03	RAD	6567.5	VEL	11.628	PTH	2.04	VHP	5.452	DPA	-74.01	RAP	199.68
ECC	1.2276																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 50 4	3045.00	-27.70	99.69	98.79	83.89	1 40 49	2445.0	-28.26	91.07
90.00	20 40 19	3858.77	-10.75	152.71	93.59	63.64	21 44 38	3258.8	-14.20	145.74
100.00	2 33 39	2711.04	-29.68	75.32	98.99	86.23	3 18 50	2111.0	-29.88	66.52
100.00	21 39 25	3667.96	-8.99	137.76	92.66	61.37	22 40 33	3068.0	-12.75	130.99
110.00	4 24 25	2364.47	-34.15	49.09	99.08	91.68	5 3 50	1764.5	-33.54	39.90
110.00	22 5 8	3587.30	-5.17	129.32	90.33	56.16	23 4 55	2987.3	-9.58	123.00

DIFFERENTIAL CORRECTIONS

TDE	.1321	TRA	-.3252	TC3	.0943	BAU	.4394
RDE	.9983	RRA	.6278	RC3	-2.3751	FAU	.05460
FDE	1.8183	FRA	1.0916	FC3	-3.4182	BSP	8027
BDE	1.0070	BRA	.7071	BC3	2.3770	FSP	-1130

MID-COURSE EXECUTION ACCURACY

SGT	592.5	SGR	2573.4	SG3	364.0		
RRT	-.2619	RRF	.9940	RTF	-.2529		
SGB	2640.8	R23	-.0216	R13	.9938		
SG1	2578.3	SG2	570.8	THA	93.63		

ORBIT DETERMINATION ACCURACY

ST	262.4	SR	1572.0	SS	1345.8		
CRT	.6302	CRS	-.9999	CST	-.6374		
LSA	2076.1	MSA	202.6	SSA	6.8		
EL1	1580.8	EL2	202.6	ALF	83.89		

LAUNCH DATE AUG 26 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 347.031

RL	151.18	LAL	-.00	LOL	332.35	VL	27.035	GAL	-2.54	AZL	83.67	HCA	155.22	SMA	129.51	ECC	.17299	INC	6.3318
RP	107.48	LAP	2.65	LOP	127.70	VP	38.011	GAP	-1.83	AZP	95.75	TAL	192.31	TAP	347.52	RCA	107.10	APO	151.91
RC	76.087	GL	47.30	GP	-62.92	ZAL	101.63	ZAP	78.15	ETS	17.13	ZAE	114.10	ETE	275.57	ZAC	38.93	ETC	253.48

V1	29.471	V2	35.258	CLP	-63.19														

PLANETOCENTRIC CONIC

C3	16.428	VHL	4.053	DLA	28.90	RAL	236.82	RAD	6567.7	VEL	11.739	PTH	2.07	VHP	5.847	DPA	-75.70	RAP	183.34

ECC	1.2704	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		83.97	22 0 22	3652.31	-21.13	142.32	102.40	69.81	23 1 14	3052.3	-23.69	134.54							
		96.03	23 40 24	3328.63	-21.12	118.59	102.40	69.80	24 35 52	2728.6	-23.68	110.81							
		100.00	1 20 16	3020.47	-26.20	97.58	104.15	75.07	2 10 36	2420.5	-27.99	89.24							
		100.00	23 7 7	3435.71	-16.22	124.31	100.22	64.54	24 4 23	2835.7	-19.51	117.07							
		110.00	3 46 2	2564.07	-33.46	64.60	105.81	82.54	4 28 46	1964.1	-34.13	55.43							
		110.00	22 57 51	3464.88	-9.76	122.81	96.52	57.08	23 55 35	2864.9	-14.03	116.31							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2964	TRA	-.2599	TC3	-.1151	BAU	.4618	SGT	600.3	SGR	2776.1	SG3	322.3	ST	437.5	SR	1843.4	SS	1352.3
RDE	1.2764	RRA	.7721	RC3	-2.0996	FAU	.04657	RRT	.2350	RRF	.9952	RTF	.2455	CRT	.8792	CRS	-1.0000	CST	-.8824
FDE	1.8564	FRA	1.0851	FC3	-2.4542	BSP	8646	SGB	2840.3	R23	-.0009	R13	.9952	LSA	2318.7	MSA	204.8	SSA	5.6
BDE	1.3104	BRA	.8147	BC3	2.1027	FSP	-1011	SG1	2779.9	SG2	582.7	THA	86.96	EL1	1883.6	EL2	204.0	ALF	78.07

LAUNCH DATE AUG 26 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 353.449

RL	151.18	LAL	-.00	LOL	332.35	VL	27.046	GAL	-2.51	AZL	82.46	HCA	158.43	SMA	129.58	ECC	.17221	INC	7.5416
RP	107.48	LAP	2.77	LOP	130.95	VP	38.019	GAP	-1.37	AZP	97.02	TAL	192.23	TAP	350.66	RCA	107.27	APO	151.90
RC	78.289	GL	51.71	GP	-67.52	ZAL	100.25	ZAP	81.88	ETS	11.88	ZAE	109.71	ETE	270.26	ZAC	34.26	ETC	250.51

V1	29.471	V2	35.259	CLP	-68.32														

PLANETOCENTRIC CONIC

C3	20.415	VHL	4.518	DLA	32.94	RAL	238.94	RAD	6567.8	VEL	11.908	PTH	2.12	VHP	6.426	DPA	-76.26	RAP	164.13

ECC	1.3360	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		72.42	20 44 19	3970.98	-22.52	166.82	109.17	65.30	21 50 30	3371.0	-25.66	159.17							
		107.58	1 17 15	3111.61	-22.51	102.97	109.16	65.29	2 9 6	2511.6	-25.65	95.32							
		72.42	20 44 19	3970.98	-22.52	166.82	109.17	65.30	21 50 30	3371.0	-25.66	159.17							
		107.58	1 17 15	3111.61	-22.51	102.97	109.16	65.29	2 9 6	2511.6	-25.65	95.32							
		110.00	2 41 54	2851.32	-28.90	85.68	112.01	70.89	3 29 26	2251.3	-31.23	77.25							
		110.00	0 22 46	3279.28	-16.41	112.55	105.79	59.59	1 17 25	2679.3	-20.33	105.62							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5568	TRA	-.1603	TC3	-.2658	BAU	.4777	SGT	784.2	SGR	2938.4	SG3	274.3	ST	709.9	SR	2076.0	SS	1321.9
RDE	1.6009	RRA	.9520	RC3	-1.7299	FAU	.03765	RRT	.6338	RRF	.9959	RTF	.6446	CRT	.9516	CRS	-1.0000	CST	-.9536
FDE	1.8385	FRA	1.0594	FC3	-1.5967	BSP	9258	SGB	3041.3	R23	.0179	R13	.9959	LSA	2552.9	MSA	209.1	SSA	4.7
BDE	1.6950	BRA	.9654	BC3	1.7502	FSP	-868	SG1	2982.0	SG2	597.7	THA	79.99	EL1	2184.2	EL2	207.3	ALF	71.81

LAUNCH DATE AUG 26 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 359.832

RL	151.18	LAL	-.00	LOL	332.35	VL	27.053	GAL	-2.47	AZL	80.85	HCA	161.63	SMA	129.63	ECC	.17162	INC	9.1511
RP	107.48	LAP	2.87	LOP	134.20	VP	38.024	GAP	-.92	AZP	98.69	TAL	192.06	TAP	353.69	RCA	107.38	APO	151.88
RC	80.507	GL	56.06	GP	-72.28	ZAL	98.70	ZAP	85.07	ETS	5.54	ZAE	104.99	ETE	264.39	ZAC	29.46	ETC	246.22

V1	29.471	V2	35.258	CLP	-73.60														

PLANETOCENTRIC CONIC

C3	26.844	VHL	5.181	DLA	36.85	RAL	241.37	RAD	6568.1	VEL	12.175	PTH	2.18	VHP	7.274	DPA	-75.51	RAP	144.56

ECC	1.4418	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		65.37	20 12 59	4162.00	-22.79	182.00	117.30	60.22	21 22 21	3562.0	-26.57	174.66							
		114.63	2 8 2	3054.19	-22.77	98.60	117.29	60.21	2 58 57	2454.2	-26.56	91.26							
		65.37	20 12 59	4162.00	-22.79	182.00	117.30	60.22	21 22 21	3562.0	-26.57	174.66							
		114.63	2 8 2	3054.19	-22.77	98.60	117.29	60.21	2 58 57	2454.2	-26.56	91.26							
		65.37	20 12 59	4162.00	-22.79	182.00	117.30	60.22	21 22 21	3562.0	-26.57	174.66							
		114.63	2 8 2	3054.19	-22.77	98.60	117.29	60.21	2 58 57	2454.2	-26.56	91.26							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9729	TRA	-.0011	TC3	-.3443	BAU	.4821	SGT	1133.5	SGR	3029.4	SG3	223.6	ST	1075.9	SR	2226.1	SS	1256.9
RDE	1.9636	RRA	1.1783	RC3	-1.2986	FAU	.02847	RRT	.8194	RRF	.9963	RTF	.8317	CRT	.9755	CRS	-1.0000	CST	-.9774
FDE	1.7675	FRA	1.0168	FC3	-.9181	BSP	9893	SGB	3234.5	R23	.0355	R13	.9960	LSA	2765.1	MSA	217.0	SSA	3.9
BDE	2.1914	BRA	1.1783	BC3	1.3435	FSP	-717	SG1	3174.5	SG2	620.0	THA	72.26	EL1	2463.2	EL2	213.9	ALF	64.55

LAUNCH DATE AUG 26 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 366.171

RL	151.18	LAL	-.00	LOL	332.35	VL	27.056	GAL	-2.41	AZL	78.59	HCA	164.81	SMA	129.65	ECC	.17119	INC	11.4100
RP	107.48	LAP	2.97	LOP	137.45	VP	38.025	GAP	-.49	AZP	101.02	TAL	191.80	TAP	356.62	RCA	107.45	APO	151.85
RC	82.739	GL	60.18	GP	-77.33	ZAL	97.05	ZAP	87.62	ETS	357.26	ZAE	99.88	ETE	257.02	ZAC	24.45	ETC	239.26

V1	29.471	V2	35.257	CLP	-79.11														

PLANETOCENTRIC CONIC

C3	37.994	VHL	6.164	DLA	40.45	RAL	244.11	RAD	6568.5	VEL	12.624	PTH	2.29	VHP	8.545	DPA	-73.49	RAP	127.02

ECC	1.6253	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		59.82	19 56 52	4327.09	-21.44	194.76	126.70	54.84	21 8 59	3727.1	-25.88	187.91							
		120.18	2 45 58	3063.68	-21.42	98.46	126.69	54.83	3 37 2	2463.7	-25.87	91.61							
		59.82	19 56 52	4327.09	-21.44	194.76	126.70	54.84	21 8 59	3727.1	-25.88	187.91							
		120.18	2 45 58	3063.68	-21.42	98.46	126.69	54.83	3 37 2	2463.7	-25.87	91.61							
		59.82	19 56 52	4327.09	-21.44	194.76	126.70	54.84	21 8 59	3727.1	-25.88	187.91							
		120.18	2 45 58	3063.68	-21.42	98.46	126.69	54.83	3 37 2	2463.7	-25.87	91.61							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6791	TRA	.2836	TC3	-.3467	BAU	.4627	SGT	1655.0	SGR	2987.8	SG3	174.6	ST	1564.3	SR	2221.7	SS	1170.8
RDE	2.3191	RRA	1.4648	RC3	-.8424	FAU	.01941	RRT	.8956	RRF	.9959	RTF	.9136	CRT	.9843	CRS	-.9998	CST	-.9874
FDE	1.6628	FRA	.9673	FC3	-.4423	BSP	10461	SGB	3415.5	R23	.0527	R13	.9957	LSA	2949.7	MSA	230.8	SSA	3.3
BDE	2.8632	BRA	1.4920	BC3	.9110	FSP	-566	SG1	3351.9	SG2	656.3	THA	62.47	EL1	2707.7	EL2	226.8	ALF	55.00

LAUNCH DATE AUG 26 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 372.450

RL	151.18	LAL	-.00	LOL	332.35	VL	27.055	GAL	-2.33	AZL	75.18	HCA	167.96	SMA	129.65	ECC	.17092	INC	14.8238	V1	29.471		
RP	107.49	LAP	3.06	LOP	140.70	VP	38.023	GAP	-.09	AZP	104.51	TAL	191.44	TAP	359.40	RCA	107.49	APO	151.80	V2	35.255		
RC	84.985	GL	63.74	GP	-82.92	ZAL	95.36	ZAP	89.47	ETS	343.38	ZAE	94.16	ETE	244.39	ZAC	19.01	ETC	224.80	CLP	-85.70		

PLANETOCENTRIC CONIC

C3	59.477	VHL	7.712	DLA	43.44	RAL	247.03	RAD	6569.1	VEL	13.447	PTH	2.46	VHP	10.551	DPA	-70.24	RAP	112.20	ECC	1.9788		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.57	19 50 30	4488.40	-17.98	205.99	137.01	49.76	21 5 18	3888.4	-23.02	199.78
124.43	3 15 39	3126.16	-17.96	101.06	137.00	49.75	4 7 45	2526.2	-23.01	94.85
55.57	19 50 30	4488.40	-17.98	205.99	137.01	49.76	21 5 18	3888.4	-23.02	199.78
124.43	3 15 39	3126.16	-17.96	101.06	137.00	49.75	4 7 45	2526.2	-23.01	94.85
55.57	19 50 30	4488.40	-17.98	205.99	137.01	49.76	21 5 18	3888.4	-23.02	199.78
124.43	3 15 39	3126.16	-17.96	101.06	137.00	49.75	4 7 45	2526.2	-23.01	94.85

DIFFERENTIAL CORRECTIONS

TDE	3.0490	TRA	.9213	TC3	-.2834	BAU	.3949
RDE	2.3178	RRA	1.7558	RC3	-.4078	FAU	.01086
FDE	1.5544	FRA	.9265	FC3	-.1581	BSP	10953
BDE	3.8300	BRA	1.9829	BC3	.4966	FSP	-426

MID-COURSE EXECUTION ACCURACY

SGT	2492.2	SGR	2566.8	SG3	130.8		
RRT	.9175	RRF	.9895	RTF	.9585		
SGB	3577.6	R23	.0700	R13	.9952		
SG1	3503.2	SG2	726.3	THA	45.92		

ORBIT DETERMINATION ACCURACY

ST	2282.8	SR	1804.5	SS	1084.2
CRT	.9840	CRS	-.9981	CST	-.9931
LSA	3094.6	MSA	258.0	SSA	2.7
EL1	2898.8	EL2	253.3	ALF	38.22

LAUNCH DATE AUG 26 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 378.631

RL	151.18	LAL	-.00	LOL	332.35	VL	27.051	GAL	-2.23	AZL	69.43	HCA	171.04	SMA	129.62	ECC	.17075	INC	20.5707	V1	29.471		
RP	107.50	LAP	3.14	LOP	143.95	VP	38.017	GAP	.29	AZP	110.34	TAL	190.94	TAP	1.98	RCA	107.49	APO	151.75	V2	35.253		
RC	87.241	GL	66.07	GP	-89.33	ZAL	93.70	ZAP	90.57	ETS	293.95	ZAE	87.27	ETE	196.40	ZAC	12.83	ETC	168.81	CLP	-148.29		

PLANETOCENTRIC CONIC

C3	107.969	VHL	10.391	DLA	45.19	RAL	249.83	RAD	6570.1	VEL	15.143	PTH	2.72	VHP	14.019	DPA	-65.41	RAP	99.56	ECC	2.7769		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.19	19 52 27	4648.53	-12.26	215.20	147.38	46.16	21 9 55	4048.5	-17.73	209.57
126.81	3 36 3	3237.69	-12.24	105.85	147.36	46.16	4 30 0	2637.7	-17.71	100.21
53.19	19 52 27	4648.53	-12.26	215.20	147.38	46.16	21 9 55	4048.5	-17.73	209.57
126.81	3 36 3	3237.69	-12.24	105.85	147.36	46.16	4 30 0	2637.7	-17.71	100.21
53.19	19 52 27	4648.53	-12.26	215.20	147.38	46.16	21 9 55	4048.5	-17.73	209.57
126.81	3 36 3	3237.69	-12.24	105.85	147.36	46.16	4 30 0	2637.7	-17.71	100.21

DIFFERENTIAL CORRECTIONS

TDE	5.2235	TRA	2.7865	TC3	-.1369	BAU	.2001
RDE	-1.2441	RRA	.5805	RC3	-.0219	FAU	.00224
FDE	1.5060	FRA	.9346	FC3	-.0180	BSP	11106
BDE	5.3696	BRA	2.8464	BC3	.1387	FSP	-304

MID-COURSE EXECUTION ACCURACY

SGT	3623.5	SGR	823.9	SG3	95.7		
RRT	-.3259	RRF	-.2586	RTF	.9963		
SGB	3716.0	R23	-.0864	R13	-.9950		
SG1	3633.9	SG2	776.7	THA	175.56		

ORBIT DETERMINATION ACCURACY

ST	2953.6	SR	699.4	SS	1040.3
CRT	-.9134	CRS	.8986	CST	-.9994
LSA	3196.1	MSA	283.5	SSA	1.9
EL1	3022.5	EL2	278.3	ALF	167.69

LAUNCH DATE AUG 26 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 384.595

RL	151.18	LAL	-.00	LOL	332.35	VL	27.044	GAL	-2.08	AZL	58.02	HCA	173.94	SMA	129.57	ECC	.17060	INC	31.9756	V1	29.471		
RP	107.51	LAP	3.21	LOP	147.20	VP	38.009	GAP	.60	AZP	121.83	TAL	190.19	TAP	4.13	RCA	107.47	APO	151.68	V2	35.249		
RC	89.506	GL	65.34	GP	-80.74	ZAL	92.18	ZAP	90.91	ETS	206.98	ZAE	77.64	ETE	110.85	ZAC	6.55	ETC	39.40	CLP	95.68		

PLANETOCENTRIC CONIC

C3	247.999	VHL	15.748	DLA	43.98	RAL	251.65	RAD	6571.4	VEL	19.218	PTH	3.09	VHP	20.945	DPA	-57.51	RAP	88.25	ECC	5.0814		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.82	20 5 59	4775.43	-5.31	220.04	156.14	46.27	21 25 34	4175.4	-10.80	214.58
125.18	3 37 3	3397.45	-5.30	113.69	156.13	46.27	4 33 40	2797.5	-10.79	108.23
54.82	20 5 59	4775.43	-5.31	220.04	156.14	46.27	21 25 34	4175.4	-10.80	214.58
125.18	3 37 3	3397.45	-5.30	113.69	156.13	46.27	4 33 40	2797.5	-10.79	108.23
54.82	20 5 59	4775.43	-5.31	220.04	156.14	46.27	21 25 34	4175.4	-10.80	214.58
125.18	3 37 3	3397.45	-5.30	113.69	156.13	46.27	4 33 40	2797.5	-10.79	108.23

DIFFERENTIAL CORRECTIONS

TDE	.9110	TRA	1.7479	TC3	-.0013	BAU	.3897
RDE	-8.0546	RRA	-4.2295	RC3	-.1175	FAU	-.00932
FDE	1.6462	FRA	1.0871	FC3	.0325	BSP	11431
BDE	8.1060	BRA	4.5765	BC3	.1175	FSP	-228

MID-COURSE EXECUTION ACCURACY

SGT	943.9	SGR	3646.7	SG3	70.8		
RRT	-.8308	RRF	-.9935	RTF	.8842		
SGB	3766.9	R23	-.0756	R13	-.9963		
SG1	3731.7	SG2	513.3	THA	102.37		

ORBIT DETERMINATION ACCURACY

ST	424.4	SR	2999.9	SS	1124.2
CRT	-.8964	CRS	.9986	CST	-.9187
LSA	3225.9	MSA	192.6	SSA	1.8
EL1	3024.1	EL2	186.6	ALF	97.26

LAUNCH DATE AUG 26 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 389.870

RL	151.18	LAL	-.00	LOL	332.35	VL	27.035	GAL	-1.79	AZL	30.13	HCA	176.23	SMA	129.50	ECC	.17022	INC	59.8668	V1	29.471		
RP	107.52	LAP	3.26	LOP	150.45	VP	37.999	GAP	.73	AZP	149.81	TAL	188.78	TAP	5.00	RCA	107.46	APO	151.55	V2	35.245		
RC	91.778	GL	55.75	GP	-63.29	ZAL	90.94	ZAP	90.62	ETS	188.74	ZAE	60.16	ETE	93.52	ZAC	16.78	ETC	300.33	CLP	91.39		

PLANETOCENTRIC CONIC

C3	799.283	VHL	28.272	DLA	34.28	RAL	250.52	RAD	6572.8	VEL	30.341	PTH	3.46	VHP	37.111	DPA	-41.42	RAP	77.65	ECC	14.1542		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.83	21 14 30	4672.56	-.21	207.39	160.24	55.72	22 32 22	4072.6	-4.70	201.18
110.17	2 19 31	3714.73	-.19	135.90	160.23	55.72	3 21 26	3114.7	-4.68	129.69
69.83	21 14 30	4672.56	-.21	207.39	160.24	55.72	22 32 22	4072.6	-4.70	201.18
110.17	2 19 31	3714.73	-.19	135.90	160.23	55.72	3 21 26	3114.7	-4.68	129.69
69.83	21 14 30	4672.56	-.21	207.39	160.24	55.72	22 32 22	4072.6	-4.70	201.18
110.17	2 19 31	3714.73	-.19	135.90	160.23	55.72	3 21 26	3114.7	-4.68	129.69

DIFFERENTIAL CORRECTIONS

TDE	-3.5872	TRA	.3789	TC3	-.0656	BAU	2.5708
RD	-12.0429	RRA	-8.4244	RC3	-.2315	FAU	-.04297
FDE	2.2366	FRA	1.7444	FC3	.0465	BSP	10081
BDE	12.5658	BRA	8.4329	BC3	.2406	FSP	-175

MID-COURSE EXECUTION ACCURACY

SGT	821.4	SGR	3455.2	SG3	58.5		
RRT	.7285	RRF	-.9987	RTF	-.6971		
SGB	3551.5	R23	-.0726	R13	-.9971		
SG1	3508.0	SG2	554.2	THA	79.92		

ORBIT DETERMINATION ACCURACY

ST	727.6	SR	2518.4	SS	1510.8
CRT	.9591	CRS	.9996	CST	.9510
LSA	3018.4	MSA	208.3	SSA	1.5
EL1	2613.9	EL2	198.4	ALF	74.42

LAUNCH DATE AUG 26 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 400.627

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RL  151.18 LAL   -.00 LOL 332.35 VL  27.022 GAL  -2.54 AZL 157.80 HCA 183.58 SMA 129.42 ECC .17377 INC67.7965 V1  29.471
RP  107.53 LAP   3.31 LOP 153.70 VP  37.985 GAP   2.32 AZP  22.24 TAL 192.24 TAP  15.82 RCA 106.93 APO 151.91 V2  35.240
RC  94.056 GL  -52.35 GP   59.64 ZAL  91.48 ZAP  92.05 ETS 183.01 ZAE  62.89 ETE 275.92 ZAC 137.59 ETC 284.32 CLP  94.06
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PLANETOCENTRIC CONIC

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C3 996.573 VHL 31.569 DLA -69.50 RAL 209.04 RAD 6573.0 VEL 33.434 PTH   3.50 VHP 40.494 DPA  75.36 RAP  17.84 ECC17.4011
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.44	3 48 50	2435.90	-.38	77.80	119.17	159.50	4 29 26	1835.9	7.11	75.40
156.56	14 14 15	685.59	-.38	288.35	119.19	159.50	14 25 40	85.6	7.11	285.96
23.44	3 48 50	2435.90	-.38	77.80	119.17	159.50	4 29 26	1835.9	7.11	75.40
156.56	14 14 15	685.59	-.38	288.35	119.19	159.50	14 25 40	85.6	7.11	285.96
23.44	3 48 50	2435.90	-.38	77.80	119.17	159.50	4 29 26	1835.9	7.11	75.40
156.56	14 14 15	685.59	-.38	288.35	119.19	159.50	14 25 40	85.6	7.11	285.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE 6.3120 TRA 1.3684 TC3 -.1118 BAU 3.4102    SGT 1521.1 SGR 3171.8 SG3   60.1      ST  1165.4 SR  2802.1 SS  2185.7
RD-15.4278 RRA -.6292 RC3  .2302 FAU-.05428    RRT -.9255 RRF  .9994 RTF -.9243      CRT -.9890 CRS-1.0000 CST  .9891
FDE-3.4395 FRA -.1433 FC3  .0472 BSP  10656    SGB 3517.6 R23 -.0705 R13  .9969      LSA 3736.4 MSA  163.9 SSA    2.3
BDE16.6690 BRA 1.5061 BC3  .2560 FSP   -186    SG1 3478.2 SG2  525.2 THA 114.53      EL1 3030.6 EL2  159.6 ALF 112.42
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 405.679

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RL  151.18 LAL   -.00 LOL 332.35 VL  27.007 GAL  -2.19 AZL 126.10 HCA 185.69 SMA 129.32 ECC .17325 INC36.0953 V1  29.471
RP  107.55 LAP   3.35 LOP 156.95 VP  37.970 GAP   2.38 AZP  54.04 TAL 190.57 TAP  16.26 RCA 106.91 APO 151.72 V2  35.235
RC  96.339 GL  -64.19 GP   78.28 ZAL  92.12 ZAP  93.77 ETS 178.31 ZAE  82.09 ETE 270.05 ZAC 155.44 ETC 290.14 CLP 108.88
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PLANETOCENTRIC CONIC

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C3 311.908 VHL 17.661 DLA -76.41 RAL 174.79 RAD 6571.8 VEL 20.814 PTH   3.18 VHP 22.445 DPA  76.84 RAP 288.20 ECC 6.1332
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.48	1 15 42	2364.27	5.52	80.75	83.44	166.34	1 55 7	1764.3	13.29	79.24
164.52	12 14 5	5866.37	5.53	261.09	83.46	166.34	13 51 52	5266.4	13.30	259.58
15.48	1 15 42	2364.27	5.52	80.75	83.44	166.34	1 55 7	1764.3	13.29	79.24
164.52	12 14 5	5866.37	5.53	261.09	83.46	166.34	13 51 52	5266.4	13.30	259.58
15.48	1 15 42	2364.27	5.52	80.75	83.44	166.34	1 55 7	1764.3	13.29	79.24
164.52	12 14 5	5866.37	5.53	261.09	83.46	166.34	13 51 52	5266.4	13.30	259.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.8433 TRA  .8786 TC3 -.0591 BAU  .7459    SGT 1368.2 SGR 3802.1 SG3   74.7      ST   700.0 SR  2779.8 SS  1260.8
RDE-8.2113 RRA-1.9171 RC3  .1688 FAU-.01080    RRT -.9471 RRF  .9990 RTF -.9366      CRT -.9672 CRS -.9999 CST  .9630
FDE-1.9293 FRA -.4246 FC3  .0300 BSP  12567    SGB 4040.8 R23 -.0653 R13  .9973      LSA 3126.6 MSA  176.4 SSA    1.6
BDE 8.4157 BRA 2.1089 BC3  .1789 FSP   -237    SG1 4019.4 SG2  415.2 THA 109.03      EL1 2861.3 EL2  172.8 ALF 103.74
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 411.510

```
RL  151.18 LAL   -.00 LOL 332.35 VL  26.991 GAL  -1.99 AZL 113.35 HCA 188.54 SMA 129.20 ECC .17353 INC23.3475 V1  29.471
RP  107.57 LAP   3.37 LOP 160.20 VP  37.952 GAP   2.65 AZP  66.88 TAL 189.55 TAP  18.09 RCA 106.78 APO 151.62 V2  35.229
RC  98.624 GL  -66.11 GP   83.54 ZAL  92.72 ZAP  96.38 ETS 115.12 ZAE  92.21 ETE 206.36 ZAC 162.88 ETC 245.37 CLP 170.77
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PLANETOCENTRIC CONIC

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C3 136.703 VHL 11.692 DLA -76.36 RAL 165.98 RAD 6570.5 VEL 16.063 PTH   2.83 VHP 14.753 DPA  68.77 RAP 263.50 ECC 3.2498
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.53	0 40 41	2238.77	13.81	79.17	72.56	165.95	1 18 0	1638.8	21.56	77.51
164.47	11 38 52	5741.04	13.81	259.56	72.57	165.95	13 14 33	5141.0	21.57	257.90
15.53	0 40 41	2238.77	13.81	79.17	72.56	165.95	1 18 0	1638.8	21.56	77.51
164.47	11 38 52	5741.04	13.81	259.56	72.57	165.95	13 14 33	5141.0	21.57	257.90
15.53	0 40 41	2238.77	13.81	79.17	72.56	165.95	1 18 0	1638.8	21.56	77.51
164.47	11 38 52	5741.04	13.81	259.56	72.57	165.95	13 14 33	5141.0	21.57	257.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE-3.7124 TRA-1.1286 TC3 -.0296 BAU  .0656    SGT 2969.4 SGR 3016.1 SG3  101.4      ST  1950.6 SR  1679.5 SS   983.3
RDE-3.0269 RRA-1.2633 RC3 -.0203 FAU .00508    RRT  .9894 RRF  .9880 RTF  .9992      CRT  .9929 CRS -.9928 CST-1.0000
FDE-1.4689 FRA -.4448 FC3 -.0321 BSP  13306    SGB 4232.5 R23 -.0777 R13  .9961      LSA 2750.9 MSA  158.8 SSA    1.6
BDE 4.7900 BRA 1.6940 BC3  .0359 FSP   -327    SG1 4221.3 SG2  307.8 THA  45.45      EL1 2569.5 EL2  151.4 ALF  40.70
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 417.543

```
RL  151.18 LAL   -.00 LOL 332.35 VL  26.972 GAL  -1.82 AZL 107.10 HCA 191.60 SMA 129.08 ECC .17411 INC17.1033 V1  29.471
RP  107.59 LAP   3.39 LOP 163.45 VP  37.932 GAP   2.97 AZP  73.23 TAL 188.67 TAP  20.27 RCA 106.60 APO 151.55 V2  35.222
RC 100.910 GL  -64.79 GP   78.86 ZAL  93.10 ZAP  99.59 ETS  48.10 ZAE  99.05 ETE 139.41 ZAC 164.87 ETC 202.36 CLP-149.52
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PLANETOCENTRIC CONIC

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C3  76.790 VHL  8.763 DLA -75.69 RAL 170.78 RAD 6569.5 VEL 14.076 PTH   2.57 VHP 11.029 DPA  62.12 RAP 253.75 ECC 2.2638
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.30	1 1 22	2115.57	21.78	76.87	74.92	164.57	1 36 38	1515.6	29.47	74.85
163.70	11 56 28	5620.59	21.78	258.02	74.94	164.57	13 30 9	5020.6	29.48	256.00
16.30	1 1 22	2115.57	21.78	76.87	74.92	164.57	1 36 38	1515.6	29.47	74.85
163.70	11 56 28	5620.59	21.78	258.02	74.94	164.57	13 30 9	5020.6	29.48	256.00
16.30	1 1 22	2115.57	21.78	76.87	74.92	164.57	1 36 38	1515.6	29.47	74.85
163.70	11 56 28	5620.59	21.78	258.02	74.94	164.57	13 30 9	5020.6	29.48	256.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE-3.0007 TRA-1.2029 TC3 -.3217 BAU  .3616    SGT 3780.9 SGR 2150.2 SG3  138.7      ST  2182.0 SR  1763.5 SS  1077.8
RDE 2.6341 RRA  .4772 RC3  .1435 FAU .01575    RRT -.9273 RRF -.9803 RTF  .9795      CRT -.9722 CRS  .9957 CST -.9898
FDE-1.6476 FRA -.4343 FC3 -.1775 BSP  13771    SGB 4349.6 R23  .1036 R13 -.9928      LSA 2987.5 MSA  327.3 SSA    2.6
BDE 3.9928 BRA 1.2941 BC3  .3522 FSP   -452    SG1 4291.4 SG2  709.1 THA 151.34      EL1 2786.8 EL2  323.4 ALF 141.22
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 423.640

RL	151.18	LAL	-.00	LOL	332.35	VL	26.951	GAL	-1.65	AZL	103.46	HCA	194.73	SMA	128.94	ECC	.17487	INC	13.4628
RP	107.61	LAP	3.39	LOP	166.70	VP	37.911	GAP	3.30	AZP	76.96	TAL	187.82	TAP	22.55	RCA	106.39	APO	151.48
RC	103.196	GL'	-62.30	GP	72.88	ZAL	93.19	ZAP	103.23	ETS	41.24	ZAE	104.38	ETE	133.19	ZAC	163.32	ETC	216.10

V1	29.471	V2	35.215	CLP	-141.03														

PLANETOCENTRIC CONIC

C3	50.178	VHL	7.084	DLA	-74.73	RAL	179.80	RAD	6568.8	VEL	13.097	PTH	2.39	VHP	8.943	DPA	56.26	RAP	247.79
ECC	1.8258																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.41	1 39 34	2010.75	28.37	74.12	81.31	162.58	2 13 5	1410.7	35.97	71.59
162.59	12 30 14	5519.93	28.37	256.37	81.34	162.58	14 2 14	4919.9	35.98	253.84
17.41	1 39 34	2010.75	28.37	74.12	81.31	162.58	2 13 5	1410.7	35.97	71.59
162.59	12 30 14	5519.93	28.37	256.37	81.34	162.58	14 2 14	4919.9	35.98	253.84
17.41	1 39 34	2010.75	28.37	74.12	81.31	162.58	2 13 5	1410.7	35.97	71.59
162.59	12 30 14	5519.93	28.37	256.37	81.34	162.58	14 2 14	4919.9	35.98	253.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7581	TRA	-.8894	TC3	-.6469	BAU	.4964	SGT	3643.6	SGR	2471.3	SG3	181.4	ST	2376.7	SR	2102.8
RDE	2.5578	RRA	.4078	RC3	.3591	FAU	.02504	RRT	-.9442	RRF	-.9917	RTF	.9716	CRT	-.9852	CRS	.9992
FDE	-1.9894	FRA	-.3912	FC3	-.4321	BSP	13814	SGB	4402.6	R23	.1238	R13	-.9897	LSA	3408.3	MSA	279.1
BDE	3.7616	BRA	.9784	BC3	.7399	FSP	-586	SG1	4349.5	SG2	682.0	THA	146.43	EL1	3161.8	EL2	271.2

SS	1274.3	CST	-.9914
SSA	3.3	ALF	138.55

LAUNCH DATE AUG 26 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 429.757

RL	151.18	LAL	-.00	LOL	332.35	VL	26.929	GAL	-1.48	AZL	101.08	HCA	197.90	SMA	128.78	ECC	.17578	INC	11.0837
RP	107.64	LAP	3.39	LOP	169.94	VP	37.887	GAP	3.65	AZP	79.44	TAL	186.95	TAP	24.85	RCA	106.15	APO	151.42
RC	105.482	GL	-59.35	GP	67.14	ZAL	92.98	ZAP	107.15	ETS	40.31	ZAE	108.78	ETE	133.47	ZAC	159.99	ETC	228.34

V1	29.471	V2	35.207	CLP	-139.38														

PLANETOCENTRIC CONIC

C3	36.187	VHL	6.016	DLA	-73.42	RAL	189.64	RAD	6568.4	VEL	12.552	PTH	2.27	VHP	7.666	DPA	50.84	RAP	243.58
ECC	1.5955																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.92	2 21 54	1925.36	33.45	70.83	88.28	160.00	2 53 59	1325.4	40.91	67.64
161.08	13 6 23	5440.78	33.46	254.61	88.30	160.00	14 37 4	4840.8	40.92	251.41
18.92	2 21 54	1925.36	33.45	70.83	88.28	160.00	2 53 59	1325.4	40.91	67.64
161.08	13 6 23	5440.78	33.46	254.61	88.30	160.00	14 37 4	4840.8	40.92	251.41
18.92	2 21 54	1925.36	33.45	70.83	88.28	160.00	2 53 59	1325.4	40.91	67.64
161.08	13 6 23	5440.78	33.46	254.61	88.30	160.00	14 37 4	4840.8	40.92	251.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7793	TRA	-.6911	TC3	-1.0498	BAU	.5757	SGT	3731.1	SGR	2457.8	SG3	228.0	ST	2736.4	SR	2202.7
RDE	2.2952	RRA	.2692	RC3	.5605	FAU	.03391	RRT	-.9498	RRF	-.9932	RTF	.9691	CRT	-.9912	CRS	.9997
FDE	-2.3152	FRA	-.3213	FC3	-.8113	BSP	14046	SGB	4467.9	R23	.1399	R13	-.9867	LSA	3802.7	MSA	241.6
BDE	3.6045	BRA	.7416	BC3	1.1900	FSP	-736	SG1	4420.5	SG2	648.7	THA	147.17	EL1	3505.4	EL2	228.1

SS	1476.1	CST	-.9939
SSA	4.1	ALF	141.22

LAUNCH DATE AUG 26 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 435.875

RL	151.18	LAL	-.00	LOL	332.35	VL	26.905	GAL	-1.30	AZL	99.40	HCA	201.09	SMA	128.62	ECC	.17681	INC	9.4035
RP	107.66	LAP	3.37	LOP	173.18	VP	37.862	GAP	3.99	AZP	81.22	TAL	186.06	TAP	27.15	RCA	105.88	APO	151.37
RC	107.765	GL	-56.21	GP	61.75	ZAL	92.47	ZAP	111.20	ETS	40.56	ZAE	112.46	ETE	135.44	ZAC	156.01	ETC	236.42

V1	29.471	V2	35.198	CLP	-139.83														

PLANETOCENTRIC CONIC

C3	27.962	VHL	5.288	DLA	-71.79	RAL	198.98	RAD	6568.1	VEL	12.220	PTH	2.20	VHP	6.842	DPA	45.72	RAP	240.47
ECC	1.4602																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.79	3 3 3	1856.25	37.19	67.04	94.51	156.91	3 33 59	1256.3	44.47	63.07
159.21	13 39 44	5380.24	37.20	252.73	94.53	156.90	15 9 25	4780.2	44.48	248.76
20.79	3 3 3	1856.25	37.19	67.04	94.51	156.91	3 33 59	1256.3	44.47	63.07
159.21	13 39 44	5380.24	37.20	252.73	94.53	156.90	15 9 25	4780.2	44.48	248.76
20.79	3 3 3	1856.25	37.19	67.04	94.51	156.91	3 33 59	1256.3	44.47	63.07
159.21	13 39 44	5380.24	37.20	252.73	94.53	156.90	15 9 25	4780.2	44.48	248.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7806	TRA	-.5284	TC3	-1.5107	BAU	.6266	SGT	3871.3	SGR	2342.1	SG3	273.0	ST	3062.9	SR	2158.2
RDE	1.9866	RRA	.1475	RC3	.7265	FAU	.04178	RRT	-.9540	RRF	-.9930	RTF	.9687	CRT	-.9940	CRS	.9999
FDE	-2.5335	FRA	-.2197	FC3	-1.2935	BSP	14224	SGB	4524.7	R23	.1515	R13	-.9839	LSA	4079.9	MSA	213.4
BDE	3.4173	BRA	.5486	BC3	1.6763	FSP	-878	SG1	4483.9	SG2	606.1	THA	149.39	EL1	3741.9	EL2	192.9

SS	1628.6	CST	-.9953
SSA	5.0	ALF	144.89

LAUNCH DATE AUG 26 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 441.985

RL	151.18	LAL	-.00	LOL	332.35	VL	26.879	GAL	-1.11	AZL	98.15	HCA	204.29	SMA	128.45	ECC	.17797	INC	8.1486
RP	107.69	LAP	3.34	LOP	176.43	VP	37.836	GAP	4.33	AZP	82.56	TAL	185.14	TAP	29.43	RCA	105.59	APO	151.32
RC	110.046	GL	-53.02	GP	56.74	ZAL	91.67	ZAP	115.26	ETS	41.05	ZAE	115.52	ETE	138.06	ZAC	151.92	ETC	241.73

V1	29.471	V2	35.189	CLP	-141.08														

PLANETOCENTRIC CONIC

C3	22.740	VHL	4.769	DLA	-69.92	RAL	207.42	RAD	6567.9	VEL	12.005	PTH	2.14	VHP	6.298	DPA	40.89	RAP	238.17
ECC	1.3742																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.95	3 41 19	1799.77	39.82	62.84	99.67	153.45	4 11 19	1199.8	46.87	58.03
157.05	14 8 50	5334.82	39.83	250.78	99.69	153.45	15 37 45	4734.8	46.88	245.97
22.95	3 41 19	1799.77	39.82	62.84	99.67	153.45	4 11 19	1199.8	46.87	58.03
157.05	14 8 50	5334.82	39.83	250.78	99.69	153.45	15 37 45	4734.8	46.88	245.97
22.95	3 41 19	1799.77	39.82	62.84	99.67	153.45	4 11 19	1199.8	46.87	58.03
157.05	14 8 50	5334.82	39.83	250.78	99.69	153.45	15 37 45	4734.8	46.88	245.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7326	TRA	-.3820	TC3	-2.0168	BAU	.6658	SGT	4033.2	SGR	2187.7	SG3	313.4	ST	3308.2	SR	2023.4
RDE	1.6833	RRA	.0514	RC3	.8538	FAU	.04852	RRT	-.9574	RRF	-.9920	RTF	.9693	CRT	-.9955	CRS	1.0000
FDE	-2.6246	FRA	-.0934	FC3	-1.8473	BSP	14426	SGB	4588.3	R23	.1582	R13	-.9816	LSA	4236.7	MSA	192.7
BDE	3.2094	BRA	.3854	BC3	2.1901	FSP	-1006	SG1	4554.1	SG2	559.6	THA	152.10	EL1	3874.4	EL2	163.9

SS	1717.2	CST	-.9959
SSA	5.9	ALF	148.60

LAUNCH DATE AUG 26 1970 FLIGHT TIME 158.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 448.083

RL 151.18 LAL -.00 LOL 332.35 VL 26.853 GAL -.91 AZL 97.17 HCA 207.50 SMA 128.28 ECC .17926 INC 7.1711 V1 29.471
RP 107.72 LAP 3.30 LOP 179.66 VP 37.808 GAP 4.67 AZP 83.63 TAL 184.18 TAP 31.68 RCA 105.28 APO 151.27 V2 35.179
RC 112.324 GL -49.83 GP 52.12 ZAL 90.60 ZAP 119.23 ETS 41.50 ZAE 118.01 ETE 140.92 ZAC 147.97 ETC 245.36 CLP-142.67

PLANETOCENTRIC CONIC

C3 19.239 VHL 4.386 DLA -67.88 RAL 214.95 RAD 6567.8 VEL 11.858 PTH 2.10 VHP 5.938 DPA 36.35 RAP 236.50 ECC 1.3166

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.32	4 16 30	1752.84	41.55	58.38	103.83	149.80	4 45 43	1152.8	48.31	52.75
154.68	14 33 43	5301.55	41.55	248.84	103.85	149.80	16 2 4	4701.6	48.32	243.22
25.32	4 16 30	1752.84	41.55	58.38	103.83	149.80	4 45 43	1152.8	48.31	52.75
154.68	14 33 43	5301.55	41.55	248.84	103.85	149.80	16 2 4	4701.6	48.32	243.22
25.32	4 16 30	1752.84	41.55	58.38	103.83	149.80	4 45 43	1152.8	48.31	52.75
154.68	14 33 43	5301.55	41.55	248.84	103.85	149.80	16 2 4	4701.6	48.32	243.22

DIFFERENTIAL CORRECTIONS
TDE-2.6451 TRA -.2427 TC3-2.5483 BAU .6983
RDE 1.4094 RRA -.0228 RC3 .9370 FAU .05381
FDE-2.5991 FRA .0499 FC3-2.4213 BSP 14676
BDE 2.9971 BRA .2438 BC3 2.7152 FSP -1115

MID-COURSE EXECUTION ACCURACY
SGT 4200.6 SGR 2017.7 SG3 346.3
RRT -.9595 RRF -.9903 RTF .9700
SGB 4660.1 R23 .1609 R13 -.9797
SG1 4631.5 SG2 515.8 THA 154.92

ORBIT DETERMINATION ACCURACY
ST 3465.1 SR 1841.3 SS 1742.5
CRT -.9963 CRS 1.0000 CST -.9961
LSA 4289.7 MSA 178.1 SSA 6.9
EL1 3921.4 EL2 139.9 ALF 152.06

LAUNCH DATE AUG 26 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 454.166

RL 151.18 LAL -.00 LOL 332.35 VL 26.825 GAL -.70 AZL 96.38 HCA 210.71 SMA 128.09 ECC .18067 INC 6.3841 V1 29.471
RP 107.75 LAP 3.26 LOP 182.90 VP 37.779 GAP 5.01 AZP 84.51 TAL 183.19 TAP 33.90 RCA 104.95 APO 151.24 V2 35.169
RC 114.599 GL -46.69 GP 47.88 ZAL 89.27 ZAP 123.04 ETS 41.86 ZAE 120.00 ETE 143.84 ZAC 144.29 ETC 247.95 CLP-144.40

PLANETOCENTRIC CONIC

C3 16.803 VHL 4.099 DLA -65.73 RAL 221.68 RAD 6567.7 VEL 11.755 PTH 2.07 VHP 5.705 DPA 32.11 RAP 235.35 ECC 1.2765

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.84	4 48 59	1713.12	42.53	53.80	107.23	146.09	5 17 32	1113.1	48.99	47.42
152.16	14 54 55	5278.16	42.54	247.02	107.25	146.09	16 22 54	4678.2	48.99	240.64
27.84	4 48 59	1713.12	42.53	53.80	107.23	146.09	5 17 32	1113.1	48.99	47.42
152.16	14 54 55	5278.16	42.54	247.02	107.25	146.09	16 22 54	4678.2	48.99	240.64
27.84	4 48 59	1713.12	42.53	53.80	107.23	146.09	5 17 32	1113.1	48.99	47.42
152.16	14 54 55	5278.16	42.54	247.02	107.25	146.09	16 22 54	4678.2	48.99	240.64

DIFFERENTIAL CORRECTIONS
TDE-2.5299 TRA -.1055 TC3-3.0834 BAU .7266
RDE 1.1734 RRA -.0793 RC3 .9775 FAU .05750
FDE-2.4799 FRA .2015 FC3-2.9627 BSP 14948
BDE 2.7888 BRA .1320 BC3 3.2346 FSP -1199

MID-COURSE EXECUTION ACCURACY
SGT 4361.5 SGR 1845.3 SG3 370.5
RRT -.9603 RRF -.9879 RTF .9706
SGB 4735.8 R23 .1597 R13 -.9781
SG1 4711.8 SG2 476.5 THA 157.65

ORBIT DETERMINATION ACCURACY
ST 3538.6 SR 1642.3 SS 1712.1
CRT -.9968 CRS .9999 CST -.9960
LSA 4257.0 MSA 167.7 SSA 8.0
EL1 3899.3 EL2 119.1 ALF 155.15

LAUNCH DATE AUG 26 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 460.233

RL 151.18 LAL -.00 LOL 332.35 VL 26.797 GAL -.48 AZL 95.73 HCA 213.92 SMA 127.90 ECC .18221 INC 5.7334 V1 29.471
RP 107.79 LAP 3.20 LOP 186.14 VP 37.748 GAP 5.34 AZP 85.24 TAL 182.17 TAP 36.09 RCA 104.60 APO 151.21 V2 35.158
RC 116.871 GL -43.60 GP 44.05 ZAL 87.71 ZAP 126.65 ETS 42.10 ZAE 121.56 ETE 146.70 ZAC 140.91 ETC 249.87 CLP-146.15

PLANETOCENTRIC CONIC

C3 15.068 VHL 3.882 DLA -63.49 RAL 227.75 RAD 6567.6 VEL 11.681 PTH 2.05 VHP 5.563 DPA 28.19 RAP 234.62 ECC 1.2480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.46	5 19 16	1678.79	42.92	49.23	110.11	142.45	5 47 15	1078.8	49.04	42.21
149.54	15 13 3	5263.03	42.93	245.42	110.12	142.45	16 40 46	4663.0	49.05	238.40
30.46	5 19 16	1678.79	42.92	49.23	110.11	142.45	5 47 15	1078.8	49.04	42.21
149.54	15 13 3	5263.03	42.93	245.42	110.12	142.45	16 40 46	4663.0	49.05	238.40
30.46	5 19 16	1678.79	42.92	49.23	110.11	142.45	5 47 15	1078.8	49.04	42.21
149.54	15 13 3	5263.03	42.93	245.42	110.12	142.45	16 40 46	4663.0	49.05	238.40

DIFFERENTIAL CORRECTIONS
TDE-2.4012 TRA .0308 TC3-3.6089 BAU .7535
RDE .9793 RRA -.1214 RC3 .9837 FAU .05982
FDE-2.3019 FRA .3520 FC3-3.4368 BSP 15253
BDE 2.5932 BRA .1253 BC3 3.7406 FSP -1260

MID-COURSE EXECUTION ACCURACY
SGT 4519.1 SGR 1683.4 SG3 386.6
RRT -.9601 RRF -.9847 RTF .9712
SGB 4822.5 R23 .1544 R13 -.9769
SG1 4802.0 SG2 443.2 THA 160.15

ORBIT DETERMINATION ACCURACY
ST 3545.4 SR 1450.6 SS 1642.2
CRT -.9972 CRS .9998 CST -.9956
LSA 4164.8 MSA 160.5 SSA 9.1
EL1 3829.4 EL2 100.6 ALF 157.79

LAUNCH DATE AUG 26 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 466.281

RL 151.18 LAL -.00 LOL 332.35 VL 26.767 GAL -.25 AZL 95.18 HCA 217.13 SMA 127.71 ECC .18387 INC 5.1832 V1 29.471
RP 107.82 LAP 3.13 LOP 189.37 VP 37.717 GAP 5.68 AZP 85.86 TAL 181.11 TAP 38.24 RCA 104.23 APO 151.19 V2 35.147
RC 119.138 GL -40.58 GP 40.58 ZAL 85.93 ZAP 130.04 ETS 42.27 ZAE 122.73 ETE 149.41 ZAC 137.87 ETC 251.35 CLP-147.90

PLANETOCENTRIC CONIC

C3 13.819 VHL 3.717 DLA -61.21 RAL 233.27 RAD 6567.5 VEL 11.628 PTH 2.04 VHP 5.488 DPA 24.57 RAP 234.26 ECC 1.2274

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.17	5 47 51	1648.46	42.82	44.74	112.65	138.96	6 15 19	1048.5	48.60	37.21
146.83	15 28 33	5255.03	42.83	244.11	112.66	138.95	16 56 8	4655.0	48.60	236.58
33.17	5 47 51	1648.46	42.82	44.74	112.65	138.96	6 15 19	1048.5	48.60	37.21
146.83	15 28 33	5255.03	42.83	244.11	112.66	138.95	16 56 8	4655.0	48.60	236.58
33.17	5 47 51	1648.46	42.82	44.74	112.65	138.96	6 15 19	1048.5	48.60	37.21
146.83	15 28 33	5255.03	42.83	244.11	112.66	138.95	16 56 8	4655.0	48.60	236.58

DIFFERENTIAL CORRECTIONS
TDE-2.2617 TRA .1709 TC3-4.1068 BAU .7793
RDE .8202 RRA -.1539 RC3 .9626 FAU .06091
FDE-2.0834 FRA .4994 FC3-3.8155 BSP 15572
BDE 2.4059 BRA .2299 BC3 4.2182 FSP -1299

MID-COURSE EXECUTION ACCURACY
SGT 4666.2 SGR 1533.9 SG3 395.1
RRT -.9586 RRF -.9803 RTF .9714
SGB 4911.9 R23 .1462 R13 -.9757
SG1 4894.2 SG2 416.3 THA 162.38

ORBIT DETERMINATION ACCURACY
ST 3491.0 SR 1273.0 SS 1540.1
CRT -.9976 CRS .9994 CST -.9949
LSA 4019.3 MSA 156.1 SSA 10.3
EL1 3714.9 EL2 83.5 ALF 160.00

LAUNCH DATE AUG 26 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 472.316

```
RL  151.18 LAL   -.00 LOL 332.35 VL  26.737 GAL   -.01 AZL  94.71 HCA 220.34 SMA 127.51 ECC .18568 INC 4.7093 V1  29.471
RP  107.86 LAP   3.05 LOP 192.60 VP  37.685 GAP   6.01 AZP  86.41 TAL 180.03 TAP  40.37 RCA 103.83 APO 151.19 V2  35.136
RC 121.402 GL  -37.63 GP   37.47 ZAL  83.96 ZAP 133.20 ETS  42.38 ZAE 123.60 ETE 151.94 ZAC 135.15 ETC 252.52 CLP-149.60
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PLANETOCENTRIC CONIC

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C3  12.925 VHL  3.595 DLA -58.89 RAL 238.35 RAD 6567.5 VEL 11.589 PTH   2.03 VHP  5.464 DPA  21.24 RAP 234.21 ECC 1.2127
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.94	6 15 4	1621.13	42.32	40.39	115.01	135.68	6 42 5	1021.1	47.76	32.49
144.06	15 41 49	5253.31	42.33	243.14	115.02	135.67	17 9 23	4653.3	47.77	235.24
35.94	6 15 4	1621.13	42.32	40.39	115.01	135.68	6 42 5	1021.1	47.76	32.49
144.06	15 41 49	5253.31	42.33	243.14	115.02	135.67	17 9 23	4653.3	47.77	235.24
35.94	6 15 4	1621.13	42.32	40.39	115.01	135.68	6 42 5	1021.1	47.76	32.49
144.06	15 41 49	5253.31	42.33	243.14	115.02	135.67	17 9 23	4653.3	47.77	235.24

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1354 TRA  .3610 TC3-4.6075 BAU  .8134   SGT 4878.3 SGR 1469.1 SG3  417.5    ST  3421.0 SR  1145.3 SS  1462.7
RDE  .7085 RRA -.2063 RC3  .9621 FAU .06287   RRT -.9548 RRF -.9772 RTF  .9681    CRT -.9975 CRS  .9986 CST -.9926
FDE-1.8968 FRA  .7278 FC3-4.2113 BSP  16565   SGB 5094.7 R23  .1544 R13 -.9721    LSA 3889.0 MSA  172.2 SSA   11.5
BDE 2.2499 BRA  .4158 BC3 4.7069 FSP  -1429   SG1 5077.4 SG2  419.5 THA 163.84    EL1 3606.8 EL2   76.5 ALF 161.52
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 478.321

```
RL  151.18 LAL   -.00 LOL 332.35 VL  26.705 GAL    .25 AZL  94.29 HCA 223.56 SMA 127.31 ECC .18762 INC 4.2944 V1  29.471
RP  107.89 LAP   2.96 LOP 195.83 VP  37.652 GAP   6.35 AZP  86.89 TAL 178.92 TAP  42.47 RCA 103.42 APO 151.19 V2  35.124
RC 123.660 GL  -34.76 GP   34.69 ZAL  81.84 ZAP 136.12 ETS  42.46 ZAE 124.23 ETE 154.25 ZAC 132.74 ETC 253.49 CLP-151.24
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PLANETOCENTRIC CONIC

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C3  12.302 VHL  3.507 DLA -56.56 RAL 243.05 RAD 6567.5 VEL 11.562 PTH   2.02 VHP  5.479 DPA  18.19 RAP 234.43 ECC 1.2025
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.76	6 41 16	1595.90	41.49	36.20	117.29	132.63	7 7 52	995.9	46.61	28.05
141.24	15 53 6	5257.42	41.50	242.58	117.30	132.62	17 20 44	4657.4	46.62	234.42
38.76	6 41 16	1595.90	41.49	36.20	117.29	132.63	7 7 52	995.9	46.61	28.05
141.24	15 53 6	5257.42	41.50	242.58	117.30	132.62	17 20 44	4657.4	46.62	234.42
38.76	6 41 16	1595.90	41.49	36.20	117.29	132.63	7 7 52	995.9	46.61	28.05
141.24	15 53 6	5257.42	41.50	242.58	117.30	132.62	17 20 44	4657.4	46.62	234.42

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9666 TRA  .4696 TC3-4.9273 BAU  .8223   SGT 4919.9 SGR 1278.3 SG3  393.6    ST  3241.3 SR   979.5 SS  1282.9
RDE  .5895 RRA -.2008 RC3  .8466 FAU .05929   RRT -.9500 RRF -.9674 RTF  .9701    CRT -.9984 CRS  .9971 CST -.9917
FDE-1.6029 FRA  .7786 FC3-4.1723 BSP  16016   SGB 5083.3 R23  .1282 R13 -.9727    LSA 3617.5 MSA  157.7 SSA   12.9
BDE 2.0531 BRA  .5108 BC3 4.9995 FSP  -1289   SG1 5068.5 SG2  387.5 THA 166.05    EL1 3385.6 EL2   52.3 ALF 163.21
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 484.310

```
RL  151.18 LAL   -.00 LOL 332.35 VL  26.674 GAL    .52 AZL  93.93 HCA 226.77 SMA 127.10 ECC .18972 INC 3.9259 V1  29.471
RP  107.93 LAP   2.86 LOP 199.05 VP  37.618 GAP   6.69 AZP  87.31 TAL 177.78 TAP  44.54 RCA 102.99 APO 151.21 V2  35.112
RC 125.912 GL  -31.97 GP   32.20 ZAL  79.59 ZAP 138.83 ETS  42.55 ZAE 124.66 ETE 156.34 ZAC 130.61 ETC 254.30 CLP-152.83
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PLANETOCENTRIC CONIC

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C3  11.895 VHL  3.449 DLA -54.22 RAL 247.42 RAD 6567.5 VEL 11.545 PTH   2.01 VHP  5.526 DPA  15.39 RAP 234.89 ECC 1.1958
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.62	7 6 43	1572.05	40.41	32.19	119.56	129.83	7 32 55	972.1	45.22	23.88
138.38	16 2 33	5267.04	40.42	242.43	119.57	129.82	17 30 20	4667.0	45.23	234.12
41.62	7 6 43	1572.05	40.41	32.19	119.56	129.83	7 32 55	972.1	45.22	23.88
138.38	16 2 33	5267.04	40.42	242.43	119.57	129.82	17 30 20	4667.0	45.23	234.12
41.62	7 6 43	1572.05	40.41	32.19	119.56	129.83	7 32 55	972.1	45.22	23.88
138.38	16 2 33	5267.04	40.42	242.43	119.57	129.82	17 30 20	4667.0	45.23	234.12

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8167 TRA  .6234 TC3-5.2435 BAU  .8429   SGT 5032.6 SGR 1172.5 SG3  386.1    ST  3066.3 SR   865.4 SS  1145.9
RDE  .5090 RRA -.2149 RC3  .7767 FAU .05756   RRT -.9441 RRF -.9584 RTF  .9699    CRT -.9991 CRS  .9938 CST -.9889
FDE-1.3691 FRA  .8939 FC3-4.1896 BSP  16287   SGB 5167.4 R23  .1137 R13 -.9719    LSA 3382.1 MSA  160.4 SSA   14.2
BDE 1.8866 BRA  .6594 BC3 5.3007 FSP  -1274   SG1 5153.6 SG2  377.4 THA 167.53    EL1 3185.9 EL2   35.4 ALF 164.25
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 490.277

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RL  151.18 LAL   -.00 LOL 332.35 VL  26.641 GAL    .80 AZL  93.59 HCA 229.98 SMA 126.89 ECC .19197 INC 3.5947 V1  29.471
RP  107.97 LAP   2.75 LOP 202.27 VP  37.583 GAP   7.02 AZP  87.69 TAL 176.61 TAP  46.59 RCA 102.53 APO 151.25 V2  35.099
RC 128.158 GL  -29.27 GP   29.98 ZAL  77.23 ZAP 141.34 ETS  42.66 ZAE 124.93 ETE 158.22 ZAC 128.73 ETC 255.02 CLP-154.36
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PLANETOCENTRIC CONIC

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C3  11.667 VHL  3.416 DLA -51.89 RAL 251.51 RAD 6567.4 VEL 11.535 PTH   2.01 VHP  5.597 DPA  12.81 RAP 235.55 ECC 1.1920
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.52	7 31 37	1548.98	39.12	28.34	121.85	127.29	7 57 26	949.0	43.65	19.95
135.48	16 10 16	5282.02	39.13	242.73	121.86	127.28	17 38 18	4682.0	43.66	234.34
44.52	7 31 37	1548.98	39.12	28.34	121.85	127.29	7 57 26	949.0	43.65	19.95
135.48	16 10 16	5282.02	39.13	242.73	121.86	127.28	17 38 18	4682.0	43.66	234.34
44.52	7 31 37	1548.98	39.12	28.34	121.85	127.29	7 57 26	949.0	43.65	19.95
135.48	16 10 16	5282.02	39.13	242.73	121.86	127.28	17 38 18	4682.0	43.66	234.34

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.6688 TRA  .7837 TC3-5.4962 BAU  .8644   SGT 5145.0 SGR 1084.3 SG3  377.2    ST  2873.5 SR   772.2 SS  1015.2
RDE  .4469 RRA -.2289 RC3  .7073 FAU .05559   RRT -.9368 RRF -.9477 RTF  .9696    CRT -.9996 CRS  .9874 CST -.9848
FDE-1.1521 FRA 1.0001 FC3-4.1247 BSP  16563   SGB 5258.0 R23  .0989 R13 -.9710    LSA 3139.4 MSA  166.6 SSA   15.4
BDE 1.7276 BRA  .8159 BC3 5.5415 FSP  -1248   SG1 5244.8 SG2  372.0 THA 168.77    EL1 2975.4 EL2   20.1 ALF 164.96
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LAUNCH DATE AUG 26 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 496.222

RL	151.18	LAL	-.00	LOL	332.35	VL	26.608	GAL	1.10	AZL	93.29	HCA	233.19	SMA	126.68	ECC	.19439	INC	3.2934
RP	108.01	LAP	2.64	LOP	205.49	VP	37.548	GAP	7.36	AZP	88.03	TAL	175.42	TAP	48.61	RCA	102.05	APO	151.30
RC	130.397	GL	-26.67	GP	28.00	ZAL	74.80	ZAP	143.67	ETS	42.81	ZAE	125.09	ETE	159.89	ZAC	127.08	ETC	255.65

V1	29.471	V2	35.086	CLP	-155.83														

PLANETOCENTRIC CONIC

C3	11.596	VHL	3.405	DLA	-49.57	RAL	255.34	RAD	6567.4	VEL	11.532	PTH	2.01	VHP	5.690	DPA	10.45	RAP	236.38
ECC	1.1908																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.44	7 56 8	1526.16	37.67	24.63	124.19	124.99	8 21 34	926.2	41.94	16.23
132.56	16 16 18	5302.26	37.69	243.48	124.20	124.98	17 44 41	4702.3	41.95	235.07
47.44	7 56 8	1526.16	37.67	24.63	124.19	124.99	8 21 34	926.2	41.94	16.23
132.56	16 16 18	5302.26	37.69	243.48	124.20	124.98	17 44 41	4702.3	41.95	235.07
47.44	7 56 8	1526.16	37.67	24.63	124.19	124.99	8 21 34	926.2	41.94	16.23
132.56	16 16 18	5302.26	37.69	243.48	124.20	124.98	17 44 41	4702.3	41.95	235.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5288	TRA	.9440	TC3	-5.6925	BAU	.8881	SGT	5258.0	SGR	1010.0	SG3	366.7	ST	2677.8	SR	699.4
RDE	.4011	RRA	-.2353	RC3	.6431	FAU	.05360	RRT	-.9283	RRF	-.9353	RTF	.9698	CRT	-.9996	CRS	.9763
FDE	-.9622	FRA	1.0879	FC3	-4.0017	BSP	17056	SGB	5354.2	R23	.0823	R13	-.9709	LSA	2904.7	MSA	174.1
BDE	1.5805	BRA	.9729	BC3	5.7287	FSP	-1240	SG1	5341.4	SG2	369.8	THA	169.84	EL1	2767.5	EL2	18.9

SS	899.1	CST	-.9794	ALF	165.37												

LAUNCH DATE AUG 26 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 502.144

RL	151.18	LAL	-.00	LOL	332.35	VL	26.575	GAL	1.42	AZL	93.02	HCA	236.39	SMA	126.46	ECC	.19699	INC	3.0167
RP	108.05	LAP	2.51	LOP	208.71	VP	37.512	GAP	7.71	AZP	88.33	TAL	174.21	TAP	50.60	RCA	101.55	APO	151.37
RC	132.627	GL	-24.16	GP	26.22	ZAL	72.31	ZAP	145.82	ETS	43.02	ZAE	125.17	ETE	161.38	ZAC	125.63	ETC	256.24

V1	29.471	V2	35.074	CLP	-157.25														

PLANETOCENTRIC CONIC

C3	11.665	VHL	3.415	DLA	-47.29	RAL	258.94	RAD	6567.4	VEL	11.535	PTH	2.01	VHP	5.800	DPA	8.27	RAP	237.38
ECC	1.1920																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.39	8 20 28	1503.04	36.11	21.03	126.61	122.91	8 45 31	903.0	40.14	12.66
129.61	16 20 42	5327.89	36.12	244.68	126.61	122.90	17 49 29	4727.9	40.15	236.30
50.39	8 20 28	1503.04	36.11	21.03	126.61	122.91	8 45 31	903.0	40.14	12.66
129.61	16 20 42	5327.89	36.12	244.68	126.61	122.90	17 49 29	4727.9	40.15	236.30
50.39	8 20 28	1503.04	36.11	21.03	126.61	122.91	8 45 31	903.0	40.14	12.66
129.61	16 20 42	5327.89	36.12	244.68	126.61	122.90	17 49 29	4727.9	40.15	236.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3770	TRA	1.1238	TC3	-5.7675	BAU	.9038	SGT	5346.4	SGR	943.9	SG3	354.1	ST	2458.8	SR	635.5
RDE	.3628	RRA	-.2459	RC3	.5683	FAU	.05066	RRT	-.9166	RRF	-.9208	RTF	.9688	CRT	-.9980	CRS	.9544
FDE	-.7744	FRA	1.1800	FC3	-3.7594	BSP	17194	SGB	5429.1	R23	.0711	R13	-.9697	LSA	2651.6	MSA	189.2
BDE	1.4240	BRA	1.1504	BC3	5.7955	FSP	-1191	SG1	5416.3	SG2	372.4	THA	170.76	EL1	2539.3	EL2	38.5

SS	786.0	CST	-.9698	ALF	165.53												

LAUNCH DATE AUG 26 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 508.042

RL	151.18	LAL	-.00	LOL	332.35	VL	26.541	GAL	1.74	AZL	92.76	HCA	239.60	SMA	126.25	ECC	.19977	INC	2.7599
RP	108.09	LAP	2.38	LOP	211.92	VP	37.476	GAP	8.05	AZP	88.60	TAL	172.98	TAP	52.58	RCA	101.03	APO	151.47
RC	134.850	GL	-21.77	GP	24.64	ZAL	69.81	ZAP	147.82	ETS	43.31	ZAE	125.18	ETE	162.69	ZAC	124.36	ETC	256.79

V1	29.471	V2	35.061	CLP	-158.61														

PLANETOCENTRIC CONIC

C3	11.868	VHL	3.445	DLA	-45.05	RAL	262.32	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	5.926	DPA	6.26	RAP	238.52
ECC	1.1953																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.37	8 44 47	1479.08	34.46	17.52	129.08	121.05	9 9 26	879.1	38.28	9.20
126.63	16 23 23	5359.06	34.47	246.35	129.09	121.03	17 52 42	4759.1	38.29	238.03
53.37	8 44 47	1479.08	34.46	17.52	129.08	121.05	9 9 26	879.1	38.28	9.20
126.63	16 23 23	5359.06	34.47	246.35	129.09	121.03	17 52 42	4759.1	38.29	238.03
53.37	8 44 47	1479.08	34.46	17.52	129.08	121.05	9 9 26	879.1	38.28	9.20
126.63	16 23 23	5359.06	34.47	246.35	129.09	121.03	17 52 42	4759.1	38.29	238.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2298	TRA	1.3076	TC3	-5.7847	BAU	.9213	SGT	5435.6	SGR	888.8	SG3	341.4	ST	2247.5	SR	585.0
RDE	.3346	RRA	-.2549	RC3	.5031	FAU	.04790	RRT	-.9040	RRF	-.9048	RTF	.9682	CRT	-.9932	CRS	.9176
FDE	-.6092	FRA	1.2594	FC3	-3.4941	BSP	17439	SGB	5507.8	R23	.0594	R13	-.9689	LSA	2414.0	MSA	208.2
BDE	1.2745	BRA	1.3322	BC3	5.8065	FSP	-1150	SG1	5494.9	SG2	376.0	THA	171.55	EL1	2321.4	EL2	65.9

SS	691.3	CST	-.9565	ALF	165.49												

LAUNCH DATE AUG 26 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 513.913

RL	151.18	LAL	-.00	LOL	332.35	VL	26.507	GAL	2.09	AZL	92.52	HCA	242.80	SMA	126.03	ECC	.20276	INC	2.5197
RP	108.13	LAP	2.24	LOP	215.13	VP	37.440	GAP	8.40	AZP	88.85	TAL	171.73	TAP	54.53	RCA	100.48	APO	151.58
RC	137.063	GL	-19.48	GP	23.22	ZAL	67.30	ZAP	149.67	ETS	43.69	ZAE	125.15	ETE	163.85	ZAC	123.24	ETC	257.32

V1	29.471	V2	35.047	CLP	-159.92														

PLANETOCENTRIC CONIC

C3	12.199	VHL	3.493	DLA	-42.87	RAL	265.51	RAD	6567.5	VEL	11.558	PTH	2.02	VHP	6.066	DPA	4.41	RAP	239.78
ECC	1.2008																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.36	9 9 16	1453.66	32.75	14.03	131.62	119.37	9 33 30	853.7	36.38	5.78
123.64	16 24 18	5396.09	32.76	248.51	131.63	119.36	17 54 15	4796.1	36.39	240.26
56.36	9 9 16	1453.66	32.75	14.03	131.62	119.37	9 33 30	853.7	36.38	5.78
123.64	16 24 18	5396.09	32.76	248.51	131.63	119.36	17 54 15	4796.1	36.39	240.26
56.36	9 9 16	1453.66	32.75	14.03	131.62	119.37	9 33 30	853.7	36.38	5.78
123.64	16 24 18	5396.09	32.76	248.51	131.63	119.36	17 54 15	4796.1	36.39	240.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0845	TRA	1.4983	TC3	-5.7319	BAU	.9376	SGT	5517.4	SGR	841.8	SG3	328.1	ST	2047.4	SR	544.7
RDE	.3140	RRA	-.2634	RC3	.4430	FAU	.04508	RRT	-.8897	RRF	-.8874	RTF	.9677	CRT	-.9823	CRS	.8599
FDE	-.4633	FRA	1.3291	FC3	-3.1990	BSP	17691	SGB	5581.3	R23	.0488	R13	-.9682	LSA	2193.9	MSA	231.6
BDE	1.1291	BRA	1.5213	BC3	5.7490	FSP	-1110	SG1	5568.3	SG2	380.8	THA	172.23	EL1	2116.3	EL2	98.7

SS	615.4	CST	-.9393	ALF	165.32												

LAUNCH DATE AUG 26 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 519.758

RL	151.18	LAL	-.00	LOL	332.35	VL	26.473	GAL	2.45	AZL	92.29	HCA	246.00	SMA	125.81	ECC	.20597	INC	2.2931
RP	108.17	LAP	2.09	LOP	218.34	VP	37.403	GAP	8.76	AZP	89.07	TAL	170.46	TAP	56.47	RCA	99.90	APO	151.73
RC	139.266	GL	-17.30	GP	21.94	ZAL	64.82	ZAP	151.41	ETS	44.16	ZAE	125.08	ETE	164.88	ZAC	122.26	ETC	257.84

V1	29.471	V2	35.034	CLP	-161.19														

PLANETOCENTRIC CONIC

C3	12.659	VHL	3.558	DLA	-40.74	RAL	268.51	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	6.219	DPA	2.69	RAP	241.16

ECC	1.2083																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.39	9 34 8	1426.09	31.02	10.51	134.23	117.86	9 57 54	826.1	34.47	2.35
120.61	16 23 22	5439.40	31.03	251.16	134.23	117.85	17 54 1	4839.4	34.48	243.00
59.39	9 34 8	1426.09	31.02	10.51	134.23	117.86	9 57 54	826.1	34.47	2.35
120.61	16 23 22	5439.40	31.03	251.16	134.23	117.85	17 54 1	4839.4	34.48	243.00
59.39	9 34 8	1426.09	31.02	10.51	134.23	117.86	9 57 54	826.1	34.47	2.35
120.61	16 23 22	5439.40	31.03	251.16	134.23	117.85	17 54 1	4839.4	34.48	243.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9398	TRA	1.6971	TC3	-5.6191	BAU	.9532	SGT	5593.7	SGR	801.9	SG3	314.8	ST	1864.4	SR	512.3	SS	558.4
RDE	.2993	RRA	-.2719	RC3	.3894	FAU	.04230	RRT	-.8743	RRF	-.8689	RTF	.9672	CRT	-.9612	CRS	.7762	CST	-.9190
FDE	-.3335	FRA	1.3918	FC3	-2.8930	BSP	17937	SGB	5650.8	R23	.0394	R13	-.9676	LSA	1995.6	MSA	259.9	SSA	18.4
BDE	.9863	BRA	1.7187	BC3	5.6326	FSP	-1071	SG1	5637.6	SG2	386.2	THA	172.82	EL1	1928.7	EL2	136.6	ALF	165.13

LAUNCH DATE AUG 26 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 525.573

RL	151.18	LAL	-.00	LOL	332.35	VL	26.438	GAL	2.83	AZL	92.08	HCA	249.20	SMA	125.60	ECC	.20941	INC	2.0776
RP	108.21	LAP	1.94	LOP	221.54	VP	37.366	GAP	9.13	AZP	89.26	TAL	169.18	TAP	58.38	RCA	99.30	APO	151.90
RC	141.459	GL	-15.25	GP	20.79	ZAL	62.37	ZAP	153.03	ETS	44.75	ZAE	125.00	ETE	165.79	ZAC	121.39	ETC	258.34

V1	29.471	V2	35.021	CLP	-162.42														

PLANETOCENTRIC CONIC

C3	13.250	VHL	3.640	DLA	-38.69	RAL	271.33	RAD	6567.5	VEL	11.603	PTH	2.03	VHP	6.385	DPA	1.10	RAP	242.64

ECC	1.2181																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.46	9 59 38	1395.58	29.27	6.90	136.89	116.51	10 22 54	795.6	32.58	358.82
117.54	16 20 23	5489.56	29.28	254.36	136.89	116.50	17 51 53	4889.6	32.58	246.28
62.46	9 59 38	1395.58	29.27	6.90	136.89	116.51	10 22 54	795.6	32.58	358.82
117.54	16 20 23	5489.56	29.28	254.36	136.89	116.50	17 51 53	4889.6	32.58	246.28
62.46	9 59 38	1395.58	29.27	6.90	136.89	116.51	10 22 54	795.6	32.58	358.82
117.54	16 20 23	5489.56	29.28	254.36	136.89	116.50	17 51 53	4889.6	32.58	246.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7958	TRA	1.9055	TC3	-5.4519	BAU	.9676	SGT	5664.5	SGR	768.1	SG3	301.8	ST	1706.5	SR	486.1	SS	520.6
RDE	.2893	RRA	-.2809	RC3	.3412	FAU	.03953	RRT	-.8580	RRF	-.8497	RTF	.9667	CRT	-.9248	CRS	.6670	CST	-.8993
FDE	-.2184	FRA	1.4497	FC3	-2.5829	BSP	18175	SGB	5716.4	R23	.0317	R13	-.9670	LSA	1825.8	MSA	292.3	SSA	18.4
BDE	.8467	BRA	1.9261	BC3	5.4625	FSP	-1030	SG1	5702.9	SG2	391.9	THA	173.33	EL1	1765.3	EL2	178.7	ALF	165.08

LAUNCH DATE AUG 26 1970 FLIGHT TIME 186.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 531.355

RL	151.18	LAL	-.00	LOL	332.35	VL	26.404	GAL	3.23	AZL	91.87	HCA	252.40	SMA	125.38	ECC	.21310	INC	1.8713
RP	108.25	LAP	1.78	LOP	224.74	VP	37.330	GAP	9.50	AZP	89.43	TAL	167.89	TAP	60.29	RCA	98.66	APO	152.10
RC	143.643	GL	-13.31	GP	19.75	ZAL	59.98	ZAP	154.54	ETS	45.46	ZAE	124.89	ETE	166.60	ZAC	120.62	ETC	258.85

V1	29.471	V2	35.008	CLP	-163.61														

PLANETOCENTRIC CONIC

C3	13.978	VHL	3.739	DLA	-36.71	RAL	273.99	RAD	6567.6	VEL	11.635	PTH	2.04	VHP	6.563	DPA	-.38	RAP	244.21

ECC	1.2301																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.60	10 26 7	1361.01	27.54	3.12	139.59	115.29	10 48 48	761.0	30.70	355.12
114.40	16 15 7	5547.50	27.55	258.15	139.60	115.28	17 47 34	4947.5	30.72	250.15
65.60	10 26 7	1361.01	27.54	3.12	139.59	115.29	10 48 48	761.0	30.70	355.12
114.40	16 15 7	5547.50	27.55	258.15	139.60	115.28	17 47 34	4947.5	30.72	250.15
65.60	10 26 7	1361.01	27.54	3.12	139.59	115.29	10 48 48	761.0	30.70	355.12
114.40	16 15 7	5547.50	27.55	258.15	139.60	115.28	17 47 34	4947.5	30.72	250.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6730	TRA	2.1022	TC3	-5.2998	BAU	.9921	SGT	5737.4	SGR	739.9	SG3	288.5	ST	1591.0	SR	469.2	SS	497.9
RDE	.2867	RRA	-.2870	RC3	.3091	FAU	.03770	RRT	-.8418	RRF	-.8305	RTF	.9678	CRT	-.8739	CRS	.5619	CST	-.8923
FDE	-.1351	FRA	1.4850	FC3	-2.3351	BSP	18901	SGB	5784.9	R23	.0220	R13	-.9680	LSA	1702.0	MSA	319.6	SSA	18.0
BDE	.7315	BRA	2.1217	BC3	5.3088	FSP	-1028	SG1	5771.3	SG2	397.0	THA	173.77	EL1	1644.0	EL2	220.8	ALF	165.28

LAUNCH DATE AUG 26 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 537.108

RL	151.18	LAL	-.00	LOL	332.35	VL	26.369	GAL	3.65	AZL	91.67	HCA	255.59	SMA	125.16	ECC	.21707	INC	1.6723
RP	108.29	LAP	1.62	LOP	227.94	VP	37.293	GAP	9.89	AZP	89.58	TAL	166.58	TAP	62.17	RCA	97.99	APO	152.33
RC	145.816	GL	-11.49	GP	18.82	ZAL	57.66	ZAP	155.96	ETS	46.31	ZAE	124.78	ETE	167.31	ZAC	119.94	ETC	259.35

V1	29.471	V2	34.995	CLP	-164.76														

PLANETOCENTRIC CONIC

C3	14.854	VHL	3.854	DLA	-34.81	RAL	276.50	RAD	6567.6	VEL	11.672	PTH	2.05	VHP	6.753	DPA	-1.75	RAP	245.86

ECC	1.2445																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.84	10 54 9	1320.60	25.84	359.02	142.35	114.19	11 16 9	720.6	28.87	351.10
111.16	16 7 6	5614.82	25.85	262.63	142.36	114.18	17 40 41	5014.8	28.88	254.71
68.84	10 54 9	1320.60	25.84	359.02	142.35	114.19	11 16 9	720.6	28.87	351.10
111.16	16 7 6	5614.82	25.85	262.63	142.36	114.18	17 40 41	5014.8	28.88	254.71
68.84	10 54 9	1320.60	25.84	359.02	142.35	114.19	11 16 9	720.6	28.87	351.10
111.16	16 7 6	5614.82	25.85	262.63	142.36	114.18	17 40 41	5014.8	28.88	254.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5133	TRA	2.3459	TC3	-5.0061	BAU	.9955	SGT	5789.3	SGR	713.8	SG3	276.4	ST	1489.8	SR	448.3	SS	491.7
RDE	.2809	RRA	-.2994	RC3	.2632	FAU	.03439	RRT	-.8238	RRF	-.8106	RTF	.9662	CRT	-.7887	CRS	.4133	CST	-.8849
FDE	-.0309	FRA	1.5465	FC3	-2.0046	BSP	18729	SGB	5833.1	R23	.0189	R13	-.9664	LSA	1591.8	MSA	357.8	SSA	17.7
BDE	.5852	BRA	2.3649	BC3	5.0130	FSP	-960	SG1	5819.2	SG2	402.5	THA	174.17	EL1	1532.6	EL2	267.9	ALF	166.22

LAUNCH DATE AUG 26 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 542.824

RL	151.18	LAL	-.00	LOL	332.35	VL	26.334	GAL	4.10	AZL	91.48	HCA	258.79	SMA	124.94	ECC	.22133	INC	1.4790
RP	108.33	LAP	1.45	LOP	231.13	VP	37.256	GAP	10.28	AZP	89.71	TAL	165.26	TAP	64.05	RCA	97.29	APO	152.60
RC	147.979	GL	-9.79	GP	17.97	ZAL	55.41	ZAP	157.29	ETS	47.31	ZAE	124.66	ETE	167.94	ZAC	119.34	ETC	259.86

V1	29.471	V2	34.982	CLP	-165.89														

PLANETOCENTRIC CONIC

C3	15.888	VHL	3.986	DLA	-33.01	RAL	278.86	RAD	6567.6	VEL	11.716	PTH	2.06	VHP	6.956	DPA	-3.02	RAP	247.59
ECC	1.2615																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.29	11 24 33	1271.60	24.17	354.40	145.14	113.19	11 45 44	671.6	27.09	346.55
107.71	15 55 32	5694.10	24.18	267.99	145.15	113.18	17 30 26	5094.1	27.10	260.15
72.29	11 24 33	1271.60	24.17	354.40	145.14	113.19	11 45 44	671.6	27.09	346.55
107.71	15 55 32	5694.10	24.18	267.99	145.15	113.18	17 30 26	5094.1	27.10	260.15
110.00	15 1 52	5859.17	18.59	277.80	142.20	119.22	16 39 31	5259.2	22.33	270.67
110.00	17 17 23	5442.56	30.02	250.93	147.56	107.18	18 48 6	4842.6	32.07	242.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.3646	TRA	2.5887	TC3	-4.7197	BAU	1.0036	SGT	5841.3	SGR	691.5	SG3	264.5	ST	1435.1	SR	432.8	SS	495.5
RDE	.2798	RRA	-.3105	RC3	.2283	FAU	.03167	RRT	-.8064	RRF	-.7913	RTF	.9656	CRT	-.6826	CRS	.2829	CST	-.8932
FDE	.0522	FRA	1.5947	FC3	-1.7259	BSP	18821	SGB	5882.0	R23	.0149	R13	-.9658	LSA	1530.6	MSA	386.4	SSA	17.3
BDE	.4596	BRA	2.6073	BC3	4.7252	FSP	-914	SG1	5867.9	SG2	407.1	THA	174.52	EL1	1466.6	EL2	309.5	ALF	167.82

LAUNCH DATE AUG 26 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 548.501

RL	151.18	LAL	-.00	LOL	332.35	VL	26.299	GAL	4.56	AZL	91.29	HCA	261.98	SMA	124.73	ECC	.22592	INC	1.2902
RP	108.37	LAP	1.28	LOP	234.33	VP	37.219	GAP	10.69	AZP	89.82	TAL	163.94	TAP	65.91	RCA	96.55	APO	152.91
RC	150.132	GL	-8.21	GP	17.20	ZAL	53.24	ZAP	158.55	ETS	48.47	ZAE	124.53	ETE	168.51	ZAC	118.80	ETC	260.37

V1	29.471	V2	34.969	CLP	-166.98														

PLANETOCENTRIC CONIC

C3	17.094	VHL	4.134	DLA	-31.28	RAL	281.08	RAD	6567.7	VEL	11.768	PTH	2.08	VHP	7.172	DPA	-4.20	RAP	249.38
ECC	1.2813																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.11	11 59 0	1208.53	22.54	348.85	147.97	112.29	12 19 9	608.5	25.37	341.08
103.89	15 38 49	5790.64	22.56	274.61	147.98	112.27	17 15 20	5190.6	25.38	266.83
76.11	11 59 0	1208.53	22.54	348.85	147.97	112.29	12 19 9	608.5	25.37	341.08
103.89	15 38 49	5790.64	22.56	274.61	147.98	112.27	17 15 20	5190.6	25.38	266.83
110.00	14 32 40	709.21	13.82	307.76	143.32	121.58	14 44 29	109.2	17.90	301.02
110.00	18 4 20	5337.96	31.88	243.35	151.31	103.05	19 33 18	4738.0	33.34	234.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.2181	TRA	2.8398	TC3	-4.4243	BAU	1.0121	SGT	5889.0	SGR	671.6	SG3	253.0	ST	1418.4	SR	420.0	SS	505.6
RDE	.2812	RRA	-.3217	RC3	.1988	FAU	.02916	RRT	-.7892	RRF	-.7725	RTF	.9653	CRT	-.5616	CRS	.1687	CST	-.9096
FDE	.1242	FRA	1.6378	FC3	-1.4769	BSP	18978	SGB	5927.2	R23	.0113	R13	-.9654	LSA	1509.7	MSA	405.6	SSA	16.9
BDE	.3559	BRA	2.8579	BC3	4.4287	FSP	-875	SG1	5913.0	SG2	410.8	THA	174.83	EL1	1439.1	EL2	342.5	ALF	169.99

LAUNCH DATE AUG 26 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 554.134

RL	151.18	LAL	-.00	LOL	332.35	VL	26.264	GAL	5.06	AZL	91.10	HCA	265.17	SMA	124.51	ECC	.23086	INC	1.1044
RP	108.41	LAP	1.10	LOP	237.52	VP	37.182	GAP	11.12	AZP	89.91	TAL	162.61	TAP	67.77	RCA	95.77	APO	153.26
RC	152.275	GL	-6.73	GP	16.50	ZAL	51.16	ZAP	159.73	ETS	49.81	ZAE	124.41	ETE	169.01	ZAC	118.31	ETC	260.89

V1	29.471	V2	34.956	CLP	-168.06														

PLANETOCENTRIC CONIC

C3	18.490	VHL	4.300	DLA	-29.65	RAL	283.18	RAD	6567.7	VEL	11.827	PTH	2.09	VHP	7.401	DPA	-5.29	RAP	251.23
ECC	1.3043																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.81	12 42 4	1116.61	20.97	341.30	150.83	111.46	13 0 40	516.6	23.70	333.59
99.19	15 12 29	631.05	20.99	305.63	150.84	111.44	15 23 0	31.1	23.71	297.91
100.00	14 46 50	713.10	18.46	310.59	149.72	113.94	14 58 43	113.1	21.54	303.15
100.00	15 50 24	5797.84	23.55	275.55	151.86	108.97	17 27 2	5197.8	25.92	267.56
110.00	14 15 2	813.35	10.04	313.45	145.03	122.85	14 28 35	213.4	14.29	306.94
110.00	18 38 41	5270.35	32.81	238.30	154.59	100.19	20 6 31	4670.3	33.86	229.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.0723	TRA	3.1011	TC3	-4.1209	BAU	1.0196	SGT	5931.0	SGR	653.6	SG3	241.9	ST	1433.6	SR	409.2	SS	518.9
RDE	.2847	RRA	-.3332	RC3	.1733	FAU	.02679	RRT	-.7724	RRF	-.7544	RTF	.9651	CRT	-.4359	CRS	.0725	CST	-.9286
FDE	.1867	FRA	1.6776	FC3	-1.2544	BSP	19155	SGB	5966.9	R23	.0083	R13	-.9652	LSA	1523.0	MSA	414.8	SSA	16.4
BDE	.2937	BRA	3.1189	BC3	4.1246	FSP	-840	SG1	5952.6	SG2	413.6	THA	175.11	EL1	1445.4	EL2	365.2	ALF	172.42

LAUNCH DATE AUG 26 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 559.721

RL	151.18	LAL	-.00	LOL	332.35	VL	26.229	GAL	5.58	AZL	90.92	HCA	268.35	SMA	124.30	ECC	.23619	INC	.9204
RP	108.45	LAP	.92	LOP	240.70	VP	37.146	GAP	11.56	AZP	89.97	TAL	161.28	TAP	69.63	RCA	94.94	APO	153.66
RC	154.408	GL	-5.37	GP	15.87	ZAL	49.18	ZAP	160.83	ETS	51.36	ZAE	124.28	ETE	169.46	ZAC	117.87	ETC	261.42

V1	29.471	V2	34.943	CLP	-169.11														

PLANETOCENTRIC CONIC

C3	20.098	VHL	4.483	DLA	-28.11	RAL	285.15	RAD	6567.8	VEL	11.894	PTH	2.11	VHP	7.645	DPA	-6.30	RAP	253.14
ECC	1.3308																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 35 2	991.28	17.12	330.45	152.74	112.90	13 51 34	391.3	20.08	323.02
90.00	14 35 16	795.81	21.85	318.06	154.63	108.48	14 48 31	195.8	24.17	310.16
100.00	13 59 59	910.60	12.62	322.35	150.55	117.33	14 15 9	310.6	16.18	315.37
100.00	16 53 0	5639.77	26.62	264.82	156.16	104.12	18 27 0	5039.8	28.30	256.42
110.00	14 2 35	902.40	6.71	318.21	147.03	123.60	14 17 38	302.4	11.08	311.84
110.00	19 6 53	5220.73	33.34	234.53	157.68	98.02	20 33 54	4620.7	34.09	225.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.0765	TRA	3.3765	TC3	-3.8106	BAU	1.0247	SGT	5968.1	SGR	636.8	SG3	231.5	ST	1474.5	SR	399.2	SS	534.3
RDE	.2894	RRA	-.3454	RC3	.1506	FAU	.02448	RRT	-.7561	RRF	-.7370	RTF	.9650	CRT	-.3136	CRS	-.0089	CST	-.9461
FDE	.2433	FRA	1.7166	FC3	-1.0543	BSP	19292	SGB	6002.0	R23	.0059	R13	-.9651	LSA	1564.0	MSA	415.5	SSA	16.0
BDE	.2994	BRA	3.3941	BC3	3.8136	FSP	-804	SG1	5987.6	SG2	415.4	THA	175.37	EL1	1480.2	EL2	377.6	ALF	174.81

LAUNCH DATE AUG 26 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 565.254

RL	151.18	LAL	-.00	LOL	332.35	VL	26.194	GAL	6.13	AZL	90.74	HCA	271.53	SMA	124.09	ECC	.24194	INC	.7372
RP	108.49	LAP	.74	LOP	243.89	VP	37.110	GAP	12.03	AZP	90.02	TAL	159.94	TAP	71.48	RCA	94.07	APO	154.11
RC	156.530	GL	-4.10	GP	15.29	ZAL	47.29	ZAP	161.87	ETS	53.12	ZAE	124.14	ETE	169.87	ZAC	117.47	ETC	261.95

V1	29.471	V2	34.931	CLP	-170.15														

PLANETOCENTRIC CONIC

C3	21.944	VHL	4.684	DLA	-26.65	RAL	287.01	RAD	6567.9	VEL	11.972	PTH	2.13	VHP	7.905	DPA	-7.23	RAP	255.09
ECC	1.3611																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 47 29	1193.32	11.39	342.51	153.72	116.10	13 7 22	593.3	14.81	335.50
90.00	15 37 40	635.96	24.89	307.34	158.89	103.95	15 48 16	36.0	26.57	299.07
100.00	13 37 31	1031.67	8.74	329.25	152.33	118.70	13 54 43	431.7	12.50	322.48
100.00	17 30 18	5560.88	27.81	259.26	159.62	101.43	19 2 59	4960.9	29.10	250.70
110.00	13 53 12	982.44	3.68	322.42	149.23	124.01	14 9 35	382.4	8.12	316.15
110.00	19 31 6	5182.88	33.66	231.62	160.68	96.33	20 57 29	4582.9	34.17	222.41

DIFFERENTIAL CORRECTIONS

TDE	.2270	TRA	3.6650	TC3	-3.5018	BAU	1.0281
RDE	.2954	RRA	-.3579	RC3	.1305	FAU	.02226
FDE	.2939	FRA	1.7543	FC3	-.8784	BSP	19426
BDE	.3726	BRA	3.6824	BC3	3.5043	FSP	-770

MID-COURSE EXECUTION ACCURACY

SGT	5999.7	SGR	620.8	SG3	221.5		
RRT	-.7403	RRF	-.7205	RTF	.9650		
SGB	6031.8	R23	.0040	R13	-.9651		
SG1	6017.4	SG2	416.1	THA	175.60		

ORBIT DETERMINATION ACCURACY

ST	1533.2	SR	390.1	SS	550.1
CRT	-.2025	CRS	-.0763	CST	-.9605
LSA	1624.0	MSA	410.0	SSA	15.5
EL1	1535.4	EL2	381.5	ALF	176.86

LAUNCH DATE AUG 26 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 570.730

RL	151.18	LAL	-.00	LOL	332.35	VL	26.160	GAL	6.71	AZL	90.55	HCA	274.72	SMA	123.88	ECC	.24816	INC	.5536
RP	108.53	LAP	.55	LOP	247.07	VP	37.074	GAP	12.51	AZP	90.05	TAL	158.62	TAP	73.33	RCA	93.14	APO	154.62
RC	158.641	GL	-2.93	GP	14.77	ZAL	45.49	ZAP	162.84	ETS	55.13	ZAE	124.01	ETE	170.23	ZAC	117.10	ETC	262.50

V1	29.471	V2	34.919	CLP	-171.17		

PLANETOCENTRIC CONIC

C3	24.058	VHL	4.905	DLA	-25.28	RAL	288.76	RAD	6568.0	VEL	12.060	PTH	2.16	VHP	8.183	DPA	-8.08	RAP	257.09
ECC	1.3959																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 24 46	1316.04	7.63	349.56	155.59	117.35	12 46 42	716.0	11.24	342.74
90.00	16 14 20	5846.07	26.06	279.84	162.35	101.48	17 51 46	5246.1	27.39	271.42
100.00	13 22 15	1130.44	5.47	334.75	154.42	119.43	13 41 6	530.4	9.35	328.12
100.00	17 59 32	5506.90	28.48	255.39	162.85	99.50	19 31 19	4906.9	29.50	246.73
110.00	13 45 53	1056.33	.86	326.28	151.56	124.17	14 3 29	456.3	5.34	320.06
110.00	19 52 24	5153.78	33.86	229.37	163.65	95.01	21 18 18	4553.8	34.18	220.14

DIFFERENTIAL CORRECTIONS

TDE	.3788	TRA	3.9669	TC3	-3.2000	BAU	1.0299
RDE	.3026	RRA	-.3705	RC3	.1130	FAU	.02017
FDE	.3387	FRA	1.7905	FC3	-.7259	BSP	19582
BDE	.4848	BRA	3.9841	BC3	3.2020	FSP	-739

MID-COURSE EXECUTION ACCURACY

SGT	6025.9	SGR	605.3	SG3	211.9		
RRT	-.7250	RRF	-.7048	RTF	.9653		
SGB	6056.2	R23	.0024	R13	-.9653		
SG1	6042.0	SG2	415.8	THA	175.82		

ORBIT DETERMINATION ACCURACY

ST	1602.6	SR	381.6	SS	564.9
CRT	-.1057	CRS	-.1317	CST	-.9714
LSA	1694.8	MSA	400.6	SSA	15.1
EL1	1603.1	EL2	379.3	ALF	178.47

LAUNCH DATE AUG 26 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 576.138

RL	151.18	LAL	-.00	LOL	332.35	VL	26.125	GAL	7.33	AZL	90.37	HCA	277.90	SMA	123.67	ECC	.25489	INC	.3683
RP	108.56	LAP	.37	LOP	250.25	VP	37.038	GAP	13.03	AZP	90.05	TAL	157.29	TAP	75.19	RCA	92.15	APO	155.19
RC	160.740	GL	-1.86	GP	14.28	ZAL	43.79	ZAP	163.75	ETS	57.40	ZAE	123.86	ETE	170.56	ZAC	116.76	ETC	263.04

V1	29.471	V2	34.907	CLP	-172.18		

PLANETOCENTRIC CONIC

C3	26.477	VHL	5.146	DLA	-23.99	RAL	290.41	RAD	6568.1	VEL	12.159	PTH	2.18	VHP	8.479	DPA	-8.86	RAP	259.13
ECC	1.4357																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 9 15	1416.00	4.47	355.21	157.76	117.99	12 32 51	816.0	8.18	348.49
90.00	16 43 1	5793.35	26.72	276.12	165.60	99.73	18 19 34	5193.4	27.80	267.62
100.00	13 10 50	1217.21	2.55	339.54	156.70	119.79	13 31 7	617.2	6.50	332.97
100.00	18 24 7	5467.38	28.89	252.52	165.98	98.04	19 55 14	4867.4	29.70	243.81
110.00	13 40 1	1125.68	-1.79	329.90	153.99	124.14	13 58 47	525.7	2.70	323.69
110.00	20 11 25	5131.67	33.98	227.65	166.61	94.00	21 36 57	4531.7	34.16	218.41

DIFFERENTIAL CORRECTIONS

TDE	.5332	TRA	4.2838	TC3	-2.9072	BAU	1.0297
RDE	.3108	RRA	-.3832	RC3	.0974	FAU	.01818
FDE	.3789	FRA	1.8262	FC3	-.5945	BSP	19738
BDE	.6171	BRA	4.3009	BC3	2.9089	FSP	-710

MID-COURSE EXECUTION ACCURACY

SGT	6046.7	SGR	589.9	SG3	202.7		
RRT	-.7102	RRF	-.6899	RTF	.9657		
SGB	6075.4	R23	.0012	R13	-.9657		
SG1	6061.3	SG2	414.3	THA	176.02		

ORBIT DETERMINATION ACCURACY

ST	1677.5	SR	373.3	SS	578.8
CRT	-.0228	CRS	-.1776	CST	-.9794
LSA	1771.0	MSA	389.1	SSA	14.7
EL1	1677.5	EL2	373.2	ALF	179.69

LAUNCH DATE AUG 26 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 581.472

RL	151.18	LAL	-.00	LOL	332.35	VL	26.091	GAL	7.99	AZL	90.18	HCA	281.07	SMA	123.46	ECC	.26220	INC	.1800
RP	108.60	LAP	.18	LOP	253.42	VP	37.003	GAP	13.57	AZP	90.03	TAL	155.98	TAP	77.05	RCA	91.09	APO	155.84
RC	162.826	GL	-.86	GP	13.84	ZAL	42.19	ZAP	164.60	ETS	59.97	ZAE	123.72	ETE	170.86	ZAC	116.43	ETC	263.60

V1	29.471	V2	34.896	CLP	-173.18		

PLANETOCENTRIC CONIC

C3	29.245	VHL	5.408	DLA	-22.78	RAL	291.96	RAD	6568.2	VEL	12.273	PTH	2.21	VHP	8.797	DPA	-9.58	RAP	261.19
ECC	1.4813																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 57 34	1503.71	1.65	.11	160.11	118.27	12 22 38	903.7	5.42	353.46
90.00	17 7 3	5755.18	27.13	273.40	168.75	98.43	18 42 59	5155.2	28.02	264.85
100.00	13 1 52	1296.18	-.13	343.87	159.12	119.89	13 23 28	696.2	3.85	337.35
100.00	18 45 27	5437.95	29.15	250.37	169.05	96.94	20 16 5	4837.9	29.80	241.63
110.00	13 35 15	1191.50	-4.30	333.34	156.52	123.94	13 55 6	591.5	.18	327.13
110.00	20 28 33	5115.39	34.05	226.39	169.57	93.26	21 53 48	4515.4	34.12	217.14

DIFFERENTIAL CORRECTIONS

TDE	.6902	TRA	4.6165	TC3	-2.6256	BAU	1.0271
RDE	.3198	RRA	-.3959	RC3	.0835	FAU	.01628
FDE	.4152	FRA	1.8618	FC3	-.4821	BSP	19911
BDE	.7607	BRA	4.6334	BC3	2.6269	FSP	-683

MID-COURSE EXECUTION ACCURACY

SGT	6061.5	SGR	574.4	SG3	194.0		
RRT	-.6957	RRF	-.6756	RTF	.9662		
SGB	6088.7	R23	.0003	R13	-.9662		
SG1	6074.7	SG2	411.7	THA	176.21		

ORBIT DETERMINATION ACCURACY

ST	1753.5	SR	365.3	SS	591.5
CRT	.0473	CRS	-.2160	CST	-.9852
LSA	1848.3	MSA	376.7	SSA	14.2
EL1	1753.6	EL2	364.8	ALF	.59

LAUNCH DATE AUG 26 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 586.721

RL	151.18	LAL	-.00	LOL	332.35	VL	26.057	GAL	8.69	AZL	89.99	HCA	284.25	SMA	123.26	ECC	.27015	INC	.0000
RP	108.63	LAP	-.01	LOP	256.60	VP	36.969	GAP	14.15	AZP	90.00	TAL	154.68	TAP	78.93	RCA	89.96	APO	156.56
RC	164.900	GL	.05	GP	13.44	ZAL	40.67	ZAP	165.37	ETS	62.87	ZAE	123.56	ETE	171.14	ZAC	116.13	ETC	264.16

V1	29.471	V2	34.885	CLP	-174.18														

PLANETOCENTRIC CONIC

C3	32.414	VHL	5.693	DLA	-21.65	RAL	293.42	RAD	6568.3	VEL	12.401	PTH	2.24	VHP	9.138	DPA	-10.22	RAP	263.28

ECC	1.5334	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	11 48 20	1583.45	-.93	4.56	162.57	118.30	12 14 43	983.4	2.86	357.93							
		90.00	17 27 54	5727.11	27.40	271.39	171.84	97.45	19 3 21	5127.1	28.15	262.81							
		100.00	12 54 37	1369.55	-2.61	347.90	161.63	119.79	13 17 26	769.5	1.37	341.38							
		100.00	19 4 19	5416.25	29.32	248.78	172.10	96.12	20 34 35	4816.2	29.85	240.02							
		110.00	13 31 19	1254.46	-6.69	336.66	159.11	123.60	13 52 14	654.5	-2.22	330.41							
		110.00	20 44 5	5104.10	34.09	225.51	172.54	92.74	22 9 9	4504.1	34.09	216.26							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8506	TRA	4.9670	TC3	-2.3572	BAU	1.0219	SGT	6071.2	SGR	558.6	SG3	185.7	ST	1828.2	SR	357.2	SS	603.2
RDE	.3295	RRA	-.4084	RC3	.0711	FAU	.01447	RRT	-.6816	RRF	-.6618	RTF	.9670	CRT	.1067	CRS	-.2484	CST	-.9893
FDE	.4483	FRA	1.8980	FC3	-.3865	BSP	20094	SGB	6096.8	R23	-.0003	R13	-.9670	LSA	1923.8	MSA	363.9	SSA	13.8
BDE	.9122	BRA	4.9838	BC3	2.3582	FSP	-658	SG1	6083.2	SG2	407.9	THA	176.40	EL1	1828.6	EL2	355.0	ALF	1.24

LAUNCH DATE AUG 26 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 591.871

RL	151.18	LAL	-.00	LOL	332.35	VL	26.023	GAL	9.44	AZL	89.79	HCA	287.42	SMA	123.06	ECC	.27880	INC	.2085
RP	108.66	LAP	-.20	LOP	259.77	VP	36.935	GAP	14.76	AZP	89.94	TAL	153.40	TAP	80.82	RCA	88.75	APO	157.37
RC	166.961	GL	.89	GP	13.07	ZAL	39.25	ZAP	166.08	ETS	66.12	ZAE	123.40	ETE	171.39	ZAC	115.84	ETC	264.72

V1	29.471	V2	34.874	CLP	-175.18														

PLANETOCENTRIC CONIC

C3	36.047	VHL	6.004	DLA	-20.58	RAL	294.78	RAD	6568.4	VEL	12.547	PTH	2.27	VHP	9.505	DPA	-10.80	RAP	265.39

ECC	1.5932	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	11 40 49	1657.44	-3.31	8.69	165.13	118.14	12 8 27	1057.4	.48	2.06							
		90.00	17 46 19	5706.75	27.57	269.93	174.91	96.73	19 21 25	5106.7	28.22	261.32							
		100.00	12 48 37	1438.62	-4.94	351.71	164.23	119.52	13 12 36	838.6	-.97	345.17							
		100.00	19 21 12	5400.79	29.42	247.64	175.13	95.53	20 51 12	4800.8	29.88	238.87							
		110.00	13 28 3	1315.03	-8.95	339.88	161.77	123.13	13 49 58	715.0	-4.53	333.58							
		110.00	20 58 15	5097.15	34.11	224.97	175.52	92.42	22 23 12	4497.2	34.07	215.72							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0154	TRA	5.3371	TC3	-2.1022	BAU	1.0135	SGT	6075.5	SGR	542.3	SG3	177.8	ST	1899.7	SR	348.9	SS	614.2
RDE	.3399	RRA	-.4204	RC3	.0600	FAU	.01273	RRT	-.6675	RRF	-.6484	RTF	.9680	CRT	.1574	CRS	-.2764	CST	-.9923
FDE	.4789	FRA	1.9353	FC3	-.3058	BSP	20280	SGB	6099.6	R23	-.0007	R13	-.9680	LSA	1996.1	MSA	351.1	SSA	13.4
BDE	1.0708	BRA	5.3537	BC3	2.1031	FSP	-635	SG1	6086.3	SG2	403.1	THA	176.58	EL1	1900.5	EL2	344.4	ALF	1.71

LAUNCH DATE AUG 26 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 596.907

RL	151.18	LAL	-.00	LOL	332.35	VL	25.990	GAL	10.24	AZL	89.59	HCA	290.59	SMA	122.86	ECC	.28825	INC	.4125
RP	108.69	LAP	-.39	LOP	262.94	VP	36.902	GAP	15.42	AZP	89.85	TAL	152.15	TAP	82.74	RCA	87.45	APO	158.28
RC	169.007	GL	1.66	GP	12.73	ZAL	37.92	ZAP	166.72	ETS	69.76	ZAE	123.22	ETE	171.62	ZAC	115.56	ETC	265.29

V1	29.471	V2	34.864	CLP	-176.19														

PLANETOCENTRIC CONIC

C3	40.223	VHL	6.342	DLA	-19.59	RAL	296.06	RAD	6568.5	VEL	12.712	PTH	2.31	VHP	9.902	DPA	-11.32	RAP	267.51

ECC	1.6620	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	11 34 34	1726.99	-5.53	12.59	167.76	117.82	12 3 21	1127.0	-1.77	5.94							
		90.00	18 2 45	5692.58	27.68	268.90	177.95	96.23	19 37 38	5092.6	28.25	260.28							
		100.00	12 43 36	1504.24	-7.13	355.35	166.88	119.11	13 8 40	904.2	-3.20	348.77							
		100.00	19 36 25	5390.56	29.49	246.89	178.15	95.14	21 6 15	4790.6	29.89	238.11							
		110.00	13 25 19	1373.51	-11.11	343.03	164.48	122.54	13 48 12	773.5	-6.74	336.66							
		110.00	21 11 11	5094.05	34.12	224.72	178.50	92.27	22 36 5	4494.1	34.06	215.48							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1866	TRA	5.7296	TC3	-1.8599	BAU	1.0005	SGT	6074.8	SGR	525.3	SG3	170.3	ST	1967.5	SR	340.4	SS	624.9
RDE	.3508	RRA	-.4319	RC3	.0498	FAU	.01103	RRT	-.6533	RRF	-.6351	RTF	.9691	CRT	.2013	CRS	-.3011	CST	-.9944
FDE	.5080	FRA	1.9746	FC3	-.2373	BSP	20444	SGB	6097.4	R23	-.0009	R13	-.9691	LSA	2064.7	MSA	338.2	SSA	13.0
BDE	1.2373	BRA	5.7459	BC3	1.8605	FSP	-612	SG1	6084.5	SG2	397.1	THA	176.75	EL1	1968.7	EL2	333.2	ALF	2.05

LAUNCH DATE AUG 26 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 601.810

RL	151.18	LAL	-.00	LOL	332.35	VL	25.957	GAL	11.11	AZL	89.37	HCA	293.76	SMA	122.67	ECC	.29859	INC	.6253
RP	108.72	LAP	-.57	LOP	266.11	VP	36.870	GAP	16.14	AZP	89.75	TAL	150.93	TAP	84.69	RCA	86.04	APO	159.29
RC	171.039	GL	2.37	GP	12.42	ZAL	36.68	ZAP	167.27	ETS	73.79	ZAE	123.02	ETE	171.84	ZAC	115.28	ETC	265.85

V1	29.471	V2	34.855	CLP	-177.20														

PLANETOCENTRIC CONIC

C3	45.033	VHL	6.711	DLA	-18.67	RAL	297.25	RAD	6568.7	VEL	12.900	PTH	2.35	VHP	10.332	DPA	-11.78	RAP	269.64

ECC	1.7411	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	11 29 17	1792.94	-7.61	16.32	170.44	117.36	11 59 10	1192.9	-3.89	9.62							
		90.00	18 17 33	5683.58	27.74	268.25	180.97	95.91	19 52 16	5083.6	28.27	259.63							
		100.00	12 39 19	1566.93	-9.19	358.86	169.59	118.57	13 5 26	966.9	-5.30	352.23							
		100.00	19 50 12	5384.81	29.52	246.47	181.16	94.92	21 19 56	4784.8	29.89	237.68							
		110.00	13 22 59	1430.14	-13.17	346.13	167.23	121.83	13 46 49	830.1	-8.87	339.68							
		110.00	21 23 2	5094.37	34.12	224.75	181.50	92.29	22 47 56	4494.4	34.06	215.50							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3654	TRA	6.1481	TC3	-1.6309	BAU	.9822	SGT	6070.4	SGR	507.6	SG3	163.3	ST	2031.4	SR	331.6	SS	635.7
RDE	.3622	RRA	-.4426	RC3	.0406	FAU	.00935	RRT	-.6389	RRF	-.6218	RTF	.9704	CRT	.2398	CRS	-.3234	CST	-.9960
FDE	.5364	FRA	2.0169	FC3	-.1797	BSP	20574	SGB	6091.6	R23	-.0010	R13	-.9704	LSA	2129.4	MSA	325.4	SSA	12.5
BDE	1.4127	BRA	6.1641	BC3	1.6314	FSP	-589	SG1	6079.1	SG2	390.0	THA	176.93	EL1	2033.0	EL2	321.7	ALF	2.30

LAUNCH DATE AUG 26 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 606.557

RL	151.18	LAL	-.00	LOL	332.35	VL	25.924	GAL	12.04	AZL	89.15	HCA	296.93	SMA	122.48	ECC	.30993	INC	.8486
RP	108.75	LAP	-.76	LOP	269.28	VP	36.839	GAP	16.91	AZP	89.62	TAL	149.74	TAP	86.67	RCA	84.52	APO	160.44
RC	173.056	GL	3.03	GP	12.14	ZAL	35.54	ZAP	167.74	ETS	78.24	ZAE	122.81	ETE	172.05	ZAC	115.01	ETC	266.42

PLANETOCENTRIC CONIC

C3 50.595 VHL 7.113 DLA -17.80 RAL 298.36 RAD 6568.9 VEL 13.113 PTH 2.39 VHP 10.801 DPA -12.18 RAP 271.77 ECC 1.8327

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 24 45	1855.82	-9.56	19.92	173.16	116.78	11 55 41	1255.8	-5.89	13.16
90.00	18 30 54	5678.97	27.77	267.92	183.96	95.75	20 5 33	5079.0	28.28	259.29
100.00	12 35 38	1627.09	-11.13	2.28	172.33	117.92	13 2 45	1027.1	-7.31	355.57
100.00	20 2 42	5382.94	29.53	246.33	184.15	94.84	21 32 25	4782.9	29.89	237.54
110.00	13 20 58	1485.06	-15.12	349.19	170.02	121.03	13 45 43	885.1	-10.89	342.63
110.00	21 33 52	5097.73	34.11	225.01	184.49	92.44	22 58 49	4497.7	34.07	215.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.5536	TRA	6.5953	TC3	-1.4147	BAU	.9571	SGT	6062.2	SGR	489.1	SG3	156.7	ST	2090.9	SR	322.4	SS	647.1
RDE	.3741	RRA	-.4522	RC3	.0323	FAU	.00766	RRT	-.6239	RRF	-.6080	RTF	.9719	CRT	.2743	CRS	-.3439	CST	-.9971
FDE	.5644	FRA	2.0629	FC3	-.1311	BSP	20656	SGB	6081.9	R23	-.0010	R13	-.9719	LSA	2190.1	MSA	312.5	SSA	12.1
BDE	1.5980	BRA	6.6107	BC3	1.4150	FSP	-565	SG1	6069.9	SG2	381.8	THA	177.11	EL1	2092.8	EL2	309.8	ALF	2.48

LAUNCH DATE AUG 26 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 611.120

RL	151.18	LAL	-.00	LOL	332.35	VL	25.892	GAL	13.05	AZL	88.92	HCA	300.09	SMA	122.29	ECC	.32241	INC	1.0846
RP	108.78	LAP	-.94	LOP	272.45	VP	36.808	GAP	17.74	AZP	89.46	TAL	148.60	TAP	88.69	RCA	82.86	APO	161.72
RC	175.059	GL	3.62	GP	11.87	ZAL	34.48	ZAP	168.10	ETS	83.10	ZAE	122.57	ETE	172.24	ZAC	114.75	ETC	266.98

PLANETOCENTRIC CONIC

C3 57.048 VHL 7.553 DLA -17.00 RAL 299.38 RAD 6569.0 VEL 13.357 PTH 2.44 VHP 11.312 DPA -12.52 RAP 273.89 ECC 1.9389

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 20 50	1916.00	-11.38	23.40	175.90	116.10	11 52 46	1316.0	-7.78	16.57
90.00	18 42 59	5678.17	27.78	267.86	186.93	95.72	20 17 37	5078.2	28.28	259.23
100.00	12 32 26	1684.93	-12.95	5.61	175.10	117.18	13 0 31	1084.9	-9.21	358.82
100.00	20 14 4	5384.47	29.52	246.44	187.11	94.90	21 43 48	4784.5	29.89	237.66
110.00	13 19 14	1538.34	-16.96	352.22	172.83	120.13	13 44 52	938.3	-12.83	345.55
110.00	21 43 46	5103.82	34.09	225.49	187.47	92.72	23 8 49	4503.8	34.09	216.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7537	TRA	7.0759	TC3	-1.2110	BAU	.9238	SGT	6051.6	SGR	469.8	SG3	150.5	ST	2146.7	SR	312.9	SS	659.6
RDE	.3864	RRA	-.4604	RC3	.0248	FAU	.00594	RRT	-.6080	RRF	-.5935	RTF	.9735	CRT	.3057	CRS	-.3635	CST	-.9979
FDE	.5932	FRA	2.1137	FC3	-.0902	BSP	20646	SGB	6069.8	R23	-.0007	R13	-.9735	LSA	2247.5	MSA	299.7	SSA	11.7
BDE	1.7957	BRA	7.0909	BC3	1.2112	FSP	-540	SG1	6058.4	SG2	372.6	THA	177.29	EL1	2148.9	EL2	297.6	ALF	2.60

LAUNCH DATE AUG 26 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 615.461

RL	151.18	LAL	-.00	LOL	332.35	VL	25.861	GAL	14.14	AZL	88.66	HCA	303.25	SMA	122.11	ECC	.33619	INC	1.3361
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.779	GAP	18.66	AZP	89.27	TAL	147.52	TAP	90.78	RCA	81.06	APO	163.16
RC	177.047	GL	4.17	GP	11.63	ZAL	33.51	ZAP	168.37	ETS	88.34	ZAE	122.30	ETE	172.43	ZAC	114.49	ETC	267.54

PLANETOCENTRIC CONIC

C3 64.572 VHL 8.036 DLA -16.26 RAL 300.32 RAD 6569.2 VEL 13.635 PTH 2.49 VHP 11.873 DPA -12.81 RAP 276.00 ECC 2.0627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 17 22	1973.68	-13.09	26.77	178.66	115.34	11 50 16	1373.7	-9.57	19.86
90.00	18 53 54	5680.68	27.76	268.04	189.86	95.81	20 28 35	5080.7	28.28	259.41
100.00	12 29 37	1740.60	-14.66	8.86	177.88	116.35	12 58 37	1140.6	-11.00	1.98
100.00	20 24 21	5388.99	29.50	246.77	190.05	95.08	21 54 10	4789.0	29.89	237.99
110.00	13 17 41	1590.02	-18.70	355.22	175.65	119.15	13 44 11	990.0	-14.68	348.41
110.00	21 52 47	5112.33	34.06	226.15	190.43	93.12	23 17 59	4512.3	34.11	216.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9659	TRA	7.5957	TC3	-1.0195	BAU	.8802	SGT	6039.6	SGR	449.5	SG3	144.7	ST	2198.1	SR	303.1	SS	673.5
RDE	.3993	RRA	-.4667	RC3	.0180	FAU	.00417	RRT	-.5909	RRF	-.5778	RTF	.9754	CRT	.3347	CRS	-.3827	CST	-.9985
FDE	.6229	FRA	2.1700	FC3	-.0559	BSP	20541	SGB	6056.3	R23	-.0007	R13	-.9754	LSA	2301.1	MSA	286.8	SSA	11.3
BDE	2.0060	BRA	7.6100	BC3	1.0196	FSP	-515	SG1	6045.5	SG2	362.3	THA	177.47	EL1	2200.5	EL2	285.3	ALF	2.69

LAUNCH DATE AUG 26 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 619.535

RL	151.18	LAL	-.00	LOL	332.35	VL	25.831	GAL	15.34	AZL	88.39	HCA	306.41	SMA	121.93	ECC	.35143	INC	1.6064
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.750	GAP	19.67	AZP	89.05	TAL	146.52	TAP	92.93	RCA	79.08	APO	164.78
RC	179.021	GL	4.68	GP	11.40	ZAL	32.64	ZAP	168.51	ETS	93.92	ZAE	122.00	ETE	172.62	ZAC	114.23	ETC	268.09

PLANETOCENTRIC CONIC

C3 73.387 VHL 8.567 DLA -15.58 RAL 301.16 RAD 6569.4 VEL 13.955 PTH 2.55 VHP 12.491 DPA -13.05 RAP 278.08 ECC 2.2078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 18	2028.98	-14.68	30.06	181.41	114.49	11 48 7	1429.0	-11.25	23.06
90.00	19 3 44	5686.09	27.73	268.43	192.74	96.00	20 38 30	5086.1	28.27	259.81
100.00	12 27 5	1794.16	-16.25	12.04	180.65	115.44	12 56 59	1194.2	-12.69	5.05
100.00	20 33 39	5396.14	29.45	247.30	192.93	95.35	22 3 35	4796.1	29.88	238.52
110.00	13 16 17	1640.07	-20.34	358.18	178.48	118.09	13 43 37	1040.1	-16.42	351.24
110.00	22 0 56	5123.00	34.02	226.98	193.35	93.61	23 26 19	4523.0	34.14	217.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.1956	TRA	8.1550	TC3	-.8405	BAU	.8248	SGT	6024.3	SGR	428.4	SG3	139.2	ST	2245.9	SR	293.0	SS	689.2
RDE	.4129	RRA	-.4707	RC3	.0121	FAU	.00232	RRT	-.5716	RRF	-.5604	RTF	.9773	CRT	.3630	CRS	-.4020	CST	-.9990
FDE	.6543	FRA	2.2330	FC3	-.0274	BSP	20321	SGB	6039.5	R23	-.0002	R13	-.9773	LSA	2351.5	MSA	273.8	SSA	10.9
BDE	2.2341	BRA	8.1685	BC3	.8406	FSP	-488	SG1	6029.3	SG2	351.2	THA	177.66	EL1	2248.4	EL2	272.7	ALF	2.75

LAUNCH DATE AUG 27 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 5 1970

HELIOCENTRIC CONIC DISTANCE 161.356

RL	151.15	LAL	-.00	LOL	333.32	VL	22.847	GAL	.27	AZL	92.27	HCA	65.65	SMA	107.54	ECC	.40553	INC	2.2679	V1	29.477
RP	108.23	LAP	-2.07	LOP	38.95	VP	34.905	GAP	-23.92	AZP	90.94	TAL	179.60	TAP	245.25	RCA	63.93	APO	151.16	V2	35.013
RC	40.971	GL	-7.73	GP	-8.05	ZAL	85.77	ZAP	15.11	ETS	145.31	ZAE	178.68	ETE	298.88	ZAC	91.82	ETC	258.60	CLP	12.83

PLANETOCENTRIC CONIC

C3	45.232	VHL	6.725	DLA	-29.19	RAL	244.35	RAD	6568.7	VEL	12.907	PTH	2.35	VHP	14.415	DPA	-24.48	RAP	227.01	ECC	1.7444

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.58	10 17 10	1293.46	14.66	351.47	126.41	115.53	10 38 43	693.5	17.98	344.31
97.42	12 19 44	897.22	14.68	322.41	126.42	115.52	12 34 41	297.2	17.99	315.24
100.00	11 45 33	1006.91	9.55	327.85	123.74	118.46	12 2 20	406.9	13.28	321.04
100.00	13 34 2	659.01	19.92	307.24	128.87	112.76	13 45 1	59.0	22.83	299.65
110.00	11 29 50	1056.40	.86	326.28	118.44	124.17	11 47 26	456.4	5.33	320.06
110.00	16 6 14	5470.32	29.44	252.89	132.78	108.21	17 37 25	4870.3	31.64	244.38

DIFFERENTIAL CORRECTIONS

TDE	.1700	TRA	-.7964	TC3	.0187	BAU	.0137
RDE	-.5181	RRA	-.0086	RC3	-.0128	FAU	.01868
FDE	-.1170	FRA	.3917	FC3	-.3576	BSP	2007
BDE	.5453	BRA	.7965	BC3	.0227	FSP	-116

MID-COURSE EXECUTION ACCURACY

SGT	791.0	SGR	441.8	SG3	53.8		
RRT	-.1655	RRF	.1784	RTF	-.6573		
SGB	906.0	R23	-.0233	R13	.6607		
SG1	795.8	SG2	433.1	THA	172.48		

ORBIT DETERMINATION ACCURACY

ST	274.5	SR	441.4	SS	190.1
CRT	-.5229	CRS	-.6488	CST	.9832
LSA	496.1	MSA	245.0	SSA	14.8
EL1	471.4	EL2	219.1	ALF	113.34

LAUNCH DATE AUG 27 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 167.954

RL	151.15	LAL	-.00	LOL	333.32	VL	23.246	GAL	.14	AZL	92.05	HCA	68.85	SMA	109.17	ECC	.38456	INC	2.0505	V1	29.477
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.180	GAP	-22.61	AZP	90.74	TAL	179.77	TAP	248.62	RCA	67.19	APO	151.15	V2	35.027
RC	40.525	GL	-7.57	GP	-8.43	ZAL	85.97	ZAP	13.92	ETS	140.12	ZAE	176.23	ETE	328.65	ZAC	91.65	ETC	258.82	CLP	11.12

PLANETOCENTRIC CONIC

C3	39.871	VHL	6.314	DLA	-29.01	RAL	244.16	RAD	6568.5	VEL	12.698	PTH	2.31	VHP	13.690	DPA	-25.32	RAP	228.41	ECC	1.6562

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.44	10 23 14	1239.67	15.49	347.91	124.14	114.83	10 43 54	639.7	18.71	340.67
96.56	12 12 8	887.42	15.51	322.09	124.15	114.82	12 26 55	287.4	18.73	314.85
100.00	11 37 56	997.32	9.86	327.31	121.25	118.36	11 54 34	397.3	13.57	320.49
100.00	13 40 7	605.00	21.30	303.83	126.76	111.48	13 50 12	5.0	24.03	296.09
110.00	11 26 32	1033.19	1.74	325.07	116.31	124.14	11 43 46	433.2	6.21	318.84
110.00	16 8 0	5429.93	30.27	250.04	130.20	106.70	17 38 30	4829.9	32.25	241.39

DIFFERENTIAL CORRECTIONS

TDE	.1725	TRA	-.7799	TC3	.0429	BAU	.0257
RDE	-.4912	RRA	-.0029	RC3	-.0219	FAU	.01951
FDE	-.1181	FRA	.4029	FC3	-.4237	BSP	2206
BDE	.5206	BRA	.7799	BC3	.0482	FSP	-130

MID-COURSE EXECUTION ACCURACY

SGT	825.9	SGR	446.6	SG3	59.4		
RRT	-.1865	RRF	.1995	RTF	-.6764		
SGB	938.9	R23	-.0251	R13	.6800		
SG1	831.7	SG2	435.7	THA	172.04		

ORBIT DETERMINATION ACCURACY

ST	288.8	SR	445.7	SS	196.0
CRT	-.5402	CRS	-.6451	CST	.9869
LSA	507.3	MSA	251.0	SSA	15.3
EL1	481.0	EL2	225.2	ALF	115.18

LAUNCH DATE AUG 27 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 174.599

RL	151.15	LAL	-.00	LOL	333.32	VL	23.614	GAL	-.01	AZL	91.84	HCA	72.05	SMA	110.74	ECC	.36489	INC	1.8422	V1	29.477
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.438	GAP	-21.36	AZP	90.57	TAL	180.01	TAP	252.06	RCA	70.33	APO	151.15	V2	35.040
RC	40.252	GL	-7.35	GP	-8.85	ZAL	86.30	ZAP	12.88	ETS	133.89	ZAE	173.49	ETE	334.17	ZAC	91.44	ETC	259.05	CLP	9.39

PLANETOCENTRIC CONIC

C3	35.210	VHL	5.934	DLA	-28.73	RAL	243.83	RAD	6568.4	VEL	12.513	PTH	2.27	VHP	12.998	DPA	-26.18	RAP	229.81	ECC	1.5795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.92	10 33 57	1169.48	16.24	343.10	121.72	114.03	10 53 27	569.5	19.35	335.78
95.08	11 58 48	894.79	16.25	322.98	121.73	114.03	12 13 43	294.8	19.36	315.66
100.00	11 27 52	994.48	9.95	327.15	118.55	118.33	11 44 26	394.5	13.66	320.32
100.00	13 47 35	5833.06	22.75	277.86	124.51	109.94	15 24 48	5233.1	25.26	269.96
110.00	11 21 38	1014.04	2.47	324.07	114.00	124.10	11 38 33	414.0	6.93	317.82
110.00	16 10 17	5386.26	31.08	246.89	127.45	105.01	17 40 3	4786.3	32.82	238.11

DIFFERENTIAL CORRECTIONS

TDE	.1806	TRA	-.7623	TC3	.1016	BAU	.0511
RDE	-.4662	RRA	.0025	RC3	-.0385	FAU	.02153
FDE	-.1235	FRA	.4153	FC3	-.5293	BSP	2680
BDE	.4999	BRA	.7623	BC3	.1086	FSP	-199

MID-COURSE EXECUTION ACCURACY

SGT	865.7	SGR	452.5	SG3	67.9		
RRT	-.2203	RRF	.2352	RTF	-.7059		
SGB	976.9	R23	-.0269	R13	.7101		
SG1	873.4	SG2	437.5	THA	171.21		

ORBIT DETERMINATION ACCURACY

ST	306.3	SR	450.1	SS	205.2
CRT	-.5708	CRS	-.6543	CST	.9898
LSA	523.1	MSA	254.3	SSA	16.1
EL1	493.9	EL2	229.2	ALF	117.68

LAUNCH DATE AUG 27 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 181.257

RL	151.15	LAL	-.00	LOL	333.32	VL	23.954	GAL	-.17	AZL	91.64	HCA	75.25	SMA	112.26	ECC	.34652	INC	1.6412	V1	29.477
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.678	GAP	-20.17	AZP	90.42	TAL	180.32	TAP	255.57	RCA	73.36	APO	151.15	V2	35.053
RC	40.156	GL	-7.06	GP	-9.32	ZAL	86.76	ZAP	12.04	ETS	126.48	ZAE	170.69	ETE	336.08	ZAC	91.17	ETC	259.28	CLP	7.65

PLANETOCENTRIC CONIC

C3	31.160	VHL	5.582	DLA	-28.36	RAL	243.37	RAD	6568.2	VEL	12.350	PTH	2.23	VHP	12.337	DPA	-27.07	RAP	231.19	ECC	1.5128

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.32	11 0 18	1047.48	16.87	334.45	119.17	113.14	11 17 45	447.5	19.86	327.04
91.68	11 28 46	955.19	16.89	327.70	119.17	113.13	11 44 42	355.2	19.87	320.30
100.00	11 15 43	997.42	9.85	327.31	115.69	118.36	11 32 21	397.4	13.57	320.49
100.00	13 56 2	5768.52	24.18	273.61	122.10	108.13	15 32 10	5168.5	26.43	265.53
110.00	11 15 7	999.36	3.03	323.31	111.54	124.06	11 31 46	399.4	7.49	317.05
110.00	16 13 8	5339.35	31.86	243.46	124.53	103.11	17 42 8	4739.3	33.33	234.54

DIFFERENTIAL CORRECTIONS

TDE	.1783	TRA	-.7430	TC3	.1234	BAU	.0555
RDE	-.4411	RRA	.0060	RC3	-.0501	FAU	.02173
FDE	-.1221	FRA	.4198	FC3	-.6037	BSP	2481
BDE	.4757	BRA	.7431	BC3	.1332	FSP	-170

MID-COURSE EXECUTION ACCURACY

SGT	896.5	SGR	456.2	SG3	72.8		
RRT	-.2363	RRF	.2548	RTF	-.7152		
SGB	1005.9	R23	-.0333	R13	.7199		
SG1	905.0	SG2	439.1	THA	171.01		

ORBIT DETERMINATION ACCURACY

ST	318.0	SR	452.7	SS	207.0
CRT	-.5793	CRS	-.6495	CST	.9915
LSA	530.9	MSA	258.4	SSA	16.2
EL1	501.3	EL2	234.1	ALF	119.05

LAUNCH DATE AUG 27 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 187.951

RL	151.15	LAL	-.00	LOL	333.32	VL	24.266	GAL	-.34	AZL	91.45	HCA	78.46	SMA	113.71	ECC	.32938	INC	1.4458
RP	108.07	LAP	-1.42	LOP	51.77	VP	35.902	GAP	-19.03	AZP	90.29	TAL	180.69	TAP	259.15	RCA	76.25	APO	151.16
RC	40.238	GL	-6.69	GP	-9.83	ZAL	87.36	ZAP	11.44	ETS	117.92	ZAE	167.87	ETE	336.80	ZAC	90.85	ETC	259.51

V1	29.477	V2	35.066	CLP	5.89														

PLANETOCENTRIC CONIC

C3	27.644	VHL	5.258	DLA	-27.89	RAL	242.78	RAD	6568.1	VEL	12.207	PTH	2.19	VHP	11.704	DPA	-27.99	RAP	232.56
ECC	1.4550																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 28 57	1111.90	13.78	337.73	114.86	114.98	10 47 29	511.9	17.04	330.56
90.00	11 55 25	830.85	21.07	320.34	117.97	109.37	12 9 16	230.9	23.52	312.52
100.00	11 1 50	1005.55	9.59	327.77	112.70	118.45	11 18 36	405.6	13.32	320.97
100.00	14 5 12	5700.48	25.54	269.01	119.52	106.08	15 40 13	5100.5	27.50	260.76
110.00	11 6 57	989.51	3.41	322.79	108.93	124.03	11 23 26	389.5	7.85	316.52
110.00	16 16 35	5289.28	32.57	239.73	121.46	101.01	17 44 45	4689.3	33.74	230.69

DIFFERENTIAL CORRECTIONS

TDE	.1780	TRA	-.7253	TC3	.1708	BAU	.0681												
RDE	-.4170	RRA	.0104	RC3	-.0693	FAU	.02281												
FDE	-.1198	FRA	.4308	FC3	-.7144	BSP	2632												
BDE	.4534	BRA	.7254	BC3	.1843	FSP	-191												

MID-COURSE EXECUTION ACCURACY

SGT	932.5	SGR	460.4	SG3	80.3						
RRT	-.2626	RRF	.2826	RTF	-.7330						
SGB	1040.0	R23	-.0363	R13	.7381						
SG1	942.5	SG2	439.5	THA	170.54						

ORBIT DETERMINATION ACCURACY

ST	331.1	SR	454.4	SS	209.6						
CRT	-.5928	CRS	-.6370	CST	.9939						
LSA	539.4	MSA	262.4	SSA	16.7						
EL1	509.5	EL2	237.8	ALF	120.75						

LAUNCH DATE AUG 27 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 194.668

RL	151.15	LAL	-.00	LOL	333.32	VL	24.554	GAL	-.51	AZL	91.25	HCA	81.67	SMA	115.09	ECC	.31346	INC	1.2548
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.109	GAP	-17.94	AZP	90.18	TAL	181.13	TAP	262.79	RCA	79.01	APO	151.17
RC	40.497	GL	-6.22	GP	-10.39	ZAL	88.08	ZAP	11.17	ETS	108.44	ZAE	165.09	ETE	336.94	ZAC	90.47	ETC	259.75

V1	29.477	V2	35.079	CLP	4.11														

PLANETOCENTRIC CONIC

C3	24.596	VHL	4.959	DLA	-27.30	RAL	242.07	RAD	6568.0	VEL	12.082	PTH	2.16	VHP	11.100	DPA	-28.94	RAP	233.90
ECC	1.4048																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 2 42	1159.84	12.39	340.56	111.31	115.67	10 22 2	559.8	15.74	333.49
90.00	12 15 59	725.09	23.30	313.38	115.73	106.57	12 28 4	125.1	25.35	305.31
100.00	10 46 27	1018.54	9.17	328.51	109.63	118.58	11 3 25	418.5	12.91	321.72
100.00	14 14 56	5629.67	26.79	264.12	116.77	103.79	15 48 45	5029.7	28.42	255.69
110.00	10 57 11	984.79	3.59	322.54	106.22	124.02	11 13 36	384.8	8.03	316.27
110.00	16 20 40	5236.18	33.19	235.71	118.24	98.70	17 47 56	4636.2	34.03	226.57

DIFFERENTIAL CORRECTIONS

TDE	.1789	TRA	-.7071	TC3	.2313	BAU	.0821												
RDE	-.3943	RRA	.0142	RC3	-.0944	FAU	.02419												
FDE	-.1187	FRA	.4401	FC3	-.8513	BSP	2755												
BDE	.4330	BRA	.7072	BC3	.2498	FSP	-214												

MID-COURSE EXECUTION ACCURACY

SGT	969.7	SGR	465.4	SG3	88.9						
RRT	-.2939	RRF	.3175	RTF	-.7495						
SGB	1075.6	R23	-.0421	R13	.7552						
SG1	981.8	SG2	439.4	THA	169.94						

ORBIT DETERMINATION ACCURACY

ST	344.7	SR	455.6	SS	212.1						
CRT	-.6095	CRS	-.6301	CST	.9950						
LSA	548.7	MSA	264.6	SSA	17.3						
EL1	518.3	EL2	240.2	ALF	122.57						

LAUNCH DATE AUG 27 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 201.402

RL	151.15	LAL	-.00	LOL	333.32	VL	24.818	GAL	-.69	AZL	91.07	HCA	84.88	SMA	116.41	ECC	.29870	INC	1.0667
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.302	GAP	-16.89	AZP	90.10	TAL	181.62	TAP	266.50	RCA	81.64	APO	151.18
RC	40.930	GL	-5.66	GP	-11.02	ZAL	88.94	ZAP	11.25	ETS	98.54	ZAE	162.38	ETE	336.75	ZAC	90.01	ETC	259.98

V1	29.477	V2	35.092	CLP	2.30														

PLANETOCENTRIC CONIC

C3	21.958	VHL	4.686	DLA	-26.58	RAL	241.24	RAD	6567.9	VEL	11.972	PTH	2.13	VHP	10.523	DPA	-29.94	RAP	235.20
ECC	1.3614																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 39 8	1199.64	11.20	342.88	107.88	116.18	9 59 7	599.6	14.63	335.88
90.00	12 33 0	629.95	24.99	306.93	113.14	103.76	12 43 30	30.0	26.64	298.65
100.00	10 29 43	1036.23	8.59	329.50	106.51	118.74	10 46 59	436.2	12.36	322.74
100.00	14 25 5	5556.64	27.87	258.96	113.85	101.28	15 57 42	4956.6	29.14	250.39
110.00	10 45 54	985.43	3.57	322.58	103.43	124.02	11 2 20	385.4	8.01	316.30
110.00	16 25 23	5180.20	33.68	231.41	114.89	96.21	17 51 44	4580.2	34.17	222.20

DIFFERENTIAL CORRECTIONS

TDE	.1778	TRA	-.6891	TC3	.2987	BAU	.0951												
RDE	-.3723	RRA	.0180	RC3	-.1251	FAU	.02561												
FDE	-.1143	FRA	.4505	FC3	-1.0098	BSP	2913												
BDE	.4125	BRA	.6893	BC3	.3238	FSP	-241												

MID-COURSE EXECUTION ACCURACY

SGT	1006.6	SGR	470.7	SG3	98.3						
RRT	-.3270	RRF	.3543	RTF	-.7645						
SGB	1111.2	R23	-.0482	R13	.7710						
SG1	1021.0	SG2	438.5	THA	169.31						

ORBIT DETERMINATION ACCURACY

ST	356.6	SR	455.3	SS	212.3						
CRT	-.6224	CRS	-.6126	CST	.9951						
LSA	555.0	MSA	266.8	SSA	17.9						
EL1	525.3	EL2	241.9	ALF	124.19						

LAUNCH DATE AUG 27 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 208.151

RL	151.15	LAL	-.00	LOL	333.32	VL	25.061	GAL	-.87	AZL	90.88	HCA	88.09	SMA	117.66	ECC	.28506	INC	.8803
RP	107.95	LAP	-.88	LOP	61.41	VP	36.480	GAP	-15.89	AZP	90.03	TAL	182.18	TAP	270.27	RCA	84.12	APO	151.20
RC	41.530	GL	-4.98	GP	-11.71	ZAL	89.92	ZAP	11.72	ETS	88.85	ZAE	159.76	ETE	336.31	ZAC	89.47	ETC	260.22

V1	29.477	V2	35.105	CLP	.45														

PLANETOCENTRIC CONIC

C3	19.679	VHL	4.436	DLA	-25.72	RAL	240.32	RAD	6567.8	VEL	11.877	PTH	2.11	VHP	9.973	DPA	-30.99	RAP	236.47
ECC	1.3239																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 16 15	1238.11	10.04	345.11	104.54	116.62	9 36 53	638.1	13.53	338.17
90.00	12 48 32	5827.01	26.31	278.50	110.32	100.85	14 25 39	5227.0	27.55	270.05
100.00	10 11 50	1058.61	7.86	330.76	103.37	118.93	10 29 29	458.6	11.66	324.03
100.00	14 35 38	5481.74	28.75	253.57	110.79	98.57	16 6 59	4881.7	29.63	244.87
110.00	10 33 11	991.60	3.33	322.90	100.59	124.04	10 49 43	391.6	7.78	316.63
110.00	16 30 46	5121.51	34.02	226.86	111.45	93.54	17 56 7	4521.5	34.14	217.62

DIFFERENTIAL CORRECTIONS

TDE	.1779	TRA	-.6725	TC3	.3838	BAU	.1098												
RDE	-.3513	RRA	.0218	RC3	-.1636	FAU	.02728												
FDE	-.1088	FRA	.4617	FC3	-1.2001	BSP	3122												
BDE	.3938	BRA	.6729	BC3	.4173	FSP	-272												

MID-COURSE EXECUTION ACCURACY

SGT	1048.0	SGR	477.4	SG3	109.0						
RRT	-.3674	RRF	.3968	RTF	-.7814						
SGB	1151.7	R23	-.0529	R13	.7885						
SG1	1065.6	SG2	436.7	THA	168.55						

ORBIT DETERMINATION ACCURACY

ST	369.6	SR	453.9	SS	211.4						
CRT	-.6381	CRS	-.5907	CST	.9932						
LSA	561.4	MSA	267.9	SSA	18.5						
EL1	532.8	EL2	242.4	ALF	126.02						

LAUNCH DATE AUG 27 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 214.908

RL	151.15	LAL	-.00	LOL	333.32	VL	25.284	GAL	-1.04	AZL	90.69	HCA	91.31	SMA	118.84	ECC	.27250	INC	.6944	V1	29.477
RP	107.91	LAP	-.69	LOP	64.62	VP	36.645	GAP	-14.93	AZP	89.98	TAL	182.79	TAP	274.09	RCA	86.45	APO	151.22	V2	35.117
RC	42.291	GL	-4.18	GP	-12.48	ZAL	91.01	ZAP	12.57	ETS	79.96	ZAE	157.27	ETE	335.68	ZAC	88.85	ETC	260.44	CLP	-1.45

PLANETOCENTRIC CONIC

C3	17.716	VHL	4.209	DLA	-24.72	RAL	239.32	RAD	6567.7	VEL	11.794	PTH	2.09	VHP	9.449	DPA	-32.09	RAP	237.68	ECC	1.2916

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 53 27	1277.75	8.82	347.38	101.26	117.02	9 14 45	677.8	12.38	340.51
90.00	13 3 20	5737.98	27.30	272.17	107.33	97.83	14 38 58	5138.0	28.10	263.60
100.00	9 52 56	1085.70	6.96	332.27	100.26	119.14	10 11 2	485.7	10.79	325.58
100.00	14 46 32	5405.26	29.39	247.97	107.61	95.70	16 16 37	4805.3	29.87	239.20
110.00	10 19 10	1003.43	2.88	323.52	97.74	124.08	10 35 53	403.4	7.33	317.26
110.00	16 36 47	5060.30	34.18	222.09	107.93	90.72	18 1 8	4460.3	33.90	212.86

DIFFERENTIAL CORRECTIONS

TDE	.1723	TRA	-.6525	TC3	.4683	BAU	.1216
RDE	-.3309	RRA	.0255	RC3	-.2105	FAU	.02909
FDE	-.0996	FRA	.4723	FC3	-1.4215	BSP	3207
BDE	.3731	BRA	.6530	BC3	.5134	FSP	-305

MID-COURSE EXECUTION ACCURACY

SGT	1080.1	SGR	485.6	SG3	120.7		
RRT	-.4058	RRF	.4424	RTF	-.7924		
SGB	1184.2	R23	-.0637	R13	.8009		
SG1	1101.4	SG2	435.2	THA	167.71		

ORBIT DETERMINATION ACCURACY

ST	375.8	SR	450.7	SS	207.7
CRT	-.6442	CRS	-.5553	CST	.9883
LSA	560.8	MSA	269.5	SSA	19.4
EL1	534.4	EL2	242.4	ALF	127.08

LAUNCH DATE AUG 27 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 221.671

RL	151.15	LAL	-.00	LOL	333.32	VL	25.487	GAL	-1.21	AZL	90.51	HCA	94.52	SMA	119.95	ECC	.26097	INC	.5080	V1	29.477
RP	107.88	LAP	-.51	LOP	67.84	VP	36.798	GAP	-14.01	AZP	89.96	TAL	183.44	TAP	277.97	RCA	88.64	APO	151.25	V2	35.129
RC	43.202	GL	-3.24	GP	-13.34	ZAL	92.20	ZAP	13.76	ETS	72.19	ZAE	154.91	ETE	334.87	ZAC	88.12	ETC	260.67	CLP	-3.39

PLANETOCENTRIC CONIC

C3	16.029	VHL	4.004	DLA	-23.55	RAL	238.26	RAD	6567.6	VEL	11.722	PTH	2.07	VHP	8.950	DPA	-33.25	RAP	238.83	ECC	1.2638

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 31	1319.83	7.51	349.78	98.09	117.38	8 52 31	719.8	11.12	342.96
90.00	13 17 47	5649.89	27.96	265.81	104.22	94.71	14 51 56	5049.9	28.31	257.16
100.00	9 33 11	1117.56	5.90	334.04	97.21	119.36	9 51 48	517.6	9.77	327.39
100.00	14 57 48	5327.40	29.78	242.22	104.36	92.69	16 26 35	4727.4	29.84	233.41
110.00	10 3 59	1020.97	2.21	324.43	94.92	124.12	10 21 0	421.0	6.67	318.19
110.00	16 43 29	4996.76	34.12	217.13	104.38	87.78	18 6 46	4396.8	33.44	207.95

DIFFERENTIAL CORRECTIONS

TDE	.1664	TRA	-.6355	TC3	.5678	BAU	.1345
RDE	-.3110	RRA	.0295	RC3	-.2677	FAU	.03113
FDE	-.0860	FRA	.4849	FC3	-1.6814	BSP	3339
BDE	.3527	BRA	.6361	BC3	.6277	FSP	-343

MID-COURSE EXECUTION ACCURACY

SGT	1116.9	SGR	496.1	SG3	133.9		
RRT	-.4495	RRF	.4921	RTF	-.8046		
SGB	1222.1	R23	-.0740	R13	.8143		
SG1	1142.8	SG2	433.1	THA	166.77		

ORBIT DETERMINATION ACCURACY

ST	381.4	SR	445.3	SS	202.2
CRT	-.6486	CRS	-.4999	CST	.9773
LSA	557.2	MSA	271.6	SSA	20.3
EL1	534.0	EL2	242.1	ALF	128.25

LAUNCH DATE AUG 27 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 228.436

RL	151.15	LAL	-.00	LOL	333.32	VL	25.673	GAL	-1.38	AZL	90.32	HCA	97.74	SMA	120.99	ECC	.25042	INC	.3197	V1	29.477
RP	107.84	LAP	-.32	LOP	71.06	VP	36.938	GAP	-13.12	AZP	89.96	TAL	184.14	TAP	281.88	RCA	90.69	APO	151.28	V2	35.141
RC	44.254	GL	-2.15	GP	-14.30	ZAL	93.48	ZAP	15.26	ETS	65.63	ZAE	152.71	ETE	333.88	ZAC	87.29	ETC	260.88	CLP	-5.40

PLANETOCENTRIC CONIC

C3	14.586	VHL	3.819	DLA	-22.22	RAL	237.15	RAD	6567.6	VEL	11.661	PTH	2.05	VHP	8.477	DPA	-34.49	RAP	239.90	ECC	1.2401

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 23	1365.11	6.08	352.34	95.04	117.71	8 30 8	765.1	9.75	345.58
90.00	13 32 6	5562.22	28.28	259.42	101.06	91.52	15 4 48	4962.2	28.19	250.75
100.00	9 12 43	1154.25	4.67	336.07	94.27	119.56	9 31 57	554.3	8.57	329.46
100.00	15 9 27	5248.31	29.89	236.34	101.07	89.60	16 36 56	4648.3	29.52	227.56
110.00	9 47 49	1044.23	1.32	325.65	92.18	124.16	10 5 13	444.2	5.79	319.42
110.00	16 50 51	4931.09	33.83	212.02	100.85	84.77	18 13 2	4331.1	32.74	202.96

DIFFERENTIAL CORRECTIONS

TDE	.1571	TRA	-.6192	TC3	.6723	BAU	.1466
RDE	-.2912	RRA	.0339	RC3	-.3360	FAU	.03334
FDE	-.0670	FRA	.4988	FC3	-1.9786	BSP	3444
BDE	.3309	BRA	.6201	BC3	.7516	FSP	-383

MID-COURSE EXECUTION ACCURACY

SGT	1151.6	SGR	509.7	SG3	148.3		
RRT	-.4940	RRF	.5443	RTF	-.8148		
SGB	1259.4	R23	-.0871	R13	.8264		
SG1	1183.2	SG2	431.3	THA	165.73		

ORBIT DETERMINATION ACCURACY

ST	382.6	SR	437.3	SS	195.1
CRT	-.6458	CRS	-.4143	CST	.9554
LSA	547.3	[illegible]	275.0	SSA	21.3
EL1	528.4	EL2	[illegible].8	ALF	129.15

LAUNCH DATE AUG 27 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 235.199

RL	151.15	LAL	-.00	LOL	333.32	VL	25.842	GAL	-1.54	AZL	90.13	HCA	100.96	SMA	121.96	ECC	.24080	INC	.1282	V1	29.477
RP	107.81	LAP	-.13	LOP	74.28	VP	37.067	GAP	-12.26	AZP	89.98	TAL	184.86	TAP	285.83	RCA	92.59	APO	151.33	V2	35.152
RC	45.436	GL	-.91	GP	-15.37	ZAL	94.83	ZAP	17.05	ETS	60.21	ZAE	150.67	ETE	332.71	ZAC	86.34	ETC	261.08	CLP	-7.47

PLANETOCENTRIC CONIC

C3	13.359	VHL	3.655	DLA	-20.71	RAL	236.03	RAD	6567.5	VEL	11.608	PTH	2.03	VHP	8.028	DPA	-35.81	RAP	240.87	ECC	1.2198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 44 4	1414.07	4.53	355.10	92.16	117.98	8 7 38	814.1	8.24	348.38
90.00	13 46 30	5474.62	28.27	253.01	97.89	88.31	15 17 44	4874.6	27.74	244.39
100.00	8 51 42	1195.82	3.27	338.36	91.46	119.73	9 11 38	595.8	7.20	331.78
100.00	15 21 33	5168.11	29.70	230.39	97.82	86.48	16 47 41	4568.1	28.90	221.68
110.00	9 30 49	1073.20	.21	327.16	89.55	124.18	9 48 42	473.2	4.70	320.94
110.00	16 58 55	4863.49	33.29	206.82	97.38	81.74	18 19 58	4263.5	31.79	197.91

DIFFERENTIAL CORRECTIONS

TDE	.1437	TRA	-.6042	TC3	.7788	BAU	.1578
RDE	-.2711	RRA	.0389	RC3	-.4173	FAU	.03576
FDE	-.0404	FRA	.5145	FC3	-2.3177	BSP	3513
BDE	.3069	BRA	.6054	BC3	.8836	FSP	-427

MID-COURSE EXECUTION ACCURACY

SGT	1183.3	SGR	527.2	SG3	164.3		
RRT	-.5377	RRF	.5982	RTF	-.8228		
SGB	1295.5	R23	.1043	R13	.8368		
SG1	1221.8	SG2	430.5	THA	164.57		

ORBIT DETERMINATION ACCURACY

ST	378.6	SR	425.6	SS	188.0
CRT	-.6322	CRS	-.2810	CST	.9129
LSA	529.4	MSA	281.1	SSA	22.6
EL1	515.6	EL2	242.1	ALF	129.75

LAUNCH DATE AUG 27 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 241.957

RL	151.15	LAL	-.00	LOL	333.32	VL	25.997	GAL	-1.69	AZL	89.93	HCA	104.19	SMA	122.86	ECC	.23206	INC	.0652	V1	29.477
RP	107.77	LAP	.06	LOP	77.50	VP	37.185	GAP	-11.44	AZP	90.02	TAL	185.61	TAP	289.80	RCA	94.35	APO	151.37	V2	35.163
RC	46.738	GL	.49	GP	-16.56	ZAL	96.23	ZAP	19.09	ETS	55.77	ZAE	148.79	ETE	331.35	ZAC	85.24	ETC	261.26	CLP	-9.62

PLANETOCENTRIC CONIC

C3	12.320	VHL	3.510	DLA	-19.03	RAL	234.92	RAD	6567.5	VEL	11.563	PTH	2.02	VHP	7.604	DPA	-37.24	RAP	241.73	ECC	1.2028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 20 36	1467.09	2.83	358.07	89.46	118.19	7 45 3	867.1	6.58	351.39
90.00	14 1 5	5386.86	27.93	246.62	94.79	85.12	15 30 52	4786.9	26.96	238.08
100.00	8 30 15	1242.32	1.70	340.92	88.84	119.85	8 50 57	642.3	5.66	334.37
100.00	15 34 7	5086.86	29.21	224.40	94.64	83.36	16 58 54	4486.9	27.99	215.81
110.00	9 13 10	1107.85	-1.11	328.97	87.08	124.17	9 31 38	507.9	3.38	322.76
110.00	17 7 42	4794.09	32.49	201.56	94.04	78.73	18 27 36	4194.1	30.59	192.86

DIFFERENTIAL CORRECTIONS

TDE	.1394	TRA	-.5784	TC3	.9247	BAU	.1745
RDE	-.2517	RRA	.0434	RC3	-.5169	FAU	.03872
FDE	-.0124	FRA	.5258	FC3	-2.7206	BSP	3856
BDE	.2878	BRA	.5801	BC3	1.0594	FSP	-490

MID-COURSE EXECUTION ACCURACY

SGT	1212.8	SGR	553.3	SG3	182.7		
RRT	-.6020	RRF	.6576	RTF	-.8388		
SGB	1333.0	R23	-.1025	R13	.8541		
SG1	1263.8	SG2	424.0	THA	162.62		

ORBIT DETERMINATION ACCURACY

ST	376.8	SR	411.7	SS	183.3
CRT	-.6478	CRS	-.1311	CST	.8305
LSA	515.9	MSA	279.9	SSA	23.7
EL1	507.1	EL2	233.0	ALF	131.10

LAUNCH DATE AUG 27 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 248.707

RL	151.15	LAL	-.00	LOL	333.32	VL	26.137	GAL	-1.83	AZL	89.73	HCA	107.41	SMA	123.70	ECC	.22415	INC	.2676	V1	29.477
RP	107.74	LAP	.26	LOP	80.73	VP	37.292	GAP	-10.65	AZP	90.08	TAL	186.38	TAP	293.79	RCA	95.97	APO	151.42	V2	35.174
RC	48.150	GL	2.07	GP	-17.90	ZAL	97.65	ZAP	21.37	ETS	52.13	ZAE	147.05	ETE	329.77	ZAC	83.99	ETC	261.42	CLP	-11.86

PLANETOCENTRIC CONIC

C3	11.451	VHL	3.384	DLA	-17.17	RAL	233.85	RAD	6567.4	VEL	11.526	PTH	2.01	VHP	7.206	DPA	-38.77	RAP	242.46	ECC	1.1885

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 57 5	1524.34	.98	1.26	87.01	118.30	7 22 30	924.3	4.76	354.62
90.00	14 16 1	5298.86	27.25	240.27	91.81	82.00	15 44 20	4698.9	25.87	231.87
100.00	8 8 33	1293.74	-.05	343.74	86.43	119.89	8 30 7	693.7	3.93	337.21
100.00	15 47 15	5004.69	28.42	218.42	91.61	80.31	17 10 39	4404.7	26.79	210.00
110.00	8 55 3	1148.06	-2.65	331.07	84.81	124.09	9 14 11	548.1	1.84	324.86
110.00	17 17 14	4723.14	31.42	196.31	90.87	75.79	18 35 57	4123.1	29.15	187.84

DIFFERENTIAL CORRECTIONS

TDE	.1245	TRA	-.5609	TC3	1.0459	BAU	.1870
RDE	-.2305	RRA	.0495	RC3	-.6306	FAU	.04173
FDE	.0296	FRA	.5429	FC3	-3.1550	BSP	4017
BDE	.2619	BRA	.5631	BC3	1.2213	FSP	-552

MID-COURSE EXECUTION ACCURACY

SGT	1238.4	SGR	584.9	SG3	202.4		
RRT	-.6511	RRF	.7124	RTF	-.8470		
SGB	1369.5	R23	-.1159	R13	.8655		
SG1	1302.9	SG2	421.9	THA	160.82		

ORBIT DETERMINATION ACCURACY

ST	365.8	SR	391.3	SS	186.7
CRT	-.6313	CRS	.0951	CST	.7007
LSA	487.9	MSA	288.3	SSA	25.0
EL1	484.1	EL2	229.3	ALF	131.95

LAUNCH DATE AUG 27 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 255.448

RL	151.15	LAL	-.00	LOL	333.32	VL	26.263	GAL	-1.97	AZL	89.52	HCA	110.64	SMA	124.47	ECC	.21702	INC	.4765	V1	29.477
RP	107.71	LAP	.45	LOP	83.96	VP	37.391	GAP	-9.89	AZP	90.17	TAL	187.14	TAP	297.78	RCA	97.45	APO	151.48	V2	35.184
RC	49.661	GL	3.82	GP	-19.40	ZAL	99.06	ZAP	23.88	ETS	49.12	ZAE	145.44	ETE	327.95	ZAC	82.58	ETC	261.55	CLP	-14.21

PLANETOCENTRIC CONIC

C3	10.732	VHL	3.276	DLA	-15.13	RAL	232.84	RAD	6567.4	VEL	11.494	PTH	2.00	VHP	6.834	DPA	-40.43	RAP	243.03	ECC	1.1766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 33 37	1586.04	-1.01	4.70	84.82	118.30	7 0 3	986.0	2.78	358.07
90.00	14 31 26	5210.47	26.26	233.99	89.03	79.01	15 58 17	4610.5	24.48	225.77
100.00	7 46 44	1350.11	-1.96	346.83	84.29	119.83	8 9 14	750.1	2.03	340.31
100.00	16 1 0	4921.63	27.32	212.49	88.78	77.38	17 23 2	4321.6	25.31	204.27
110.00	8 36 39	1193.77	-4.39	333.46	82.78	123.93	8 56 32	593.8	.10	327.25
110.00	17 27 35	4650.75	30.09	191.09	87.95	72.96	18 45 6	4050.7	27.46	182.88

DIFFERENTIAL CORRECTIONS

TDE	.1065	TRA	-.5443	TC3	1.1615	BAU	.1993
RDE	-.2074	RRA	.0569	RC3	-.7619	FAU	.04499
FDE	.0835	FRA	.5631	FC3	-3.6296	BSP	4156
BDE	.2332	BRA	.5473	BC3	1.3890	FSP	-617

MID-COURSE EXECUTION ACCURACY

SGT	1259.5	SGR	625.6	SG3	223.9		
RRT	-.6969	RRF	.7643	RTF	-.8542		
SGB	1406.3	R23	-.1301	R13	.8765		
SG1	1341.8	SG2	421.1	THA	158.71		

ORBIT DETERMINATION ACCURACY

ST	350.4	SR	364.4	SS	204.6
CRT	-.6038	CRS	.3363	CST	.5349
LSA	453.2	MSA	302.1	SSA	26.3
EL1	452.8	EL2	224.8	ALF	133.14

LAUNCH DATE AUG 27 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 262.176

RL	151.15	LAL	-.00	LOL	333.32	VL	26.378	GAL	-2.09	AZL	89.31	HCA	113.87	SMA	125.17	ECC	.21062	INC	.6945	V1	29.477
RP	107.68	LAP	.64	LOP	87.19	VP	37.480	GAP	-9.16	AZP	90.28	TAL	187.90	TAP	301.77	RCA	98.81	APO	151.54	V2	35.193
RC	51.263	GL	5.76	GP	-21.08	ZAL	100.44	ZAP	26.63	ETS	46.62	ZAE	143.94	ETE	325.86	ZAC	80.96	ETC	261.65	CLP	-16.66

PLANETOCENTRIC CONIC

C3	10.149	VHL	3.186	DLA	-12.91	RAL	231.91	RAD	6567.4	VEL	11.469	PTH	1.99	VHP	6.488	DPA	-42.24	RAP	243.41	ECC	1.1670

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 10 13	1652.37	-3.15	8.41	82.93	118.16	6 37 45	1052.4	.64	1.78
90.00	14 47 28	5121.58	24.96	227.81	86.49	76.17	16 12 50	4521.6	22.81	219.79
100.00	7 24 52	1411.49	-4.03	350.21	82.44	119.64	7 48 24	811.5	-.05	343.68
100.00	16 15 30	4837.69	25.94	206.64	86.21	74.59	17 36 8	4237.7	23.57	198.64
110.00	8 18 4	1244.90	-6.33	336.15	81.02	123.66	8 38 49	644.9	-1.86	329.91
110.00	17 38 48	4577.05	28.51	185.93	85.30	70.29	18 55 5	3977.0	25.55	178.00

DIFFERENTIAL CORRECTIONS

TDE	.0866	TRA	-.5287	TC3	1.2683	BAU	.2120
RDE	-.1819	RRA	.0659	RC3	-.9125	FAU	.04853
FDE	.1503	FRA	.5870	FC3	-4.1398	BSP	4301
BDE	.2015	BRA	.5328	BC3	1.5624	FSP	-690

MID-COURSE EXECUTION ACCURACY

SGT	1276.3	SGR	678.1	SG3	247.5		
RRT	-.7388	RRF	.8119	RTF	-.8606		
SGB	1445.3	R23	-.1441	R13	.8877		
SG1	1382.3	SG2	421.9	THA	156.22		

ORBIT DETERMINATION ACCURACY

ST	332.4	SR	329.7	SS	241.0
CRT	-.5663	CRS	.5305	CST	.3842
LSA	415.1	MSA	322.9	SSA	27.5
EL1	414.3	EL2	218.0	ALF	135.42

LAUNCH DATE AUG 27 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 268.890

RL	151.15	LAL	-.00	LOL	333.32	VL	26.480	GAL	-2.21	AZL	89.08	HCA	117.10	SMA	125.82	ECC	.20489	INC	.9237	V1	29.477
RP	107.65	LAP	.82	LOP	90.42	VP	37.561	GAP	-8.45	AZP	90.42	TAL	188.63	TAP	305.73	RCA	100.04	APO	151.59	V2	35.202
RC	52.948	GL	7.88	GP	-22.96	ZAL	101.76	ZAP	29.62	ETS	44.50	ZAE	142.52	ETE	323.49	ZAC	79.14	ETC	261.71	CLP	-19.25

PLANETOCENTRIC CONIC

C3	9.690	VHL	3.113	DLA	-10.51	RAL	231.10	RAD	6567.3	VEL	11.449	PTH	1.99	VHP	6.170	DPA	-44.21	RAP	243.56	ECC	1.1595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 46 57	1723.50	-5.42	12.40	81.39	117.84	6 15 41	1123.5	-1.65	5.74
90.00	15 4 17	5032.05	23.36	221.73	84.26	73.53	16 28 9	4432.1	20.89	213.94
100.00	7 3 4	1477.95	-6.26	353.89	80.93	119.29	7 27 42	877.9	-2.31	347.33
100.00	16 30 51	4752.83	24.27	200.89	83.95	72.00	17 50 4	4152.8	21.59	193.12
110.00	7 59 26	1301.42	-8.45	339.15	79.59	123.25	8 21 7	701.4	-4.01	332.87
110.00	17 50 58	4502.13	26.68	180.87	82.97	67.79	19 6 0	3902.1	23.43	173.22

DIFFERENTIAL CORRECTIONS

TDE	.0643	TRA	-.5134	TC3	1.3558	BAU	.2247
RDE	-.1526	RRA	.0766	RC3	-1.0816	FAU	.05223
FDE	.2335	FRA	.6133	FC3	-4.6667	BSP	4444
BDE	.1656	BRA	.5191	BC3	1.7344	FSP	-768

MID-COURSE EXECUTION ACCURACY

SGT	1284.7	SGR	743.6	SG3	272.5		
RRT	-.7742	RRF	.8531	RTF	-.8652		
SGB	1484.3	R23	-.1576	R13	.8987		
SG1	1422.1	SG2	425.1	THA	153.29		

ORBIT DETERMINATION ACCURACY

ST	312.7	SR	284.9	SS	297.3
CRT	-.5183	CRS	.6556	CST	.2904
LSA	382.2	MSA	347.1	SSA	28.2
EL1	369.3	EL2	206.3	ALF	140.11

LAUNCH DATE AUG 27 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 275.587

RL	151.15	LAL	-.00	LOL	333.32	VL	26.572	GAL	-2.31	AZL	88.83	HCA	120.33	SMA	126.40	ECC	.19979	INC	1.1667	V1	29.477
RP	107.63	LAP	1.01	LOP	93.65	VP	37.633	GAP	-7.77	AZP	90.59	TAL	189.34	TAP	309.67	RCA	101.15	APO	151.65	V2	35.210
RC	54.707	GL	10.19	GP	-25.06	ZAL	102.97	ZAP	32.86	ETS	42.65	ZAE	141.12	ETE	320.80	ZAC	77.08	ETC	261.72	CLP	-21.98

PLANETOCENTRIC CONIC

C3	9.346	VHL	3.057	DLA	-7.95	RAL	230.43	RAD	6567.3	VEL	11.434	PTH	1.98	VHP	5.882	DPA	-46.36	RAP	243.42	ECC	1.1538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 23 50	1799.68	-7.82	16.71	80.22	117.30	5 53 49	1199.7	-4.10	10.00
90.00	15 22 1	4941.71	21.49	215.77	82.37	71.11	16 44 23	4341.7	18.72	208.19
100.00	6 41 20	1549.63	-8.62	357.89	79.79	118.73	7 7 10	949.6	-4.72	351.27
100.00	16 47 12	4666.99	22.35	195.23	82.04	69.62	18 4 59	4067.0	19.38	187.70
110.00	7 40 50	1363.36	-10.74	342.48	78.51	122.65	8 3 33	763.4	-6.36	336.13
110.00	18 4 12	4426.04	24.63	175.92	81.01	65.51	19 17 58	3826.0	21.11	168.53

DIFFERENTIAL CORRECTIONS

TDE	.0399	TRA	-.5000	TC3	1.4163	BAU	.2376
RDE	-.1181	RRA	.0902	RC3	-1.2683	FAU	.05602
FDE	.3353	FRA	.6456	FC3	-5.1888	BSP	4584
BDE	.1247	BRA	.5081	BC3	1.9011	FSP	-850

MID-COURSE EXECUTION ACCURACY

SGT	1284.8	SGR	824.3	SG3	298.7		
RRT	-.8022	RRF	.8876	RTF	-.8681		
SGB	1526.5	R23	-.1692	R13	.9097		
SG1	1464.2	SG2	431.8	THA	149.88		

ORBIT DETERMINATION ACCURACY

ST	294.7	SR	228.4	SS	372.9
CRT	-.4712	CRS	.7049	CST	.2750
LSA	414.5	MSA	324.7	SSA	28.2
EL1	325.1	EL2	182.7	ALF	149.34

LAUNCH DATE AUG 27 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 282.266

RL	151.15	LAL	-.00	LOL	333.32	VL	26.654	GAL	-2.41	AZL	88.57	HCA	123.56	SMA	126.93	ECC	.19527	INC	1.4263	V1	29.477
RP	107.60	LAP	1.19	LOP	96.89	VP	37.698	GAP	-7.11	AZP	90.79	TAL	190.01	TAP	313.58	RCA	102.14	APO	151.71	V2	35.218
RC	56.533	GL	12.68	GP	-27.40	ZAL	104.05	ZAP	36.35	ETS	40.98	ZAE	139.71	ETE	317.77	ZAC	74.77	ETC	261.67	CLP	-24.88

PLANETOCENTRIC CONIC

C3	9.113	VHL	3.019	DLA	-5.22	RAL	229.91	RAD	6567.3	VEL	11.424	PTH	1.98	VHP	5.625	DPA	-48.70	RAP	242.95	ECC	1.1500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 0 49	1881.25	-10.34	21.38	79.47	116.51	5 32 10	1281.3	-6.69	14.60
90.00	15 40 55	4850.34	19.37	209.91	80.86	68.93	17 1 45	4250.3	16.33	202.55
100.00	6 19 41	1626.80	-11.12	2.26	79.06	117.93	6 46 48	1026.8	-7.30	355.56
100.00	17 4 43	4580.03	20.18	189.69	80.52	67.47	18 21 3	3980.0	16.96	182.38
110.00	7 22 17	1430.81	-13.19	346.17	77.84	121.82	7 46 8	830.8	-8.89	339.71
110.00	18 18 36	4348.78	22.36	171.06	79.45	63.44	19 31 5	3748.8	18.61	163.93

DIFFERENTIAL CORRECTIONS

TDE	.0109	TRA	-.4914	TC3	1.4268	BAU	.2492
RDE	-.0757	RRA	.1082	RC3	-1.4660	FAU	.05957
FDE	.4617	FRA	.6876	FC3	-5.6589	BSP	4632
BDE	.0765	BRA	.5031	BC3	2.0457	FSP	-925

MID-COURSE EXECUTION ACCURACY

SGT	1272.6	SGR	920.1	SG3	325.1		
RRT	-.8186	RRF	.9151	RTF	-.8671		
SGB	1570.4	R23	-.1802	R13	.9204		
SG1	1505.5	SG2	446.7	THA	145.98		

ORBIT DETERMINATION ACCURACY

ST	282.9	SR	158.7	SS	469.5
CRT	-.4687	CRS	.6452	CST	.3475
LSA	491.8	MSA	288.2	SSA	27.1
EL1	295.2	EL2	134.3	ALF	161.25

LAUNCH DATE AUG 27 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 288.925

RL	151.15	LAL	-.00	LOL	333.32	VL	26.726	GAL	-2.49	AZL	88.29	HCA	126.80	SMA	127.40	ECC	.19129	INC	1.7063	V1	29.477
RP	107.58	LAP	1.37	LOP	100.12	VP	37.756	GAP	-6.47	AZP	91.02	TAL	190.64	TAP	317.43	RCA	103.03	APO	151.77	V2	35.225
RC	58.419	GL	15.38	GP	-30.01	ZAL	104.98	ZAP	40.10	ETS	39.40	ZAE	138.23	ETE	314.39	ZAC	72.19	ETC	261.55	CLP	-27.96

PLANETOCENTRIC CONIC

C3	8.990	VHL	2.998	DLA	-2.34	RAL	229.57	RAD	6567.3	VEL	11.418	PTH	1.98	VHP	5.403	DPA	-51.25	RAP	242.06	ECC	1.1480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 37 47	1968.76	-12.95	26.48	79.16	115.41	5 10 35	1368.8	-9.42	19.58
90.00	16 1 11	4757.58	17.00	204.14	79.78	67.01	17 20 28	4157.6	13.74	196.98
100.00	5 58 2	1709.88	-13.72	7.06	78.77	116.82	6 26 32	1109.9	-10.01	.23
100.00	17 23 36	4491.70	17.79	184.22	79.42	65.57	18 38 28	3891.7	14.34	177.12
110.00	7 3 47	1504.06	-15.78	350.26	77.60	120.72	7 28 51	904.1	-11.59	343.67
110.00	18 34 21	4270.28	19.89	166.31	78.31	61.61	19 45 31	3670.3	15.94	159.41

DIFFERENTIAL CORRECTIONS

TDE	-.0074	TRA	-.4729	TC3	1.4447	BAU	.2671
RDE	-.0274	RRA	.1271	RC3	-1.6885	FAU	.06353
FDE	.5959	FRA	.7210	FC3	-6.1183	BSP	4947
BDE	.0284	BRA	.4897	BC3	2.2222	FSP	-1027

MID-COURSE EXECUTION ACCURACY

SGT	1252.5	SGR	1042.6	SG3	352.6		
RRT	-.8395	RRF	.9377	RTF	-.8689		
SGB	1629.7	R23	-.1763	R13	.9332		
SG1	1565.4	SG2	453.3	THA	141.20		

ORBIT DETERMINATION ACCURACY

ST	272.9	SR	94.8	SS	567.8
CRT	-.7664	CRS	.2272	CST	.3952
LSA	580.4	MSA	261.5	SSA	25.1
EL1	282.9	EL2	58.8	ALF	164.40

LAUNCH DATE AUG 27 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 295.564

RL	151.15	LAL	-.00	LOL	333.32	VL	26.790	GAL	-2.56	AZL	87.99	HCA	130.03	SMA	127.82	ECC	.18779	INC	2.0111	V1	29.477
RP	107.56	LAP	1.54	LOP	103.36	VP	37.808	GAP	-5.86	AZP	91.29	TAL	191.21	TAP	321.24	RCA	103.81	APO	151.82	V2	35.232
RC	60.358	GL	18.27	GP	-32.88	ZAL	105.70	ZAP	44.11	ETS	37.82	ZAE	136.61	ETE	310.68	ZAC	69.32	ETC	261.34	CLP	-31.23

PLANETOCENTRIC CONIC

C3	8.980	VHL	2.997	DLA	.71	RAL	229.41	RAD	6567.3	VEL	11.418	PTH	1.98	VHP	5.218	DPA	-53.99	RAP	240.64	ECC	1.1478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 14 36	2062.85	-15.62	32.10	79.36	113.92	4 48 59	1462.9	-12.26	25.04
90.00	16 23 7	4663.04	14.39	198.42	79.17	65.35	17 40 50	4063.0	10.95	191.43
100.00	5 36 17	1799.41	-16.40	12.35	78.98	115.34	6 6 16	1199.4	-12.86	5.36
100.00	17 44 8	4401.71	15.17	178.82	78.79	63.93	18 57 30	3801.7	11.54	171.91
110.00	6 45 17	1583.44	-18.49	354.83	77.86	119.28	7 11 40	983.4	-14.44	348.05
110.00	18 51 38	4190.45	17.24	161.64	77.64	60.02	20 1 28	3590.5	13.12	154.94

DIFFERENTIAL CORRECTIONS

TDE	-.0306	TRA	-.4620	TC3	1.3874	BAU	.2830
RDE	.0345	RRA	.1534	RC3	-1.9058	FAU	.06664
FDE	.7593	FRA	.7690	FC3	-6.4245	BSP	5123
BDE	.0461	BRA	.4868	BC3	2.3573	FSP	-1106

MID-COURSE EXECUTION ACCURACY

SGT	1214.6	SGR	1181.1	SG3	377.5		
RRT	-.8454	RRF	.9542	RTF	-.8640		
SGB	1694.2	R23	-.1706	R13	.9449		
SG1	1627.4	SG2	470.9	THA	135.95		

ORBIT DETERMINATION ACCURACY

ST	272.6	SR	115.2	SS	686.0
CRT	-.8933	CRS	-.7901	CST	.4938
LSA	707.3	MSA	239.5	SSA	22.4
EL1	291.9	EL2	48.3	ALF	158.71

LAUNCH DATE AUG 27 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 302.181

RL	151.15	LAL	-.00	LOL	333.32	VL	26.846	GAL	-2.62	AZL	87.65	HCA	133.26	SMA	128.19	ECC	.18473	INC	2.3463	V1	29.477
RP	107.54	LAP	1.71	LOP	106.60	VP	37.853	GAP	-5.26	AZP	91.61	TAL	191.72	TAP	324.98	RCA	104.51	APO	151.87	V2	35.238
RC	62.346	GL	21.35	GP	-36.04	ZAL	106.21	ZAP	48.35	ETS	36.16	ZAE	134.78	ETE	306.64	ZAC	66.16	ETC	261.02	CLP	-34.72

PLANETOCENTRIC CONIC

C3	9.092	VHL	3.015	DLA	3.90	RAL	229.46	RAD	6567.3	VEL	11.423	PTH	1.98	VHP	5.074	DPA	-56.92	RAP	238.56	ECC	1.1496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 51 2	2164.57	-18.32	38.34	80.11	111.97	4 27 6	1564.6	-15.18	31.07
90.00	16 47 7	4566.11	11.57	192.70	79.07	63.97	18 3 13	3966.1	7.97	185.87
100.00	5 14 12	1896.30	-19.13	18.26	79.76	113.42	5 45 48	1296.3	-15.80	11.05
100.00	18 6 38	4309.61	12.35	173.44	78.66	62.56	19 18 28	3709.6	8.57	166.68
110.00	6 26 38	1669.58	-21.27	359.96	78.67	117.41	6 54 28	1069.6	-17.43	352.94
110.00	19 10 41	4109.09	14.41	157.03	77.47	58.66	20 19 10	3509.1	10.16	150.51

DIFFERENTIAL CORRECTIONS

TDE	-.0483	TRA	-.4498	TC3	1.2895	BAU	.3016
RDE	.1102	RRA	.1858	RC3	-2.1203	FAU	.06915
FDE	.9374	FRA	.8188	FC3	-6.5843	BSP	3375
BDE	.1203	BRA	.4867	BC3	2.4817	FSP	-1181

MID-COURSE EXECUTION ACCURACY

SGT	1160.7	SGR	1343.2	SG3	399.4		
RRT	-.8446	RRF	.9666	RTF	-.8549		
SGB	1775.2	R23	-.1567	R13	.9565		
SG1	1706.5	SG2	489.1	THA	130.08		

ORBIT DETERMINATION ACCURACY

ST	273.9	SR	237.8	SS	809.1
CRT	-.7274	CRS	-.9731	CST	.5667
LSA	857.6	MSA	224.3	SSA	19.5
EL1	337.7	EL2	132.3	ALF	140.51

LAUNCH DATE AUG 27 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 308.775

RL	151.15	LAL	-.00	LOL	333.32	VL	26.894	GAL	-2.67	AZL	87.28	HCA	136.50	SMA	128.51	ECC	.18208	INC	2.7194	V1	29.477
RP	107.53	LAP	1.87	LOP	109.85	VP	37.892	GAP	-4.69	AZP	91.97	TAL	192.16	TAP	328.65	RCA	105.11	APO	151.91	V2	35.243
RC	64.375	GL	24.64	GP	-39.47	ZAL	106.47	ZAP	52.80	ETS	34.32	ZAE	132.69	ETE	302.33	ZAC	62.71	ETC	260.58	CLP	-38.45

PLANETOCENTRIC CONIC

C3	9.344	VHL	3.057	DLA	7.25	RAL	229.74	RAD	6567.3	VEL	11.434	PTH	1.98	VHP	4.978	DPA	-60.01	RAP	235.63	ECC	1.1538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 26 39	2275.35	-21.00	45.37	81.49	109.45	4 4 35	1675.4	-18.15	37.85
90.00	17 13 40	4465.96	8.51	186.93	79.53	62.89	18 28 6	3866.0	4.81	180.21
100.00	4 51 28	2001.79	-21.84	24.91	81.16	110.93	5 24 50	1401.8	-18.80	17.44
100.00	18 31 32	4214.76	9.31	168.03	79.10	61.47	19 41 47	3614.8	5.43	161.39
110.00	6 7 39	1763.37	-24.10	5.77	80.12	115.01	6 37 3	1163.4	-20.52	358.45
110.00	19 31 51	4025.94	11.42	152.44	77.84	57.56	20 38 57	3425.9	7.06	146.06

DIFFERENTIAL CORRECTIONS

TDE	-.0590	TRA	-.4369	TC3	1.1439	BAU	.3225
RDE	.2039	RRA	.2264	RC3	-2.3143	FAU	.07059
FDE	1.1276	FRA	.8711	FC3	-6.5404	BSP	5681
BDE	.2123	BRA	.4920	BC3	2.5816	FSP	-1240

MID-COURSE EXECUTION ACCURACY

SGT	1087.6	SGR	1526.8	SG3	415.8		
RRT	-.8340	RRF	.9757	RTF	-.8385		
SGB	1874.5	R23	-.1362	R13	.9672		
SG1	1804.4	SG2	507.7	THA	123.74		

ORBIT DETERMINATION ACCURACY

ST	272.0	SR	405.4	SS	934.9
CRT	-.6793	CRS	-.9944	CST	.6062
LSA	1032.7	MSA	213.8	SSA	16.6
EL1	454.6	EL2	178.0	ALF	119.45

LAUNCH DATE AUG 27 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 315.346

RL	151.15	LAL	-.00	LOL	333.32	VL	26.936	GAL	-2.71	AZL	86.86	HCA	139.73	SMA	128.78	ECC	.17981	INC	3.1398	V1	29.477
RP	107.51	LAP	2.03	LOP	113.09	VP	37.925	GAP	-4.13	AZP	92.40	TAL	192.52	TAP	332.25	RCA	105.63	APO	151.94	V2	35.247
RC	66.441	GL	28.14	GP	-43.15	ZAL	106.47	ZAP	57.41	ETS	32.22	ZAE	130.28	ETE	297.79	ZAC	58.99	ETC	259.98	CLP	-42.42

PLANETOCENTRIC CONIC

C3	9.766	VHL	3.125	DLA	10.75	RAL	230.25	RAD	6567.4	VEL	11.452	PTH	1.99	VHP	4.935	DPA	-63.20	RAP	231.59	ECC	1.1607

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 0 54	2397.33	-23.54	53.40	83.58	106.21	3 40 51	1797.3	-21.10	45.58
90.00	17 43 29	4361.33	5.22	181.00	80.64	62.13	18 56 10	3761.3	1.45	174.35
100.00	4 27 37	2117.68	-24.46	32.53	83.28	107.74	5 2 54	1517.7	-21.80	24.74
100.00	18 59 27	4116.21	6.07	162.52	80.18	60.67	20 8 4	3516.2	2.11	155.96
110.00	5 48 2	1866.04	-26.88	12.45	82.30	111.95	6 19 8	1266.0	-23.66	4.76
110.00	19 55 32	3940.62	8.27	147.85	78.83	56.71	21 1 12	3340.6	3.83	141.57

DIFFERENTIAL CORRECTIONS

TDE	-.0590	TRA	-.4223	TC3	.9524	BAU	.3455
RDE	.3196	RRA	.2771	RC3	-2.4691	FAU	.07062
FDE	1.3210	FRA	.9232	FC3	-6.2603	BSP	6036
BDE	.3250	BRA	.5051	BC3	2.6464	FSP	-1275

MID-COURSE EXECUTION ACCURACY

SGT	993.6	SGR	1729.8	SG3	424.5		
RRT	-.8085	RRF	.9822	RTF	-.8089		
SGB	1994.9	R23	-.1110	R13	.9762		
SG1	1924.4	SG2	525.7	THA	117.09		

ORBIT DETERMINATION ACCURACY

ST	260.6	SR	607.9	SS	1057.1
CRT	-.6367	CRS	-.9984	CST	.5978
LSA	1229.6	MSA	206.9	SSA	14.0
EL1	632.6	EL2	193.1	ALF	106.89

LAUNCH DATE AUG 27 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 321.892

RL	151.15	LAL	-.00	LOL	333.32	VL	26.970	GAL	-2.73	AZL	86.38	HCA	142.96	SMA	129.02	ECC	.17786	INC	3.6204	V1	29.477
RP	107.50	LAP	2.18	LOP	116.33	VP	37.953	GAP	-3.59	AZP	92.89	TAL	192.82	TAP	335.78	RCA	106.07	APO	151.97	V2	35.251
RC	68.539	GL	31.83	GP	-47.06	ZAL	106.19	ZAP	62.11	ETS	29.75	ZAE	127.51	ETE	293.08	ZAC	55.03	ETC	259.17	CLP	-46.63

PLANETOCENTRIC CONIC

C3	10.404	VHL	3.226	DLA	14.38	RAL	231.00	RAD	6567.4	VEL	11.480	PTH	2.00	VHP	4.954	DPA	-66.40	RAP	226.05	ECC	1.1712

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 32 50	2533.80	-25.82	62.75	86.46	102.06	3 15 4	1933.8	-23.90	54.60
90.00	18 17 36	4250.13	1.66	174.78	82.50	61.73	19 28 26	3650.1	-2.14	168.15
100.00	4 1 52	2246.70	-26.84	41.37	86.20	103.67	4 39 18	1646.7	-24.70	33.23
100.00	19 31 15	4012.48	2.58	156.79	81.99	60.21	20 38 8	3412.5	-1.41	150.27
110.00	5 27 18	1979.37	-29.53	20.20	85.34	108.06	6 0 17	1379.4	-26.78	12.10
110.00	20 22 18	3852.57	4.95	143.19	80.51	56.13	21 26 31	3252.6	.47	136.97

DIFFERENTIAL CORRECTIONS

TDE	-.0423	TRA	-.4037	TC3	.7259	BAU	.3707
RDE	.4611	RRA	.3397	RC3	-2.5645	FAU	.06897
FDE	1.5046	FRA	.9701	FC3	-5.7391	BSP	6476
BDE	.4630	BRA	.5276	BC3	2.6652	FSP	-1284

MID-COURSE EXECUTION ACCURACY

SGT	879.2	SGR	1948.3	SG3	423.4		
RRT	-.7574	RRF	.9869	RTF	-.7547		
SGB	2137.5	R23	-.0841	R13	.9833		
SG1	2067.9	SG2	540.8	THA	110.32		

ORBIT DETERMINATION ACCURACY

ST	234.9	SR	841.6	SS	1167.7		
CRT	-.5249	CRS	-.9995	CST	.5009		
LSA	1444.2	MSA	202.3	SSA	11.6		
EL1	851.1	EL2	197.7	ALF	98.81		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 328.413

RL	151.15	LAL	-.00	LOL	333.32	VL	26.999	GAL	-2.75	AZL	85.82	HCA	146.19	SMA	129.21	ECC	.17622	INC	4.1788	V1	29.477
RP	107.49	LAP	2.32	LOP	119.58	VP	37.977	GAP	-3.07	AZP	93.47	TAL	193.03	TAP	339.22	RCA	106.44	APO	151.99	V2	35.254
RC	70.666	GL	35.72	GP	-51.16	ZAL	105.63	ZAP	66.81	ETS	26.85	ZAE	124.38	ETE	288.26	ZAC	50.87	ETC	258.12	CLP	-51.10

PLANETOCENTRIC CONIC

C3	11.332	VHL	3.366	DLA	18.15	RAL	232.03	RAD	6567.4	VEL	11.520	PTH	2.01	VHP	5.047	DPA	-69.48	RAP	218.52	ECC	1.1865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 0 48	2690.34	-27.57	73.86	90.20	96.75	2 45 39	2090.3	-26.34	65.41
90.00	18 57 47	4128.52	-2.27	167.99	85.28	61.77	20 6 35	3528.5	-6.03	161.33
100.00	3 32 56	2393.24	-28.77	51.83	90.02	98.49	4 12 49	1793.2	-27.29	43.34
100.00	20 8 20	3900.85	-1.21	150.67	84.69	60.13	21 13 21	3300.9	-5.17	144.13
110.00	5 4 45	2105.99	-31.85	29.33	89.34	103.12	5 39 51	1506.0	-29.72	20.77
110.00	20 53 1	3760.87	1.46	138.39	83.03	55.84	21 55 42	3160.9	-3.04	132.18

DIFFERENTIAL CORRECTIONS

TDE	-.0019	TRA	-.3793	TC3	.4769	BAU	.3974
RDE	.6326	RRA	.4175	RC3	-2.5798	FAU	.06548
FDE	1.6647	FRA	1.0090	FC3	-5.0026	BSP	6970
BDE	.6326	BRA	.5640	BC3	2.6235	FSP	-1256

MID-COURSE EXECUTION ACCURACY

SGT	751.4	SGR	2176.0	SG3	411.1		
RRT	-.6538	RRF	.9902	RTF	-.6484		
SGB	2302.1	R23	-.0578	R13	.9885		
SG1	2234.5	SG2	553.7	THA	103.57		

ORBIT DETERMINATION ACCURACY

ST	204.1	SR	1101.0	SS	1258.8		
CRT	-.2209	CRS	-.9998	CST	.2045		
LSA	1672.8	MSA	199.9	SSA	9.7		
EL1	1102.0	EL2	198.8	ALF	92.42		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 334.907

RL	151.15	LAL	-.00	LOL	333.32	VL	27.022	GAL	-2.75	AZL	85.16	HCA	149.42	SMA	129.37	ECC	.17485	INC	4.8401	V1	29.477
RP	107.48	LAP	2.46	LOP	122.83	VP	37.995	GAP	-2.57	AZP	94.17	TAL	193.16	TAP	342.58	RCA	106.75	APO	151.99	V2	35.256
RC	72.818	GL	39.78	GP	-55.40	ZAL	104.79	ZAP	71.39	ETS	23.40	ZAE	120.89	ETE	283.34	ZAC	46.56	ETC	256.75	CLP	-55.82

PLANETOCENTRIC CONIC

C3	12.667	VHL	3.559	DLA	22.03	RAL	233.33	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	5.228	DPA	-72.24	RAP	208.31	ECC	1.2085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 21 20	2878.34	-28.32	87.55	94.78	89.94	2 9 19	2278.3	-28.02	78.90
90.00	19 47 38	3987.43	-6.77	160.07	89.27	62.44	20 54 5	3387.4	-10.41	153.28
100.00	2 58 22	2565.49	-29.84	64.51	94.75	91.91	3 41 8	1965.5	-29.25	55.75
100.00	20 53 18	3775.51	-5.43	143.77	88.54	60.56	21 56 13	3175.5	-9.32	137.13
110.00	4 39 12	2250.01	-33.56	40.21	94.42	96.90	5 16 42	1650.0	-32.24	31.22
110.00	21 28 57	3663.75	-2.26	133.32	86.56	55.88	22 30 0	3063.8	-6.72	127.08

DIFFERENTIAL CORRECTIONS

TDE	.0728	TRA	-.3455	TC3	.2231	BAU	.4240
RDE	.8384	RRA	.5140	RC3	-2.4941	FAU	.06006
FDE	1.7879	FRA	1.0363	FC3	-4.1048	BSP	7529
BDE	.8416	BRA	.6193	BC3	2.5040	FSP	-1193

MID-COURSE EXECUTION ACCURACY

SGT	631.6	SGR	2402.2	SG3	387.0		
RRT	-.4346	RRF	.9925	RTF	-.4266		
SGB	2483.8	R23	-.0334	R13	.9920		
SG1	2418.7	SG2	564.9	THA	96.90		

ORBIT DETERMINATION ACCURACY

ST	214.8	SR	1377.1	SS	1323.4		
CRT	.3706	CRS	-.9999	CST	-.3806		
LSA	1911.6	MSA	199.2	SSA	8.0		
EL1	1379.4	EL2	199.2	ALF	86.62		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 341.374

RL	151.15	LAL	-.00	LOL	333.32	VL	27.040	GAL	-2.74	AZL	84.36	HCA	152.65	SMA	129.50	ECC	.17373	INC	5.6409	V1	29.477
RP	107.48	LAP	2.59	LOP	126.08	VP	38.009	GAP	-2.08	AZP	95.01	TAL	193.21	TAP	345.86	RCA	107.00	APO	151.99	V2	35.258
RC	74.992	GL	44.00	GP	-59.75	ZAL	103.69	ZAP	75.75	ETS	19.35	ZAE	117.08	ETE	278.33	ZAC	42.13	ETC	254.96	CLP	-60.75

PLANETOCENTRIC CONIC

C3	14.605	VHL	3.822	DLA	25.99	RAL	234.93	RAD	6567.6	VEL	11.661	PTH	2.05	VHP	5.519	DPA	-74.43	RAP	194.78	ECC	1.2404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 26	3133.20	-26.90	106.02	99.80	80.82	1 15 39	2533.2	-27.90	97.50
90.00	20 58 19	3794.69	-12.66	148.97	95.08	64.46	22 1 34	3194.7	-15.99	141.88
100.00	2 11 51	2783.67	-29.23	80.67	100.17	83.45	2 58 14	2183.7	-29.83	71.91
100.00	21 52 35	3619.45	-10.56	135.02	94.00	61.87	22 52 54	3019.5	-14.24	128.16
110.00	4 8 28	2418.79	-34.17	53.33	100.54	89.17	4 48 47	1818.8	-33.91	44.10
110.00	22 12 27	3557.10	-6.31	127.73	91.43	56.33	23 11 44	2957.1	-10.69	121.37

DIFFERENTIAL CORRECTIONS

TDE	.1964	TRA	-.2967	TC3	-.0113	BAU	.4491
RDE	1.0824	RRA	.6332	RC3	-2.2999	FAU	.05297
FDE	1.8622	FRA	1.0473	FC3	-3.1401	BSP	8115
BDE	1.1001	BRA	.6992	BC3	2.2999	FSP	-1095

MID-COURSE EXECUTION ACCURACY

SGT	575.9	SGR	2615.1	SG3	352.1		
RRT	-.0195	RRF	.9941	RTF	-.0090		
SGB	2677.8	R23	-.0113	R13	.9941		
SG1	2615.2	SG2	575.8	THA	90.26		

ORBIT DETERMINATION ACCURACY

ST	329.8	SR	1654.2	SS	1355.1		
CRT	.7898	CRS	-1.0000	CST	-.7944		
LSA	2154.4	MSA	200.2	SSA	6.6		
EL1	1674.9	EL2	199.8	ALF	80.92		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 126.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 347.811

RL	151.15	LAL	-.00	LOL	333.32	VL	27.054	GAL	-2.71	AZL	83.36	HCA	155.87	SMA	129.59	ECC	.17284	INC	6.6374
RP	107.48	LAP	2.71	LOP	129.33	VP	38.020	GAP	-1.61	AZP	96.06	TAL	193.18	TAP	349.05	RCA	107.19	APO	151.98
RC	77.186	GL	48.33	GP	-64.19	ZAL	102.35	ZAP	79.75	ETS	14.59	ZAE	112.95	ETE	273.17	ZAC	37.60	ETC	252.58

V1	29.477	V2	35.259	CLP	-65.87														

PLANETOCENTRIC CONIC

C3	17.485	VHL	4.182	DLA	29.98	RAL	236.84	RAD	6567.7	VEL	11.784	PTH	2.08	VHP	5.955	DPA	-75.75	RAP	177.86
ECC	1.2878																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.71	21 23 4	3774.04	-21.53	151.49	103.71	68.62	22 25 58	3174.0	-24.25	143.73
100.29	0 13 58	3235.61	-21.52	111.87	103.71	68.60	1 7 53	2635.6	-24.24	104.12
79.71	21 23 4	3774.04	-21.53	151.49	103.71	68.62	22 25 58	3174.0	-24.25	143.73
100.29	0 13 58	3235.61	-21.52	111.87	103.71	68.60	1 7 53	2635.6	-24.24	104.12
110.00	3 27 5	2629.41	-32.77	69.58	107.29	79.67	4 10 54	2029.4	-33.85	60.51
110.00	23 9 7	3428.24	-11.11	120.83	98.20	57.46	24 6 15	2828.2	-15.32	114.26

DIFFERENTIAL CORRECTIONS

TDE	.3920	TRA	-.2241	TC3	-.2024	BAU	.4703
RDE	1.3670	RRA	.7804	RC3	-2.0018	FAU	.04466
FDE	1.8806	FRA	1.0395	FC3	-2.2110	BSP	8734
BDE	1.4221	BRA	.8119	BC3	2.0120	FSP	-969

MID-COURSE EXECUTION ACCURACY

SGT	665.5	SGR	2799.1	SG3	308.7		
RRT	.4573	RRF	.9952	RTF	.4686		
SGB	2877.2	R23	.0085	R13	.9953		
SG1	2816.4	SG2	588.2	THA	83.51		

ORBIT DETERMINATION ACCURACY

ST	547.6	SR	1910.1	SS	1350.1		
CRT	.9245	CRS	-1.0000	CST	-.9269		
LSA	2393.7	MSA	203.0	SSA	5.5		
EL1	1976.8	EL2	201.6	ALF	74.99		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 354.216

RL	151.15	LAL	-.00	LOL	333.32	VL	27.063	GAL	-2.68	AZL	82.08	HCA	159.08	SMA	129.65	ECC	.17215	INC	7.9196
RP	107.48	LAP	2.82	LOP	132.58	VP	38.026	GAP	-1.15	AZP	97.40	TAL	193.06	TAP	352.14	RCA	107.33	APO	151.97
RC	79.396	GL	52.69	GP	-68.74	ZAL	100.80	ZAP	83.28	ETS	8.98	ZAE	108.53	ETE	267.69	ZAC	32.97	ETC	249.33

V1	29.477	V2	35.259	CLP	-71.17		

PLANETOCENTRIC CONIC

C3	21.930	VHL	4.683	DLA	33.94	RAL	239.09	RAD	6567.9	VEL	11.971	PTH	2.13	VHP	6.588	DPA	-75.93	RAP	158.88
ECC	1.3609																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.46	20 28 46	4025.77	-22.65	171.12	110.79	64.02	21 35 52	3425.8	-25.95	163.54
109.54	1 26 9	3091.23	-22.63	101.45	110.78	64.01	2 17 40	2491.2	-25.94	93.88
70.46	20 28 46	4025.77	-22.65	171.12	110.79	64.02	21 35 52	3425.8	-25.95	163.54
109.54	1 26 9	3091.23	-22.63	101.45	110.78	64.01	2 17 40	2491.2	-25.94	93.88
110.00	2 0 2	2987.80	-25.51	94.84	112.23	66.43	2 49 50	2387.8	-28.47	86.92
110.00	0 57 59	3177.20	-19.83	106.61	109.24	61.57	1 50 56	2577.2	-23.47	99.36

DIFFERENTIAL CORRECTIONS

TDE	.6969	TRA	-.1128	TC3	-.3303	BAU	.4843
RDE	1.6921	RRA	.9637	RC3	-1.6186	FAU	.03564
FDE	1.8432	FRA	1.0137	FC3	-1.4070	BSP	9369
BDE	1.8300	BRA	.9703	BC3	1.6520	FSP	-827

MID-COURSE EXECUTION ACCURACY

SGT	922.2	SGR	2933.3	SG3	260.0		
RRT	.7386	RRF	.9959	RTF	.7502		
SGB	3074.8	R23	.0267	R13	.9957		
SG1	3014.8	SG2	604.9	THA	76.37		

ORBIT DETERMINATION ACCURACY

ST	854.1	SR	2114.3	SS	1308.9		
CRT	.9659	CRS	-1.0000	CST	-.9677		
LSA	2621.0	MSA	208.3	SSA	4.6		
EL1	2271.0	EL2	205.8	ALF	68.50		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 360.584

RL	151.15	LAL	-.00	LOL	333.32	VL	27.067	GAL	-2.63	AZL	80.36	HCA	162.27	SMA	129.68	ECC	.17163	INC	9.6415
RP	107.48	LAP	2.92	LOP	135.83	VP	38.029	GAP	-.71	AZP	99.19	TAL	192.86	TAP	355.13	RCA	107.42	APO	151.94
RC	81.621	GL	56.97	GP	-73.48	ZAL	99.09	ZAP	86.24	ETS	2.15	ZAE	103.78	ETE	261.47	ZAC	28.20	ETC	244.53

V1	29.477	V2	35.258	CLP	-76.67		

PLANETOCENTRIC CONIC

C3	29.176	VHL	5.401	DLA	37.73	RAL	241.66	RAD	6568.2	VEL	12.270	PTH	2.21	VHP	7.513	DPA	-74.87	RAP	140.27
ECC	1.4802																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.94	20 2 51	4204.25	-22.56	185.29	119.21	58.91	21 12 55	3604.2	-26.50	178.06
116.06	2 12 34	3053.47	-22.54	98.39	119.20	58.90	3 3 28	2453.5	-26.49	91.16
63.94	20 2 51	4204.25	-22.56	185.29	119.21	58.91	21 12 55	3604.2	-26.50	178.06
116.06	2 12 34	3053.47	-22.54	98.39	119.20	58.90	3 3 28	2453.5	-26.49	91.16
63.94	20 2 51	4204.25	-22.56	185.29	119.21	58.91	21 12 55	3604.2	-26.50	178.06
116.06	2 12 34	3053.47	-22.54	98.39	119.20	58.90	3 3 28	2453.5	-26.49	91.16

DIFFERENTIAL CORRECTIONS

TDE	1.1834	TRA	.0696	TC3	-.3827	BAU	.4834
RDE	2.0459	RRA	1.1964	RC3	-1.1789	FAU	.02638
FDE	1.7603	FRA	.9754	FC3	-.7829	BSP	9944
BDE	2.3635	BRA	1.1984	BC3	1.2394	FSP	-674

MID-COURSE EXECUTION ACCURACY

SGT	1324.9	SGR	2984.4	SG3	210.1		
RRT	.8600	RRF	.9961	RTF	.8739		
SGB	3265.2	R23	.0441	R13	.9957		
SG1	3203.9	SG2	629.8	THA	68.22		

ORBIT DETERMINATION ACCURACY

ST	1255.6	SR	2223.2	SS	1238.7		
CRT	.9808	CRS	-.9999	CST	-.9830		
LSA	2829.6	MSA	217.5	SSA	3.8		
EL1	2544.3	EL2	213.8	ALF	60.79		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 366.906

RL	151.15	LAL	-.00	LOL	333.32	VL	27.068	GAL	-2.56	AZL	77.91	HCA	165.45	SMA	129.69	ECC	.17128	INC	12.0896
RP	107.48	LAP	3.02	LOP	139.08	VP	38.028	GAP	-.29	AZP	101.71	TAL	192.55	TAP	358.01	RCA	107.48	APO	151.90
RC	83.861	GL	60.98	GP	-78.54	ZAL	97.29	ZAP	88.54	ETS	352.89	ZAE	98.60	ETE	253.26	ZAC	23.17	ETC	236.45

V1	29.477	V2	35.256	CLP	-82.65		

PLANETOCENTRIC CONIC

C3	41.952	VHL	6.477	DLA	41.18	RAL	244.52	RAD	6568.6	VEL	12.780	PTH	2.32	VHP	8.908	DPA	-72.63	RAP	123.79
ECC	1.6904																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.75	19 49 52	4365.30	-20.77	197.52	128.85	53.60	21 2 37	3765.3	-25.36	190.82
121.25	2 48 25	3075.52	-20.75	98.96	128.84	53.59	3 39 41	2475.5	-25.35	92.25
58.75	19 49 52	4365.30	-20.77	197.52	128.85	53.60	21 2 37	3765.3	-25.36	190.82
121.25	2 48 25	3075.52	-20.75	98.96	128.84	53.59	3 39 41	2475.5	-25.35	92.25
58.75	19 49 52	4365.30	-20.77	197.52	128.85	53.60	21 2 37	3765.3	-25.36	190.82
121.25	2 48 25	3075.52	-20.75	98.96	128.84	53.59	3 39 41	2475.5	-25.35	92.25

DIFFERENTIAL CORRECTIONS

TDE	2.0152	TRA	.4057	TC3	-.3605	BAU	.4572
RDE	2.3403	RRA	1.4803	RC3	-.7312	FAU	.01754
FDE	1.6478	FRA	.9302	FC3	-.3619	BSP	10523
BDE	3.0884	BRA	1.5349	BC3	.8152	FSP	-528

MID-COURSE EXECUTION ACCURACY

SGT	1903.5	SGR	2865.3	SG3	162.6		
RRT	.9098	RRF	.9950	RTF	.9323		
SGB	3440.0	R23	.0610	R13	.9952		
SG1	3374.0	SG2	670.8	THA	57.40		

ORBIT DETERMINATION ACCURACY

ST	1788.4	SR	2135.2	SS	1149.9		
CRT	.9861	CRS	-.9997	CST	-.9900		
LSA	3004.2	MSA	233.2	SSA	3.2		
EL1	2775.8	EL2	228.7	ALF	50.12		

LAUNCH DATE AUG 27 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 373.162

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RL  151.15 LAL   -.00 LOL 333.32 VL  27.066 GAL  -2.47 AZL  74.14 HCA 168.59 SMA 129.67 ECC .17105 INC15.8577 V1  29.477
RP  107.49 LAP   3.10 LOP 142.33 VP  38.024 GAP    .11 AZP 105.56 TAL 192.14 TAP    .73 RCA 107.49 APO 151.85 V2  35.254
RC  86.111 GL   64.34 GP  -84.23 ZAL  95.47 ZAP  90.13 ETS 335.65 ZAE  92.73 ETE 237.35 ZAC  17.64 ETC 218.10 CLP -91.27
PLANETOCENTRIC CONIC
C3  67.199 VHL  8.198 DLA  43.93 RAL 247.56 RAD 6569.3 VEL 13.731 PTH   2.51 VHP 11.139 DPA -69.15 RAP 109.75 ECC 2.1059
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.89	19 45 58	4525.03	-16.83	208.25	139.28	48.80	21 1 23	3925.0	-21.99	202.19
125.11	3 16 31	3148.42	-16.81	102.03	139.26	48.79	4 9 0	2548.4	-21.98	95.96
54.89	19 45 58	4525.03	-16.83	208.25	139.28	48.80	21 1 23	3925.0	-21.99	202.19
125.11	3 16 31	3148.42	-16.81	102.03	139.26	48.79	4 9 0	2548.4	-21.98	95.96
54.89	19 45 58	4525.03	-16.83	208.25	139.28	48.80	21 1 23	3925.0	-21.99	202.19
125.11	3 16 31	3148.42	-16.81	102.03	139.26	48.79	4 9 0	2548.4	-21.98	95.96

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.6404 TRA 1.2040 TC3 -.2760 BAU  .3724   SGT 2836.3 SGR 2208.5 SG3  121.1      ST  2568.5 SR  1475.1 SS  1068.4
RDE 1.9897 RRA 1.6887 RC3 -.3094 FAU .00915   RRT  .9073 RRF  .9789 RTF  .9694      CRT  .9795 CRS -.9948 CST -.9949
FDE 1.5435 FRA  .8998 FC3 -.1178 BSP  10990   SGB 3594.7 R23  .0785 R13  .9947      LSA 3137.7 MSA  264.0 SSA    2.6
BDE 4.1487 BRA 2.0740 BC3  .4146 FSP   -395   SG1 3515.8 SG2  749.2 THA  37.22      EL1 2950.6 EL2  258.9 ALF  29.61
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 379.306

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RL  151.15 LAL   -.00 LOL 333.32 VL  27.060 GAL  -2.36 AZL  67.62 HCA 171.64 SMA 129.63 ECC .17091 INC22.3768 V1  29.477
RP  107.50 LAP   3.17 LOP 145.58 VP  38.017 GAP    .47 AZP 112.16 TAL 191.58 TAP   3.22 RCA 107.48 APO 151.79 V2  35.251
RC  88.372 GL   66.24 GP  -88.35 ZAL  93.71 ZAP  90.96 ETS 268.12 ZAE  85.50 ETE 171.29 ZAC  11.23 ETC 141.58 CLP 125.53
PLANETOCENTRIC CONIC
C3 126.486 VHL 11.247 DLA  45.22 RAL 250.39 RAD 6570.3 VEL 15.742 PTH   2.79 VHP 15.086 DPA -63.91 RAP  97.59 ECC 3.0816
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.14	19 50 32	4680.94	-10.76	216.71	149.53	45.80	21 8 33	4080.9	-16.27	211.16
126.86	3 34 32	3269.09	-10.74	107.27	149.52	45.80	4 29 1	2669.1	-16.26	101.72
53.14	19 50 32	4680.94	-10.76	216.71	149.53	45.80	21 8 33	4080.9	-16.27	211.16
126.86	3 34 32	3269.09	-10.74	107.27	149.52	45.80	4 29 1	2669.1	-16.26	101.72
53.14	19 50 32	4680.94	-10.76	216.71	149.53	45.80	21 8 33	4080.9	-16.27	211.16
126.86	3 34 32	3269.09	-10.74	107.27	149.52	45.80	4 29 1	2669.1	-16.26	101.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.9518 TRA 2.9998 TC3 -.0763 BAU  .1316   SGT 3331.8 SGR 1659.6 SG3   88.7      ST  2605.3 SR  1615.9 SS  1043.5
RDE-3.1632 RRA -.5461 RC3  .0151 FAU .00037   RRT -.8913 RRF -.8893 RTF  .9989      CRT -.9840 CRS  .9836 CST-1.0000
FDE 1.5207 FRA  .9303 FC3 -.0025 BSP  11075   SGB 3722.3 R23 -.0887 R13 -.9950      LSA 3228.7 MSA  250.7 SSA    1.8
BDE 5.8759 BRA 3.0491 BC3  .0778 FSP   -281   SG1 3658.6 SG2  685.4 THA 155.13      EL1 3055.9 EL2  245.4 ALF 148.38
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 385.183

```
RL  151.15 LAL   -.00 LOL 333.32 VL  27.052 GAL  -2.19 AZL  54.15 HCA 174.47 SMA 129.57 ECC .17075 INC35.8539 V1  29.477
RP  107.51 LAP   3.24 LOP 148.83 VP  38.008 GAP    .76 AZP 125.73 TAL 190.73 TAP   5.20 RCA 107.45 APO 151.70 V2  35.247
RC  90.641 GL   64.38 GP  -78.04 ZAL  92.11 ZAP  91.06 ETS 201.59 ZAE  74.91 ETE 106.17 ZAC   6.04 ETC  11.39 CLP  95.13
PLANETOCENTRIC CONIC
C3 308.335 VHL 17.559 DLA  42.90 RAL 252.00 RAD 6571.8 VEL 20.728 PTH   3.18 VHP 23.245 DPA -54.97 RAP  86.56 ECC 6.0744
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.32	20 9 26	4786.93	-3.93	219.77	157.77	47.25	21 29 13	4186.9	-9.33	214.24
123.68	3 28 31	3441.01	-3.92	116.29	157.76	47.25	4 25 52	2841.0	-9.32	110.77
56.32	20 9 26	4786.93	-3.93	219.77	157.77	47.25	21 29 13	4186.9	-9.33	214.24
123.68	3 28 31	3441.01	-3.92	116.29	157.76	47.25	4 25 52	2841.0	-9.32	110.77
56.32	20 9 26	4786.93	-3.93	219.77	157.77	47.25	21 29 13	4186.9	-9.33	214.24
123.68	3 28 31	3441.01	-3.92	116.29	157.76	47.25	4 25 52	2841.0	-9.32	110.77

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0681 TRA 1.4654 TC3 -.0117 BAU  .6353   SGT  654.4 SGR 3687.7 SG3   66.8      ST   197.1 SR  3006.0 SS  1177.1
RDE-8.9944 RRA-4.8644 RC3 -.1537 FAU-.01311   RRT -.6039 RRF -.9951 RTF  .6731      CRT -.3248 CRS  .9989 CST -.3683
FDE 1.7338 FRA 1.1457 FC3  .0368 BSP  11239   SGB 3745.3 R23 -.0753 R13 -.9964      LSA 3228.5 MSA  192.8 SSA    1.7
BDE 8.9947 BRA 5.0804 BC3  .1541 FSP   -212   SG1 3709.2 SG2  518.6 THA  96.24      EL1 3006.7 EL2  186.3 ALF  91.22
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 390.154

```
RL  151.15 LAL   -.00 LOL 333.32 VL  27.040 GAL  -1.84 AZL  20.59 HCA 176.49 SMA 129.49 ECC .17021 INC69.4091 V1  29.477
RP  107.53 LAP   3.29 LOP 152.08 VP  37.996 GAP    .80 AZP 159.37 TAL 189.02 TAP   5.51 RCA 107.45 APO 151.54 V2  35.243
RC  92.917 GL   51.71 GP  -57.94 ZAL  90.85 ZAP  90.61 ETS 187.31 ZAE  54.78 ETE  92.64 ZAC  21.58 ETC 293.32 CLP  91.14
PLANETOCENTRIC CONIC
C31039.105 VHL 32.235 DLA  30.17 RAL 250.30 RAD 6573.0 VEL 34.065 PTH   3.51 VHP 42.180 DPA -36.12 RAP  76.40 ECC18.1010
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.14	22 12 25	4489.56	.26	193.17	160.76	59.83	23 27 14	3889.6	-3.75	186.66
100.86	1 11 55	3923.71	.27	151.51	160.75	59.83	2 17 19	3323.7	-3.74	145.01
79.14	22 12 25	4489.56	.26	193.17	160.76	59.83	23 27 14	3889.6	-3.75	186.66
100.86	1 11 55	3923.71	.27	151.51	160.75	59.83	2 17 19	3323.7	-3.74	145.01
110.00	4 17 59	3340.40	-14.28	116.00	169.44	58.61	5 13 39	2740.4	-18.33	109.23
110.00	0 9 27	4120.87	14.83	157.68	152.09	58.84	1 18 8	3520.9	10.59	151.14

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-4.4124 TRA  .1912 TC3 -.0758 BAU 3.3688   SGT  924.9 SGR 3268.5 SG3   57.0      ST   784.5 SR  2276.5 SS  1606.9
RD-12.3955 RRA-9.2593 RC3 -.2303 FAU-.05665   RRT  .7869 RRF -.9990 RTF -.7623      CRT  .9641 CRS  .9997 CST  .9572
FDE 2.3847 FRA 1.9649 FC3  .0472 BSP   9703   SGB 3396.9 R23 -.0766 R13 -.9968      LSA 2887.2 MSA  209.5 SSA    1.4
BDE13.1574 BRA 9.2613 BC3  .2425 FSP   -171   SG1 3350.9 SG2  556.7 THA  77.08      EL1 2399.7 EL2  197.5 ALF  71.49
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 400.956

```
RL  151.15 LAL   -.00 LOL 333.32 VL  27.026 GAL  -2.60 AZL 148.89 HCA 183.89 SMA 129.40 ECC .17393 INC58.8934 V1  29.477
RP  107.54 LAP   3.33 LOP 155.33 VP  37.981 GAP   2.41 AZP  31.16 TAL 192.50 TAP  16.39 RCA 106.89 APO 151.91 V2  35.238
RC  95.197 GL  -56.07 GP   64.61 ZAL  91.72 ZAP  92.41 ETS 182.67 ZAE  67.93 ETE 274.80 ZAC 142.32 ETC 285.28 CLP  95.62
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PLANETOCENTRIC CONIC

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C3 776.144 VHL 27.859 DLA -72.55 RAL 202.42 RAD 6572.8 VEL 29.957 PTH   3.45 VHP 35.693 DPA  78.94 RAP    .76 ECC13.7734
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.91	3 11 2	2432.07	.44	79.41	112.27	162.55	3 51 34	1832.1	8.07	77.41
160.09	13 51 23	663.88	.45	286.29	112.30	162.55	14 2 27	63.9	8.08	284.29
19.91	3 11 2	2432.07	.44	79.41	112.27	162.55	3 51 34	1832.1	8.07	77.41
160.09	13 51 23	663.88	.45	286.29	112.30	162.55	14 2 27	63.9	8.08	284.29
19.91	3 11 2	2432.07	.44	79.41	112.27	162.55	3 51 34	1832.1	8.07	77.41
160.09	13 51 23	663.88	.45	286.29	112.30	162.55	14 2 27	63.9	8.08	284.29

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.4538 TRA 1.2734 TC3 -.1055 BAU 2.6220   SGT 1538.3 SGR 3324.7 SG3   61.8      ST  1152.0 SR  2970.6 SS  2001.5
RD-14.3946 RRA-1.1778 RC3  .2296 FAU-.04062   RRT -.9342 RRF  .9994 RTF -.9308      CRT -.9891 CRS-1.0000 CST  .9888
FDE-3.1455 FRA -.2512 FC3  .0453 BSP  11030   SGB 3663.4 R23 -.0692 R13  .9970      LSA 3759.1 MSA  162.4 SSA    2.1
BDE15.3931 BRA 1.7346 BC3  .2527 FSP   -190   SG1 3628.7 SG2  502.7 THA 113.86      EL1 3182.2 EL2  158.4 ALF 111.04
```

LAUNCH DATE AUG 27 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 406.256

```
RL  151.15 LAL   -.00 LOL 333.32 VL  27.010 GAL  -2.29 AZL 122.65 HCA 186.24 SMA 129.29 ECC .17362 INC32.6491 V1  29.477
RP  107.56 LAP   3.36 LOP 158.58 VP  37.964 GAP   2.53 AZP  57.51 TAL 191.02 TAP  17.26 RCA 106.84 APO 151.74 V2  35.232
RC  97.481 GL  -65.01 GP   80.26 ZAL  92.47 ZAP  94.40 ETS 173.84 ZAE  84.54 ETE 265.03 ZAC 157.38 ETC 288.43 CLP 116.97
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PLANETOCENTRIC CONIC

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C3 258.048 VHL 16.064 DLA -76.71 RAL 171.51 RAD 6571.5 VEL 19.477 PTH   3.11 VHP 20.410 DPA  75.29 RAP 279.15 ECC 5.2468
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.13	0 58 0	2341.32	7.09	80.68	79.82	166.61	1 37 1	1741.3	14.87	79.19
164.87	11 57 49	5842.20	7.09	260.67	79.84	166.61	13 35 11	5242.2	14.87	259.18
15.13	0 58 0	2341.32	7.09	80.68	79.82	166.61	1 37 1	1741.3	14.87	79.19
164.87	11 57 49	5842.20	7.09	260.67	79.84	166.61	13 35 11	5242.2	14.87	259.18
15.13	0 58 0	2341.32	7.09	80.68	79.82	166.61	1 37 1	1741.3	14.87	79.19
164.87	11 57 49	5842.20	7.09	260.67	79.84	166.61	13 35 11	5242.2	14.87	259.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .9710 TRA  .6745 TC3 -.0386 BAU  .4935   SGT 1109.6 SGR 3924.9 SG3   78.4      ST   467.5 SR  2675.0 SS  1136.8
RDE-7.0701 RRA-1.9166 RC3  .1377 FAU-.00643   RRT -.9282 RRF  .9985 RTF -.9115      CRT -.9224 CRS -.9997 CST  .9125
FDE-1.7184 FRA -.4292 FC3  .0216 BSP  12748   SGB 4078.7 R23 -.0672 R13  .9971      LSA 2938.3 MSA  182.1 SSA    1.6
BDE 7.1365 BRA 2.0319 BC3  .1431 FSP   -251   SG1 4059.1 SG2  399.2 THA 104.85      EL1 2709.7 EL2  178.2 ALF  99.20
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 412.144

```
RL  151.15 LAL   -.00 LOL 333.32 VL  26.992 GAL  -2.09 AZL 111.78 HCA 189.15 SMA 129.17 ECC .17398 INC21.7784 V1  29.477
RP  107.58 LAP   3.38 LOP 161.83 VP  37.945 GAP   2.81 AZP  68.47 TAL 190.03 TAP  19.18 RCA 106.69 APO 151.64 V2  35.226
RC  99.767 GL  -65.95 GP   82.77 ZAL  93.14 ZAP  97.21 ETS  88.07 ZAE  93.73 ETE 178.93 ZAC 163.51 ETC 222.58 CLP-176.83
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PLANETOCENTRIC CONIC

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C3 120.105 VHL 10.959 DLA -76.31 RAL 166.62 RAD 6570.3 VEL 15.538 PTH   2.77 VHP 13.849 DPA  67.35 RAP 260.41 ECC 2.9766
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.59	0 39 22	2213.58	15.46	78.80	72.74	165.79	1 16 16	1613.6	23.21	77.09
164.41	11 37 21	5716.03	15.47	259.25	72.76	165.79	13 12 37	5116.0	23.21	257.54
15.59	0 39 22	2213.58	15.46	78.80	72.74	165.79	1 16 16	1613.6	23.21	77.09
164.41	11 37 21	5716.03	15.47	259.25	72.76	165.79	13 12 37	5116.0	23.21	257.54
15.59	0 39 22	2213.58	15.46	78.80	72.74	165.79	1 16 16	1613.6	23.21	77.09
164.41	11 37 21	5716.03	15.47	259.25	72.76	165.79	13 12 37	5116.0	23.21	257.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-4.4140 TRA-1.5051 TC3 -.0843 BAU  .1398   SGT 4051.7 SGR 1086.0 SG3  105.4      ST  2514.1 SR   327.2 SS   960.6
RDE -.0666 RRA -.4909 RC3 -.0220 FAU .00716   RRT  .8397 RRF  .8060 RTF  .9972      CRT  .4922 CRS -.4545 CST -.9991
FDE-1.4343 FRA -.4326 FC3 -.0516 BSP  12782   SGB 4194.7 R23 -.0894 R13  .9948      LSA 2695.8 MSA  287.7 SSA    2.0
BDE 4.4145 BRA 1.5831 BC3  .0871 FSP   -329   SG1 4155.1 SG2  575.0 THA  12.94      EL1 2519.3 EL2  284.2 ALF   3.71
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 418.186

```
RL  151.15 LAL   -.00 LOL 333.32 VL  26.972 GAL  -1.92 AZL 106.23 HCA 192.23 SMA 129.03 ECC .17460 INC16.2259 V1  29.477
RP  107.60 LAP   3.39 LOP 165.07 VP  37.924 GAP   3.13 AZP  74.12 TAL 189.14 TAP  21.37 RCA 106.50 APO 151.56 V2  35.218
RC 102.053 GL  -64.28 GP   77.47 ZAL  93.54 ZAP 100.58 ETS  46.93 ZAE 100.18 ETE 137.99 ZAC 164.64 ETC 205.38 CLP-147.85
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PLANETOCENTRIC CONIC

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C3  69.904 VHL  8.361 DLA -75.51 RAL 172.71 RAD 6569.3 VEL 13.830 PTH   2.53 VHP 10.560 DPA  60.83 RAP 251.99 ECC 2.1504
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.51	1 5 32	2093.23	23.20	76.35	76.34	164.21	1 40 25	1493.2	30.88	74.24
163.49	11 59 50	5598.97	23.21	257.71	76.36	164.21	13 33 8	4999.0	30.88	255.60
16.51	1 5 32	2093.23	23.20	76.35	76.34	164.21	1 40 25	1493.2	30.88	74.24
163.49	11 59 50	5598.97	23.21	257.71	76.36	164.21	13 33 8	4999.0	30.88	255.60
16.51	1 5 32	2093.23	23.20	76.35	76.34	164.21	1 40 25	1493.2	30.88	74.24
163.49	11 59 50	5598.97	23.21	257.71	76.36	164.21	13 33 8	4999.0	30.88	255.60

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.9128 TRA-1.1437 TC3 -.3911 BAU  .4036   SGT 3771.9 SGR 2176.4 SG3  145.1      ST  2206.4 SR  1780.0 SS  1093.1
RDE 2.5369 RRA  .4647 RC3  .1832 FAU .01781   RRT -.9329 RRF -.9837 RTF  .9784      CRT -.9750 CRS  .9967 CST -.9899
FDE-1.6713 FRA -.4276 FC3 -.2206 BSP  13786   SGB 4354.7 R23  .1096 R13 -.9920      LSA 3022.0 MSA  314.3 SSA    2.7
BDE 3.8627 BRA 1.2345 BC3  .4319 FSP   -474   SG1 4300.2 SG2  687.3 THA 150.89      EL1 2817.9 EL2  309.4 ALF 141.26
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 424.283

RL	151.15	LAL	-.00	LOL	333.32	VL	26.950	GAL	-1.75	AZL	102.90	HCA	195.37	SMA	128.88	ECC	.17539	INC	12.8986	V1	29.477		
RP	107.63	LAP	3.39	LOP	168.32	VP	37.901	GAP	3.47	AZP	77.55	TAL	188.26	TAP	23.64	RCA	106.28	APO	151.49	V2	35.211		
RC	104.339	GL	-61.64	GP	71.52	ZAL	93.65	ZAP	104.34	ETS	41.91	ZAE	105.29	ETE	133.77	ZAC	162.62	ETC	219.40	CLP	-141.39		

PLANETOCENTRIC CONIC

C3	46.696	VHL	6.833	DLA	-74.43	RAL	182.04	RAD	6568.7	VEL	12.964	PTH	2.36	VHP	8.677	DPA	55.02	RAP	246.61	ECC	1.7685		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.76	1 45 18	1992.07	29.49	73.43	82.96	162.03	2 18 30	1392.1	37.06	70.76
162.24	12 34 31	5502.65	29.49	256.03	82.99	162.03	14 6 14	4902.6	37.07	253.37
17.76	1 45 18	1992.07	29.49	73.43	82.96	162.03	2 18 30	1392.1	37.06	70.76
162.24	12 34 31	5502.65	29.49	256.03	82.99	162.03	14 6 14	4902.6	37.07	253.37
17.76	1 45 18	1992.07	29.49	73.43	82.96	162.03	2 18 30	1392.1	37.06	70.76
162.24	12 34 31	5502.65	29.49	256.03	82.99	162.03	14 6 14	4902.6	37.07	253.37

DIFFERENTIAL CORRECTIONS

TDE	-2.7638	TRA	-.8617	TC3	-.7354	BAU	.5207
RDE	2.4172	RRA	.3704	RC3	.3935	FAU	.02684
FDE	-2.0083	FRA	-.3794	FC3	-.4976	BSP	13780
BDE	3.6717	BRA	.9379	BC3	.8341	FSP	-604

MID-COURSE EXECUTION ACCURACY

SGT	3690.7	SGR	2394.8	SG3	187.4		
RRT	-.9447	RRF	-.9916	RTF	.9714		
SGB	4399.6	R23	.1304	R13	-.9886		
SG1	4348.8	SG2	666.3	THA	147.64		

ORBIT DETERMINATION ACCURACY

ST	2454.1	SR	2056.3	SS	1290.2
CRT	-.9863	CRS	.9993	CST	-.9919
LSA	3441.3	MSA	270.2	SSA	3.4
EL1	3191.1	EL2	260.8	ALF	140.11

LAUNCH DATE AUG 27 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 430.394

RL	151.15	LAL	-.00	LOL	333.32	VL	26.927	GAL	-1.57	AZL	100.68	HCA	198.55	SMA	128.72	ECC	.17632	INC	10.6844	V1	29.477		
RP	107.65	LAP	3.38	LOP	171.56	VP	37.877	GAP	3.81	AZP	79.86	TAL	187.37	TAP	25.92	RCA	106.03	APO	151.42	V2	35.202		
RC	106.624	GL	-58.61	GP	65.86	ZAL	93.45	ZAP	108.32	ETS	41.18	ZAE	109.54	ETE	134.39	ZAC	159.10	ETC	230.54	CLP	-140.22		

PLANETOCENTRIC CONIC

C3	34.177	VHL	5.846	DLA	-73.00	RAL	191.80	RAD	6568.3	VEL	12.472	PTH	2.26	VHP	7.508	DPA	49.62	RAP	242.78	ECC	1.5625		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.39	2 27 34	1909.88	34.29	69.97	89.76	159.28	2 59 24	1309.9	41.71	66.61
160.61	13 10 4	5427.39	34.29	254.23	89.78	159.28	14 40 32	4827.4	41.72	250.86
19.39	2 27 34	1909.88	34.29	69.97	89.76	159.28	2 59 24	1309.9	41.71	66.61
160.61	13 10 4	5427.39	34.29	254.23	89.78	159.28	14 40 32	4827.4	41.72	250.86
19.39	2 27 34	1909.88	34.29	69.97	89.76	159.28	2 59 24	1309.9	41.71	66.61
160.61	13 10 4	5427.39	34.29	254.23	89.78	159.28	14 40 32	4827.4	41.72	250.86

DIFFERENTIAL CORRECTIONS

TDE	-2.7791	TRA	-.6727	TC3	-1.1568	BAU	.5928
RDE	2.1574	RRA	.2399	RC3	.5874	FAU	.03543
FDE	-2.3064	FRA	-.3053	FC3	-.8975	BSP	14006
BDE	3.5182	BRA	.7142	BC3	1.2974	FSP	-750

MID-COURSE EXECUTION ACCURACY

SGT	3786.2	SGR	2364.2	SG3	232.8		
RRT	-.9498	RRF	-.9928	RTF	.9690		
SGB	4463.7	R23	.1460	R13	-.9855		
SG1	4418.5	SG2	633.6	THA	148.61		

ORBIT DETERMINATION ACCURACY

ST	2806.8	SR	2128.2	SS	1480.0
CRT	-.9916	CRS	.9998	CST	-.9941
LSA	3813.4	MSA	235.4	SSA	4.3
EL1	3515.5	EL2	220.2	ALF	142.89

LAUNCH DATE AUG 27 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 436.504

RL	151.15	LAL	-.00	LOL	333.32	VL	26.902	GAL	-1.39	AZL	99.10	HCA	201.74	SMA	128.56	ECC	.17738	INC	9.1005	V1	29.477		
RP	107.68	LAP	3.36	LOP	174.80	VP	37.851	GAP	4.15	AZP	81.54	TAL	186.46	TAP	28.19	RCA	105.75	APO	151.36	V2	35.193		
RC	108.906	GL	-55.43	GP	60.54	ZAL	92.94	ZAP	112.40	ETS	41.39	ZAE	113.08	ETE	136.43	ZAC	155.08	ETC	237.86	CLP	-140.79		

PLANETOCENTRIC CONIC

C3	26.688	VHL	5.166	DLA	-71.29	RAL	200.93	RAD	6568.1	VEL	12.168	PTH	2.18	VHP	6.751	DPA	44.53	RAP	239.95	ECC	1.4392		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.37	3 8 7	1843.22	37.79	66.02	95.70	156.05	3 38 50	1243.2	45.02	61.85
158.63	13 42 21	5370.06	37.79	252.31	95.71	156.05	15 11 51	4770.1	45.02	248.14
21.37	3 8 7	1843.22	37.79	66.02	95.70	156.05	3 38 50	1243.2	45.02	61.85
158.63	13 42 21	5370.06	37.79	252.31	95.71	156.05	15 11 51	4770.1	45.02	248.14
21.37	3 8 7	1843.22	37.79	66.02	95.70	156.05	3 38 50	1243.2	45.02	61.85
158.63	13 42 21	5370.06	37.79	252.31	95.71	156.05	15 11 51	4770.1	45.02	248.14

DIFFERENTIAL CORRECTIONS

TDE	-2.7659	TRA	-.5151	TC3	-1.6366	BAU	.6418
RDE	1.8626	RRA	.1278	RC3	.7470	FAU	.04306
FDE	-2.4940	FRA	-.2017	FC3	-1.3969	BSP	14231
BDE	3.3346	BRA	.5307	BC3	1.7990	FSP	-889

MID-COURSE EXECUTION ACCURACY

SGT	3929.6	SGR	2249.1	SG3	276.2		
RRT	-.9537	RRF	-.9925	RTF	.9686		
SGB	4527.7	R23	.1568	R13	-.9827		
SG1	4488.9	SG2	592.1	THA	150.81		

ORBIT DETERMINATION ACCURACY

ST	3114.2	SR	2070.2	SS	1618.1
CRT	-.9941	CRS	.9999	CST	-.9953
LSA	4069.2	MSA	209.5	SSA	5.2
EL1	3734.9	EL2	186.9	ALF	146.45

LAUNCH DATE AUG 27 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 442.606

RL	151.15	LAL	-.00	LOL	333.32	VL	26.875	GAL	-1.19	AZL	97.91	HCA	204.94	SMA	128.38	ECC	.17856	INC	7.9063	V1	29.477		
RP	107.71	LAP	3.32	LOP	178.05	VP	37.823	GAP	4.48	AZP	82.82	TAL	185.51	TAP	30.45	RCA	105.46	APO	151.30	V2	35.184		
RC	111.186	GL	-52.21	GP	55.61	ZAL	92.13	ZAP	116.45	ETS	41.79	ZAE	116.01	ETE	139.04	ZAC	151.02	ETC	242.72	CLP	-142.06		

PLANETOCENTRIC CONIC

C3	21.874	VHL	4.677	DLA	-69.36	RAL	209.15	RAD	6567.9	VEL	11.969	PTH	2.13	VHP	6.249	DPA	39.73	RAP	237.87	ECC	1.3600		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.60	3 45 41	1788.56	40.22	61.70	100.56	152.51	4 15 29	1188.6	47.20	56.69
156.40	14 10 23	5327.21	40.22	250.33	100.58	152.50	15 39 10	4727.2	47.20	245.32
23.60	3 45 41	1788.56	40.22	61.70	100.56	152.51	4 15 29	1188.6	47.20	56.69
156.40	14 10 23	5327.21	40.22	250.33	100.58	152.50	15 39 10	4727.2	47.20	245.32
23.60	3 45 41	1788.56	40.22	61.70	100.56	152.51	4 15 29	1188.6	47.20	56.69
156.40	14 10 23	5327.21	40.22	250.33	100.58	152.50	15 39 10	4727.2	47.20	245.32

DIFFERENTIAL CORRECTIONS

TDE	-2.7058	TRA	-.3719	TC3	-2.1569	BAU	.6796
RDE	1.5762	RRA	.0393	RC3	.8652	FAU	.04942
FDE	-2.5574	FRA	-.0758	FC3	-1.9561	BSP	14485
BDE	3.1314	BRA	.3739	BC3	2.3240	FSP	-1013

MID-COURSE EXECUTION ACCURACY

SGT	4090.1	SGR	2098.1	SG3	314.3		
RRT	-.9567	RRF	-.9914	RTF	.9690		
SGB	4596.9	R23	.1626	R13	-.9805		
SG1	4564.2	SG2	547.1	THA	153.45		

ORBIT DETERMINATION ACCURACY

ST	3338.0	SR	1931.5	SS	1692.3
CRT	-.9955	CRS	1.0000	CST	-.9958
LSA	4207.2	MSA	190.3	SSA	6.1
EL1	3853.2	EL2	159.3	ALF	150.00

LAUNCH DATE AUG 27 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 448.695

RL 151.15 LAL -.00 LOL 333.32 VL 26.848 GAL -.99 AZL 96.97 HCA 208.14 SMA 128.20 ECC .17987 INC 6.9692 V1 29.477
RP 107.74 LAP 3.28 LOP 181.28 VP 37.795 GAP 4.82 AZP 83.85 TAL 184.53 TAP 32.67 RCA 105.14 APO 151.26 V2 35.174
RC 113.462 GL -49.01 GP 51.08 ZAL 91.04 ZAP 120.39 ETS 42.16 ZAE 118.39 ETE 141.86 ZAC 147.13 ETC 246.08 CLP-143.63

PLANETOCENTRIC CONIC

C3 18.619 VHL 4.315 DLA -67.27 RAL 216.49 RAD 6567.8 VEL 11.832 PTH 2.10 VHP 5.918 DPA 35.23 RAP 236.39 ECC 1.3064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.03	4 20 16	1742.94	41.77	57.16	104.51	148.80	4 49 19	1142.9	48.46	51.34
153.97	14 34 21	5296.04	41.78	248.39	104.52	148.80	16 2 37	4696.0	48.47	242.57
26.03	4 20 16	1742.94	41.77	57.16	104.51	148.80	4 49 19	1142.9	48.46	51.34
153.97	14 34 21	5296.04	41.78	248.39	104.52	148.80	16 2 37	4696.0	48.47	242.57
26.03	4 20 16	1742.94	41.77	57.16	104.51	148.80	4 49 19	1142.9	48.46	51.34
153.97	14 34 21	5296.04	41.78	248.39	104.52	148.80	16 2 37	4696.0	48.47	242.57

DIFFERENTIAL CORRECTIONS
TDE-2.6085 TRA -.2329 TC3-2.6955 BAU .7105
RDE 1.3188 RRA -.0302 RC3 .9382 FAU .05422
FDE-2.5096 FRA .0673 FC3-2.5209 BSP 14721
BDE 2.9230 BRA .2348 BC3 2.8541 FSP -1113

MID-COURSE EXECUTION ACCURACY
SGT 4248.4 SGR 1932.0 SG3 344.4
RRT -.9583 RRF -.9895 RTF .9694
SGB 4667.1 R23 .1648 R13 -.9785
SG1 4639.7 SG2 505.5 THA 156.15

ORBIT DETERMINATION ACCURACY
ST 3472.7 SR 1751.6 SS 1704.5
CRT -.9962 CRS 1.0000 CST -.9960
LSA 4242.8 MSA 176.9 SSA 7.1
EL1 3887.1 EL2 136.3 ALF 153.29

LAUNCH DATE AUG 27 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 454.769

RL 151.15 LAL -.00 LOL 333.32 VL 26.819 GAL -.78 AZL 96.21 HCA 211.35 SMA 128.01 ECC .18130 INC 6.2102 V1 29.477
RP 107.77 LAP 3.23 LOP 184.52 VP 37.765 GAP 5.16 AZP 84.69 TAL 183.51 TAP 34.87 RCA 104.80 APO 151.22 V2 35.164
RC 115.736 GL -45.86 GP 46.94 ZAL 89.68 ZAP 124.15 ETS 42.43 ZAE 120.29 ETE 144.72 ZAC 143.53 ETC 248.49 CLP-145.31

PLANETOCENTRIC CONIC

C3 16.342 VHL 4.042 DLA -65.09 RAL 223.07 RAD 6567.7 VEL 11.736 PTH 2.07 VHP 5.705 DPA 31.05 RAP 235.40 ECC 1.2689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.59	4 52 19	1704.10	42.62	52.54	107.75	145.08	5 20 44	1104.1	48.98	45.98
151.41	14 54 49	5274.43	42.63	246.60	107.77	145.07	16 22 43	4674.4	48.99	240.04
28.59	4 52 19	1704.10	42.62	52.54	107.75	145.08	5 20 44	1104.1	48.98	-45.98
151.41	14 54 49	5274.43	42.63	246.60	107.77	145.07	16 22 43	4674.4	48.99	240.04
28.59	4 52 19	1704.10	42.62	52.54	107.75	145.08	5 20 44	1104.1	48.98	45.98
151.41	14 54 49	5274.43	42.63	246.60	107.77	145.07	16 22 43	4674.4	48.99	240.04

DIFFERENTIAL CORRECTIONS
TDE-2.4890 TRA -.0966 TC3-3.2380 BAU .7387
RDE 1.1002 RRA -.0824 RC3 .9732 FAU .05759
FDE-2.3801 FRA .2152 FC3-3.0511 BSP 14968
BDE 2.7213 BRA .1270 BC3 3.3811 FSP -1186

MID-COURSE EXECUTION ACCURACY
SGT 4405.0 SGR 1768.4 SG3 366.5
RRT -.9590 RRF -.9868 RTF .9700
SGB 4746.8 R23 .1622 R13 -.9770
SG1 4723.7 SG2 467.5 THA 158.73

ORBIT DETERMINATION ACCURACY
ST 3530.0 SR 1561.7 SS 1666.6
CRT -.9967 CRS .9999 CST -.9958
LSA 4201.1 MSA 166.9 SSA 8.2
EL1 3858.3 EL2 115.9 ALF 156.18

LAUNCH DATE AUG 27 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 460.826

RL 151.15 LAL -.00 LOL 333.32 VL 26.790 GAL -.55 AZL 95.58 HCA 214.56 SMA 127.81 ECC .18285 INC 5.5797 V1 29.477
RP 107.80 LAP 3.16 LOP 187.75 VP 37.734 GAP 5.49 AZP 85.40 TAL 182.47 TAP 37.03 RCA 104.44 APO 151.18 V2 35.153
RC 118.005 GL -42.77 GP 43.19 ZAL 88.08 ZAP 127.70 ETS 42.62 ZAE 121.76 ETE 147.50 ZAC 140.24 ETC 250.30 CLP-147.02

PLANETOCENTRIC CONIC

C3 14.714 VHL 3.836 DLA -62.83 RAL 229.03 RAD 6567.6 VEL 11.666 PTH 2.05 VHP 5.578 DPA 27.19 RAP 234.81 ECC 1.2422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.25	5 22 19	1670.38	42.89	47.94	110.54	141.44	5 50 9	1070.4	48.91	40.77
148.75	15 12 21	5260.82	42.90	245.04	110.55	141.43	16 40 2	4660.8	48.92	237.87
31.25	5 22 19	1670.38	42.89	47.94	110.54	141.44	5 50 9	1070.4	48.91	40.77
148.75	15 12 21	5260.82	42.90	245.04	110.55	141.43	16 40 2	4660.8	48.92	237.87
31.25	5 22 19	1670.38	42.89	47.94	110.54	141.44	5 50 9	1070.4	48.91	40.77
148.75	15 12 21	5260.82	42.90	245.04	110.55	141.43	16 40 2	4660.8	48.92	237.87

DIFFERENTIAL CORRECTIONS
TDE-2.3558 TRA .0406 TC3-3.7651 BAU .7650
RDE .9190 RRA -.1223 RC3 .9740 FAU .05957
FDE-2.1942 FRA .3632 FC3-3.5046 BSP 15261
BDE 2.5287 BRA .1289 BC3 3.8890 FSP -1239

MID-COURSE EXECUTION ACCURACY
SGT 4554.4 SGR 1613.3 SG3 380.4
RRT -.9584 RRF -.9832 RTF .9704
SGB 4831.7 R23 .1563 R13 -.9757
SG1 4812.0 SG2 436.0 THA 161.09

ORBIT DETERMINATION ACCURACY
ST 3520.1 SR 1378.1 SS 1589.2
CRT -.9971 CRS .9997 CST -.9953
LSA 4097.6 MSA 160.3 SSA 9.4
EL1 3779.0 EL2 97.9 ALF 158.66

LAUNCH DATE AUG 27 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 466.865

RL 151.15 LAL -.00 LOL 333.32 VL 26.759 GAL -.31 AZL 95.04 HCA 217.78 SMA 127.61 ECC .18454 INC 5.0444 V1 29.477
RP 107.84 LAP 3.09 LOP 190.98 VP 37.701 GAP 5.82 AZP 86.01 TAL 181.39 TAP 39.17 RCA 104.06 APO 151.16 V2 35.141
RC 120.271 GL -39.75 GP 39.81 ZAL 86.27 ZAP 131.03 ETS 42.73 ZAE 122.87 ETE 150.13 ZAC 137.28 ETC 251.70 CLP-148.71

PLANETOCENTRIC CONIC

C3 13.542 VHL 3.680 DLA -60.52 RAL 234.47 RAD 6567.5 VEL 11.616 PTH 2.04 VHP 5.514 DPA 23.63 RAP 234.57 ECC 1.2229

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.98	5 50 43	1640.42	42.69	43.45	113.04	137.98	6 18 4	1040.4	48.37	35.80
146.02	15 27 23	5254.21	42.70	243.80	113.05	137.97	16 54 58	4654.2	48.38	236.15
33.98	5 50 43	1640.42	42.69	43.45	113.04	137.98	6 18 4	1040.4	48.37	35.80
146.02	15 27 23	5254.21	42.70	243.80	113.05	137.97	16 54 58	4654.2	48.38	236.15
33.98	5 50 43	1640.42	42.69	43.45	113.04	137.98	6 18 4	1040.4	48.37	35.80
146.02	15 27 23	5254.21	42.70	243.80	113.05	137.97	16 54 58	4654.2	48.38	236.15

DIFFERENTIAL CORRECTIONS
TDE-2.2164 TRA .1809 TC3-4.2607 BAU .7903
RDE .7730 RRA -.1531 RC3 .9486 FAU .06035
FDE-1.9795 FRA .5071 FC3-3.8579 BSP 15541
BDE 2.3473 BRA .2369 BC3 4.3650 FSP -1267

MID-COURSE EXECUTION ACCURACY
SGT 4697.8 SGR 1473.3 SG3 387.7
RRT -.9565 RRF -.9785 RTF .9705
SGB 4923.4 R23 .1476 R13 -.9745
SG1 4906.2 SG2 411.7 THA 163.18

ORBIT DETERMINATION ACCURACY
ST 3456.4 SR 1212.5 SS 1486.6
CRT -.9975 CRS .9993 CST -.9945
LSA 3950.0 MSA 156.5 SSA 10.6
EL1 3662.0 EL2 81.3 ALF 160.70

LAUNCH DATE AUG 27 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 472.886

RL 151.15 LAL -.00 LOL 333.32 VL 26.728 GAL -.07 AZL 94.58 HCA 220.99 SMA 127.41 ECC .18636 INC 4.5817 V1 29.477
RP 107.87 LAP 3.00 LOP 194.21 VP 37.668 GAP 6.15 AZP 86.54 TAL 180.29 TAP 41.27 RCA 103.66 APO 151.15 V2 35.130
RC 122.531 GL -36.80 GP 36.79 ZAL 84.27 ZAP 134.11 ETS 42.81 ZAE 123.69 ETE 152.57 ZAC 134.65 ETC 252.83 CLP-150.36

PLANETOCENTRIC CONIC

C3 12.705 VHL 3.564 DLA -58.19 RAL 239.49 RAD 6567.5 VEL 11.580 PTH 2.03 VHP 5.498 DPA 20.36 RAP 234.63 ECC 1.2091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.78	6 17 53	1613.23	42.11	39.10	115.39	134.73	6 44 46	1013.2	47.45	31.11
143.22	15 40 16	5253.83	42.12	242.92	115.40	134.72	17 7 50	4653.8	47.45	234.93
36.78	6 17 53	1613.23	42.11	39.10	115.39	134.73	6 44 46	1013.2	47.45	31.11
143.22	15 40 16	5253.83	42.12	242.92	115.40	134.72	17 7 50	4653.8	47.45	234.93
36.78	6 17 53	1613.23	42.11	39.10	115.39	134.73	6 44 46	1013.2	47.45	31.11
143.22	15 40 16	5253.83	42.12	242.92	115.40	134.72	17 7 50	4653.8	47.45	234.93

DIFFERENTIAL CORRECTIONS
TDE-2.0691 TRA .3172 TC3-4.7272 BAU .8178
RDE .6537 RRA -.1721 RC3 .9149 FAU .06066
FDE-1.7436 FRA .6276 FC3-4.1336 BSP 15930
BDE 2.1699 BRA .3609 BC3 4.8149 FSP -1291

MID-COURSE EXECUTION ACCURACY
SGT 4832.6 SGR 1343.5 SG3 388.3
RRT -.9550 RRF -.9723 RTF .9716
SGB 5015.9 R23 .1300 R13 -.9745
SG1 5001.1 SG2 385.0 THA 165.04

ORBIT DETERMINATION ACCURACY
ST 3340.1 SR 1062.7 SS 1359.6
CRT -.9980 CRS .9985 CST -.9934
LSA 3756.4 MSA 151.9 SSA 11.9
EL1 3504.5 EL2 63.6 ALF 162.38

LAUNCH DATE AUG 27 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 478.886

RL 151.15 LAL -.00 LOL 333.32 VL 26.696 GAL .20 AZL 94.18 HCA 224.20 SMA 127.20 ECC .18833 INC 4.1755 V1 29.477
RP 107.91 LAP 2.91 LOP 197.44 VP 37.635 GAP 6.49 AZP 87.00 TAL 179.15 TAP 43.35 RCA 103.25 APO 151.16 V2 35.118
RC 124.786 GL -33.93 GP 34.08 ZAL 82.11 ZAP 136.97 ETS 42.87 ZAE 124.28 ETE 154.80 ZAC 132.31 ETC 253.76 CLP-151.96

PLANETOCENTRIC CONIC

C3 12.126 VHL 3.482 DLA -55.85 RAL 244.15 RAD 6567.5 VEL 11.555 PTH 2.02 VHP 5.519 DPA 17.37 RAP 234.94 ECC 1.1996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.62	6 44 7	1587.99	41.21	34.93	117.68	131.73	7 10 35	988.0	46.23	26.71
140.38	15 51 13	5259.22	41.22	242.45	117.70	131.72	17 18 52	4659.2	46.24	234.23
39.62	6 44 7	1587.99	41.21	34.93	117.68	131.73	7 10 35	988.0	46.23	26.71
140.38	15 51 13	5259.22	41.22	242.45	117.70	131.72	17 18 52	4659.2	46.24	234.23
39.62	6 44 7	1587.99	41.21	34.93	117.68	131.73	7 10 35	988.0	46.23	26.71
140.38	15 51 13	5259.22	41.22	242.45	117.70	131.72	17 18 52	4659.2	46.24	234.23

DIFFERENTIAL CORRECTIONS
TDE-1.9162 TRA .4797 TC3-5.0742 BAU .8336
RDE .5575 RRA -.1972 RC3 .8346 FAU .05860
FDE-1.5026 FRA .7756 FC3-4.1837 BSP 16006
BDE 1.9957 BRA .5187 BC3 5.1423 FSP -1255

MID-COURSE EXECUTION ACCURACY
SGT 4940.2 SGR 1230.2 SG3 384.1
RRT -.9476 RRF -.9644 RTF .9691
SGB 5091.1 R23 .1269 R13 -.9716
SG1 5076.7 SG2 382.5 THA 166.65

ORBIT DETERMINATION ACCURACY
ST 3182.8 SR 933.7 SS 1223.6
CRT -.9984 CRS .9965 CST -.9908
LSA 3531.8 MSA 158.5 SSA 13.2
EL1 3316.5 EL2 49.9 ALF 163.67

LAUNCH DATE AUG 27 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 484.866

RL 151.15 LAL -.00 LOL 333.32 VL 26.664 GAL .47 AZL 93.81 HCA 227.41 SMA 126.99 ECC .19045 INC 3.8138 V1 29.477
RP 107.95 LAP 2.81 LOP 200.66 VP 37.600 GAP 6.82 AZP 87.42 TAL 177.99 TAP 45.40 RCA 102.81 APO 151.17 V2 35.105
RC 127.036 GL -31.15 GP 31.66 ZAL 79.82 ZAP 139.62 ETS 42.95 ZAE 124.69 ETE 156.82 ZAC 130.25 ETC 254.56 CLP-153.51

PLANETOCENTRIC CONIC

C3 11.754 VHL 3.428 DLA -53.50 RAL 248.50 RAD 6567.4 VEL 11.539 PTH 2.01 VHP 5.570 DPA 14.62 RAP 235.48 ECC 1.1934

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.51	7 9 41	1563.92	40.07	30.92	119.98	128.98	7 35 44	963.9	44.79	22.57
137.49	16 0 19	5270.18	40.08	242.42	119.99	128.97	17 28 9	4670.2	44.80	234.07
42.51	7 9 41	1563.92	40.07	30.92	119.98	128.98	7 35 44	963.9	44.79	22.57
137.49	16 0 19	5270.18	40.08	242.42	119.99	128.97	17 28 9	4670.2	44.80	234.07
42.51	7 9 41	1563.92	40.07	30.92	119.98	128.98	7 35 44	963.9	44.79	22.57
137.49	16 0 19	5270.18	40.08	242.42	119.99	128.97	17 28 9	4670.2	44.80	234.07

DIFFERENTIAL CORRECTIONS
TDE-1.7684 TRA .6361 TC3-5.3794 BAU .8538
RDE .4850 RRA -.2120 RC3 .7632 FAU .05670
FDE-1.2825 FRA .8909 FC3-4.1764 BSP 16327
BDE 1.8337 BRA .6705 BC3 5.4333 FSP -1246

MID-COURSE EXECUTION ACCURACY
SGT 5053.1 SGR 1133.7 SG3 377.2
RRT -.9408 RRF -.9549 RTF .9687
SGB 5178.7 R23 .1134 R13 -.9706
SG1 5165.0 SG2 375.9 THA 168.02

ORBIT DETERMINATION ACCURACY
ST 3005.7 SR 830.1 SS 1093.7
CRT -.9991 CRS .9926 CST -.9876
LSA 3300.4 MSA 162.1 SSA 14.6
EL1 3118.0 EL2 33.2 ALF 164.57

LAUNCH DATE AUG 27 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 490.824

RL 151.15 LAL -.00 LOL 333.32 VL 26.631 GAL .76 AZL 93.49 HCA 230.62 SMA 126.78 ECC .19272 INC 3.4878 V1 29.477
RP 107.99 LAP 2.70 LOP 203.88 VP 37.565 GAP 7.16 AZP 87.79 TAL 176.81 TAP 47.43 RCA 102.34 APO 151.21 V2 35.093
RC 129.278 GL -28.46 GP 29.51 ZAL 77.42 ZAP 142.07 ETS 43.05 ZAE 124.95 ETE 158.62 ZAC 128.43 ETC 255.26 CLP-155.00

PLANETOCENTRIC CONIC

C3 11.557 VHL 3.400 DLA -51.16 RAL 252.57 RAD 6567.4 VEL 11.530 PTH 2.01 VHP 5.645 DPA 12.09 RAP 236.21 ECC 1.1902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.43	7 34 44	1540.52	38.73	27.07	122.32	126.48	8 0 24	940.5	43.17	18.66
134.57	16 7 43	5286.50	38.75	242.83	122.33	126.47	17 35 50	4686.5	43.18	234.42
45.43	7 34 44	1540.52	38.73	27.07	122.32	126.48	8 0 24	940.5	43.17	18.66
134.57	16 7 43	5286.50	38.75	242.83	122.33	126.47	17 35 50	4686.5	43.18	234.42
45.43	7 34 44	1540.52	38.73	27.07	122.32	126.48	8 0 24	940.5	43.17	18.66
134.57	16 7 43	5286.50	38.75	242.83	122.33	126.47	17 35 50	4686.5	43.18	234.42

DIFFERENTIAL CORRECTIONS
TDE-1.6213 TRA .7964 TC3-5.6180 BAU .8746
RDE .4284 RRA -.2234 RC3 .6935 FAU .05461
FDE-1.0765 FRA .9922 FC3-4.0912 BSP 16602
BDE 1.6770 BRA .8272 BC3 5.6607 FSP -1220

MID-COURSE EXECUTION ACCURACY
SGT 5161.2 SGR 1050.7 SG3 368.0
RRT -.9329 RRF -.9435 RTF .9685
SGB 5267.1 R23 .0980 R13 -.9699
SG1 5253.9 SG2 371.8 THA 169.19

ORBIT DETERMINATION ACCURACY
ST 2809.4 SR 744.2 SS 968.0
CRT -.9997 CRS .9852 CST -.9831
LSA 3058.6 MSA 168.0 SSA 15.8
EL1 2906.2 EL2 18.5 ALF 165.17

LAUNCH DATE AUG 27 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 496.758

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RL  151.15 LAL   -.00 LOL 333.32 VL  26.597 GAL   1.06 AZL  93.19 HCA 233.83 SMA 126.56 ECC .19516 INC 3.1907 V1  29.477
RP  108.03 LAP   2.58 LOP 207.10 VP  37.529 GAP   7.49 AZP  88.12 TAL 175.60 TAP  49.43 RCA 101.86 APO 151.26 V2  35.080
RC 131.513 GL  -25.86 GP   27.58 ZAL  74.95 ZAP 144.34 ETS  43.21 ZAE 125.10 ETE 160.23 ZAC 126.83 ETC 255.89 CLP-156.43
PLANETOCENTRIC CONIC
C3  11.512 VHL  3.393 DLA -48.84 RAL 256.38 RAD 6567.4 VEL 11.528 PTH   2.01 VHP  5.741 DPA   9.77 RAP 237.11 ECC 1.1895
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.39	7 59 29	1517.16	37.25	23.36	124.71	124.23	8 24 46	917.2	41.43	14.95
131.61	16 13 25	5308.24	37.26	243.70	124.72	124.22	17 41 54	4708.2	41.44	235.29
48.39	7 59 29	1517.16	37.25	23.36	124.71	124.23	8 24 46	917.2	41.43	14.95
131.61	16 13 25	5308.24	37.26	243.70	124.72	124.22	17 41 54	4708.2	41.44	235.29
48.39	7 59 29	1517.16	37.25	23.36	124.71	124.23	8 24 46	917.2	41.43	14.95
131.61	16 13 25	5308.24	37.26	243.70	124.72	124.22	17 41 54	4708.2	41.44	235.29

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.4800 TRA  .9578 TC3-5.8005 BAU  .8980   SGT 5270.5 SGR  980.9 SG3  357.6     ST  2608.4 SR   675.8 SS   854.2
RDE  .3859 RRA -.2320 RC3  .6307 FAU .05261   RRT -.9239 RRF -.9305 RTF  .9687     CRT -.9995 CRS  .9720 CST -.9767
FDE -.8923 FRA 1.0778 FC3-3.9564 BSP  17057   SGB 5361.0 R23  .0812 R13 -.9698     LSA 2821.1 MSA  176.5 SSA   16.9
BDE 1.5295 BRA  .9855 BC3 5.8347 FSP  -1207   SG1 5348.3 SG2  370.0 THA 170.20     EL1 2694.5 EL2   21.4 ALF 165.48
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 502.671

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RL  151.15 LAL   -.00 LOL 333.32 VL  26.563 GAL   1.38 AZL  92.92 HCA 237.03 SMA 126.34 ECC .19779 INC 2.9171 V1  29.477
RP  108.07 LAP   2.45 LOP 210.31 VP  37.493 GAP   7.83 AZP  88.41 TAL 174.37 TAP  51.40 RCA 101.35 APO 151.33 V2  35.067
RC 133.740 GL  -23.37 GP   25.85 ZAL  72.44 ZAP 146.44 ETS  43.44 ZAE 125.17 ETE 161.66 ZAC 125.43 ETC 256.47 CLP-157.82
PLANETOCENTRIC CONIC
C3  11.606 VHL  3.407 DLA -46.56 RAL 259.97 RAD 6567.4 VEL 11.532 PTH   2.01 VHP  5.854 DPA   7.64 RAP 238.17 ECC 1.1910
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.36	8 24 7	1493.31	35.65	19.74	127.17	122.20	8 49 0	893.3	39.60	11.37
128.64	16 17 26	5335.49	35.66	245.04	127.18	122.18	17 46 22	4735.5	39.61	236.67
51.36	8 24 7	1493.31	35.65	19.74	127.17	122.20	8 49 0	893.3	39.60	11.37
128.64	16 17 26	5335.49	35.66	245.04	127.18	122.18	17 46 22	4735.5	39.61	236.67
51.36	8 24 7	1493.31	35.65	19.74	127.17	122.20	8 49 0	893.3	39.60	11.37
128.64	16 17 26	5335.49	35.66	245.04	127.18	122.18	17 46 22	4735.5	39.61	236.67

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.3278 TRA 1.1390 TC3-5.8620 BAU  .9137   SGT 5357.3 SGR  919.3 SG3  345.4     ST  2387.5 SR   616.3 SS   746.2
RDE  .3507 RRA -.2428 RC3  .5581 FAU .04971   RRT -.9117 RRF -.9154 RTF  .9678     CRT -.9974 CRS  .9464 CST -.9658
FDE -.7127 FRA 1.1680 FC3-3.7083 BSP  17219   SGB 5435.6 R23  .0699 R13 -.9686     LSA 2568.9 MSA  192.5 SSA   17.8
BDE 1.3734 BRA 1.1646 BC3 5.8885 FSP  -1162   SG1 5422.8 SG2  373.1 THA 171.07     EL1 2465.4 EL2   43.0 ALF 165.56
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 508.559

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RL  151.15 LAL   -.00 LOL 333.32 VL  26.529 GAL   1.72 AZL  92.66 HCA 240.24 SMA 126.13 ECC .20060 INC 2.6630 V1  29.477
RP  108.11 LAP   2.31 LOP 213.53 VP  37.457 GAP   8.18 AZP  88.68 TAL 173.12 TAP  53.36 RCA 100.82 APO 151.43 V2  35.054
RC 135.957 GL  -20.99 GP   24.31 ZAL  69.90 ZAP 148.39 ETS  43.74 ZAE 125.19 ETE 162.93 ZAC 124.20 ETC 257.03 CLP-159.15
PLANETOCENTRIC CONIC
C3  11.831 VHL  3.440 DLA -44.31 RAL 263.35 RAD 6567.5 VEL 11.542 PTH   2.01 VHP  5.982 DPA   5.67 RAP 239.36 ECC 1.1947
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.37	8 48 48	1468.37	33.97	16.19	129.70	120.37	9 13 16	868.4	37.71	7.88
125.63	16 19 42	5368.48	33.98	246.86	129.71	120.36	17 49 11	4768.5	37.72	238.55
54.37	8 48 48	1468.37	33.97	16.19	129.70	120.37	9 13 16	868.4	37.71	7.88
125.63	16 19 42	5368.48	33.98	246.86	129.71	120.36	17 49 11	4768.5	37.72	238.55
54.37	8 48 48	1468.37	33.97	16.19	129.70	120.37	9 13 16	868.4	37.71	7.88
125.63	16 19 42	5368.48	33.98	246.86	129.71	120.36	17 49 11	4768.5	37.72	238.55

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1800 TRA 1.3241 TC3-5.8628 BAU  .9306   SGT 5443.5 SGR  867.7 SG3  333.0     ST  2175.6 SR   569.2 SS   656.7
RDE  .3249 RRA -.2521 RC3  .4943 FAU .04697   RRT -.8986 RRF -.8988 RTF  .9672     CRT -.9915 CRS  .9038 CST -.9507
FDE -.5544 FRA 1.2456 FC3-3.4366 BSP  17447   SGB 5512.3 R23  .0582 R13 -.9678     LSA 2333.0 MSA  212.6 SSA   18.3
BDE 1.2239 BRA 1.3479 BC3 5.8836 FSP  -1121   SG1 5499.4 SG2  376.9 THA 171.81     EL1 2247.6 EL2   71.8 ALF 165.44
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 514.420

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RL  151.15 LAL   -.00 LOL 333.32 VL  26.495 GAL   2.07 AZL  92.42 HCA 243.44 SMA 125.91 ECC .20362 INC 2.4248 V1  29.477
RP  108.15 LAP   2.17 LOP 216.73 VP  37.420 GAP   8.53 AZP  88.92 TAL 171.86 TAP  55.29 RCA 100.27 APO 151.54 V2  35.041
RC 138.166 GL  -18.72 GP   22.93 ZAL  67.37 ZAP 150.20 ETS  44.13 ZAE 125.16 ETE 164.05 ZAC 123.12 ETC 257.56 CLP-160.43
PLANETOCENTRIC CONIC
C3  12.185 VHL  3.491 DLA -42.13 RAL 266.53 RAD 6567.5 VEL 11.557 PTH   2.02 VHP  6.123 DPA   3.85 RAP 240.67 ECC 1.2005
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.40	9 13 43	1441.76	32.24	12.64	132.29	118.73	9 37 44	841.8	35.80	4.41
122.60	16 20 9	5407.52	32.26	249.18	132.30	118.72	17 50 17	4807.5	35.81	240.94
57.40	9 13 43	1441.76	32.24	12.64	132.29	118.73	9 37 44	841.8	35.80	4.41
122.60	16 20 9	5407.52	32.26	249.18	132.30	118.72	17 50 17	4807.5	35.81	240.94
57.40	9 13 43	1441.76	32.24	12.64	132.29	118.73	9 37 44	841.8	35.80	4.41
122.60	16 20 9	5407.52	32.26	249.18	132.30	118.72	17 50 17	4807.5	35.81	240.94

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.0343 TRA 1.5157 TC3-5.7958 BAU  .9468   SGT 5523.4 SGR  823.8 SG3  320.1     ST  1977.3 SR   531.8 SS   586.6
RDE  .3063 RRA -.2808 RC3  .4360 FAU .04419   RRT -.8836 RRF -.8809 RTF  .9667     CRT -.9785 CRS  .8380 CST -.9315
FDE -.4150 FRA 1.3140 FC3-3.1396 BSP  17707   SGB 5584.5 R23  .0478 R13 -.9671     LSA 2116.6 MSA  237.3 SSA   18.7
BDE 1.0787 BRA 1.5380 BC3 5.8122 FSP  -1084   SG1 5571.4 SG2  382.0 THA 172.45     EL1 2044.8 EL2  106.1 ALF 165.22
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LAUNCH DATE AUG 27 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 520.255

RL 151.15 LAL -.00 LOL 333.32 VL 26.460 GAL 2.44 AZL 92.20 HCA 246.64 SMA 125.69 ECC .20685 INC 2.1997 V1 29.477
RP 108.19 LAP 2.02 LOP 219.94 VP 37.383 GAP 8.89 AZP 89.13 TAL 170.57 TAP 57.21 RCA 99.69 APO 151.69 V2 35.028
RC 140.364 GL -16.56 GP 21.68 ZAL 64.87 ZAP 151.90 ETS 44.63 ZAE 125.10 ETE 165.04 ZAC 122.16 ETC 258.08 CLP-161.68

PLANETOCENTRIC CONIC

C3 12.668 VHL 3.559 DLA -40.01 RAL 269.53 RAD 6567.5 VEL 11.578 PTH 2.02 VHP 6.278 DPA 2.17 RAP 242.09 ECC 1.2085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.47	9 39 7	1412.64	30.50	9.05	134.94	117.26	10 2 40	812.6	33.88	.90
119.53	16 18 38	5453.17	30.51	252.02	134.95	117.25	17 49 31	4853.2	33.89	243.87
60.47	9 39 7	1412.64	30.50	9.05	134.94	117.26	10 2 40	812.6	33.88	.90
119.53	16 18 38	5453.17	30.51	252.02	134.95	117.25	17 49 31	4853.2	33.89	243.87
60.47	9 39 7	1412.64	30.50	9.05	134.94	117.26	10 2 40	812.6	33.88	.90
119.53	16 18 38	5453.17	30.51	252.02	134.95	117.25	17 49 31	4853.2	33.89	243.87

DIFFERENTIAL CORRECTIONS
TDE -.8891 TRA 1.7158 TC3-5.6686 BAU .9622
RDE .2930 RRA -.2697 RC3 .3837 FAU .04145
FDE -.2906 FRA 1.3755 FC3-2.8329 BSP 17945
BDE .9361 BRA 1.7369 BC3 5.6816 FSP -1044

MID-COURSE EXECUTION ACCURACY
SGT 5597.6 SGR 786.3 SG3 307.2
RRT -.8681 RRF -.8619 RTF .9662
SGB 5652.6 R23 .0385 R13 -.9666
SG1 5639.3 SG2 387.5 THA 173.01

ORBIT DETERMINATION ACCURACY
ST 1798.1 SR 501.4 SS 535.5
CRT -.9538 CRS .7446 CST -.9098
LSA 1923.5 MSA 267.1 SSA 18.7
EL1 1861.0 EL2 145.6 ALF 165.01

LAUNCH DATE AUG 27 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 526.060

RL 151.15 LAL -.00 LOL 333.32 VL 26.425 GAL 2.82 AZL 91.99 HCA 249.84 SMA 125.47 ECC .21033 INC 1.9853 V1 29.477
RP 108.23 LAP 1.86 LOP 223.14 VP 37.346 GAP 9.25 AZP 89.32 TAL 169.27 TAP 59.11 RCA 99.08 APO 151.86 V2 35.014
RC 142.552 GL -14.53 GP 20.56 ZAL 62.40 ZAP 153.48 ETS 45.25 ZAE 125.02 ETE 165.92 ZAC 121.32 ETC 258.59 CLP-162.88

PLANETOCENTRIC CONIC

C3 13.284 VHL 3.645 DLA -37.96 RAL 272.35 RAD 6567.5 VEL 11.605 PTH 2.03 VHP 6.445 DPA .61 RAP 243.61 ECC 1.2186

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.59	10 5 19	1380.08	28.74	5.33	137.65	115.94	10 28 19	780.1	31.98	357.26
116.41	16 14 57	5506.17	28.76	255.43	137.66	115.92	17 46 43	4906.2	31.99	247.36
63.59	10 5 19	1380.08	28.74	5.33	137.65	115.94	10 28 19	780.1	31.98	357.26
116.41	16 14 57	5506.17	28.76	255.43	137.66	115.92	17 46 43	4906.2	31.99	247.36
63.59	10 5 19	1380.08	28.74	5.33	137.65	115.94	10 28 19	780.1	31.98	357.26
116.41	16 14 57	5506.17	28.76	255.43	137.66	115.92	17 46 43	4906.2	31.99	247.36

DIFFERENTIAL CORRECTIONS
TDE -.7441 TRA 1.9257 TC3-5.4870 BAU .9763
RDE .2842 RRA -.2790 RC3 .3368 FAU .03874
FDE -.1804 FRA 1.4323 FC3-2.5248 BSP 18176
BDE .7965 BRA 1.9458 BC3 5.4973 FSP -1005

MID-COURSE EXECUTION ACCURACY
SGT 5666.2 SGR 754.5 SG3 294.6
RRT -.8515 RRF -.8425 RTF .9658
SGB 5716.3 R23 .0308 R13 -.9661
SG1 5702.7 SG2 393.1 THA 173.50

ORBIT DETERMINATION ACCURACY
ST 1646.0 SR 477.0 SS 503.5
CRT -.9116 CRS .6263 CST -.8904
LSA 1760.6 MSA 300.8 SSA 18.6
EL1 1703.2 EL2 189.5 ALF 165.01

LAUNCH DATE AUG 27 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 531.832

RL 151.15 LAL -.00 LOL 333.32 VL 26.390 GAL 3.23 AZL 91.78 HCA 253.03 SMA 125.25 ECC .21406 INC 1.7798 V1 29.477
RP 108.27 LAP 1.70 LOP 226.34 VP 37.308 GAP 9.63 AZP 89.48 TAL 167.97 TAP 61.00 RCA 98.44 APO 152.06 V2 35.001
RC 144.730 GL -12.62 GP 19.55 ZAL 59.99 ZAP 154.96 ETS 45.99 ZAE 124.92 ETE 166.70 ZAC 120.57 ETC 259.10 CLP-164.05

PLANETOCENTRIC CONIC

C3 14.038 VHL 3.747 DLA -35.99 RAL 275.00 RAD 6567.6 VEL 11.637 PTH 2.04 VHP 6.625 DPA -.84 RAP 245.22 ECC 1.2310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.80	10 32 43	1342.70	27.01	1.37	140.40	114.74	10 55 5	742.7	30.11	353.38
113.20	16 8 44	5567.68	27.02	259.49	140.41	114.73	17 41 32	4967.7	30.12	251.50
66.80	10 32 43	1342.70	27.01	1.37	140.40	114.74	10 55 5	742.7	30.11	353.38
113.20	16 8 44	5567.68	27.02	259.49	140.41	114.73	17 41 32	4967.7	30.12	251.50
66.80	10 32 43	1342.70	27.01	1.37	140.40	114.74	10 55 5	742.7	30.11	353.38
113.20	16 8 44	5567.68	27.02	259.49	140.41	114.73	17 41 32	4967.7	30.12	251.50

DIFFERENTIAL CORRECTIONS
TDE -.6176 TRA 2.1264 TC3-5.3144 BAU .9990
RDE .2819 RRA -.2859 RC3 .3039 FAU .03681
FDE -.0982 FRA 1.4697 FC3-2.2704 BSP 18837
BDE .6789 BRA 2.1455 BC3 5.3231 FSP -999

MID-COURSE EXECUTION ACCURACY
SGT 5735.9 SGR 727.8 SG3 281.7
RRT -.8349 RRF -.8230 RTF .9666
SGB 5781.9 R23 .0218 R13 -.9668
SG1 5768.1 SG2 398.3 THA 173.92

ORBIT DETERMINATION ACCURACY
ST 1536.2 SR 460.6 SS 485.5
CRT -.8528 CRS .5124 CST -.8845
LSA 1642.7 MSA 329.9 SSA 18.1
EL1 1586.7 EL2 232.9 ALF 165.33

LAUNCH DATE AUG 27 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 537.574

RL 151.15 LAL -.00 LOL 333.32 VL 26.354 GAL 3.66 AZL 91.58 HCA 256.23 SMA 125.03 ECC .21807 INC 1.5813 V1 29.477
RP 108.31 LAP 1.54 LOP 229.54 VP 37.271 GAP 10.01 AZP 89.62 TAL 166.64 TAP 62.87 RCA 97.76 APO 152.29 V2 34.988
RC 146.899 GL -10.82 GP 18.64 ZAL 57.65 ZAP 156.35 ETS 46.88 ZAE 124.81 ETE 167.39 ZAC 119.91 ETC 259.61 CLP-165.18

PLANETOCENTRIC CONIC

C3 14.941 VHL 3.865 DLA -34.10 RAL 277.51 RAD 6567.6 VEL 11.676 PTH 2.05 VHP 6.816 DPA -2.17 RAP 246.91 ECC 1.2459

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.15	11 1 59	1298.42	25.30	357.02	143.21	113.66	11 23 37	698.4	28.28	349.11
109.85	15 59 27	5639.62	25.31	264.31	143.21	113.65	17 33 27	5039.6	28.29	256.41
70.15	11 1 59	1298.42	25.30	357.02	143.21	113.66	11 23 37	698.4	28.28	349.11
109.85	15 59 27	5639.62	25.31	264.31	143.21	113.65	17 33 27	5039.6	28.29	256.41
110.00	15 42 23	5691.66	23.82	267.63	142.47	115.27	17 17 15	5091.7	27.02	259.92
110.00	16 18 13	5582.42	26.81	260.55	143.91	112.04	17 51 16	4982.4	29.56	252.44

DIFFERENTIAL CORRECTIONS
TDE -.4587 TRA 2.3699 TC3-5.0147 BAU 1.0030
RDE .2773 RRA -.2984 RC3 .2600 FAU .03365
FDE .0003 FRA 1.5292 FC3-1.9497 BSP 18706
BDE .5360 BRA 2.3886 BC3 5.0215 FSP -936

MID-COURSE EXECUTION ACCURACY
SGT 5787.0 SGR 703.3 SG3 270.0
RRT -.8169 RRF -.8030 RTF .9653
SGB 5829.6 R23 .0185 R13 -.9654
SG1 5815.6 SG2 403.7 THA 174.30

ORBIT DETERMINATION ACCURACY
ST 1447.6 SR 441.2 SS 484.4
CRT -.7579 CRS .3629 CST -.8820
LSA 1545.9 MSA 366.8 SSA 17.8
EL1 1487.2 EL2 280.1 ALF 166.50

LAUNCH DATE AUG 27 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 543.278

RL 151.15 LAL -.00 LOL 333.32 VL 26.319 GAL 4.11 AZL 91.39 HCA 259.42 SMA 124.81 ECC .22238 INC 1.3883 V1 29.477
RP 108.35 LAP 1.36 LOP 232.73 VP 37.234 GAP 10.41 AZP 89.75 TAL 165.31 TAP 64.73 RCA 97.05 APO 152.56 V2 34.975
RC 149.057 GL -9.15 GP 17.82 ZAL 55.39 ZAP 157.65 ETS 47.91 ZAE 124.70 ETE 168.00 ZAC 119.32 ETC 260.13 CLP-166.29

PLANETOCENTRIC CONIC

C3 16.005 VHL 4.001 DLA -32.30 RAL 279.87 RAD 6567.6 VEL 11.721 PTH 2.07 VHP 7.021 DPA -3.42 RAP 248.66 ECC 1.2634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.77	11 34 13	1243.54	23.64	352.00	146.04	112.69	11 54 57	643.5	26.50	344.17
106.23	15 46 2	5725.51	23.65	270.16	146.05	112.67	17 21 27	5125.5	26.51	262.32
73.77	11 34 13	1243.54	23.64	352.00	146.04	112.69	11 54 57	643.5	26.50	344.17
106.23	15 46 2	5725.51	23.65	270.16	146.05	112.67	17 21 27	5125.5	26.51	262.32
110.00	14 44 15	628.65	16.64	303.22	142.33	120.30	14 54 44	28.7	20.54	296.27
110.00	17 35 10	5388.39	31.04	247.05	148.89	105.09	19 4 59	4788.4	32.80	238.27

DIFFERENTIAL CORRECTIONS
TDE -.3093 TRA 2.6140 TC3-4.7202 BAU 1.0112
RDE .2768 RRA -.3097 RC3 .2261 FAU .03100
FDE .0799 FRA 1.5770 FC3-1.6770 BSP 18804
BDE .4151 BRA 2.6323 BC3 4.7256 FSP -893

MID-COURSE EXECUTION ACCURACY
SGT 5837.7 SGR 682.1 SG3 258.5
RRT -.7994 RRF -.7837 RTF .9648
SGB 5877.4 R23 .0145 R13 -.9649
SG1 5863.2 SG2 408.1 THA 174.64

ORBIT DETERMINATION ACCURACY
ST 1405.2 SR 426.6 SS 491.8
CRT -.6429 CRS .2344 CST -.8945
LSA 1497.8 MSA 393.4 SSA 17.4
EL1 1433.2 EL2 320.4 ALF 168.37

LAUNCH DATE AUG 27 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 548.943

RL 151.15 LAL -.00 LOL 333.32 VL 26.284 GAL 4.58 AZL 91.20 HCA 262.61 SMA 124.59 ECC .22702 INC 1.1994 V1 29.477
RP 108.39 LAP 1.19 LOP 235.92 VP 37.197 GAP 10.82 AZP 89.85 TAL 163.98 TAP 66.58 RCA 96.31 APO 152.88 V2 34.962
RC 151.205 GL -7.59 GP 17.07 ZAL 53.22 ZAP 158.88 ETS 49.12 ZAE 124.58 ETE 168.55 ZAC 118.79 ETC 260.65 CLP-167.37

PLANETOCENTRIC CONIC

C3 17.245 VHL 4.153 DLA -30.59 RAL 282.09 RAD 6567.7 VEL 11.774 PTH 2.08 VHP 7.238 DPA -4.56 RAP 250.49 ECC 1.2838

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.91	12 11 56	1169.96	22.02	345.72	148.91	111.79	12 31 26	570.0	24.78	337.96
102.09	15 26 2	5833.28	22.03	277.59	148.92	111.78	17 3 16	5233.3	24.79	269.82
77.91	12 11 56	1169.96	22.02	345.72	148.91	111.79	12 31 26	570.0	24.78	337.96
102.09	15 26 2	5833.28	22.03	277.59	148.92	111.78	17 3 16	5233.3	24.79	269.82
110.00	14 20 59	749.72	12.36	310.00	143.78	122.13	14 33 29	149.7	16.52	303.35
110.00	18 16 10	5301.52	32.41	240.64	152.40	101.53	19 44 31	4701.5	33.65	231.63

DIFFERENTIAL CORRECTIONS
TDE -.1617 TRA 2.8666 TC3-4.4164 BAU 1.0192
RDE .2788 RRA -.3212 RC3 .1971 FAU .02854
FDE .1489 FRA 1.6202 FC3-1.4326 BSP 18958
BDE .3223 BRA 2.8846 BC3 4.4208 FSP -856

MID-COURSE EXECUTION ACCURACY
SGT 5883.5 SGR 663.2 SG3 247.4
RRT -.7821 RRF -.7649 RTF .9644
SGB 5920.8 R23 .0110 R13 -.9645
SG1 5906.5 SG2 411.6 THA 174.94

ORBIT DETERMINATION ACCURACY
ST 1400.7 SR 414.5 SS 504.4
CRT -.5154 CRS .1240 CST -.9135
LSA 1490.0 MSA 409.6 SSA 16.9
EL1 1418.0 EL2 350.9 ALF 170.76

LAUNCH DATE AUG 27 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 554.564

RL 151.15 LAL -.00 LOL 333.32 VL 26.249 GAL 5.08 AZL 91.01 HCA 265.79 SMA 124.38 ECC .23202 INC 1.0133 V1 29.477
RP 108.43 LAP 1.01 LOP 239.11 VP 37.160 GAP 11.24 AZP 89.93 TAL 162.64 TAP 68.43 RCA 95.52 APO 153.23 V2 34.949
RC 153.343 GL -6.14 GP 16.39 ZAL 51.14 ZAP 160.03 ETS 50.51 ZAE 124.46 ETE 169.04 ZAC 118.31 ETC 261.18 CLP-168.43

PLANETOCENTRIC CONIC

C3 18.679 VHL 4.322 DLA -28.97 RAL 284.18 RAD 6567.8 VEL 11.835 PTH 2.10 VHP 7.469 DPA -5.63 RAP 252.37 ECC 1.3074

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.59	13 4 7	1048.40	20.46	336.05	151.81	110.98	13 21 35	448.4	23.13	328.34
96.41	14 50 34	704.03	20.47	310.81	151.81	110.97	15 2 18	104.0	23.14	303.10
100.00	14 16 32	813.45	15.58	316.66	149.59	115.84	14 30 5	213.4	18.93	309.46
100.00	16 20 50	5702.26	25.51	269.13	153.65	106.13	17 55 52	5102.3	27.48	260.88
110.00	14 5 47	847.27	8.78	315.28	145.66	123.17	14 19 54	247.3	13.08	308.82
110.00	18 48 4	5241.20	33.14	236.09	155.59	98.92	20 15 25	4641.2	34.01	226.96

DIFFERENTIAL CORRECTIONS
TDE -.0174 TRA 3.1273 TC3-4.1127 BAU 1.0279
RDE .2829 RRA -.3327 RC3 .1727 FAU .02630
FDE .2074 FRA 1.6586 FC3-1.2189 BSP 19202
BDE .2835 BRA 3.1450 BC3 4.1163 FSP -825

MID-COURSE EXECUTION ACCURACY
SGT 5924.3 SGR 645.9 SG3 236.7
RRT -.7654 RRF -.7469 RTF .9644
SGB 5959.4 R23 .0079 R13 -.9645
SG1 5945.0 SG2 414.2 THA 175.21

ORBIT DETERMINATION ACCURACY
ST 1425.9 SR 404.5 SS 518.3
CRT -.3886 CRS .0340 CST -.9334
LSA 1514.1 MSA 415.6 SSA 16.4
EL1 1435.2 EL2 370.3 ALF 173.26

LAUNCH DATE AUG 27 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 560.137

RL 151.15 LAL -.00 LOL 333.32 VL 26.214 GAL 5.61 AZL 90.83 HCA 268.98 SMA 124.16 ECC .23741 INC .8289 V1 29.477
RP 108.47 LAP .83 LOP 242.29 VP 37.124 GAP 11.69 AZP 89.99 TAL 161.29 TAP 70.27 RCA 94.68 APO 153.64 V2 34.937
RC 155.470 GL -4.80 GP 15.77 ZAL 49.15 ZAP 161.11 ETS 52.10 ZAE 124.34 ETE 169.48 ZAC 117.87 ETC 261.71 CLP-169.47

PLANETOCENTRIC CONIC

C3 20.329 VHL 4.509 DLA -27.44 RAL 286.15 RAD 6567.8 VEL 11.904 PTH 2.12 VHP 7.715 DPA -6.61 RAP 254.30 ECC 1.3346

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 3 33	1097.25	14.20	336.86	152.68	114.76	13 21 50	497.2	17.43	329.66
90.00	15 6 52	695.30	23.86	311.38	156.44	105.72	15 18 27	95.3	25.79	303.24
100.00	13 45 17	962.39	10.98	325.32	151.04	117.98	14 1 19	362.4	14.64	318.44
100.00	17 7 49	5593.43	27.35	261.57	157.41	102.56	18 41 3	4993.4	28.80	253.07
110.00	13 54 44	932.67	5.57	319.81	147.77	123.78	14 10 17	332.7	9.97	313.48
110.00	19 14 51	5195.91	33.56	232.62	158.65	96.92	20 41 27	4595.9	34.15	223.43

DIFFERENTIAL CORRECTIONS
TDE .1359 TRA 3.4076 TC3-3.7911 BAU 1.0312
RDE .2877 RRA -.3454 RC3 .1495 FAU .02394
FDE .2639 FRA 1.6996 FC3-1.0195 BSP 19271
BDE .3182 BRA 3.4250 BC3 3.7940 FSP -787

MID-COURSE EXECUTION ACCURACY
SGT 5960.3 SGR 629.6 SG3 226.6
RRT -.7490 RRF -.7296 RTF .9643
SGB 5993.4 R23 .0058 R13 -.9643
SG1 5979.0 SG2 415.8 THA 175.45

ORBIT DETERMINATION ACCURACY
ST 1477.5 SR 394.6 SS 535.9
CRT -.2649 CRS -.0446 CST -.9509
LSA 1566.7 MSA 413.6 SSA 16.0
EL1 1481.5 EL2 379.4 ALF 175.67

LAUNCH DATE AUG 27 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 565.657

RL	151.15	LAL	-.00	LOL	333.32	VL	26.178	GAL	6.17	AZL	90.65	HCA	272.16	SMA	123.95	ECC	.24324	INC	.6450	V1	29.477
RP	108.51	LAP	.64	LOP	245.48	VP	37.087	GAP	12.15	AZP	90.02	TAL	159.95	TAP	72.11	RCA	93.80	APO	154.10	V2	34.925
RC	157.587	GL	-3.56	GP	15.20	ZAL	47.25	ZAP	162.13	ETS	53.92	ZAE	124.21	ETE	169.87	ZAC	117.47	ETC	262.25	CLP	-170.49

PLANETOCENTRIC CONIC

C3	22.223	VHL	4.714	DLA	-26.00	RAL	288.01	RAD	6567.9	VEL	11.983	PTH	2.14	VHP	7.977	DPA	-7.51	RAP	256.28	ECC	1.3657

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 32 19	1247.45	9.75	345.64	154.27	116.72	12 53 7	647.5	13.26	338.72
90.00	15 52 55	5875.98	25.64	281.93	160.17	102.45	17 30 51	5276.0	27.10	273.57
100.00	13 26 31	1072.45	7.40	331.53	153.01	119.04	13 44 23	472.5	11.22	324.82
100.00	17 41 24	5526.22	28.25	256.78	160.76	100.19	19 13 30	4926.2	29.37	248.15
110.00	13 46 18	1010.34	2.62	323.88	150.06	124.10	14 3 9	410.3	7.07	317.63
110.00	19 38 6	5161.09	33.81	229.94	161.65	95.34	21 4 7	4561.1	34.18	220.71

DIFFERENTIAL CORRECTIONS

TDE	.2877	TRA	3.6977	TC3	-3.4789	BAU	1.0343
RDE	.2940	RRA	-.3580	RC3	.1297	FAU	.02178
FDE	.3127	FRA	1.7374	FC3	-.8485	BSP	19407
BDE	.4113	BRA	3.7150	BC3	3.4813	FSP	-754

MID-COURSE EXECUTION ACCURACY

SGT	5990.4	SGR	614.0	SG3	216.9		
RRT	-.7332	RRF	-.7131	RTF	.9644		
SGB	6021.7	R23	.0038	R13	-.9644		
SG1	6007.3	SG2	416.3	THA	175.68		

ORBIT DETERMINATION ACCURACY

ST	1543.5	SR	385.7	SS	552.2
CRT	-.1567	CRS	-.1079	CST	-.9645
LSA	1634.2	MSA	406.2	SSA	15.5
EL1	1544.7	EL2	380.7	ALF	177.61

LAUNCH DATE AUG 27 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 571.117

RL	151.15	LAL	-.00	LOL	333.32	VL	26.144	GAL	6.76	AZL	90.46	HCA	275.34	SMA	123.74	ECC	.24954	INC	.4603	V1	29.477
RP	108.54	LAP	.46	LOP	248.66	VP	37.052	GAP	12.64	AZP	90.04	TAL	158.61	TAP	73.95	RCA	92.86	APO	154.61	V2	34.913
RC	159.692	GL	-2.42	GP	14.69	ZAL	45.46	ZAP	163.08	ETS	55.99	ZAE	124.08	ETE	170.23	ZAC	117.10	ETC	262.80	CLP	-171.50

PLANETOCENTRIC CONIC

C3	24.392	VHL	4.939	DLA	-24.64	RAL	289.76	RAD	6568.0	VEL	12.073	PTH	2.16	VHP	8.257	DPA	-8.34	RAP	258.29	ECC	1.4014

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 13 25	1358.59	6.29	351.97	156.32	117.67	12 36 3	758.6	9.95	345.20
90.00	16 25 46	5810.28	26.52	277.32	163.53	100.30	18 2 36	5210.3	27.68	268.84
100.00	13 13 8	1165.80	4.28	336.71	155.22	119.61	13 32 33	565.8	8.19	330.10
100.00	18 8 44	5478.30	28.78	253.32	163.95	98.45	19 40 2	4878.3	29.65	244.62
110.00	13 39 40	1082.55	-.14	327.65	152.46	124.18	13 57 43	482.6	4.34	321.43
110.00	19 58 41	5134.31	33.96	227.86	164.62	94.12	21 24 15	4534.3	34.16	218.62

DIFFERENTIAL CORRECTIONS

TDE	.4417	TRA	4.0023	TC3	-3.1735	BAU	1.0355
RDE	.3014	RRA	-.3707	RC3	.1122	FAU	.01972
FDE	.3563	FRA	1.7743	FC3	-.6999	BSP	19551
BDE	.5348	BRA	4.0195	BC3	3.1755	FSP	-724

MID-COURSE EXECUTION ACCURACY

SGT	6015.5	SGR	598.7	SG3	207.7		
RRT	-.7179	RRF	-.6975	RTF	.9647		
SGB	6045.2	R23	.0023	R13	-.9647		
SG1	6030.9	SG2	415.7	THA	175.89		

ORBIT DETERMINATION ACCURACY

ST	1618.7	SR	377.4	SS	567.6
CRT	-.0633	CRS	-.1599	CST	-.9746
LSA	1711.2	MSA	395.5	SSA	15.1
EL1	1618.9	EL2	376.6	ALF	179.11

LAUNCH DATE AUG 27 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 576.509

RL	151.15	LAL	-.00	LOL	333.32	VL	26.109	GAL	7.39	AZL	90.27	HCA	278.52	SMA	123.53	ECC	.25637	INC	.2739	V1	29.477
RP	108.58	LAP	.27	LOP	251.84	VP	37.016	GAP	13.16	AZP	90.04	TAL	157.28	TAP	75.80	RCA	91.86	APO	155.20	V2	34.901
RC	161.784	GL	-1.37	GP	14.22	ZAL	43.76	ZAP	163.96	ETS	58.33	ZAE	123.95	ETE	170.55	ZAC	116.76	ETC	263.36	CLP	-172.51

PLANETOCENTRIC CONIC

C3	26.873	VHL	5.184	DLA	-23.37	RAL	291.40	RAD	6568.1	VEL	12.176	PTH	2.19	VHP	8.557	DPA	-9.09	RAP	260.35	ECC	1.4423

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 59 49	1452.83	3.29	357.27	158.60	118.14	12 24 2	852.8	7.02	350.59
90.00	16 52 29	5763.89	27.05	274.03	166.74	98.73	18 28 33	5163.9	27.97	265.48
100.00	13 2 54	1249.23	1.46	341.30	157.59	119.86	13 23 43	649.2	5.43	334.75
100.00	18 32 5	5442.72	29.11	250.72	167.06	97.12	20 2 48	4842.7	29.79	241.98
110.00	13 34 20	1150.65	-2.75	331.20	154.97	124.09	13 53 31	550.6	1.75	325.00
110.00	20 17 8	5114.08	34.05	226.28	167.58	93.20	21 42 22	4514.1	34.12	217.04

DIFFERENTIAL CORRECTIONS

TDE	.5978	TRA	4.3215	TC3	-2.8789	BAU	1.0349
RDE	.3098	RRA	-.3835	RC3	.0966	FAU	.01776
FDE	.3954	FRA	1.8107	FC3	-.5722	BSP	19714
BDE	.6733	BRA	4.3385	BC3	2.8805	FSP	-696

MID-COURSE EXECUTION ACCURACY

SGT	6034.8	SGR	583.5	SG3	198.8		
RRT	-.7030	RRF	-.6825	RTF	.9651		
SGB	6062.9	R23	.0012	R13	-.9651		
SG1	6048.8	SG2	414.1	THA	176.09		

ORBIT DETERMINATION ACCURACY

ST	1697.4	SR	369.4	SS	581.7
CRT	.0155	CRS	-.2029	CST	-.9818
LSA	1791.3	MSA	383.4	SSA	14.6
EL1	1697.4	EL2	369.3	ALF	.20

LAUNCH DATE AUG 27 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 581.825

RL	151.15	LAL	-.00	LOL	333.32	VL	26.074	GAL	8.06	AZL	90.08	HCA	281.69	SMA	123.32	ECC	.26378	INC	.0839	V1	29.477
RP	108.61	LAP	.08	LOP	255.01	VP	36.981	GAP	13.71	AZP	90.02	TAL	155.96	TAP	77.65	RCA	90.79	APO	155.85	V2	34.890
RC	163.865	GL	-.40	GP	13.79	ZAL	42.15	ZAP	164.78	ETS	60.98	ZAE	123.80	ETE	170.85	ZAC	116.44	ETC	263.92	CLP	-173.50

PLANETOCENTRIC CONIC

C3	29.713	VHL	5.451	DLA	-22.17	RAL	292.95	RAD	6568.2	VEL	12.292	PTH	2.21	VHP	8.878	DPA	-9.78	RAP	262.43	ECC	1.4890

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 49 22	1537.02	.57	1.97	161.03	118.31	12 14 59	937.0	4.35	355.33
90.00	17 15 17	5729.83	27.37	271.59	169.87	97.54	18 50 47	5129.8	28.13	263.00
100.00	12 54 46	1325.91	-1.14	345.50	160.08	119.87	13 16 52	725.9	2.85	338.98
100.00	18 52 33	5416.17	29.32	248.78	170.13	96.11	20 22 49	4816.2	29.85	240.01
110.00	13 30 0	1215.48	-5.21	334.60	157.55	123.83	13 50 15	615.5	-.73	328.38
110.00	20 33 49	5099.37	34.10	225.14	170.56	92.52	21 58 48	4499.4	34.07	215.89

DIFFERENTIAL CORRECTIONS

TDE	.7570	TRA	4.6569	TC3	-2.5961	BAU	1.0318
RDE	.3190	RRA	-.3962	RC3	.0828	FAU	.01590
FDE	.4310	FRA	1.8470	FC3	-.4632	BSP	19882
BDE	.8215	BRA	4.6738	BC3	2.5975	FSP	-671

MID-COURSE EXECUTION ACCURACY

SGT	6048.5	SGR	568.1	SG3	190.4		
RRT	-.6884	RRF	-.6682	RTF	.9658		
SGB	6075.2	R23	.0003	R13	-.9658		
SG1	6061.2	SG2	411.2	THA	176.28		

ORBIT DETERMINATION ACCURACY

ST	1776.3	SR	361.4	SS	594.7
CRT	.0820	CRS	-.2391	CST	-.9870
LSA	1871.3	MSA	370.6	SSA	14.2
EL1	1776.5	EL2	360.1	ALF	1.00

LAUNCH DATE AUG 27 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 587.053

RL 151.15 LAL -.00 LOL 333.32 VL 26.040 GAL 8.77 AZL 89.89 HCA 284.87 SMA 123.12 ECC .27184 INC .1077 V1 29.477
RP 108.65 LAP -.11 LOP 258.18 VP 36.947 GAP 14.29 AZP 89.97 TAL 154.65 TAP 79.52 RCA 89.65 APO 156.58 V2 34.880
RC 165.932 GL .49 GP 13.39 ZAL 40.64 ZAP 165.54 ETS 63.95 ZAE 123.65 ETE 171.12 ZAC 116.13 ETC 264.48 CLP-174.49

PLANETOCENTRIC CONIC

C3 32.965 VHL 5.742 DLA -21.05 RAL 294.40 RAD 6568.3 VEL 12.423 PTH 2.24 VHP 9.222 DPA -10.40 RAP 264.53 ECC 1.5425

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 40 59	1614.33	-1.92	6.28	163.57	118.26	12 7 54	1014.3	1.87	359.65
90.00	17 35 14	5704.74	27.59	269.78	172.96	96.66	19 10 19	5104.7	28.22	261.17
100.00	12 48 9	1397.59	-3.56	349.44	162.66	119.70	13 11 26	797.6	.42	342.92
100.00	19 10 46	5396.71	29.45	247.34	173.19	95.37	20 40 42	4796.7	29.88	238.57
110.00	13 26 25	1277.63	-7.56	337.88	160.19	123.44	13 47 43	677.6	-3.11	331.62
110.00	20 48 59	5089.43	34.13	224.36	173.54	92.06	22 13 48	4489.4	34.04	215.12

DIFFERENTIAL CORRECTIONS
TDE .9195 TRA 5.0101 TC3-2.3272 BAU 1.0261
RDE .3289 RRA -.4085 RC3 .0704 FAU .01412
FDE .4632 FRA 1.8837 FC3 -.3708 BSP 20070
BDE .9766 BRA 5.0267 BC3 2.3282 FSP -647

MID-COURSE EXECUTION ACCURACY
SGT 6056.7 SGR 552.3 SG3 182.3
RRT -.6740 RRF -.6543 RTF .9666
SGB 6081.9 R23 -.0003 R13 -.9666
SG1 6068.2 SG2 407.2 THA 176.47

ORBIT DETERMINATION ACCURACY
ST 1852.4 SR 353.4 SS 606.3
CRT .1381 CRS -.2696 CST -.9907
LSA 1948.3 MSA 357.7 SSA 13.7
EL1 1853.1 EL2 349.9 ALF 1.56

LAUNCH DATE AUG 27 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 592.181

RL 151.15 LAL -.00 LOL 333.32 VL 26.006 GAL 9.53 AZL 89.69 HCA 288.04 SMA 122.92 ECC .28063 INC .3077 V1 29.477
RP 108.68 LAP -.29 LOP 261.36 VP 36.913 GAP 14.91 AZP 89.90 TAL 153.37 TAP 81.41 RCA 88.42 APO 157.41 V2 34.869
RC 167.985 GL 1.30 GP 13.03 ZAL 39.22 ZAP 166.22 ETS 67.27 ZAE 123.49 ETE 171.36 ZAC 115.83 ETC 265.05 CLP-175.49

PLANETOCENTRIC CONIC

C3 36.696 VHL 6.058 DLA -20.01 RAL 295.76 RAD 6568.4 VEL 12.572 PTH 2.28 VHP 9.594 DPA -10.95 RAP 266.65 ECC 1.6039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 34 7	1686.51	-4.24	10.32	166.19	118.02	12 2 14	1086.5	-.46	3.68
90.00	17 52 58	5686.70	27.72	268.48	176.03	96.02	19 27 45	5086.7	28.27	259.85
100.00	12 42 39	1465.34	-5.84	353.19	165.31	119.37	13 7 5	865.3	-1.88	346.63
100.00	19 27 7	5383.10	29.53	246.34	176.22	94.85	20 56 50	4783.1	29.89	237.55
110.00	13 23 27	1337.51	-9.79	341.09	162.90	122.92	13 45 44	737.5	-5.38	334.76
110.00	21 2 49	5083.69	34.14	223.92	176.54	91.80	22 27 33	4483.7	34.01	214.67

DIFFERENTIAL CORRECTIONS
TDE 1.0872 TRA 5.3836 TC3-2.0715 BAU 1.0167
RDE .3395 RRA -.4204 RC3 .0592 FAU .01240
FDE .4935 FRA 1.9220 FC3 -.2925 BSP 20246
BDE 1.1389 BRA 5.4000 BC3 2.0724 FSP -624

MID-COURSE EXECUTION ACCURACY
SGT 6059.9 SGR 536.0 SG3 174.7
RRT -.6597 RRF -.6407 RTF .9676
SGB 6083.5 R23 -.0007 R13 -.9676
SG1 6070.2 SG2 402.1 THA 176.65

ORBIT DETERMINATION ACCURACY
ST 1925.1 SR 345.3 SS 617.5
CRT .1860 CRS -.2962 CST -.9933
LSA 2021.7 MSA 344.9 SSA 13.3
EL1 1926.2 EL2 339.1 ALF 1.97

LAUNCH DATE AUG 27 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 597.191

RL 151.15 LAL -.00 LOL 333.32 VL 25.972 GAL 10.35 AZL 89.49 HCA 291.21 SMA 122.72 ECC .29022 INC .5144 V1 29.477
RP 108.71 LAP -.48 LOP 264.53 VP 36.880 GAP 15.58 AZP 89.81 TAL 152.11 TAP 83.32 RCA 87.10 APO 158.33 V2 34.859
RC 170.025 GL 2.05 GP 12.70 ZAL 37.90 ZAP 166.83 ETS 70.98 ZAE 123.31 ETE 171.60 ZAC 115.55 ETC 265.62 CLP-176.48

PLANETOCENTRIC CONIC

C3 40.986 VHL 6.402 DLA -19.03 RAL 297.04 RAD 6568.6 VEL 12.742 PTH 2.32 VHP 9.996 DPA -11.44 RAP 268.79 ECC 1.6745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 28 23	1754.64	-6.41	14.15	168.87	117.64	11 57 38	1154.6	-2.66	7.48
90.00	18 8 52	5674.42	27.81	267.59	179.07	95.59	19 43 26	5074.4	28.29	258.96
100.00	12 38 2	1529.87	-7.98	356.78	168.02	118.90	13 3 32	929.9	-4.06	350.18
100.00	19 41 54	5374.42	29.58	245.70	179.25	94.52	21 11 28	4774.4	29.89	236.91
110.00	13 20 57	1395.40	-11.91	344.22	165.65	122.28	13 44 12	795.4	-7.57	337.82
110.00	21 15 28	5081.66	34.15	223.76	179.55	91.70	22 40 10	4481.7	34.00	214.51

DIFFERENTIAL CORRECTIONS
TDE 1.2611 TRA 5.7798 TC3-1.8299 BAU 1.0030
RDE .3506 RRA -.4316 RC3 .0491 FAU .01072
FDE .5223 FRA 1.9624 FC3 -.2264 BSP 20414
BDE 1.3089 BRA 5.7959 BC3 1.8306 FSP -601

MID-COURSE EXECUTION ACCURACY
SGT 6058.4 SGR 519.0 SG3 167.4
RRT -.6452 RRF -.6271 RTF .9688
SGB 6080.6 R23 -.0009 R13 -.9688
SG1 6067.7 SG2 395.9 THA 176.82

ORBIT DETERMINATION ACCURACY
ST 1993.3 SR 336.9 SS 628.3
CRT .2275 CRS -.3197 CST -.9952
LSA 2090.7 MSA 332.1 SSA 12.9
EL1 1994.8 EL2 327.8 ALF 2.26

LAUNCH DATE AUG 27 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 602.065

RL 151.15 LAL -.00 LOL 333.32 VL 25.939 GAL 11.23 AZL 89.27 HCA 294.38 SMA 122.52 ECC .30073 INC .7298 V1 29.477
RP 108.74 LAP -.66 LOP 267.70 VP 36.848 GAP 16.30 AZP 89.70 TAL 150.88 TAP 85.26 RCA 85.68 APO 159.37 V2 34.850
RC 172.049 GL 2.74 GP 12.39 ZAL 36.66 ZAP 167.36 ETS 75.09 ZAE 123.12 ETE 171.81 ZAC 115.27 ETC 266.19 CLP-177.49

PLANETOCENTRIC CONIC

C3 45.932 VHL 6.777 DLA -18.12 RAL 298.22 RAD 6568.7 VEL 12.934 PTH 2.36 VHP 10.432 DPA -11.88 RAP 270.93 ECC 1.7559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 23 31	1819.42	-8.44	17.83	171.60	117.13	11 53 50	1219.4	-4.73	11.11
90.00	18 23 12	5667.01	27.85	267.05	182.10	95.32	19 57 39	5067.0	28.30	258.42
100.00	12 34 6	1591.66	-9.99	.26	170.77	118.32	13 0 37	991.7	-6.13	353.60
100.00	19 55 18	5370.01	29.60	245.37	182.27	94.35	21 24 48	4770.0	29.89	236.58
110.00	13 18 50	1451.50	-13.93	347.32	168.45	121.54	13 43 1	851.5	-9.66	340.82
110.00	21 27 4	5082.93	34.14	223.86	182.56	91.76	22 51 47	4482.9	34.01	214.61

DIFFERENTIAL CORRECTIONS
TDE 1.4432 TRA 6.2021 TC3-1.6013 BAU .9836
RDE .3622 RRA -.4419 RC3 .0399 FAU .00905
FDE .5505 FRA 2.0057 FC3 -.1706 BSP 20537
BDE 1.4879 BRA 6.2179 BC3 1.6018 FSP -579

MID-COURSE EXECUTION ACCURACY
SGT 6052.8 SGR 501.2 SG3 160.6
RRT -.6303 RRF -.6134 RTF .9702
SGB 6073.5 R23 -.0009 R13 -.9702
SG1 6061.0 SG2 388.6 THA 177.00

ORBIT DETERMINATION ACCURACY
ST 2057.2 SR 328.2 SS 639.4
CRT .2642 CRS -.3411 CST -.9965
LSA 2155.5 MSA 319.4 SSA 12.5
EL1 2059.1 EL2 316.2 ALF 2.47

LAUNCH DATE AUG 27 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 606.778

RL	151.15	LAL	-.00	LOL	333.32	VL	25.907	GAL	12.17	AZL	89.04	HCA	297.54	SMA	122.33	ECC	.31227	INC	.9562
RP	108.77	LAP	-.85	LOP	270.86	VP	36.817	GAP	17.08	AZP	89.56	TAL	149.70	TAP	87.24	RCA	84.13	APO	160.53
RC	174.060	GL	3.37	GP	12.11	ZAL	35.52	ZAP	167.80	ETS	79.60	ZAE	122.90	ETE	172.02	ZAC	115.00	ETC	266.76

V1	29.477	V2	34.841	CLP	-178.51														

PLANETOCENTRIC CONIC

C3	51.653	VHL	7.187	DLA	-17.27	RAL	299.32	RAD	6568.9	VEL	13.153	PTH	2.40	VHP	10.907	DPA	-12.25	RAP	273.06

ECC	1.8501																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 19 20	1881.32	-10.34	21.38	174.36	116.51	11 50 41	1281.3	-6.70	14.60
90.00	18 36 11	5663.78	27.87	266.82	185.11	95.20	20 10 34	5063.8	28.30	258.18
100.00	12 30 42	1651.01	-11.89	3.65	173.55	117.63	12 58 13	1051.0	-8.10	356.91
100.00	20 7 29	5369.31	29.61	245.32	185.27	94.32	21 36 59	4769.3	29.89	236.53
110.00	13 17 1	1505.92	-15.85	350.37	171.28	120.69	13 42 7	905.9	-11.66	343.77
110.00	21 37 40	5087.17	34.13	224.19	185.56	91.96	23 2 27	4487.2	34.03	214.94

DIFFERENTIAL CORRECTIONS

TDE	1.6354	TRA	6.6545	TC3	-1.3858	BAU	.9572												
RDE	.3743	RRA	-.4511	RC3	.0315	FAU	.00738												
FDE	.5788	FRA	2.0530	FC3	-.1237	BSP	20599												
BDE	1.6777	BRA	6.6698	BC3	1.3862	FSP	-556												

MID-COURSE EXECUTION ACCURACY

SGT	6044.2	SGR	482.6	SG3	154.1														
RRT	-.6148	RRF	-.5991	RTF	.9718														
SGB	6063.4	R23	-.0009	R13	-.9718														
SG1	6051.5	SG2	380.2	THA	177.18														

ORBIT DETERMINATION ACCURACY

ST	2116.9	SR	319.1	SS	651.1														
CRT	.2971	CRS	-.3611	CST	-.9975														
LSA	2216.4	MSA	306.8	SSA	12.1														
EL1	2119.0	EL2	304.4	ALF	2.62														

LAUNCH DATE AUG 27 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 611.301

RL	151.15	LAL	-.00	LOL	333.32	VL	25.875	GAL	13.20	AZL	88.80	HCA	300.71	SMA	122.14	ECC	.32497	INC	1.1960
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.787	GAP	17.93	AZP	89.39	TAL	148.56	TAP	89.27	RCA	82.45	APO	161.84
RC	176.055	GL	3.95	GP	11.86	ZAL	34.47	ZAP	168.14	ETS	84.52	ZAE	122.66	ETE	172.21	ZAC	114.72	ETC	267.32

V1	29.477	V2	34.833	CLP	-179.55														

PLANETOCENTRIC CONIC

C3	58.298	VHL	7.635	DLA	-16.49	RAL	300.34	RAD	6569.1	VEL	13.404	PTH	2.45	VHP	11.427	DPA	-12.57	RAP	275.19

ECC	1.9594																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 15 41	1940.61	-12.12	24.83	177.14	115.79	11 48 2	1340.6	-8.55	17.97
90.00	18 47 55	5664.17	27.87	266.85	188.08	95.22	20 22 19	5064.2	28.30	258.21
100.00	12 27 44	1708.13	-13.67	6.95	176.35	116.85	12 56 13	1108.1	-9.96	.13
100.00	20 18 33	5371.88	29.59	245.51	188.24	94.42	21 48 5	4771.9	29.89	236.72
110.00	13 15 26	1558.73	-17.66	353.39	174.12	119.76	13 41 24	958.7	-13.56	346.67
110.00	21 47 21	5094.04	34.12	224.72	188.56	92.27	23 12 15	4494.0	34.06	215.48

DIFFERENTIAL CORRECTIONS

TDE	1.8396	TRA	7.1404	TC3	-1.1829	BAU	.9221												
RDE	.3870	RRA	-.4587	RC3	.0240	FAU	.00567												
FDE	.6078	FRA	2.1051	FC3	-.0841	BSP	20580												
BDE	1.8799	BRA	7.1551	BC3	1.1832	FSP	-531												

MID-COURSE EXECUTION ACCURACY

SGT	6032.7	SGR	463.2	SG3	148.1														
RRT	-.5981	RRF	-.5840	RTF	.9735														
SGB	6050.4	R23	-.0007	R13	-.9735														
SG1	6039.1	SG2	370.8	THA	177.36														

ORBIT DETERMINATION ACCURACY

ST	2172.3	SR	309.7	SS	663.9														
CRT	.3274	CRS	-.3803	CST	-.9982														
LSA	2273.5	MSA	294.1	SSA	11.7														
EL1	2174.7	EL2	292.3	ALF	2.72														

LAUNCH DATE AUG 27 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 615.594

RL	151.15	LAL	-.00	LOL	333.32	VL	25.843	GAL	14.32	AZL	88.55	HCA	303.87	SMA	121.96	ECC	.33900	INC	1.4519
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.757	GAP	18.86	AZP	89.19	TAL	147.48	TAP	91.35	RCA	80.62	APO	163.31
RC	178.036	GL	4.48	GP	11.62	ZAL	33.51	ZAP	168.37	ETS	89.80	ZAE	122.39	ETE	172.40	ZAC	114.46	ETC	267.88

V1	29.477	V2	34.825	CLP	179.39														

PLANETOCENTRIC CONIC

C3	66.052	VHL	8.127	DLA	-15.76	RAL	301.27	RAD	6569.3	VEL	13.690	PTH	2.50	VHP	11.997	DPA	-12.83	RAP	277.30

ECC	2.0871																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 12 29	1997.49	-13.78	28.18	179.93	114.98	11 45 47	1397.5	-10.30	21.23
90.00	18 58 32	5667.74	27.85	267.11	191.01	95.35	20 33 0	5067.7	28.30	258.47
100.00	12 25 8	1763.12	-15.33	10.19	179.16	115.98	12 54 31	1163.1	-11.72	3.27
100.00	20 28 35	5377.34	29.56	245.92	191.18	94.63	21 58 12	4777.3	29.89	237.13
110.00	13 14 2	1609.98	-19.36	356.39	176.98	118.74	13 40 52	1010.0	-15.38	349.53
110.00	21 56 10	5103.28	34.09	225.44	191.52	92.70	23 21 13	4503.3	34.09	216.20

DIFFERENTIAL CORRECTIONS

TDE	2.0578	TRA	7.6649	TC3	-.9928	BAU	.8768												
RDE	.4002	RRA	-.4643	RC3	.0174	FAU	.00390												
FDE	.6379	FRA	2.1629	FC3	-.0511	BSP	20463												
BDE	2.0963	BRA	7.6790	BC3	.9929	FSP	-506												

MID-COURSE EXECUTION ACCURACY

SGT	6019.4	SGR	442.8	SG3	142.5														
RRT	-.5800	RRF	-.5674	RTF	.9754														
SGB	6035.7	R23	-.0004	R13	-.9754														
SG1	6024.9	SG2	360.4	THA	177.55														

ORBIT DETERMINATION ACCURACY

ST	2223.5	SR	300.0	SS	678.3														
CRT	.3558	CRS	-.3993	CST	-.9987														
LSA	2327.0	MSA	281.3	SSA	11.3														
EL1	2226.1	EL2	280.1	ALF	2.79														

LAUNCH DATE AUG 27 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 619.612

RL	151.15	LAL	-.00	LOL	333.32	VL	25.813	GAL	15.53	AZL	88.27	HCA	307.03	SMA	121.79	ECC	.35454	INC	1.7273
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.729	GAP	19.89	AZP	88.96	TAL	146.48	TAP	93.51	RCA	78.61	APO	164.96
RC	180.002	GL	4.96	GP	11.40	ZAL	32.65	ZAP	168.48	ETS	95.40	ZAE	122.09	ETE	172.58	ZAC	114.19	ETC	268.43

V1	29.477	V2	34.818	CLP	178.29														

PLANETOCENTRIC CONIC

C3	75.147	VHL	8.669	DLA	-15.09	RAL	302.11	RAD	6569.5	VEL	14.018	PTH	2.56	VHP	12.626	DPA	-13.05	RAP	279.38

ECC	2.2367																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 9 39	2052.04	-15.32	31.44	182.70	114.11	11 43 51	1452.0	-11.94	24.40
90.00	19 8 5	5674.10	27.81	267.57	193.89	95.57	20 42 39	5074.1	28.29	258.93
100.00	12 22 47	1816.03	-16.88	13.35	181.96	115.04	12 53 3	1216.0	-13.37	6.32
100.00	20 37 37	5385.34	29.52	246.51	194.07	94.94	22 7 22	4785.3	29.89	237.72
110.00	13 12 45	1659.52	-20.96	359.35	179.83	117.65	13 40 25	1059.5	-17.09	352.36
110.00	22 4 9	5114.61	34.05	226.33	194.45	93.22	23 29 23	4514.6	34.12	217.08

DIFFERENTIAL CORRECTIONS

TDE	2.2921	TRA	8.2326	TC3	-.8151	BAU	.8189												
RDE	.4142	RRA	-.4674	RC3	.0115	FAU	.00204												
FDE	.6699	FRA	2.2277	FC3	-.0235	BSP	20215												
BDE	2.3292	BRA	8.2459	BC3	.8152	FSP	-479												

MID-COURSE EXECUTION ACCURACY

SGT	6004.4	SGR	421.5	SG3	137.2														
RRT	-.5597	RRF	-.5489	RTF	.9774														
SGB	6019.2	R23	-.0001	R13	-.9774														
SG1	6009.1	SG2	349.1	THA	177.74														

ORBIT DETERMINATION ACCURACY

ST	2270.6	SR	290.1	SS	694.5														
CRT	.3832	CRS	-.4185	CST	-.9991														
LSA	2376.9	MSA	268.5	SSA	10.8														
EL1	2273.3	EL2	267.6	ALF	2.84														

LAUNCH DATE AUG 28 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 6 1970

HELIOCENTRIC CONIC DISTANCE 162.198

RL	151.12	LAL	-.00	LOL	334.28	VL	23.001	GAL	-.12	AZL	92.17	HCA	66.28	SMA	108.13	ECC	.39760	INC	2.1736	V1	29.484
RP	108.21	LAP	-1.99	LOP	40.55	VP	35.007	GAP	-23.43	AZP	90.87	TAL	180.18	TAP	246.47	RCA	65.14	APO	151.12	V2	35.020
RC	40.727	GL	-7.64	GP	-8.25	ZAL	87.01	ZAP	14.71	ETS	143.33	ZAE	177.32	ETE	323.83	ZAC	91.76	ETC	258.75	CLP	12.22

PLANETOCENTRIC CONIC

C3	43.086	VHL	6.564	DLA	-29.06	RAL	244.05	RAD	6568.6	VEL	12.824	PTH	2.33	VHP	14.145	DPA	-24.99	RAP	227.96	ECC	1.7091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.19	10 16 52	1265.77	14.95	349.58	125.30	115.21	10 37 57	665.8	18.23	342.37
96.81	12 9 49	900.45	14.97	322.79	125.31	115.20	12 24 50	300.5	18.24	315.59
100.00	11 35 27	1010.88	9.42	328.07	122.44	118.50	11 52 18	410.9	13.15	321.28
100.00	13 33 55	630.57	20.66	305.45	127.92	112.10	13 44 26	30.6	23.47	297.79
110.00	11 22 54	1050.35	1.09	325.97	117.35	124.17	11 40 25	450.4	5.56	319.74
110.00	16 2 57	5451.91	29.83	251.60	131.57	107.53	17 33 49	4851.9	31.93	243.02

DIFFERENTIAL CORRECTIONS

TDE	.1751	TRA	-.7731	TC3	.0349	BAU	.0224		
RDE	-.5056	RRA	-.0093	RC3	-.0173	FAU	.01904		
FDE	-.1168	FRA	.3781	FC3	-.3827	BSP	2120		
BDE	.5351	BRA	.7732	BC3	.0389	FSP	-125		

MID-COURSE EXECUTION ACCURACY

SGT	788.3	SGR	442.0	SG3	55.0		
RRT	-.1759	RRF	.1879	RTF	-.6577		
SG8	903.8	R23	-.0227	R13	.6614		
SG1	793.8	SG2	432.2	THA	171.97		

ORBIT DETERMINATION ACCURACY

ST	277.5	SR	441.4	SS	187.2
CRT	-.5455	CRS	-.6613	CST	.9845
LSA	498.8	MSA	240.5	SSA	15.0
EL1	474.3	EL2	216.4	ALF	114.30

LAUNCH DATE AUG 28 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 168.811

RL	151.12	LAL	-.00	LOL	334.28	VL	23.391	GAL	-.25	AZL	91.96	HCA	69.48	SMA	109.75	ECC	.37699	INC	1.9574	V1	29.484
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.278	GAP	-22.13	AZP	90.69	TAL	180.41	TAP	249.89	RCA	68.37	APO	151.12	V2	35.033
RC	40.367	GL	-7.45	GP	-8.65	ZAL	87.29	ZAP	13.56	ETS	137.74	ZAE	174.66	ETE	333.14	ZAC	91.57	ETC	258.97	CLP	10.49

PLANETOCENTRIC CONIC

C3	37.978	VHL	6.163	DLA	-28.82	RAL	243.77	RAD	6568.5	VEL	12.623	PTH	2.29	VHP	13.428	DPA	-25.83	RAP	229.35	ECC	1.6250

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.38	10 25 25	1202.72	15.75	345.32	122.92	114.46	10 45 28	602.7	18.92	338.04
95.62	11 59 1	899.79	15.76	323.12	122.93	114.45	12 14 1	299.8	18.93	315.84
100.00	11 26 30	1004.48	9.62	327.71	119.80	118.44	11 43 15	404.5	13.35	320.90
100.00	13 40 37	5861.31	22.08	279.70	125.70	110.68	15 18 19	5261.3	24.69	271.87
110.00	11 18 40	1029.10	1.90	324.86	115.09	124.14	11 35 49	429.1	6.37	318.62
110.00	16 4 56	5409.44	30.66	248.57	128.87	105.91	17 35 6	4809.4	32.53	239.85

DIFFERENTIAL CORRECTIONS

TDE	.1737	TRA	-.7558	TC3	.0656	BAU	.0362		
RDE	-.4792	RRA	-.0039	RC3	-.0280	FAU	.02003		
FDE	-.1174	FRA	.3896	FC3	-.4567	BSP	2216		
BDE	.5098	BRA	.7558	BC3	.0713	FSP	-139		

MID-COURSE EXECUTION ACCURACY

SGT	822.1	SGR	446.9	SG3	61.1		
RRT	-.1944	RRF	.2100	RTF	-.6792		
SG8	935.7	R23	-.0270	R13	.6833		
SG1	828.5	SG2	435.0	THA	171.65		

ORBIT DETERMINATION ACCURACY

ST	289.8	SR	445.6	SS	192.7
CRT	-.5550	CRS	-.6555	CST	.9872
LSA	508.4	MSA	246.8	SSA	15.5
EL1	482.7	EL2	222.5	ALF	115.69

LAUNCH DATE AUG 28 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 175.459

RL	151.12	LAL	-.00	LOL	334.28	VL	23.751	GAL	-.39	AZL	91.75	HCA	72.69	SMA	111.31	ECC	.35771	INC	1.7498	V1	29.484
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.530	GAP	-20.90	AZP	90.52	TAL	180.69	TAP	253.38	RCA	71.49	APO	151.13	V2	35.046
RC	40.182	GL	-7.19	GP	-9.09	ZAL	87.71	ZAP	12.59	ETS	131.05	ZAE	171.89	ETE	335.89	ZAC	91.34	ETC	259.20	CLP	8.75

PLANETOCENTRIC CONIC

C3	33.545	VHL	5.792	DLA	-28.50	RAL	243.35	RAD	6568.3	VEL	12.447	PTH	2.25	VHP	12.744	DPA	-26.69	RAP	230.74	ECC	1.5521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.66	10 42 31	1110.71	16.44	338.88	120.40	113.60	11 1 2	510.7	19.50	331.53
93.34	11 38 34	929.11	16.46	325.60	120.40	113.59	11 54 4	329.1	19.51	318.24
100.00	11 15 18	1004.27	9.63	327.70	116.99	118.44	11 32 3	404.3	13.36	320.89
100.00	13 48 29	5798.82	23.52	275.62	123.33	109.00	15 25 7	5198.8	25.90	267.62
110.00	11 12 48	1012.14	2.55	323.97	112.66	124.10	11 29 40	412.1	7.01	317.72
110.00	16 7 28	5363.71	31.47	245.25	125.99	104.10	17 36 52	4763.7	33.08	236.40

DIFFERENTIAL CORRECTIONS

TDE	.1745	TRA	-.7379	TC3	.1019	BAU	.0493		
RDE	-.4538	RRA	.0004	RC3	-.0412	FAU	.02099		
FDE	-.1171	FRA	.3974	FC3	-.5417	BSP	2325		
BDE	.4862	BRA	.7379	BC3	.1099	FSP	-155		

MID-COURSE EXECUTION ACCURACY

SGT	856.5	SGR	451.4	SG3	67.3		
RRT	-.2159	RRF	.2335	RTF	-.6976		
SG8	968.2	R23	-.0305	R13	.7021		
SG1	863.9	SG2	437.0	THA	171.26		

ORBIT DETERMINATION ACCURACY

ST	303.2	SR	448.9	SS	196.3
CRT	-.5697	CRS	-.6502	CST	.9900
LSA	518.1	MSA	251.5	SSA	15.9
EL1	491.6	EL2	227.5	ALF	117.37

LAUNCH DATE AUG 28 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 182.138

RL	151.12	LAL	-.00	LOL	334.28	VL	24.083	GAL	-.54	AZL	91.55	HCA	75.89	SMA	112.81	ECC	.33972	INC	1.5493	V1	29.484
RP	108.09	LAP	-1.50	LOP	50.17	VP	35.766	GAP	-19.72	AZP	90.38	TAL	181.05	TAP	256.94	RCA	74.49	APO	151.13	V2	35.060
RC	40.174	GL	-6.86	GP	-9.57	ZAL	88.26	ZAP	11.83	ETS	123.18	ZAE	169.08	ETE	336.93	ZAC	91.05	ETC	259.43	CLP	6.99

PLANETOCENTRIC CONIC

C3	29.701	VHL	5.450	DLA	-28.07	RAL	242.80	RAD	6568.2	VEL	12.291	PTH	2.21	VHP	12.090	DPA	-27.59	RAP	232.10	ECC	1.4888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 35 27	1096.10	14.24	336.79	116.47	114.74	10 53 43	496.1	17.46	329.59
90.00	11 41 14	882.51	19.87	323.65	118.93	110.60	11 55 57	282.5	22.50	315.96
100.00	11 2 12	1009.55	9.46	328.00	114.02	118.49	11 19 2	409.6	13.19	321.20
100.00	13 57 10	5732.34	24.92	271.17	120.79	107.06	15 32 42	5132.3	27.02	263.00
110.00	11 5 17	999.86	3.02	323.33	110.09	124.07	11 21 57	399.9	7.47	317.07
110.00	16 10 34	5314.79	32.22	241.63	122.95	102.09	17 39 9	4714.8	33.55	232.65

DIFFERENTIAL CORRECTIONS

TDE	.1761	TRA	-.7200	TC3	.1470	BAU	.0628		
RDE	-.4295	RRA	.0046	RC3	-.0584	FAU	.02211		
FDE	-.1167	FRA	.4070	FC3	-.6443	BSP	2470		
BDE	.4642	BRA	.7200	BC3	.1582	FSP	-173		

MID-COURSE EXECUTION ACCURACY

SGT	892.1	SGR	456.0	SG3	74.5		
RRT	-.2421	RRF	.2613	RTF	-.7166		
SG8	1001.9	R23	-.0336	R13	.7216		
SG1	901.1	SG2	438.1	THA	170.74		

ORBIT DETERMINATION ACCURACY

ST	317.1	SR	451.6	SS	200.0
CRT	-.5870	CRS	-.6440	CST	.9925
LSA	528.2	MSA	255.2	SSA	16.4
EL1	500.9	EL2	231.4	ALF	119.21

LAUNCH DATE AUG 28 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 188.842

RL	151.12	LAL	-.00	LOL	334.28	VL	24.388	GAL	-.70	AZL	91.35	HCA	79.10	SMA	114.25	ECC	.32297	INC	1.3541	V1	29.484
RP	108.05	LAP	-1.33	LOP	53.38	VP	35.985	GAP	-18.59	AZP	90.26	TAL	181.47	TAP	260.56	RCA	77.35	APO	151.14	V2	35.073
RC	40.345	GL	-6.44	GP	-10.10	ZAL	88.95	ZAP	11.35	ETS	114.20	ZAE	166.29	ETE	337.25	ZAC	90.69	ETC	259.66	CLP	5.21

PLANETOCENTRIC CONIC

C3	26.372	VHL	5.135	DLA	-27.53	RAL	242.12	RAD	6568.1	VEL	12.155	PTH	2.18	VHP	11.466	DPA	-28.52	RAP	233.45	ECC	1.4340

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 7 4	1150.46	12.66	340.01	112.79	115.54	10 26 14	550.5	16.00	332.92
90.00	12 4 12	768.88	22.42	316.29	116.85	107.77	12 17 1	168.9	24.64	308.32
100.00	10 47 28	1019.86	9.12	328.58	110.95	118.59	11 4 28	419.9	12.87	321.80
100.00	14 6 28	5662.75	26.23	266.42	118.07	104.88	15 40 51	5062.8	28.02	258.07
110.00	10 56 9	992.59	3.29	322.95	107.39	124.04	11 12 42	392.6	7.74	316.69
110.00	16 14 17	5262.79	32.89	237.73	119.75	99.87	17 41 59	4662.8	33.91	228.64

DIFFERENTIAL CORRECTIONS

TDE	.1774	TRA	-.7022	TC3	.2010	BAU	.0763
RDE	-.4063	RRA	.0084	RC3	-.0803	FAU	.02336
FDE	-.1154	FRA	.4163	FC3	-.7668	BSP	2618
BDE	.4433	BRA	.7023	BC3	.2164	FSP	-196

MID-COURSE EXECUTION ACCURACY

SGT	928.7	SGR	460.8	SG3	82.5		
RRT	-.2712	RRF	.2929	RTF	-.7342		
SGB	1036.7	R23	-.0379	R13	.7397		
SG1	939.4	SG2	438.5	THA	170.17		

ORBIT DETERMINATION ACCURACY

ST	330.8	SR	453.3	SS	202.6
CRT	-.6038	CRS	-.6355	CST	.9945
LSA	537.6	MSA	258.2	SSA	17.0
EL1	509.9	EL2	234.5	ALF	121.03

LAUNCH DATE AUG 28 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 195.567

RL	151.12	LAL	-.00	LOL	334.28	VL	24.668	GAL	-.87	AZL	91.16	HCA	82.31	SMA	115.61	ECC	.30744	INC	1.1629	V1	29.484
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.188	GAP	-17.52	AZP	90.16	TAL	181.95	TAP	264.26	RCA	80.07	APO	151.16	V2	35.086
RC	40.692	GL	-5.93	GP	-10.69	ZAL	89.78	ZAP	11.21	ETS	104.47	ZAE	163.55	ETE	337.16	ZAC	90.28	ETC	259.90	CLP	3.40

PLANETOCENTRIC CONIC

C3	23.492	VHL	4.847	DLA	-26.87	RAL	241.32	RAD	6568.0	VEL	12.036	PTH	2.15	VHP	10.870	DPA	-29.48	RAP	234.77	ECC	1.3866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 43 3	1190.90	11.46	342.37	109.31	116.07	10 2 53	590.9	14.88	335.36
90.00	12 21 50	671.51	24.29	309.77	114.34	105.02	12 33 2	71.5	26.12	301.58
100.00	10 31 19	1034.98	8.63	329.43	107.82	118.73	10 48 34	435.0	12.40	322.67
100.00	14 16 15	5590.70	27.39	261.38	115.19	102.47	15 49 26	4990.7	28.83	252.87
110.00	10 45 27	990.58	3.37	322.85	104.59	124.04	11 1 58	390.6	7.81	316.58
110.00	16 18 36	5207.87	33.46	233.54	116.42	97.45	17 45 24	4607.9	34.13	224.36

DIFFERENTIAL CORRECTIONS

TDE	.1774	TRA	-.6846	TC3	.2643	BAU	.0896
RDE	-.3840	RRA	.0120	RC3	-.1076	FAU	.02474
FDE	-.1127	FRA	.4257	FC3	-.9117	BSP	2768
BDE	.4230	BRA	.6847	BC3	.2854	FSP	-221

MID-COURSE EXECUTION ACCURACY

SGT	965.7	SGR	466.1	SG3	91.3		
RRT	-.3030	RRF	.3281	RTF	-.7506		
SGB	1072.3	R23	-.0436	R13	.7568		
SG1	978.6	SG2	438.3	THA	169.57		

ORBIT DETERMINATION ACCURACY

ST	343.7	SR	454.0	SS	203.8
CRT	-.6187	CRS	-.6229	CST	.9949
LSA	545.5	MSA	260.6	SSA	17.6
EL1	517.9	EL2	236.7	ALF	122.75

LAUNCH DATE AUG 28 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 202.309

RL	151.12	LAL	-.00	LOL	334.28	VL	24.926	GAL	-1.03	AZL	90.97	HCA	85.52	SMA	116.92	ECC	.29307	INC	.9745	V1	29.484
RP	107.97	LAP	-.97	LOP	59.80	VP	36.376	GAP	-16.48	AZP	90.08	TAL	182.50	TAP	268.01	RCA	82.65	APO	151.18	V2	35.098
RC	41.209	GL	-5.31	GP	-11.34	ZAL	90.73	ZAP	11.44	ETS	94.57	ZAE	160.89	ETE	336.82	ZAC	89.79	ETC	260.13	CLP	1.56

PLANETOCENTRIC CONIC

C3	21.005	VHL	4.583	DLA	-26.07	RAL	240.42	RAD	6567.9	VEL	11.933	PTH	2.12	VHP	10.301	DPA	-30.49	RAP	236.05	ECC	1.3457

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 6	1228.58	10.33	344.56	105.90	116.51	9 40 34	628.6	13.81	337.61
90.00	12 37 34	5867.67	25.76	281.35	111.58	102.18	14 15 21	5267.7	27.18	272.97
100.00	10 13 54	1054.83	7.98	330.54	104.65	118.90	10 31 29	454.8	11.78	323.81
100.00	14 26 27	5516.65	28.37	256.09	112.14	99.85	15 58 23	4916.6	29.43	247.45
110.00	10 33 16	994.04	3.24	323.03	101.73	124.05	10 49 50	394.0	7.68	316.76
110.00	16 23 34	5150.21	33.88	229.09	112.97	94.85	17 49 24	4550.2	34.18	219.86

DIFFERENTIAL CORRECTIONS

TDE	.1764	TRA	-.6664	TC3	.3382	BAU	.1030
RDE	-.3626	RRA	.0154	RC3	-.1417	FAU	.02631
FDE	-.1078	FRA	.4350	FC3	-1.0843	BSP	2925
BDE	.4032	BRA	.6666	BC3	.3667	FSP	-249

MID-COURSE EXECUTION ACCURACY

SGT	1002.5	SGR	472.1	SG3	101.2		
RRT	-.3384	RRF	.3674	RTF	-.7658		
SGB	1108.1	R23	-.0502	R13	.7727		
SG1	1018.1	SG2	437.4	THA	168.87		

ORBIT DETERMINATION ACCURACY

ST	355.1	SR	453.4	SS	203.0
CRT	-.6321	CRS	-.6030	CST	.9940
LSA	551.2	MSA	262.3	SSA	18.3
EL1	524.5	EL2	237.9	ALF	124.34

LAUNCH DATE AUG 28 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 209.062

RL	151.12	LAL	-.00	LOL	334.28	VL	25.162	GAL	-1.20	AZL	90.79	HCA	88.73	SMA	118.15	ECC	.27982	INC	.7876	V1	29.484
RP	107.93	LAP	-.79	LOP	63.01	VP	36.550	GAP	-15.49	AZP	90.02	TAL	183.10	TAP	271.83	RCA	85.09	APO	151.21	V2	35.111
RC	41.891	GL	-4.57	GP	-12.06	ZAL	91.79	ZAP	12.07	ETS	85.12	ZAE	158.34	ETE	336.27	ZAC	89.21	ETC	260.36	CLP	-.32

PLANETOCENTRIC CONIC

C3	18.863	VHL	4.343	DLA	-25.14	RAL	239.42	RAD	6567.8	VEL	11.842	PTH	2.10	VHP	9.759	DPA	-31.55	RAP	237.29	ECC	1.3104

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 57 22	1266.80	9.16	346.75	102.56	116.91	9 18 29	666.8	12.70	339.86
90.00	12 52 21	5778.29	26.89	275.05	108.61	99.22	14 28 39	5178.3	27.89	266.53
100.00	9 55 24	1079.41	7.17	331.92	101.49	119.10	10 13 24	479.4	10.99	325.22
100.00	14 36 59	5440.91	29.12	250.59	108.97	97.05	16 7 40	4840.9	29.79	241.85
110.00	10 19 44	1003.10	2.89	323.50	98.85	124.08	10 36 27	403.1	7.35	317.24
110.00	16 29 9	5089.99	34.13	224.41	109.44	92.09	17 53 59	4490.0	34.04	215.16

DIFFERENTIAL CORRECTIONS

TDE	.1742	TRA	-.6473	TC3	.4244	BAU	.1166
RDE	-.3420	RRA	.0187	RC3	-.1836	FAU	.02803
FDE	-.1001	FRA	.4443	FC3	-1.2866	BSP	3069
BDE	.3838	BRA	.6476	BC3	.4624	FSP	-280

MID-COURSE EXECUTION ACCURACY

SGT	1038.5	SGR	479.3	SG3	112.2		
RRT	-.3781	RRF	.4106	RTF	-.7810		
SGB	1143.8	R23	-.0562	R13	.7889		
SG1	1057.5	SG2	435.7	THA	168.04		

ORBIT DETERMINATION ACCURACY

ST	364.7	SR	451.3	SS	200.0
CRT	-.6444	CRS	-.5729	CST	.9902
LSA	554.1	MSA	263.3	SSA	19.0
EL1	529.3	EL2	237.8	ALF	125.79

LAUNCH DATE AUG 28 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 215.823

RL	151.12	LAL	-.00	LOL	334.28	VL	25.378	GAL	-1.37	AZL	90.60	HCA	91.95	SMA	119.31	ECC	.26764	INC	.6010	V1	29.484
RP	107.89	LAP	-.60	LOP	66.23	VP	36.711	GAP	-14.54	AZP	89.98	TAL	183.75	TAP	275.70	RCA	87.38	APO	151.24	V2	35.123
RC	42.728	GL	-3.70	GP	-12.87	ZAL	92.97	ZAP	13.06	ETS	76.63	ZAE	155.93	ETE	335.54	ZAC	88.55	ETC	260.59	CLP	-2.24

PLANETOCENTRIC CONIC

C3	17.023	VHL	4.126	DLA	-24.04	RAL	238.35	RAD	6567.7	VEL	11.765	PTH	2.08	VHP	9.242	DPA	-32.67	RAP	238.46	ECC	1.2802

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 32	1307.09	7.91	349.06	99.30	117.28	8 56 19	707.1	11.50	342.22
90.00	13 6 39	5690.17	27.70	268.73	105.51	96.15	14 41 29	5090.2	28.26	260.11
100.00	9 35 59	1108.73	6.19	333.55	98.37	119.30	9 54 27	508.7	10.05	326.89
100.00	14 47 53	5363.76	29.64	244.91	105.70	94.10	16 17 17	4763.8	29.89	236.12
110.00	10 4 58	1017.83	2.33	324.27	95.98	124.11	10 21 56	417.8	6.79	318.02
110.00	16 35 23	5027.43	34.17	219.52	105.86	89.20	17 59 11	4427.4	33.69	210.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1694	TRA	-.6292	TC3	.5185	BAU	.1295	SGT	1074.2	SGR	488.4	SG3	124.4	ST	371.3	SR	447.2
RDE	-.3219	RRA	.0221	RC3	-.2347	FAU	.02996	RRT	-.4197	RRF	.4577	RTF	-.7938	CRT	-.6512	CRS	-.5261
FDE	-.0887	FRA	.4541	FC3	-1.5236	BSP	3216	SG8	1180.0	R23	-.0654	R13	.8029	LSA	552.6	MSA	264.9
BDE	.3638	BRA	.6296	BC3	.5691	FSP	-316	SG1	1097.3	SG2	434.0	THA	167.15	EL1	530.5	EL2	237.6

SS	194.8	CST	.9817	SSA	19.9	ALF	126.99

LAUNCH DATE AUG 28 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 222.588

RL	151.12	LAL	-.00	LOL	334.28	VL	25.576	GAL	-1.53	AZL	90.41	HCA	95.17	SMA	120.40	ECC	.25648	INC	.4136	V1	29.484
RP	107.86	LAP	-.41	LOP	69.45	VP	36.859	GAP	-13.63	AZP	89.96	TAL	184.44	TAP	279.61	RCA	89.52	APO	151.28	V2	35.135
RC	43.711	GL	-2.69	GP	-13.76	ZAL	94.25	ZAP	14.38	ETS	69.33	ZAE	153.67	ETE	334.64	ZAC	87.78	ETC	260.80	CLP	-4.23

PLANETOCENTRIC CONIC

C3	15.448	VHL	3.930	DLA	-22.79	RAL	237.23	RAD	6567.6	VEL	11.698	PTH	2.06	VHP	8.752	DPA	-33.86	RAP	239.57	ECC	1.2542

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 30	1350.33	6.55	351.51	96.16	117.61	8 34 0	750.3	10.20	344.73
90.00	13 20 45	5602.68	28.17	262.37	102.32	93.00	14 54 7	5002.7	28.29	253.71
100.00	9 15 47	1142.85	5.05	335.44	95.34	119.50	9 34 50	542.8	8.95	328.82
100.00	14 59 9	5285.39	29.88	239.10	102.39	91.05	16 27 14	4685.4	29.70	230.30
110.00	9 49 8	1038.26	1.55	325.34	93.16	124.15	10 6 27	438.3	6.02	319.10
110.00	16 42 17	4962.74	34.00	214.48	102.27	86.22	18 5 0	4362.7	33.10	205.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1626	TRA	-.6113	TC3	.6211	BAU	.1421	SGT	1108.6	SGR	500.1	SG3	137.9	ST	374.8	SR	440.9
RDE	-.3023	RRA	.0257	RC3	-.2964	FAU	.03208	RRT	-.4644	RRF	.5085	RTF	-.8055	CRT	-.6540	CRS	-.4549
FDE	-.0729	FRA	.4648	FC3	-1.7981	BSP	3346	SG8	1216.2	R23	-.0758	R13	.8162	LSA	546.3	MSA	266.8
BDE	.3432	BRA	.6119	BC3	.6882	FSP	-355	SG1	1136.9	SG2	431.9	THA	166.13	EL1	528.0	EL2	236.7

SS	187.9	CST	.9640	SSA	21.0	ALF	128.00

LAUNCH DATE AUG 28 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 229.353

RL	151.12	LAL	-.00	LOL	334.28	VL	25.756	GAL	-1.69	AZL	90.22	HCA	98.39	SMA	121.42	ECC	.24630	INC	.2239	V1	29.484
RP	107.82	LAP	-.22	LOP	72.67	VP	36.996	GAP	-12.75	AZP	89.97	TAL	185.18	TAP	283.56	RCA	91.51	APO	151.32	V2	35.146
RC	44.829	GL	-1.54	GP	-14.76	ZAL	95.60	ZAP	16.01	ETS	63.22	ZAE	151.56	ETE	333.57	ZAC	86.90	ETC	261.01	CLP	-6.27

PLANETOCENTRIC CONIC

C3	14.106	VHL	3.756	DLA	-21.37	RAL	236.08	RAD	6567.6	VEL	11.640	PTH	2.04	VHP	8.286	DPA	-35.12	RAP	240.59	ECC	1.2321

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 16	1397.05	5.07	354.14	93.17	117.90	8 11 33	797.1	8.76	347.41
90.00	13 34 49	5515.44	28.32	256.00	99.11	89.80	15 6 45	4915.4	27.99	247.35
100.00	8 54 58	1181.78	3.74	337.59	92.44	119.68	9 14 40	581.8	7.67	331.00
100.00	15 10 48	5205.95	29.83	233.20	99.07	87.95	16 37 34	4605.9	29.23	224.44
110.00	9 32 26	1064.37	.55	326.70	90.45	124.18	9 50 10	464.4	5.03	320.48
110.00	16 49 50	4896.13	33.58	209.32	98.73	83.19	18 11 26	4296.1	32.27	200.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1528	TRA	-.5941	TC3	.7310	BAU	.1545	SGT	1141.5	SGR	515.2	SG3	153.0	ST	374.0	SR	431.4
RDE	-.2825	RRA	.0297	RC3	-.3700	FAU	.03443	RRT	-.5109	RRF	.5617	RTF	-.8162	CRT	-.6502	CRS	-.3416
FDE	-.0505	FRA	.4769	FC3	-2.1134	BSP	3478	SG8	1252.4	R23	-.0878	R13	.8287	LSA	533.7	MSA	270.2
BDE	.3212	BRA	.5948	BC3	.8193	FSP	-399	SG1	1176.3	SG2	429.8	THA	164.96	EL1	520.0	EL2	235.7

SS	179.9	CST	.9277	SSA	22.1	ALF	128.79

LAUNCH DATE AUG 28 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 236.116

RL	151.12	LAL	-.00	LOL	334.28	VL	25.920	GAL	-1.84	AZL	90.03	HCA	101.61	SMA	122.37	ECC	.23704	INC	.0280	V1	29.484
RP	107.79	LAP	-.03	LOP	75.89	VP	37.121	GAP	-11.91	AZP	89.99	TAL	185.94	TAP	287.55	RCA	93.36	APO	151.37	V2	35.158
RC	46.073	GL	-.23	GP	-15.88	ZAL	97.01	ZAP	17.91	ETS	58.20	ZAE	149.61	ETE	332.31	ZAC	85.89	ETC	261.20	CLP	-8.39

PLANETOCENTRIC CONIC

C3	12.969	VHL	3.601	DLA	-19.77	RAL	234.94	RAD	6567.5	VEL	11.591	PTH	2.03	VHP	7.846	DPA	-36.48	RAP	241.51	ECC	1.2134

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 24 54	1447.62	3.45	356.98	90.36	118.12	7 49 2	847.6	7.19	350.29
90.00	13 49 2	5428.27	28.13	249.63	95.93	86.62	15 19 30	4828.3	27.36	241.05
100.00	8 33 43	1225.55	2.27	340.00	89.70	119.81	8 54 9	625.5	6.22	333.44
100.00	15 22 54	5125.57	29.48	227.25	95.82	84.84	16 48 19	4525.6	28.46	218.59
110.00	9 15 2	1096.07	-.66	328.35	87.87	124.18	9 33 18	496.1	3.83	322.14
110.00	16 58 4	4827.81	32.91	204.11	95.29	80.17	18 18 32	4227.8	31.20	195.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1395	TRA	-.5780	TC3	.8421	BAU	.1661	SGT	1171.4	SGR	534.9	SG3	169.6	ST	368.2	SR	418.1
RDE	-.2625	RRA	.0342	RC3	-.4570	FAU	.03700	RRT	-.5569	RRF	.6165	RTF	-.8249	CRT	-.6365	CRS	-.1739
FDE	-.0208	FRA	.4905	FC3	-2.4698	BSP	3575	SG8	1287.7	R23	-.1031	R13	.8400	LSA	513.7	MSA	276.0
BDE	.2973	BRA	.5790	BC3	.9581	FSP	-446	SG1	1214.3	SG2	428.5	THA	163.64	EL1	505.1	EL2	235.1

SS	174.0	CST	.8600	SSA	23.4	ALF	129.34

LAUNCH DATE AUG 28 1970 FLIGHT TIME 94.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 242.872

RL	151.12	LAL	-.00	LOL	334.28	VL	26.069	GAL	-1.98	AZL	89.83	HCA	104.83	SMA	123.25	ECC	.22864	INC	.1654
RP	107.76	LAP	.16	LOP	79.12	VP	37.235	GAP	-11.10	AZP	90.04	TAL	186.71	TAP	291.55	RCA	95.07	APO	151.43
RC	47.431	GL	1.25	GP	-17.12	ZAL	98.45	ZAP	20.05	ETS	54.08	ZAE	147.82	ETE	330.85	ZAC	84.74	ETC	261.37

V1 29.484 V2 35.168 CLP -10.59

PLANETOCENTRIC CONIC

C3	12.013	VHL	3.466	DLA	-18.01	RAL	233.81	RAD	6567.5	VEL	11.550	PTH	2.02	VHP	7.432	DPA	-37.93	RAP	242.31

ECC 1.1977

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 28	1502.24	1.70	.03	87.77	118.27	7 26 31	902.2	5.46	353.38
90.00	14 3 30	5341.02	27.62	243.30	92.87	83.48	15 32 31	4741.0	26.43	234.83
100.00	8 12 10	1274.13	.62	342.66	87.17	119.89	8 33 24	674.1	4.59	336.13
100.00	15 35 29	5044.36	28.84	221.30	92.69	81.77	16 59 34	4444.4	27.40	212.79
110.00	8 57 7	1133.29	-2.08	330.29	85.48	124.13	9 16 0	533.3	2.41	324.09
110.00	17 7 2	4757.97	31.97	198.87	92.01	77.21	18 26 20	4158.0	29.88	190.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .1212	TRA -.5649	TC3 .9466	BAU .1765			SGT 1197.8	SGR 560.0	SG3 187.8	ST 356.8	SR 399.6	SS 175.4
RDE -.2413	RRA .0398	RC3 -.5580	FAU .03975			RRT -.5989	RRF .6709	RTF -.8309	CRT -.6050	CRS .0607	CST .7459
FDE .0194	FRA .5076	FC3-2.8650	BSP 3615			SGB 1322.2	R23 -.1239	R13 .8496	LSA 484.6	MSA 286.8	SSA 24.9
BDE .2700	BRA .5663	BC3 1.0988	FSP -496			SG1 1250.5	SG2 429.5	THA 162.19	EL1 480.9	EL2 236.1	ALF 129.68

LAUNCH DATE AUG 28 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 249.619

RL	151.12	LAL	-.00	LOL	334.28	VL	26.204	GAL	-2.12	AZL	89.63	HCA	108.06	SMA	124.06	ECC	.22106	INC	.3692
RP	107.72	LAP	.35	LOP	82.34	VP	37.340	GAP	-10.32	AZP	90.11	TAL	187.50	TAP	295.56	RCA	96.64	APO	151.49
RC	48.893	GL	2.89	GP	-18.52	ZAL	99.90	ZAP	22.43	ETS	50.69	ZAE	146.17	ETE	329.17	ZAC	83.43	ETC	261.52

V1 29.484 V2 35.179 CLP -12.89

PLANETOCENTRIC CONIC

C3	11.218	VHL	3.349	DLA	-16.06	RAL	232.74	RAD	6567.4	VEL	11.515	PTH	2.01	VHP	7.042	DPA	-39.51	RAP	242.97

ECC 1.1846

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 38 2	1561.15	-.21	3.32	85.42	118.32	7 4 3	961.2	3.58	356.68
90.00	14 18 21	5253.53	26.78	237.03	89.96	80.45	15 45 55	4653.5	25.19	228.73
100.00	7 50 26	1327.56	-1.19	345.59	84.87	119.87	8 12 33	727.6	2.79	339.07
100.00	15 48 38	4962.35	27.89	215.39	89.73	78.80	17 11 21	4362.4	26.07	207.06
110.00	8 38 50	1175.94	-3.71	332.52	83.30	124.01	8 58 26	575.9	.78	326.32
110.00	17 16 44	4686.74	30.78	193.66	88.94	74.34	18 34 50	4086.7	28.33	185.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .1144	TRA -.5383	TC3 1.0952	BAU .1934			SGT 1222.6	SGR 597.3	SG3 208.8	ST 348.4	SR 378.3	SS 184.4
RDE -.2205	RRA .0446	RC3 -.6811	FAU .04317			RRT -.6636	RRF .7287	RTF -.8461	CRT -.6142	CRS .2786	CST .5729
FDE .0611	FRA .5177	FC3-3.3315	BSP 3978			SGB 1360.7	R23 -.1210	R13 .8667	LSA 463.1	MSA 288.7	SSA 26.2
BDE .2484	BRA .5401	BC3 1.2897	FSP -570			SG1 1293.5	SG2 422.4	THA 159.79	EL1 462.5	EL2 224.9	ALF 131.19

LAUNCH DATE AUG 28 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 256.356

RL	151.12	LAL	-.00	LOL	334.28	VL	26.326	GAL	-2.24	AZL	89.42	HCA	111.29	SMA	124.81	ECC	.21425	INC	.5804
RP	107.69	LAP	.54	LOP	85.57	VP	37.434	GAP	-9.57	AZP	90.21	TAL	188.28	TAP	299.57	RCA	98.07	APO	151.55
RC	50.451	GL	4.70	GP	-20.08	ZAL	101.33	ZAP	25.05	ETS	47.88	ZAE	144.65	ETE	327.23	ZAC	81.94	ETC	261.63

V1 29.484 V2 35.188 CLP -15.29

PLANETOCENTRIC CONIC

C3	10.567	VHL	3.251	DLA	-13.95	RAL	231.74	RAD	6567.4	VEL	11.487	PTH	2.00	VHP	6.680	DPA	-41.22	RAP	243.45

ECC 1.1739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 14 43	1624.41	-2.25	6.84	83.37	118.24	6 41 47	1024.4	1.55	.22
90.00	14 33 44	5165.80	25.64	230.86	87.28	77.56	15 59 49	4565.8	23.67	222.75
100.00	7 28 40	1385.77	-3.16	348.79	82.86	119.74	7 51 46	785.8	.82	342.27
100.00	16 2 27	4879.67	26.66	209.55	87.01	75.96	17 23 47	4279.7	24.47	201.44
110.00	8 20 22	1223.85	-5.53	335.04	81.39	123.79	8 40 46	623.9	-1.05	328.81
110.00	17 27 15	4614.35	29.34	188.52	86.13	71.61	18 44 9	4014.3	26.54	180.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .0954	TRA -.5222	TC3 1.2050	BAU .2058			SGT 1241.6	SGR 641.6	SG3 231.0	ST 331.4	SR 347.8	SS 213.5
RDE -.1965	RRA .0517	RC3 -.8181	FAU .04657			RRT -.7080	RRF .7793	RTF -.8529	CRT -.5783	CRS .5030	CST .3990
FDE .1215	FRA .5365	FC3-3.8153	BSP 4120			SGB 1397.6	R23 -.1353	R13 .8780	LSA 427.6	MSA 304.5	SSA 27.5
BDE .2184	BRA .5248	BC3 1.4565	FSP -638			SG1 1332.3	SG2 422.2	THA 157.52	EL1 426.9	EL2 220.2	ALF 132.61

LAUNCH DATE AUG 28 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 263.079

RL	151.12	LAL	-.00	LOL	334.28	VL	26.436	GAL	-2.36	AZL	89.20	HCA	114.52	SMA	125.49	ECC	.20815	INC	.8013
RP	107.67	LAP	.73	LOP	88.80	VP	37.520	GAP	-8.84	AZP	90.33	TAL	189.05	TAP	303.57	RCA	99.37	APO	151.61
RC	52.096	GL	6.69	GP	-21.83	ZAL	102.70	ZAP	27.90	ETS	45.52	ZAE	143.21	ETE	325.03	ZAC	80.25	ETC	261.71

V1 29.484 V2 35.198 CLP -17.82

PLANETOCENTRIC CONIC

C3	10.046	VHL	3.169	DLA	-11.67	RAL	230.85	RAD	6567.4	VEL	11.464	PTH	1.99	VHP	6.344	DPA	-43.07	RAP	243.72

ECC 1.1653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 51 33	1692.17	-4.42	10.64	81.64	118.00	6 19 45	1092.2	-.64	4.00
90.00	14 49 46	5077.69	24.21	224.81	84.87	74.85	16 14 23	4477.7	21.90	216.90
100.00	7 6 58	1448.81	-5.28	352.27	81.16	119.46	7 31 7	848.8	-1.32	345.73
100.00	16 17 1	4796.28	25.16	203.81	84.58	73.30	17 36 57	4196.3	22.63	195.93
110.00	8 1 51	1276.97	-7.53	337.85	79.78	123.44	8 23 8	677.0	-3.08	331.59
110.00	17 38 38	4540.88	27.65	183.47	83.63	69.05	18 54 19	3940.9	24.55	175.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE .0748	TRA -.5066	TC3 1.3023	BAU .2184			SGT 1254.6	SGR 698.3	SG3 255.1	ST 312.4	SR 308.9	SS 261.3
RDE -.1696	RRA .0603	RC3 -.9741	FAU .05024			RRT -.7480	RRF .8250	RTF -.8587	CRT -.5314	CRS .6553	CST .2750
FDE .1955	FRA .5581	FC3-4.3293	BSP 4273			SGB 1435.9	R23 -.1490	R13 .8894	LSA 393.7	MSA 324.7	SSA 28.6
BDE .1853	BRA .5101	BC3 1.6264	FSP -714			SG1 1371.9	SG2 423.9	THA 154.83	EL1 384.4	EL2 212.6	ALF 135.61

LAUNCH DATE AUG 28 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 269.786

RL	151.12	LAL	-.00	LOL	334.28	VL	26.535	GAL	-2.47	AZL	88.97	HCA	117.75	SMA	126.12	ECC	.20270	INC	1.0338	V1	29.484
RP	107.64	LAP	.92	LOP	92.04	VP	37.598	GAP	-8.14	AZP	90.48	TAL	189.79	TAP	307.54	RCA	100.55	APO	151.68	V2	35.206
RC	53.818	GL	8.86	GP	-23.79	ZAL	103.98	ZAP	31.00	ETS	43.50	ZAE	141.84	ETE	322.51	ZAC	78.34	ETC	261.75	CLP	-20.49

PLANETOCENTRIC CONIC

C3	9.644	VHL	3.105	DLA	-9.23	RAL	230.08	RAD	6567.3	VEL	11.447	PTH	1.99	VHP	6.037	DPA	-45.10	RAP	243.74	ECC	1.1587

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 28 34	1764.61	-6.72	14.72	80.26	117.57	5 57 59	1164.6	-2.98	8.04
90.00	15 6 37	4989.06	22.51	218.87	82.79	72.35	16 29 46	4389.1	19.88	211.18
100.00	6 45 24	1516.75	-7.54	356.05	79.81	119.01	7 10 41	916.7	-3.62	349.46
100.00	16 32 28	4712.15	23.39	198.19	82.47	70.84	17 51 0	4112.1	20.56	190.53
110.00	7 43 22	1335.24	-9.70	340.96	78.50	122.94	8 5 37	735.2	-5.30	334.64
110.00	17 50 59	4466.43	25.74	178.52	81.47	66.69	19 5 26	3866.4	22.36	171.00

DIFFERENTIAL CORRECTIONS

TDE	.0518	TRA	-.4921	TC3	1.3770	BAU	.2311
RDE	-.1383	RRA	.0710	RC3	-1.1478	FAU	.05405
FDE	.2872	FRA	.5838	FC3	-4.8519	BSP	4413
BDE	.1477	BRA	.4972	BC3	1.7926	FSP	-794

MID-COURSE EXECUTION ACCURACY

SGT	1259.6	SGR	768.7	SG3	280.7		
RRT	-.7810	RRF	.8642	RTF	-.8628		
SGB	1475.7	R23	-.1617	R13	.9006		
SG1	1412.1	SG2	428.3	THA	181.68		

ORBIT DETERMINATION ACCURACY

ST	293.2	SR	259.0	SS	328.2
CRT	-.4732	CRS	.7371	CST	.2275
LSA	391.8	MSA	326.2	SSA	29.1
EL1	337.2	EL2	198.4	ALF	142.35

LAUNCH DATE AUG 28 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 276.476

RL	151.12	LAL	-.00	LOL	334.28	VL	26.623	GAL	-2.56	AZL	88.72	HCA	120.98	SMA	126.68	ECC	.19787	INC	1.2809	V1	29.484
RP	107.61	LAP	1.10	LOP	95.27	VP	37.668	GAP	-7.47	AZP	90.66	TAL	190.50	TAP	311.48	RCA	101.61	APO	151.74	V2	35.214
RC	55.612	GL	11.21	GP	-25.97	ZAL	105.15	ZAP	34.34	ETS	41.71	ZAE	140.49	ETE	319.67	ZAC	76.20	ETC	261.73	CLP	-23.31

PLANETOCENTRIC CONIC

C3	9.354	VHL	3.058	DLA	-6.63	RAL	229.46	RAD	6567.3	VEL	11.434	PTH	1.98	VHP	5.760	DPA	-47.30	RAP	243.46	ECC	1.1539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 5 47	1841.97	-9.13	19.12	79.27	116.92	5 36 29	1242.0	-5.45	12.38
90.00	15 24 27	4899.73	20.54	213.06	81.07	70.07	16 46 7	4299.7	17.64	205.58
100.00	6 23 58	1589.74	-9.93	.15	78.85	118.34	6 50 27	989.7	-6.07	353.50
100.00	16 48 57	4627.18	21.39	192.67	80.73	68.60	18 6 4	4027.2	18.29	185.25
110.00	7 24 59	1398.69	-12.03	344.40	77.60	122.24	7 48 18	798.7	-7.69	338.00
110.00	18 4 25	4391.00	23.62	173.69	79.69	64.54	19 17 36	3791.0	20.00	166.43

DIFFERENTIAL CORRECTIONS

TDE	.0278	TRA	-.4790	TC3	1.4220	BAU	.2442
RDE	-.1013	RRA	.0844	RC3	-1.3380	FAU	.05791
FDE	.3972	FRA	.6145	FC3	-5.3603	BSP	4555
BDE	.1051	BRA	.4863	BC3	1.9525	FSP	-878

MID-COURSE EXECUTION ACCURACY

SGT	1255.1	SGR	855.1	SG3	307.3		
RRT	-.8065	RRF	.8967	RTF	-.8648		
SGB	1518.7	R23	-.1719	R13	.9120		
SG1	1454.7	SG2	436.2	THA	148.00		

ORBIT DETERMINATION ACCURACY

ST	277.2	SR	197.3	SS	411.7
CRT	-.4293	CRS	.7490	CST	.2530
LSA	443.1	MSA	296.7	SSA	28.6
EL1	296.7	EL2	166.4	ALF	154.47

LAUNCH DATE AUG 28 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 283.148

RL	151.12	LAL	-.00	LOL	334.28	VL	26.701	GAL	-2.65	AZL	88.45	HCA	124.21	SMA	127.18	ECC	.19360	INC	1.5454	V1	29.484
RP	107.59	LAP	1.28	LOP	98.51	VP	37.730	GAP	-6.82	AZP	90.87	TAL	191.16	TAP	315.38	RCA	102.56	APO	151.81	V2	35.222
RC	57.469	GL	13.74	GP	-28.39	ZAL	106.15	ZAP	37.94	ETS	40.06	ZAE	139.10	ETE	316.49	ZAC	73.80	ETC	261.65	CLP	-26.30

PLANETOCENTRIC CONIC

C3	9.171	VHL	3.028	DLA	-3.88	RAL	229.00	RAD	6567.3	VEL	11.426	PTH	1.98	VHP	5.515	DPA	-49.70	RAP	242.80	ECC	1.1509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 43 7	1924.61	-11.64	23.90	78.71	116.00	5 15 11	1324.6	-8.05	17.06
90.00	15 43 29	4809.45	18.35	207.35	79.76	68.04	17 3 39	4209.4	15.21	200.08
100.00	6 2 38	1668.07	-12.42	4.63	78.31	117.41	6 30 27	1068.1	-8.65	357.87
100.00	17 6 39	4541.22	19.15	187.26	79.40	66.60	18 22 20	3941.2	15.82	180.05
110.00	7 6 43	1467.46	-14.50	348.21	77.11	121.30	7 31 11	867.5	-10.25	341.68
110.00	18 19 3	4314.59	21.30	168.97	78.32	62.61	19 30 58	3714.6	17.46	161.95

DIFFERENTIAL CORRECTIONS

TDE	.0014	TRA	-.4685	TC3	1.4235	BAU	.2571
RDE	-.0562	RRA	.1016	RC3	-1.5392	FAU	.06258
FDE	.5302	FRA	.6521	FC3	-5.8131	BSP	4661
BDE	.0562	BRA	.4794	BC3	2.0965	FSP	-958

MID-COURSE EXECUTION ACCURACY

SGT	1237.9	SGR	957.9	SG3	333.9		
RRT	-.8224	RRF	.9224	RTF	-.8636		
SGB	1565.3	R23	-.1785	R13	.9236		
SG1	1499.2	SG2	450.0	THA	143.75		

ORBIT DETERMINATION ACCURACY

ST	267.8	SR	124.2	SS	512.2
CRT	-.4937	CRS	.6160	CST	.3437
LSA	527.1	MSA	266.1	SSA	27.0
EL1	275.9	EL2	104.8	ALF	164.87

LAUNCH DATE AUG 28 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 289.799

RL	151.12	LAL	-.00	LOL	334.28	VL	26.770	GAL	-2.72	AZL	88.17	HCA	127.45	SMA	127.63	ECC	.18984	INC	1.8311	V1	29.484
RP	107.57	LAP	1.45	LOP	101.74	VP	37.785	GAP	-6.19	AZP	91.11	TAL	191.78	TAP	319.22	RCA	103.40	APO	151.87	V2	35.229
RC	59.382	GL	16.46	GP	-31.08	ZAL	106.98	ZAP	41.80	ETS	38.46	ZAE	137.61	ETE	312.95	ZAC	71.12	ETC	261.50	CLP	-29.48

PLANETOCENTRIC CONIC

C3	9.097	VHL	3.016	DLA	-.98	RAL	228.73	RAD	6567.3	VEL	11.423	PTH	1.98	VHP	5.306	DPA	-52.30	RAP	241.69	ECC	1.1497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 20 27	2013.09	-14.23	29.11	78.61	114.74	4 54 0	1413.1	-10.77	22.14
90.00	16 3 58	4717.82	15.92	201.71	78.88	66.27	17 22 36	4117.8	12.58	194.63
100.00	5 41 20	1752.17	-15.01	9.54	78.23	116.16	6 10 32	1152.2	-11.37	2.64
100.00	17 25 46	4453.98	16.71	181.94	78.50	64.85	18 40 0	3854.0	13.18	174.92
110.00	6 48 32	1541.82	-17.08	352.42	77.08	120.07	7 14 14	941.8	-12.96	345.74
110.00	18 35 3	4237.09	18.81	164.35	77.38	60.91	19 45 40	3637.1	14.78	157.54

DIFFERENTIAL CORRECTIONS

TDE	-.0184	TRA	-.4536	TC3	1.4090	BAU	.2739
RDE	-.0029	RRA	.1214	RC3	-1.7571	FAU	.06532
FDE	.6767	FRA	.6882	FC3	-6.2164	BSP	4920
BDE	.0186	BRA	.4696	BC3	2.2523	FSP	-1053

MID-COURSE EXECUTION ACCURACY

SGT	1210.9	SGR	1084.8	SG3	360.7		
RRT	-.8371	RRF	.9428	RTF	-.8624		
SGB	1625.8	R23	-.1746	R13	.9361		
SG1	1559.0	SG2	461.0	THA	138.75		

ORBIT DETERMINATION ACCURACY

ST	262.1	SR	76.4	SS	618.3
CRT	-.9246	CRS	-.2286	CST	.4218
LSA	630.1	MSA	243.2	SSA	24.7
EL1	271.6	EL2	28.1	ALF	164.76

LAUNCH DATE AUG 28 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 296.429

RL	151.12	LAL	-.00	LOL	334.28	VL	26.830	GAL	-2.79	AZL	87.86	HCA	130.68	SMA	128.03	ECC	.18656	INC	2.1427	V1	29.484
RP	107.55	LAP	1.62	LOP	104.98	VP	37.834	GAP	-5.58	AZP	91.40	TAL	192.33	TAP	323.01	RCA	104.15	APO	151.92	V2	35.235
RC	61.346	GL	19.36	GP	-34.04	ZAL	107.60	ZAP	45.90	ETS	36.82	ZAE	135.97	ETE	309.08	ZAC	68.16	ETC	261.24	CLP	-32.88

PLANETOCENTRIC CONIC

C3	9.136	VHL	3.023	DLA	2.06	RAL	228.65	RAD	6567.3	VEL	11.425	PTH	1.98	VHP	5.135	DPA	-55.09	RAP	240.01	ECC	1.1504

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 57 37	2108.17	-16.85	34.85	79.03	113.10	4 32 45	1508.2	-13.58	27.70
90.00	16 26 13	4624.40	13.28	196.12	78.47	64.76	17 43 17	4024.4	9.78	189.20
100.00	5 19 55	1842.70	-17.65	14.97	78.66	114.53	5 50 37	1242.7	-14.19	7.88
100.00	17 46 36	4365.10	14.06	176.66	78.08	63.35	18 59 21	3765.1	10.38	169.82
110.00	6 30 22	1622.21	-19.76	357.11	77.55	118.48	6 57 24	1022.2	-15.80	350.23
110.00	18 52 38	4158.36	16.14	159.80	76.91	59.45	20 1 56	3558.4	11.96	153.18

DIFFERENTIAL CORRECTIONS

TDE	-.0382	TRA	-.4421	TC3	1.3364	BAU	.2910	SGT	1166.7	SGR	1230.8	SG3	384.9	ST	262.9	SR	151.2	SS	737.0
RDE	.0636	RRA	.1475	RC3	-1.9726	FAU	.06838	RRT	-.8404	RRF	.9581	RTF	-.8555	CRT	-.7728	CRS	-.9259	CST	.5128
FDE	.8460	FRA	.7329	FC3	-6.4790	BSP	5134	SGB	1695.9	R23	-.1652	R13	.9483	LSA	764.0	MSA	225.9	SSA	21.7
BDE	.0742	BRA	.4661	BC3	2.3827	FSP	-1134	SG1	1627.0	SG2	478.3	THA	133.18	EL1	290.6	EL2	86.8	ALF	153.49

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 28 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 303.037

RL	151.12	LAL	-.00	LOL	334.28	VL	26.883	GAL	-2.84	AZL	87.51	HCA	133.92	SMA	128.38	ECC	.18370	INC	2.4863	V1	29.484
RP	107.53	LAP	1.79	LOP	108.22	VP	37.876	GAP	-4.99	AZP	91.72	TAL	192.81	TAP	326.73	RCA	104.80	APO	151.97	V2	35.240
RC	63.355	GL	22.45	GP	-37.27	ZAL	107.97	ZAP	50.22	ETS	35.07	ZAE	134.09	ETE	304.89	ZAC	64.92	ETC	260.88	CLP	-36.49

PLANETOCENTRIC CONIC

C3	9.300	VHL	3.050	DLA	5.25	RAL	228.79	RAD	6567.3	VEL	11.432	PTH	1.98	VHP	5.008	DPA	-58.05	RAP	237.60	ECC	1.1531

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 34 18	2210.97	-19.48	41.25	80.01	110.97	4 11 9	1611.0	-16.46	33.88
90.00	16 50 37	4528.50	10.43	190.52	78.59	63.53	18 6 5	3928.5	6.80	183.73
100.00	4 58 7	1940.62	-20.30	21.02	79.67	112.42	5 30 28	1340.6	-17.09	13.70
100.00	18 9 29	4274.08	11.22	171.40	78.18	62.11	19 20 43	3674.1	7.40	164.69
110.00	6 12 2	1709.30	-22.50	2.39	78.60	116.44	6 40 32	1109.3	-18.76	355.25
110.00	19 12 3	4078.17	13.31	155.31	76.95	58.22	20 20 2	3478.2	9.01	148.84

DIFFERENTIAL CORRECTIONS

TDE	-.0530	TRA	-.4311	TC3	1.2142	BAU	.3098	SGT	1104.5	SGR	1397.4	SG3	404.9	ST	264.5	SR	295.0	SS	861.2
RDE	.1457	RRA	.1807	RC3	-2.1760	FAU	.07052	RRT	-.8341	RRF	.9693	RTF	-.8422	CRT	-.6805	CRS	-.9885	CST	.5767
FDE	1.0309	FRA	.7830	FC3	-6.5643	BSP	5380	SGB	1781.2	R23	-.1485	R13	.9598	LSA	923.3	MSA	214.0	SSA	18.7
BDE	.1551	BRA	.4675	BC3	2.4918	FSP	-1201	SG1	1710.2	SG2	497.8	THA	127.06	EL1	363.7	EL2	157.2	ALF	130.44

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 28 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 309.621

RL	151.12	LAL	-.00	LOL	334.28	VL	26.928	GAL	-2.88	AZL	87.13	HCA	137.15	SMA	128.69	ECC	.18123	INC	2.8695	V1	29.484
RP	107.52	LAP	1.95	LOP	111.47	VP	37.913	GAP	-4.43	AZP	92.10	TAL	193.23	TAP	330.38	RCA	105.36	APO	152.01	V2	35.245
RC	65.403	GL	25.74	GP	-40.76	ZAL	108.09	ZAP	54.74	ETS	33.10	ZAE	131.93	ETE	300.44	ZAC	61.41	ETC	260.37	CLP	-40.35

PLANETOCENTRIC CONIC

C3	9.609	VHL	3.100	DLA	8.57	RAL	229.16	RAD	6567.3	VEL	11.445	PTH	1.99	VHP	4.929	DPA	-61.13	RAP	234.25	ECC	1.1581

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 10 6	2323.09	-22.05	48.47	81.64	108.24	3 48 49	1723.1	-19.35	40.84
90.00	17 17 43	4429.16	7.37	184.83	79.28	62.58	18 31 33	3829.2	3.64	178.14
100.00	4 35 36	2047.32	-22.92	27.87	81.31	109.73	5 9 44	1447.3	-20.02	20.27
100.00	18 34 54	4180.17	8.18	166.09	78.84	61.15	19 44 34	3580.2	4.27	159.48
110.00	5 53 20	1804.06	-25.24	8.38	80.29	113.86	6 23 24	1204.1	-21.80	.92
110.00	19 33 40	3996.18	10.33	150.83	77.54	57.23	20 40 16	3396.2	5.94	144.49

DIFFERENTIAL CORRECTIONS

TDE	-.0585	TRA	-.4183	TC3	1.0504	BAU	.3314	SGT	1023.3	SGR	1585.5	SG3	419.0	ST	259.0	SR	474.4	SS	984.5
RDE	.2466	RRA	.2217	RC3	-2.3565	FAU	.07157	RRT	-.8165	RRF	.9775	RTF	-.8193	CRT	-.6451	CRS	-.9972	CST	.5950
FDE	1.2232	FRA	.8334	FC3	-6.4480	BSP	5703	SGB	1887.1	R23	-.1254	R13	.9701	LSA	1104.0	MSA	206.0	SSA	15.9
BDE	.2534	BRA	.4734	BC3	2.5800	FSP	-1253	SG1	1815.1	SG2	516.1	THA	120.52	EL1	507.9	EL2	184.9	ALF	112.55

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 28 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 316.181

RL	151.12	LAL	-.00	LOL	334.28	VL	26.966	GAL	-2.91	AZL	86.70	HCA	140.38	SMA	128.94	ECC	.17912	INC	3.3026	V1	29.484
RP	107.51	LAP	2.11	LOP	114.71	VP	37.944	GAP	-3.88	AZP	92.55	TAL	193.57	TAP	333.95	RCA	105.85	APO	152.04	V2	35.249
RC	67.486	GL	29.23	GP	-44.48	ZAL	107.94	ZAP	59.39	ETS	30.83	ZAE	129.44	ETE	295.78	ZAC	57.64	ETC	259.70	CLP	-44.46

PLANETOCENTRIC CONIC

C3	10.096	VHL	3.177	DLA	12.03	RAL	229.76	RAD	6567.4	VEL	11.467	PTH	1.99	VHP	4.905	DPA	-64.28	RAP	229.69	ECC	1.1662

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 44 20	2446.92	-24.44	56.75	83.98	104.76	3 25 7	1846.9	-22.18	48.82
90.00	17 48 18	4324.93	4.06	178.96	80.64	61.95	19 0 23	3724.9	.28	172.32
100.00	4 11 49	2164.79	-25.40	35.71	83.68	106.31	4 47 53	1564.8	-22.92	27.79
100.00	19 3 31	4082.29	4.93	160.64	80.16	60.48	20 11 33	3482.3	.96	154.10
110.00	5 33 55	1907.88	-27.92	15.26	82.74	110.58	6 5 43	1307.9	-24.86	7.42
110.00	19 57 54	3911.96	7.19	146.32	78.76	56.49	21 3 6	3312.0	2.74	140.07

DIFFERENTIAL CORRECTIONS

TDE	-.0508	TRA	-.4032	TC3	.8457	BAU	.3554	SGT	921.9	SGR	1791.4	SG3	424.8	ST	241.6	SR	685.9	SS	1101.3
RDE	.3701	RRA	.2731	RC3	-2.4933	FAU	.07111	RRT	-.7792	RRF	.9834	RTF	-.7782	CRT	-.5766	CRS	-.9991	CST	.5484
FDE	1.4138	FRA	.8833	FC3	-6.0982	BSP	6091	SGB	2014.7	R23	-.0990	R13	.9786	LSA	1304.3	MSA	200.7	SSA	13.4
BDE	.3735	BRA	.4870	BC3	2.6328	FSP	-1282	SG1	1943.0	SG2	532.7	THA	113.75	EL1	701.1	EL2	193.1	ALF	102.44

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 28 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 322.716

RL	151.12	LAL	-.00	LOL	334.28	VL	26.998	GAL	-2.93	AZL	86.20	HCA	143.62	SMA	129.16	ECC	.17732	INC	3.7992	V1	29.484
RP	107.50	LAP	2.25	LOP	117.96	VP	37.970	GAP	-3.35	AZP	93.06	TAL	193.83	TAP	337.44	RCA	106.26	APO	152.06	V2	35.253
RC	69.600	GL	32.91	GP	-48.41	ZAL	107.50	ZAP	64.09	ETS	28.17	ZAE	126.60	ETE	290.98	ZAC	53.65	ETC	258.81	CLP	-48.83

PLANETOCENTRIC CONIC

C3	10.812	VHL	3.288	DLA	15.63	RAL	230.62	RAD	6567.4	VEL	11.498	PTH	2.00	VHP	4.946	DPA	-67.39	RAP	223.51	ECC	1.1779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 15 56	2586.18	-26.51	66.43	87.11	100.34	2 59 2	1986.2	-24.81	58.17
90.00	18 23 32	4213.37	.47	172.73	82.77	61.69	19 33 46	3613.4	-3.32	166.09
100.00	3 45 53	2296.11	-27.59	44.85	86.87	101.98	4 24 9	1696.1	-25.66	36.58
100.00	19 36 17	3978.68	1.43	154.94	82.24	60.14	20 42 35	3378.7	-2.55	148.42
110.00	5 13 16	2022.71	-30.40	23.27	86.06	106.43	5 46 58	1422.7	-27.85	15.01
110.00	20 25 23	3824.84	3.90	141.73	80.70	56.01	21 29 8	3224.8	-.59	135.52

DIFFERENTIAL CORRECTIONS

TDE	-.0239	TRA	-.3842	TC3	.6101	BAU	.3812
RDE	.5198	RRA	.3371	RC3	-2.5658	FAU	.06890
FDE	1.5891	FRA	.9292	FC3	-5.5169	BSP	6548
BDE	.5203	BRA	.5111	BC3	2.6373	FSP	-1279

MID-COURSE EXECUTION ACCURACY

SGT	803.7	SGR	2009.8	SG3	420.2		
RRT	-.7049	RRF	.9877	RTF	-.7008		
SGB	2164.6	R23	-.0719	R13	.9851		
SG1	2094.3	SG2	547.0	THA	106.93		

ORBIT DETERMINATION ACCURACY

ST	213.0	SR	925.4	SS	1203.7
CRT	-.3880	CRS	-.9997	CST	.3696
LSA	1520.3	MSA	197.6	SSA	11.2
EL1	929.2	EL2	195.5	ALF	95.34

LAUNCH DATE AUG 28 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 329.226

RL	151.12	LAL	-.00	LOL	334.28	VL	27.024	GAL	-2.94	AZL	85.62	HCA	146.85	SMA	129.34	ECC	.17582	INC	4.3782	V1	29.484
RP	107.49	LAP	2.39	LOP	121.20	VP	37.991	GAP	-2.83	AZP	93.67	TAL	194.01	TAP	340.85	RCA	106.60	APO	152.08	V2	35.255
RC	71.740	GL	36.78	GP	-52.50	ZAL	106.77	ZAP	68.74	ETS	25.02	ZAE	123.39	ETE	286.07	ZAC	49.49	ETC	257.65	CLP	-53.45

PLANETOCENTRIC CONIC

C3	11.841	VHL	3.441	DLA	19.35	RAL	231.74	RAD	6567.5	VEL	11.542	PTH	2.01	VHP	5.063	DPA	-70.31	RAP	215.18	ECC	1.1949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 42 57	2747.47	-27.95	78.00	91.09	94.71	2 28 44	2147.5	-27.01	69.46
90.00	19 5 31	4089.71	-3.52	165.82	85.87	61.88	20 13 40	3489.7	-7.25	159.13
100.00	3 16 20	2446.34	-29.24	55.70	90.94	96.51	3 57 6	1846.3	-28.03	47.11
100.00	20 14 49	3866.08	-2.38	148.76	85.25	60.19	21 19 15	3266.1	-6.33	142.20
110.00	4 50 35	2151.46	-32.50	32.72	90.35	101.22	5 26 27	1551.5	-30.62	24.01
110.00	20 57 3	3733.72	.42	136.97	83.50	55.82	21 59 17	3133.7	-4.07	130.76

DIFFERENTIAL CORRECTIONS

TDE	.0301	TRA	-.3585	TC3	.3572	BAU	.4079
RDE	.7004	RRA	.4172	RC3	-2.5516	FAU	.06475
FDE	1.7374	FRA	.9679	FC3	-4.7339	BSP	7052
BDE	.7010	BRA	.5500	BC3	2.5765	FSP	-1239

MID-COURSE EXECUTION ACCURACY

SGT	680.6	SGR	2232.8	SG3	404.3		
RRT	-.5520	RRF	.9907	RTF	-.5451		
SGB	2334.3	R23	-.0459	R13	.9896		
SG1	2266.3	SG2	559.1	THA	100.18		

ORBIT DETERMINATION ACCURACY

ST	196.5	SR	1188.1	SS	1285.9
CRT	.0696	CRS	-.9999	CST	-.0818
LSA	1750.7	MSA	196.2	SSA	9.2
EL1	1188.2	EL2	196.0	ALF	89.32

LAUNCH DATE AUG 28 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 335.709

RL	151.12	LAL	-.00	LOL	334.28	VL	27.045	GAL	-2.93	AZL	84.93	HCA	150.07	SMA	129.48	ECC	.17457	INC	5.0668	V1	29.484
RP	107.48	LAP	2.53	LOP	124.45	VP	38.007	GAP	-2.33	AZP	94.39	TAL	194.10	TAP	344.18	RCA	106.88	APO	152.08	V2	35.257
RC	73.903	GL	40.83	GP	-56.71	ZAL	105.77	ZAP	73.24	ETS	21.32	ZAE	119.84	ETE	281.07	ZAC	45.19	ETC	256.15	CLP	-58.31

PLANETOCENTRIC CONIC

C3	13.314	VHL	3.649	DLA	23.18	RAL	233.15	RAD	6567.5	VEL	11.606	PTH	2.03	VHP	5.272	DPA	-72.83	RAP	204.08	ECC	1.2191

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 0 58	2945.23	-28.22	92.44	95.83	87.49	1 50 3	2345.2	-28.26	83.78
90.00	19 58 46	3942.00	-8.19	157.49	90.27	62.80	21 4 28	3342.0	-11.78	150.64
100.00	2 40 9	2625.41	-29.89	68.96	95.88	89.57	3 23 54	2025.4	-29.63	60.16
100.00	21 2 15	3737.05	-6.72	141.63	89.47	60.80	22 4 32	3137.1	-10.56	134.95
110.00	4 24 33	2298.81	-33.90	43.98	95.70	94.69	5 2 51	1698.8	-32.88	34.89
110.00	21 34 21	3636.42	-3.30	131.89	87.36	55.96	22 34 58	3036.4	-7.75	125.63

DIFFERENTIAL CORRECTIONS

TDE	.1234	TRA	-.3216	TC3	.1096	BAU	.4346
RDE	.9141	RRA	.5150	RC3	-2.4395	FAU	.05884
FDE	1.8428	FRA	.9923	FC3	-3.8259	BSP	7632
BDE	.9224	BRA	.6072	BC3	2.4419	FSP	-1167

MID-COURSE EXECUTION ACCURACY

SGT	587.9	SGR	2450.2	SG3	377.0		
RRT	-.2413	RRF	.9928	RTF	-.2314		
SGB	2519.7	R23	-.0225	R13	.9926		
SG1	2454.5	SG2	569.5	THA	93.50		

ORBIT DETERMINATION ACCURACY

ST	254.3	SR	1460.4	SS	1338.8
CRT	.6312	CRS	-.9999	CST	-.6375
LSA	1987.8	MSA	196.2	SSA	7.7
EL1	1469.4	EL2	196.1	ALF	83.61

LAUNCH DATE AUG 28 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 342.163

RL	151.12	LAL	-.00	LOL	334.28	VL	27.061	GAL	-2.91	AZL	84.09	HCA	153.30	SMA	129.59	ECC	.17356	INC	5.9050	V1	29.484
RP	107.48	LAP	2.65	LOP	127.70	VP	38.019	GAP	-1.85	AZP	95.28	TAL	194.12	TAP	347.41	RCA	107.10	APO	152.08	V2	35.258
RC	76.087	GL	45.02	GP	-61.01	ZAL	104.49	ZAP	77.46	ETS	16.99	ZAE	115.98	ETE	275.97	ZAC	40.80	ETC	254.21	CLP	-63.39

PLANETOCENTRIC CONIC

C3	15.451	VHL	3.931	DLA	27.08	RAL	234.87	RAD	6567.6	VEL	11.698	PTH	2.06	VHP	5.596	DPA	-74.71	RAP	189.76	ECC	1.2543

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 48 11	3236.64	-25.57	113.30	100.65	77.41	24 42 8	2636.6	-27.05	104.95
90.00	21 21 18	3716.46	-14.90	144.33	96.86	65.64	22 23 14	3116.5	-18.07	137.08
100.00	1 48 33	2861.30	-28.50	86.32	101.29	80.56	2 36 14	2261.3	-29.50	77.66
100.00	22 7 33	3567.04	-12.23	132.02	95.52	62.51	23 7 0	2967.0	-15.81	125.06
110.00	3 52 29	2473.45	-34.04	57.60	102.01	86.65	4 33 43	1873.5	-34.13	48.35
110.00	22 20 6	3527.65	-7.42	126.17	92.65	56.54	23 18 53	2927.6	-11.77	119.77

DIFFERENTIAL CORRECTIONS

TDE	.2718	TRA	-.2681	TC3	-.1124	BAU	.4588
RDE	1.1651	RRA	.6370	RC3	-2.2183	FAU	.05131
FDE	1.8981	FRA	1.0026	FC3	-2.8748	BSP	8227
BDE	1.1964	BRA	.6911	BC3	2.2212	FSP	-1061

MID-COURSE EXECUTION ACCURACY

SGT	597.9	SGR	2648.2	SG3	339.7		
RRT	.2333	RRF	.9943	RTF	.2448		
SGB	2714.8	R23	-.0012	R13	.9944		
SG1	2652.0	SG2	580.6	THA	86.83		

ORBIT DETERMINATION ACCURACY

ST	417.6	SR	1727.6	SS	1359.2
CRT	.8759	CRS	-1.0000	CST	-.8789
LSA	2228.7	MSA	198.0	SSA	6.3
EL1	1766.4	EL2	197.0	ALF	77.89

LAUNCH DATE AUG 28 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 348.588

RL	151.12	LAL	-.00	LOL	334.28	VL	27.072	GAL	-2.88	AZL	83.05	HCA	156.51	SMA	129.66	ECC	.17276	INC	6.9543	V1	29.484
RP	107.48	LAP	2.77	LOP	130.95	VP	38.028	GAP	-1.39	AZP	96.38	TAL	194.04	TAP	350.56	RCA	107.26	APO	152.06	V2	35.259
RC	78.289	GL	49.31	GP	-65.40	ZAL	102.98	ZAP	81.29	ETS	11.92	ZAE	111.82	ETE	270.68	ZAC	36.31	ETC	251.62	CLP	-68.66

PLANETOCENTRIC CONIC

C3	18.640	VHL	4.317	DLA	31.00	RAL	236.91	RAD	6567.8	VEL	11.833	PTH	2.10	VHP	6.073	DPA	-75.67	RAP	172.56	ECC	1.3068

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.82	20 58 6	3856.50	-21.84	157.79	105.09	67.43	22 2 22	3256.5	-24.71	150.07
103.18	0 31 33	3182.99	-21.83	108.07	105.08	67.42	1 24 36	2583.0	-24.70	100.36
76.82	20 58 6	3856.50	-21.84	157.79	105.09	67.43	22 2 22	3256.5	-24.71	150.07
103.18	0 31 33	3182.99	-21.83	108.07	105.08	67.42	1 24 36	2583.0	-24.70	100.36
110.00	3 7 10	2697.96	-31.82	74.70	108.69	76.78	3 52 8	2098.0	-33.30	65.79
110.00	23 21 40	3389.53	-12.52	118.72	100.06	57.93	24 18 9	2789.5	-16.66	112.06

DIFFERENTIAL CORRECTIONS

TDE	.5018	TRA	-.1876	TC3	-.2833	BAU	.4787
RDE	1.4532	RRA	.7871	RC3	-1.8999	FAU	.04274
FDE	1.8965	FRA	.9946	FC3	-1.9849	BSP	8847
BDE	1.5374	BRA	.8092	BC3	1.9209	FSP	-931

MID-COURSE EXECUTION ACCURACY

SGT	766.6	SGR	2809.9	SG3	294.8		
RRT	.6181	RRF	.9952	RTF	.6300		
SGB	2912.6	R23	.0177	R13	.9952		
SG1	2851.4	SG2	593.8	THA	79.99		

ORBIT DETERMINATION ACCURACY

ST	671.6	SR	1963.5	SS	1343.0		
CRT	.9499	CRS	-1.0000	CST	-.9518		
LSA	2463.6	MSA	201.5	SSA	5.3		
EL1	2065.5	EL2	199.5	ALF	71.82		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 354.979

RL	151.12	LAL	-.00	LOL	334.28	VL	27.079	GAL	-2.84	AZL	81.68	HCA	159.72	SMA	129.71	ECC	.17214	INC	8.3150	V1	29.484
RP	107.48	LAP	2.87	LOP	134.20	VP	38.032	GAP	-.94	AZP	97.81	TAL	193.89	TAP	353.61	RCA	107.38	APO	152.04	V2	35.258
RC	80.507	GL	53.62	GP	-69.91	ZAL	101.28	ZAP	84.61	ETS	5.94	ZAE	107.37	ETE	265.00	ZAC	31.73	ETC	248.04	CLP	-74.13

PLANETOCENTRIC CONIC

C3	23.598	VHL	4.858	DLA	34.87	RAL	239.28	RAD	6568.0	VEL	12.041	PTH	2.15	VHP	6.763	DPA	-75.51	RAP	154.06	ECC	1.3884

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.74	20 15 23	4074.64	-22.67	174.96	112.46	62.77	21 23 17	3474.6	-26.13	167.46
111.26	1 33 12	3078.01	-22.66	100.43	112.46	62.76	2 24 30	2478.0	-26.12	92.93
68.74	20 15 23	4074.64	-22.67	174.96	112.46	62.77	21 23 17	3474.6	-26.13	167.46
111.26	1 33 12	3078.01	-22.66	100.43	112.46	62.76	2 24 30	2478.0	-26.12	92.93
68.74	20 15 23	4074.64	-22.67	174.96	112.46	62.77	21 23 17	3474.6	-26.13	167.46
111.26	1 33 12	3078.01	-22.66	100.43	112.46	62.76	2 24 30	2478.0	-26.12	92.93

DIFFERENTIAL CORRECTIONS

TDE	.8558	TRA	-.0628	TC3	-.3869	BAU	.4901
RDE	1.7758	RRA	.9743	RC3	-1.5045	FAU	.03363
FDE	1.8425	FRA	.9701	FC3	-1.2337	BSP	9471
BDE	1.9713	BRA	.9763	BC3	1.5535	FSP	-786

MID-COURSE EXECUTION ACCURACY

SGT	1080.9	SGR	2913.0	SG3	246.0		
RRT	.8058	RRF	.9957	RTF	.8184		
SGB	3107.1	R23	.0355	R13	.9955		
SG1	3046.2	SG2	612.1	THA	72.63		

ORBIT DETERMINATION ACCURACY

ST	1009.8	SR	2136.7	SS	1293.4		
CRT	.9748	CRS	-1.0000	CST	-.9765		
LSA	2686.1	MSA	207.7	SSA	4.4		
EL1	2354.4	EL2	204.5	ALF	65.06		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 361.331

RL	151.12	LAL	-.00	LOL	334.28	VL	27.081	GAL	-2.78	AZL	79.84	HCA	162.92	SMA	129.73	ECC	.17170	INC	10.1609	V1	29.484
RP	107.48	LAP	2.97	LOP	137.45	VP	38.033	GAP	-.50	AZP	99.72	TAL	193.64	TAP	356.55	RCA	107.45	APO	152.00	V2	35.257
RC	82.739	GL	57.83	GP	-74.63	ZAL	99.42	ZAP	87.34	ETS	358.54	ZAE	102.58	ETE	258.38	ZAC	26.97	ETC	242.66	CLP	-79.90

PLANETOCENTRIC CONIC

C3	31.778	VHL	5.637	DLA	38.56	RAL	241.98	RAD	6568.3	VEL	12.375	PTH	2.23	VHP	7.773	DPA	-74.19	RAP	136.43	ECC	1.5230

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.66	19 53 51	4244.16	-22.22	188.36	121.17	57.64	21 4 35	3644.2	-26.33	181.24
117.34	2 16 19	3056.43	-22.21	98.41	121.16	57.63	3 7 16	2456.4	-26.31	91.30
62.66	19 53 51	4244.16	-22.22	188.36	121.17	57.64	21 4 35	3644.2	-26.33	181.24
117.34	2 16 19	3056.43	-22.21	98.41	121.16	57.63	3 7 16	2456.4	-26.31	91.30
62.66	19 53 51	4244.16	-22.22	188.36	121.17	57.64	21 4 35	3644.2	-26.33	181.24
117.34	2 16 19	3056.43	-22.21	98.41	121.16	57.63	3 7 16	2456.4	-26.31	91.30

DIFFERENTIAL CORRECTIONS

TDE	1.4198	TRA	.1454	TC3	-.4137	BAU	.4848
RDE	2.1087	RRA	1.2105	RC3	-1.0636	FAU	.02445
FDE	1.7476	FRA	.9349	FC3	-.6660	BSP	10043
BDE	2.5421	BRA	1.2192	BC3	1.1412	FSP	-635

MID-COURSE EXECUTION ACCURACY

SGT	1528.2	SGR	2916.7	SG3	196.9		
RRT	.8860	RRF	.9957	RTF	.9023		
SGB	3292.8	R23	.0526	R13	.9952		
SG1	3230.0	SG2	639.9	THA	64.00		

ORBIT DETERMINATION ACCURACY

ST	1444.2	SR	2194.9	SS	1217.8		
CRT	.9843	CRS	-.9999	CST	-.9867		
LSA	2887.7	MSA	218.1	SSA	3.7		
EL1	2618.7	EL2	213.9	ALF	56.82		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 367.635

RL	151.12	LAL	-.00	LOL	334.28	VL	27.080	GAL	-2.71	AZL	77.18	HCA	166.09	SMA	129.72	ECC	.17141	INC	12.8215	V1	29.484
RP	107.49	LAP	3.06	LOP	140.70	VP	38.031	GAP	-.09	AZP	102.46	TAL	193.29	TAP	359.38	RCA	107.49	APO	151.96	V2	35.255
RC	84.985	GL	61.72	GP	-79.72	ZAL	97.48	ZAP	89.39	ETS	348.08	ZAE	97.32	ETE	249.07	ZAC	21.91	ETC	233.18	CLP	-86.55

PLANETOCENTRIC CONIC

C3	46.465	VHL	6.817	DLA	41.85	RAL	244.98	RAD	6568.7	VEL	12.955	PTH	2.36	VHP	9.305	DPA	-71.73	RAP	120.89	ECC	1.7647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.80	19 43 41	4402.27	-19.99	200.10	131.03	52.44	20 57 3	3802.3	-24.73	193.55
122.20	2 50 24	3089.97	-19.98	99.59	131.02	52.43	3 41 54	2490.0	-24.71	93.03
57.80	19 43 41	4402.27	-19.99	200.10	131.03	52.44	20 57 3	3802.3	-24.73	193.55
122.20	2 50 24	3089.97	-19.98	99.59	131.02	52.43	3 41 54	2490.0	-24.71	93.03
57.80	19 43 41	4402.27	-19.99	200.10	131.03	52.44	20 57 3	3802.3	-24.73	193.55
122.20	2 50 24	3089.97	-19.98	99.59	131.02	52.43	3 41 54	2490.0	-24.71	93.03

DIFFERENTIAL CORRECTIONS

TDE	2.3944	TRA	.5436	TC3	-.3678	BAU	.4492
RDE	2.3107	RRA	1.4867	RC3	-.6226	FAU	.01572
FDE	1.6314	FRA	.8961	FC3	-.2929	BSP	10590
BDE	3.3275	BRA	1.5829	BC3	.7232	FSP	-493

MID-COURSE EXECUTION ACCURACY

SGT	2162.9	SGR	2703.1	SG3	151.2		
RRT	.9174	RRF	.9933	RTF	.9459		
SGB	3461.9	R23	.0694	R13	.9947		
SG1	3393.3	SG2	685.8	THA	51.89		

ORBIT DETERMINATION ACCURACY

ST	2021.0	SR	2006.5	SS	1129.1		
CRT	.9868	CRS	-.9993	CST	-.9920		
LSA	3054.5	MSA	236.0	SSA	3.1		
EL1	2838.5	EL2	231.0	ALF	44.79		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 373.866

RL	151.12	LAL	-.00	LOL	334.28	VL	27.076	GAL	-2.61	AZL	73.00	HCA	169.21	SMA	129.69	ECC	.17123	INC	16.9981	V1	29.484
RP	107.50	LAP	3.14	LOP	143.95	VP	38.025	GAP	.30	AZP	106.71	TAL	192.83	TAP	2.04	RCA	107.49	APO	151.90	V2	35.253
RC	87.241	GL	64.85	GP	-85.53	ZAL	95.54	ZAP	90.71	ETS	326.04	ZAE	91.28	ETE	228.44	ZAC	16.25	ETC	209.39	CLP	-99.10

PLANETOCENTRIC CONIC

C3	76.301	VHL	8.735	DLA	44.34	RAL	248.12	RAD	6569.5	VEL	14.059	PTH	2.56	VHP	11.793	DPA	-68.01	RAP	107.50	ECC	2.2557		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.34	19 42 10	4560.53	-15.60	210.33	141.54	47.95	20 58 10	3960.5	-20.86	204.40
125.66	3 16 58	3172.67	-15.58	103.09	141.52	47.95	4 9 51	2572.7	-20.84	97.16
54.34	19 42 10	4560.53	-15.60	210.33	141.54	47.95	20 58 10	3960.5	-20.86	204.40
125.66	3 16 58	3172.67	-15.58	103.09	141.52	47.95	4 9 51	2572.7	-20.84	97.16
54.34	19 42 10	4560.53	-15.60	210.33	141.54	47.95	20 58 10	3960.5	-20.86	204.40
125.66	3 16 58	3172.67	-15.58	103.09	141.52	47.95	4 9 51	2572.7	-20.84	97.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.2627	TRA	1.5392	TC3	-.2605	BAU	.3444	SGT	3165.0	SGR	1734.4	SG3	112.1	ST	2827.9	SR	1026.3	SS	1055.1				
RDE	1.4250	RRA	1.5396	RC3	-.2148	FAU	.00747	RRT	.8703	RRF	.9478	RTF	.9787	CRT	.9624	CRS	-.9819	CST	-.9964				
FDE	1.5352	FRA	.8772	FC3	-.0847	BSP	11040	SGB	3609.0	R23	.0868	R13	.9941	LSA	3176.7	MSA	268.6	SSA	2.4				
BDE	4.4945	BRA	2.1771	BC3	.3376	FSP	-367	SG1	3526.7	SG2	766.7	THA	26.87	EL1	2996.9	EL2	263.2	ALF	19.41				

LAUNCH DATE AUG 28 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 379.968

RL	151.12	LAL	-.00	LOL	334.28	VL	27.069	GAL	-2.49	AZL	65.56	HCA	172.23	SMA	129.64	ECC	.17111	INC	24.4425	V1	29.484		
RP	107.51	LAP	3.21	LOP	147.20	VP	38.017	GAP	.65	AZP	114.24	TAL	192.21	TAP	4.44	RCA	107.46	APO	151.82	V2	35.249		
RC	89.506	GL	66.25	GP	-86.59	ZAL	93.67	ZAP	91.28	ETS	245.54	ZAE	83.63	ETE	149.46	ZAC	9.59	ETC	116.35	CLP	112.07		

PLANETOCENTRIC CONIC

C3	149.464	VHL	12.226	DLA	45.09	RAL	250.96	RAD	6570.6	VEL	16.456	PTH	2.87	VHP	16.311	DPA	-62.29	RAP	95.73	ECC	3.4598		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.31	19 49 33	4710.63	-9.24	217.96	151.64	45.66	21 8 3	4110.6	-14.78	212.47
126.69	3 32 15	3302.12	-9.23	108.82	151.63	45.66	4 27 17	2702.1	-14.77	103.33
53.31	19 49 33	4710.63	-9.24	217.96	151.64	45.66	21 8 3	4110.6	-14.78	212.47
126.69	3 32 15	3302.12	-9.23	108.82	151.63	45.66	4 27 17	2702.1	-14.77	103.33
53.31	19 49 33	4710.63	-9.24	217.96	151.64	45.66	21 8 3	4110.6	-14.78	212.47
126.69	3 32 15	3302.12	-9.23	108.82	151.63	45.66	4 27 17	2702.1	-14.77	103.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.2042	TRA	2.8484	TC3	-.0267	BAU	.0535	SGT	2731.7	SGR	2530.5	SG3	82.4	ST	2050.4	SR	2308.3	SS	1053.3				
RDE	-4.8759	RRA	-1.6372	RC3	.0021	FAU	-.00162	RRT	-.9487	RRF	-.9649	RTF	.9973	CRT	-.9904	CRS	.9940	CST	-.9996				
FDE	1.5446	FRA	.9341	FC3	.0094	BSP	11084	SGB	3723.6	R23	-.0883	R13	-.9951	LSA	3254.9	MSA	217.8	SSA	1.7				
BDE	6.4381	BRA	3.2854	BC3	.0268	FSP	-262	SG1	3675.9	SG2	594.4	THA	137.31	EL1	3080.1	EL2	212.3	ALF	131.58				

LAUNCH DATE AUG 28 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 385.736

RL	151.12	LAL	-.00	LOL	334.28	VL	27.059	GAL	-2.29	AZL	49.50	HCA	174.97	SMA	129.57	ECC	.17091	INC	40.5034	V1	29.484		
RP	107.52	LAP	3.26	LOP	150.45	VP	38.006	GAP	.91	AZP	130.39	TAL	191.24	TAP	6.21	RCA	107.43	APO	151.72	V2	35.245		
RC	91.778	GL	62.99	GP	-74.99	ZAL	92.01	ZAP	91.15	ETS	197.51	ZAE	71.81	ETE	102.80	ZAC	6.80	ETC	342.31	CLP	94.45		

PLANETOCENTRIC CONIC

C3	388.464	VHL	19.710	DLA	41.39	RAL	252.31	RAD	6572.1	VEL	22.578	PTH	3.26	VHP	25.981	DPA	-52.07	RAP	84.95	ECC	7.3931		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.45	20 15 41	4787.45	-2.70	218.70	159.25	48.68	21 35 28	4187.5	-7.96	213.06
121.55	3 16 51	3490.48	-2.69	119.51	159.24	48.68	4 15 1	2890.5	-7.94	113.87
58.45	20 15 41	4787.45	-2.70	218.70	159.25	48.68	21 35 28	4187.5	-7.96	213.06
121.55	3 16 51	3490.48	-2.69	119.51	159.24	48.68	4 15 1	2890.5	-7.94	113.87
58.45	20 15 41	4787.45	-2.70	218.70	159.25	48.68	21 35 28	4187.5	-7.96	213.06
121.55	3 16 51	3490.48	-2.69	119.51	159.24	48.68	4 15 1	2890.5	-7.94	113.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7624	TRA	1.2285	TC3	-.0243	BAU	.9571	SGT	533.7	SGR	3671.9	SG3	63.4	ST	263.7	SR	2960.5	SS	1245.3				
RDE	-9.9393	RRA	-5.5445	RC3	-.1827	FAU	-.01790	RRT	-.1600	RRF	-.9962	RTF	.2366	CRT	.7025	CRS	.9992	CST	.6729				
FDE	1.8439	FRA	1.2280	FC3	.0399	BSP	11021	SGB	3710.5	R23	-.0749	R13	-.9965	LSA	3216.7	MSA	194.2	SSA	1.8				
BDE	9.9685	BRA	5.6789	BC3	.1843	FSP	-199	SG1	3672.9	SG2	526.7	THA	91.36	EL1	2966.3	EL2	187.3	ALF	86.41				

LAUNCH DATE AUG 28 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 390.318

RL	151.12	LAL	-.00	LOL	334.28	VL	27.046	GAL	-1.86	AZL	9.89	HCA	176.64	SMA	129.48	ECC	.17014	INC	80.1113	V1	29.484		
RP	107.53	LAP	3.31	LOP	153.70	VP	37.992	GAP	.84	AZP	170.10	TAL	189.15	TAP	5.79	RCA	107.45	APO	151.51	V2	35.240		
RC	94.056	GL	46.99	GP	-52.10	ZAL	90.77	ZAP	90.56	ETS	186.21	ZAE	48.90	ETE	92.03	ZAC	27.03	ETC	288.53	CLP	90.91		

PLANETOCENTRIC CONIC

C3	1326.363	VHL	36.419	DLA	25.39	RAL	250.07	RAD	6573.1	VEL	38.048	PTH	3.54	VHP	47.530	DPA	-30.28	RAP	75.41	ECC	22.8286		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 32 6	3844.02	-11.19	151.85	166.80	63.82	2 36 10	3244.0	-14.62	144.86
90.00	21 42 33	4588.53	12.23	194.01	155.51	64.26	22 59 2	3988.5	8.67	187.14
100.00	3 17 43	3503.51	-14.19	128.33	168.33	63.41	4 16 7	2903.5	-17.65	121.24
100.00	22 39 37	4404.27	15.25	178.97	154.01	63.97	23 53 1	3804.3	11.63	172.05
110.00	5 11 6	3148.78	-20.74	104.91	171.85	62.20	6 3 35	2548.8	-24.29	97.56
110.00	23 2 44	4331.77	21.84	170.02	150.55	63.02	24 14 56	3731.8	18.04	162.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-5.1151	TRA	.0073	TC3	-.0848	BAU	4.2159	SGT	1014.6	SGR	3040.0	SG3	56.1	ST	804.9	SR	1983.5	SS	1672.9				
RD	-12.1700	RRA	-9.8774	RC3	-.2221	FAU	-.07313	RRT	.8229	RRF	-.9993	RTF	-.8031	CRT	.9654	CRS	.9997	CST	.9590				
FDE	2.4828	FRA	2.2056	FC3	.0477	BSP	8862	SGB	3204.8	R23	-.0837	R13	-.9963	LSA	2708.6	MSA	210.4	SSA	1.4				
BDE	13.2012	BRA	9.8774	BC3	.2378	FSP	-164	SG1	3156.4	SG2	555.2	THA	74.14	EL1	2131.7	EL2	195.2	ALF	68.42				

LAUNCH DATE AUG 28 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 401.365

RL	151.12	LAL	-.00	LOL	334.28	VL	27.030	GAL	-2.66	AZL	141.46	HCA	184.28	SMA	129.38	ECC	.17417	INC	51.4569
RP	107.55	LAP	3.35	LOP	156.95	VP	37.976	GAP	2.51	AZP	38.62	TAL	192.81	TAP	17.10	RCA	106.85	APO	151.91
RC	96.339	GL	-59.01	GP	68.86	ZAL	92.01	ZAP	92.84	ETS	181.93	ZAE	72.28	ETE	273.37	ZAC	146.34	ETC	286.12

V1	29.484	V2	35.235	CLP	97.89														

PLANETOCENTRIC CONIC

C3	606.938	VHL	24.636	DLA	-74.70	RAL	195.30	RAD	6572.6	VEL	26.986	PTH	3.39	VHP	31.533	DPA	80.76	RAP	337.05
ECC	10.9887																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.44	2 33 36	2421.79	1.46	80.46	104.89	164.69	3 13 58	1821.8	9.18	78.74
162.56	13 24 6	643.09	1.47	284.85	104.91	164.69	13 34 49	43.1	9.18	283.13
17.44	2 33 36	2421.79	1.46	80.46	104.89	164.69	3 13 58	1821.8	9.18	78.74
162.56	13 24 6	643.09	1.47	284.85	104.91	164.69	13 34 49	43.1	9.18	283.13
17.44	2 33 36	2421.79	1.46	80.46	104.89	164.69	3 13 58	1821.8	9.18	78.74
162.56	13 24 6	643.09	1.47	284.85	104.91	164.69	13 34 49	43.1	9.18	283.13

DIFFERENTIAL CORRECTIONS

TDE	4.3954	TRA	1.1655	TC3	-.0959	BAU	1.9548
RD	-12.8530	RRA	-1.5353	RC3	.2210	FAU	-.02975
FDE	-2.7989	FRA	-.3211	FC3	.0424	BSP	11723
BDE	13.5838	BRA	1.9276	BC3	.2409	FSP	-202

MID-COURSE EXECUTION ACCURACY

SGT	1524.2	SGR	3457.1	SG3	63.9		
RRT	-.9413	RRF	.9993	RTF	-.9353		
SGB	3778.2	R23	-.0692	R13	.9970		
SG1	3748.3	SG2	474.7	THA	112.93		

ORBIT DETERMINATION ACCURACY

ST	1067.7	SR	3016.8	SS	1788.5		
CRT	-.9876	CRS	-1.0000	CST	.9867		
LSA	3662.5	MSA	162.3	SSA	1.9		
EL1	3196.3	EL2	158.4	ALF	109.32		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 406.848

RL	151.12	LAL	-.00	LOL	334.28	VL	27.013	GAL	-2.39	AZL	119.76	HCA	186.81	SMA	129.26	ECC	.17404	INC	29.7562
RP	107.57	LAP	3.37	LOP	160.20	VP	37.958	GAP	2.68	AZP	60.42	TAL	191.48	TAP	18.29	RCA	106.76	APO	151.76
RC	98.624	GL	-65.53	GP	81.68	ZAL	92.87	ZAP	95.10	ETS	166.30	ZAE	86.72	ETE	257.00	ZAC	159.00	ETC	283.99

V1	29.484	V2	35.229	CLP	127.90		

PLANETOCENTRIC CONIC

C3	216.577	VHL	14.717	DLA	-76.86	RAL	169.31	RAD	6571.2	VEL	18.382	PTH	3.04	VHP	18.703	DPA	73.65	RAP	272.46
ECC	4.5643																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.97	0 44 57	2317.08	8.72	80.50	77.25	166.70	1 23 34	1717.1	16.50	79.00
165.03	11 45 24	5817.43	8.72	260.33	77.26	166.70	13 22 21	5217.4	16.50	258.83
14.97	0 44 57	2317.08	8.72	80.50	77.25	166.70	1 23 34	1717.1	16.50	79.00
165.03	11 45 24	5817.43	8.72	260.33	77.26	166.70	13 22 21	5217.4	16.50	258.83
14.97	0 44 57	2317.08	8.72	80.50	77.25	166.70	1 23 34	1717.1	16.50	79.00
165.03	11 45 24	5817.43	8.72	260.33	77.26	166.70	13 22 21	5217.4	16.50	258.83

DIFFERENTIAL CORRECTIONS

TDE	.0451	TRA	.3896	TC3	-.0181	BAU	.2940
RDE	-6.1413	RRA	-1.9070	RC3	.0999	FAU	-.00270
FDE	-1.5603	FRA	-.4314	FC3	.0108	BSP	12959
BDE	6.1415	BRA	1.9464	BC3	.1015	FSP	-267

MID-COURSE EXECUTION ACCURACY

SGT	669.4	SGR	4057.7	SG3	82.7		
RRT	-.8231	RRF	.9976	RTF	-.7885		
SGB	4112.5	R23	-.0701	R13	.9968		
SG1	4095.2	SG2	376.7	THA	97.80		

ORBIT DETERMINATION ACCURACY

ST	200.9	SR	2583.9	SS	1044.9		
CRT	-.4585	CRS	-.9992	CST	.4234		
LSA	2788.4	MSA	182.9	SSA	1.6		
EL1	2585.5	EL2	178.4	ALF	92.05		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 412.777

RL	151.12	LAL	-.00	LOL	334.28	VL	26.993	GAL	-2.20	AZL	110.39	HCA	189.77	SMA	129.13	ECC	.17446	INC	20.3944
RP	107.59	LAP	3.39	LOP	163.45	VP	37.938	GAP	2.97	AZP	69.88	TAL	190.50	TAP	20.27	RCA	106.60	APO	151.65
RC	100.910	GL	-65.68	GP	81.72	ZAL	93.58	ZAP	98.10	ETS	71.67	ZAE	95.15	ETE	162.17	ZAC	163.94	ETC	210.61

V1	29.484	V2	35.222	CLP	-167.97		

PLANETOCENTRIC CONIC

C3	106.395	VHL	10.315	DLA	-76.21	RAL	167.66	RAD	6570.0	VEL	15.091	PTH	2.71	VHP	13.061	DPA	65.93	RAP	257.76
ECC	2.7510																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.71	0 39 50	2188.62	17.09	78.39	73.32	165.56	1 16 19	1588.6	24.82	76.61
164.29	11 37 21	5691.48	17.10	258.95	73.34	165.56	13 12 13	5091.5	24.83	257.17
15.71	0 39 50	2188.62	17.09	78.39	73.32	165.56	1 16 19	1588.6	24.82	76.61
164.29	11 37 21	5691.48	17.10	258.95	73.34	165.56	13 12 13	5091.5	24.83	257.17
15.71	0 39 50	2188.62	17.09	78.39	73.32	165.56	1 16 19	1588.6	24.82	76.61
164.29	11 37 21	5691.48	17.10	258.95	73.34	165.56	13 12 13	5091.5	24.83	257.17

DIFFERENTIAL CORRECTIONS

TDE	-3.9277	TRA	-1.5061	TC3	-.1519	BAU	.2161
RDE	1.3318	RRA	-.0250	RC3	.0036	FAU	.00952
FDE	-1.4257	FRA	-.4292	FC3	-.0775	BSP	12935
BDE	4.1474	BRA	1.5063	BC3	.1519	FSP	-350

MID-COURSE EXECUTION ACCURACY

SGT	4145.0	SGR	742.1	SG3	111.1		
RRT	-.4591	RRF	-.5542	RTF	.9924		
SGB	4210.9	R23	.0978	R13	-.9938		
SG1	4159.4	SG2	657.0	THA	175.18		

ORBIT DETERMINATION ACCURACY

ST	2422.6	SR	740.0	SS	955.7		
CRT	-.8901	CRS	.9265	CST	-.9962		
LSA	2687.4	MSA	328.5	SSA	2.1		
EL1	2512.1	EL2	325.3	ALF	164.52		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 418.827

RL	151.12	LAL	-.00	LOL	334.28	VL	26.972	GAL	-2.02	AZL	105.42	HCA	192.86	SMA	128.98	ECC	.17511	INC	15.4246
RP	107.61	LAP	3.39	LOP	166.70	VP	37.916	GAP	3.30	AZP	74.94	TAL	189.60	TAP	22.46	RCA	106.40	APO	151.57
RC	103.196	GL	-63.71	GP	76.07	ZAL	94.01	ZAP	101.62	ETS	46.36	ZAE	101.27	ETE	137.23	ZAC	164.29	ETC	208.76

V1	29.484	V2	35.215	CLP	-146.79		

PLANETOCENTRIC CONIC

C3	63.939	VHL	7.996	DLA	-75.29	RAL	174.78	RAD	6569.2	VEL	13.612	PTH	2.49	VHP	10.141	DPA	59.52	RAP	250.41
ECC	2.0523																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.76	1 10 22	2071.47	24.57	75.78	77.87	163.79	1 44 53	1471.5	32.23	73.56
163.24	12 3 38	5578.16	24.57	257.39	77.90	163.79	13 36 36	4978.2	32.23	255.17
16.76	1 10 22	2071.47	24.57	75.78	77.87	163.79	1 44 53	1471.5	32.23	73.56
163.24	12 3 38	5578.16	24.57	257.39	77.90	163.79	13 36 36	4978.2	32.23	255.17
16.76	1 10 22	2071.47	24.57	75.78	77.87	163.79	1 44 53	1471.5	32.23	73.56
163.24	12 3 38	5578.16	24.57	257.39	77.90	163.79	13 36 36	4978.2	32.23	255.17

DIFFERENTIAL CORRECTIONS

TDE	-2.8564	TRA	-1.0936	TC3	-.4652	BAU	.4406
RDE	2.4298	RRA	.4417	RC3	.2218	FAU	.01980
FDE	-1.6963	FRA	-.4199	FC3	-.2681	BSP	13783
BDE	3.7501	BRA	1.1795	BC3	.5154	FSP	-495

MID-COURSE EXECUTION ACCURACY

SGT	3777.4	SGR	2170.5	SG3	151.3		
RRT	-.9361	RRF	-.9856	RTF	.9774		
SGB	4356.6	R23	.1160	R13	-.9911		
SG1	4304.8	SG2	670.0	THA	150.96		

ORBIT DETERMINATION ACCURACY

ST	2246.5	SR	1780.8	SS	1109.6		
CRT	-.9773	CRS	.9973	CST	-.9902		
LSA	3059.0	MSA	303.1	SSA	2.9		
EL1	2851.3	EL2	297.0	ALF	141.74		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 424.922

RL	151.12	LAL	-.00	LOL	334.28	VL	26.949	GAL	-1.85	AZL	102.37	HCA	196.01	SMA	128.83	ECC	.17593	INC	12.3712
RP	107.64	LAP	3.39	LOP	169.94	VP	37.892	GAP	3.63	AZP	78.09	TAL	188.70	TAP	24.72	RCA	106.16	APO	151.49
RC	105.482	GL	-60.94	GP	70.17	ZAL	94.14	ZAP	105.47	ETS	42.58	ZAE	106.18	ETE	134.39	ZAC	161.86	ETC	222.43

V1	29.484	V2	35.207	CLP	-141.84														

PLANETOCENTRIC CONIC

C3	43.587	VHL	6.602	DLA	-74.08	RAL	184.31	RAD	6568.7	VEL	12.843	PTH	2.34	VHP	8.435	DPA	53.76	RAP	245.56
ECC	1.7173																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.15	1 51 13	1973.94	30.55	72.68	84.61	161.43	2 24 7	1373.9	38.10	69.87
161.85	12 38 50	5486.14	30.56	255.68	84.63	161.43	14 10 16	4886.1	38.10	252.87
18.15	1 51 13	1973.94	30.55	72.68	84.61	161.43	2 24 7	1373.9	38.10	69.87
161.85	12 38 50	5486.14	30.56	255.68	84.63	161.43	14 10 16	4886.1	38.10	252.87
18.15	1 51 13	1973.94	30.55	72.68	84.61	161.43	2 24 7	1373.9	38.10	69.87
161.85	12 38 50	5486.14	30.56	255.68	84.63	161.43	14 10 16	4886.1	38.10	252.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7673	TRA	-.8381	TC3	-.8310	BAU	.5446	SGT	3742.5	SGR	2320.8	SG3	193.3	ST	2530.2	SR	2008.4
RDE	2.2846	RRA	.3368	RC3	.4276	FAU	.02864	RRT	-.9451	RRF	-.9914	RTF	.9712	CRT	-.9872	CRS	.9993
FDE	-2.0237	FRA	-.3682	FC3	-.5688	BSP	13808	SGB	4403.7	R23	.1368	R13	-.9875	LSA	3474.2	MSA	262.3
BDE	3.5885	BRA	.9033	BC3	.9345	FSP	-625	SG1	4355.1	SG2	651.9	THA	148.85	EL1	3220.6	EL2	251.5

SS	1305.2	SSA	3.6	ALF	141.64

LAUNCH DATE AUG 28 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 431.028

RL	151.12	LAL	-.00	LOL	334.28	VL	26.924	GAL	-1.66	AZL	100.30	HCA	199.19	SMA	128.66	ECC	.17688	INC	10.3048
RP	107.66	LAP	3.37	LOP	173.18	VP	37.866	GAP	3.97	AZP	80.26	TAL	187.79	TAP	26.98	RCA	105.90	APO	151.42
RC	107.765	GL	-57.84	GP	64.58	ZAL	93.94	ZAP	109.51	ETS	42.00	ZAE	110.27	ETE	135.29	ZAC	158.19	ETC	232.54

V1	29.484	V2	35.198	CLP	-141.06														

PLANETOCENTRIC CONIC

C3	32.344	VHL	5.687	DLA	-72.56	RAL	193.94	RAD	6568.3	VEL	12.398	PTH	2.24	VHP	7.366	DPA	48.38	RAP	242.07
ECC	1.5323																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.91	2 33 15	1894.81	35.07	69.05	91.18	158.51	3 4 50	1294.8	42.45	65.50
160.09	13 13 37	5414.66	35.08	253.83	91.21	158.51	14 43 52	4814.7	42.46	250.29
19.91	2 33 15	1894.81	35.07	69.05	91.18	158.51	3 4 50	1294.8	42.45	65.50
160.09	13 13 37	5414.66	35.08	253.83	91.21	158.51	14 43 52	4814.7	42.46	250.29
19.91	2 33 15	1894.81	35.07	69.05	91.18	158.51	3 4 50	1294.8	42.45	65.50
160.09	13 13 37	5414.66	35.08	253.83	91.21	158.51	14 43 52	4814.7	42.46	250.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7739	TRA	-.6570	TC3	-1.2710	BAU	.6103	SGT	3843.9	SGR	2276.4	SG3	237.5	ST	2872.4	SR	2055.0
RDE	2.0284	RRA	.2143	RC3	.6139	FAU	.03694	RRT	-.9497	RRF	-.9924	RTF	.9689	CRT	-.9919	CRS	.9998
FDE	-2.2934	FRA	-.2902	FC3	-.9888	BSP	14031	SGB	4467.4	R23	.1518	R13	-.9843	LSA	3823.3	MSA	229.9
BDE	3.4364	BRA	.6911	BC3	1.4115	FSP	-767	SG1	4424.3	SG2	619.2	THA	150.00	EL1	3525.4	EL2	212.9

SS	1482.3	SSA	4.4	ALF	144.49

LAUNCH DATE AUG 28 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 437.130

RL	151.12	LAL	-.00	LOL	334.28	VL	26.898	GAL	-1.48	AZL	98.81	HCA	202.38	SMA	128.49	ECC	.17796	INC	8.8087
RP	107.69	LAP	3.34	LOP	176.43	VP	37.839	GAP	4.30	AZP	81.85	TAL	186.85	TAP	29.23	RCA	105.62	APO	151.35
RC	110.046	GL	-54.62	GP	59.34	ZAL	93.42	ZAP	113.60	ETS	42.17	ZAE	113.68	ETE	137.40	ZAC	154.14	ETC	239.19

V1	29.484	V2	35.189	CLP	-141.73														

PLANETOCENTRIC CONIC

C3	25.508	VHL	5.051	DLA	-70.76	RAL	202.85	RAD	6568.0	VEL	12.120	PTH	2.17	VHP	6.668	DPA	43.32	RAP	239.50
ECC	1.4198																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.98	3 13 8	1830.50	38.34	64.95	96.81	155.16	3 43 39	1230.5	45.51	60.58
158.02	13 44 48	5360.41	38.35	251.87	96.84	155.16	15 14 9	4760.4	45.51	247.50
21.98	3 13 8	1830.50	38.34	64.95	96.81	155.16	3 43 39	1230.5	45.51	60.58
158.02	13 44 48	5360.41	38.35	251.87	96.84	155.16	15 14 9	4760.4	45.51	247.50
21.98	3 13 8	1830.50	38.34	64.95	96.81	155.16	3 43 39	1230.5	45.51	60.58
158.02	13 44 48	5360.41	38.35	251.87	96.84	155.16	15 14 9	4760.4	45.51	247.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7443	TRA	-.5024	TC3	-1.7657	BAU	.6561	SGT	3983.0	SGR	2157.5	SG3	278.7	ST	3156.6	SR	1982.2
RDE	1.7443	RRA	.1098	RC3	.7642	FAU	.04420	RRT	-.9532	RRF	-.9919	RTF	.9683	CRT	-.9942	CRS	-.9999
FDE	-2.4476	FRA	-.1837	FC3	-1.5002	BSP	14229	SGB	4529.7	R23	.1620	R13	-.9815	LSA	4052.5	MSA	205.8
BDE	3.2517	BRA	.5142	BC3	1.9239	FSP	-897	SG1	4492.7	SG2	578.2	THA	152.19	EL1	3723.0	EL2	181.2

SS	1603.6	SSA	5.3	ALF	147.94

LAUNCH DATE AUG 28 1970 FLIGHT TIME 156.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 443.223

RL	151.12	LAL	-.00	LOL	334.28	VL	26.871	GAL	-1.28	AZL	97.67	HCA	205.58	SMA	128.30	ECC	.17917	INC	7.6706
RP	107.72	LAP	3.30	LOP	179.66	VP	37.811	GAP	4.64	AZP	83.07	TAL	185.87	TAP	31.46	RCA	105.32	APO	151.29
RC	112.324	GL	-51.38	GP	54.50	ZAL	92.59	ZAP	117.64	ETS	42.48	ZAE	116.48	ETE	139.99	ZAC	150.12	ETC	243.65

V1	29.484	V2	35.179	CLP	-143.01														

PLANETOCENTRIC CONIC

C3	21.064	VHL	4.590	DLA	-68.77	RAL	210.85	RAD	6567.9	VEL	11.935	PTH	2.12	VHP	6.205	DPA	38.56	RAP	237.64
ECC	1.3467																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.29	3 50 1	1777.52	40.57	60.52	101.41	151.53	4 19 39	1177.5	47.48	55.30
155.71	14 11 45	5320.08	40.58	249.88	101.43	151.52	15 40 25	4720.1	47.48	244.66
24.29	3 50 1	1777.52	40.57	60.52	101.41	151.53	4 19 39	1177.5	47.48	55.30
155.71	14 11 45	5320.08	40.58	249.88	101.43	151.52	15 40 25	4720.1	47.48	244.66
24.29	3 50 1	1777.52	40.57	60.52	101.41	151.53	4 19 39	1177.5	47.48	55.30
155.71	14 11 45	5320.08	40.58	249.88	101.43	151.52	15 40 25	4720.1	47.48	244.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6726	TRA	-.3602	TC3	-2.2979	BAU	.6922	SGT	4138.0	SGR	2009.6	SG3	314.4	ST	3357.8	SR	1840.8
RDE	1.4742	RRA	.0273	RC3	.8732	FAU	.05016	RRT	-.9558	RRF	-.9906	RTF	.9685	CRT	-.9954	CRS	1.0000
FDE	-2.4845	FRA	-.0564	FC3	-2.0614	BSP	14477	SGB	4600.2	R23	.1672	R13	-.9792	LSA	4170.8	MSA	188.3
BDE	3.0523	BRA	.3613	BC3	2.4582	FSP	-1014	SG1	4568.9	SG2	535.3	THA	154.73	EL1	3826.2	EL2	154.9

SS	1663.5	SSA	6.3	ALF	151.33

LAUNCH DATE AUG 28 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 449.304

RL 151.12 LAL -.00 LOL 334.28 VL 26.843 GAL -1.07 AZL 96.77 HCA 208.79 SMA 128.12 ECC .18049 INC 6.7713 V1 29.484
RP 107.75 LAP 3.26 LOP 182.90 VP 37.781 GAP 4.97 AZP 84.06 TAL 184.87 TAP 33.66 RCA 104.99 APO 151.24 V2 35.169
RC 114.599 GL -48.17 GP 50.05 ZAL 91.48 ZAP 121.54 ETS 42.77 ZAE 118.76 ETE 142.77 ZAC 146.31 ETC 246.75 CLP-144.55

PLANETOCENTRIC CONIC

C3 18.036 VHL 4.247 DLA -66.64 RAL 218.01 RAD 6567.7 VEL 11.808 PTH 2.09 VHP 5.901 DPA 34.12 RAP 236.33 ECC 1.2968

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.77	4 24 4	1733.10	41.96	55.90	105.14	147.77	4 52 57	1133.1	48.56	49.88
153.23	14 34 49	5290.98	41.97	247.95	105.16	147.77	16 3 0	4691.0	48.57	241.92
26.77	4 24 4	1733.10	41.96	55.90	105.14	147.77	4 52 57	1133.1	48.56	49.88
153.23	14 34 49	5290.98	41.97	247.95	105.16	147.77	16 3 0	4691.0	48.57	241.92
26.77	4 24 4	1733.10	41.96	55.90	105.14	147.77	4 52 57	1133.1	48.56	49.88
153.23	14 34 49	5290.98	41.97	247.95	105.16	147.77	16 3 0	4691.0	48.57	241.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.5693 TRA -.2232 TC3-2.8457 BAU .7225 SGT 4293.5 SGR 1850.6 SG3 342.2 ST 3474.5 SR 1666.2 SS 1665.5
RDE 1.2346 RRA -.0368 RC3 .9381 FAU .05456 RRT -.9571 RRF -.9885 RTF .9688 CRT -.9961 CRS 1.0000 CST -.9958
FDE-2.4199 FRA .0842 FC3-2.6187 BSP 14735 SGB 4675.4 R23 .1682 R13 -.9773 LSA 4194.2 MSA 175.7 SSA 7.3
BDE 2.8505 BRA .2262 BC3 2.9964 FSP -1106 SG1 4649.0 SG2 495.5 THA 157.31 EL1 3851.1 EL2 132.7 ALF 154.44

LAUNCH DATE AUG 28 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 455.368

RL 151.12 LAL -.00 LOL 334.28 VL 26.813 GAL -.85 AZL 96.04 HCA 212.00 SMA 127.92 ECC .18194 INC 6.0389 V1 29.484
RP 107.79 LAP 3.20 LOP 186.14 VP 37.750 GAP 5.30 AZP 84.87 TAL 183.83 TAP 35.83 RCA 104.65 APO 151.19 V2 35.158
RC 116.871 GL -45.01 GP 46.00 ZAL 90.09 ZAP 125.25 ETS 42.97 ZAE 120.56 ETE 145.56 ZAC 142.78 ETC 249.01 CLP-146.19

PLANETOCENTRIC CONIC

C3 15.906 VHL 3.988 DLA -64.42 RAL 224.45 RAD 6567.6 VEL 11.717 PTH 2.06 VHP 5.708 DPA 29.99 RAP 235.49 ECC 1.2618

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.37	4 55 42	1695.09	42.67	51.24	108.25	144.03	5 23 58	1095.1	48.94	44.51
150.63	14 54 33	5271.13	42.68	246.19	108.26	144.03	16 22 24	4671.1	48.95	239.45
29.37	4 55 42	1695.09	42.67	51.24	108.25	144.03	5 23 58	1095.1	48.94	44.51
150.63	14 54 33	5271.13	42.68	246.19	108.26	144.03	16 22 24	4671.1	48.95	239.45
29.37	4 55 42	1695.09	42.67	51.24	108.25	144.03	5 23 58	1095.1	48.94	44.51
150.63	14 54 33	5271.13	42.68	246.19	108.26	144.03	16 22 24	4671.1	48.95	239.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.4455 TRA -.0877 TC3-3.3943 BAU .7505 SGT 4445.1 SGR 1694.1 SG3 362.0 ST 3515.4 SR 1484.0 SS 1619.3
RDE 1.0311 RRA -.0856 RC3 .9667 FAU .05757 RRT -.9573 RRF -.9856 RTF .9692 CRT -.9966 CRS .9999 CST -.9955
FDE-2.2796 FRA .2294 FC3-3.1334 BSP 15011 SGB 4757.0 R23 .1652 R13 -.9757 LSA 4141.8 MSA 166.6 SSA 8.5
BDE 2.6540 BRA .1226 BC3 3.5293 FSP -1175 SG1 4734.7 SG2 459.8 THA 159.76 EL1 3814.1 EL2 113.2 ALF 157.16

LAUNCH DATE AUG 28 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 461.416

RL 151.12 LAL -.00 LOL 334.28 VL 26.783 GAL -.62 AZL 95.43 HCA 215.21 SMA 127.72 ECC .18352 INC 5.4275 V1 29.484
RP 107.82 LAP 3.13 LOP 189.37 VP 37.718 GAP 5.63 AZP 85.56 TAL 182.76 TAP 37.97 RCA 104.28 APO 151.16 V2 35.147
RC 119.138 GL -41.92 GP 42.34 ZAL 88.46 ZAP 128.74 ETS 43.10 ZAE 121.95 ETE 148.27 ZAC 139.58 ETC 250.72 CLP-147.85

PLANETOCENTRIC CONIC

C3 14.379 VHL 3.792 DLA -62.14 RAL 230.30 RAD 6567.6 VEL 11.652 PTH 2.05 VHP 5.594 DPA 26.19 RAP 235.04 ECC 1.2366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.07	5 25 26	1661.90	42.83	46.62	110.95	140.41	5 53 8	1061.9	48.75	39.31
147.93	15 11 31	5259.07	42.83	244.68	110.96	140.41	16 39 10	4659.1	48.76	237.37
32.07	5 25 26	1661.90	42.83	46.62	110.95	140.41	5 53 8	1061.9	48.75	39.31
147.93	15 11 31	5259.07	42.83	244.68	110.96	140.41	16 39 10	4659.1	48.76	237.37
32.07	5 25 26	1661.90	42.83	46.62	110.95	140.41	5 53 8	1061.9	48.75	39.31
147.93	15 11 31	5259.07	42.83	244.68	110.96	140.41	16 39 10	4659.1	48.76	237.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.3097 TRA .0496 TC3-3.9227 BAU .7764 SGT 4588.7 SGR 1546.8 SG3 374.1 ST 3491.4 SR 1310.0 SS 1536.9
RDE .8632 RRA -.1231 RC3 .9626 FAU .05922 RRT -.9563 RRF -.9816 RTF .9694 CRT -.9970 CRS .9997 CST -.9949
FDE-2.0900 FRA .3741 FC3-3.5656 BSP 15313 SGB 4842.3 R23 .1586 R13 -.9744 LSA 4030.2 MSA 160.4 SSA 9.7
BDE 2.4658 BRA .1327 BC3 4.0391 FSP -1223 SG1 4823.2 SG2 430.2 THA 161.98 EL1 3727.9 EL2 95.6 ALF 159.48

LAUNCH DATE AUG 28 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 467.445

RL 151.12 LAL -.00 LOL 334.28 VL 26.752 GAL -.38 AZL 94.91 HCA 218.42 SMA 127.52 ECC .18522 INC 4.9065 V1 29.484
RP 107.86 LAP 3.05 LOP 192.60 VP 37.685 GAP 5.96 AZP 86.15 TAL 181.66 TAP 40.08 RCA 103.90 APO 151.13 V2 35.136
RC 121.402 GL -38.89 GP 39.06 ZAL 86.61 ZAP 131.99 ETS 43.18 ZAE 123.01 ETE 150.82 ZAC 136.71 ETC 252.05 CLP-149.50

PLANETOCENTRIC CONIC

C3 13.279 VHL 3.644 DLA -59.82 RAL 235.67 RAD 6567.5 VEL 11.605 PTH 2.03 VHP 5.540 DPA 22.69 RAP 234.91 ECC 1.2185

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.83	5 53 41	1632.27	42.53	42.13	113.41	136.98	6 20 53	1032.3	48.10	34.37
145.17	15 26 6	5253.83	42.54	243.51	113.43	136.97	16 53 40	4653.8	48.11	235.75
34.83	5 53 41	1632.27	42.53	42.13	113.41	136.98	6 20 53	1032.3	48.10	34.37
145.17	15 26 6	5253.83	42.54	243.51	113.43	136.97	16 53 40	4653.8	48.11	235.75
34.83	5 53 41	1632.27	42.53	42.13	113.41	136.98	6 20 53	1032.3	48.10	34.37
145.17	15 26 6	5253.83	42.54	243.51	113.43	136.97	16 53 40	4653.8	48.11	235.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.1690 TRA .1900 TC3-4.4179 BAU .8017 SGT 4727.6 SGR 1415.1 SG3 380.2 ST 3416.3 SR 1154.5 SS 1432.1
RDE .7286 RRA -.1518 RC3 .9357 FAU .05982 RRT -.9543 RRF -.9765 RTF .9696 CRT -.9974 CRS .9992 CST -.9940
FDE-1.8772 FRA .5130 FC3-3.9001 BSP 15607 SGB 4934.8 R23 .1484 R13 -.9734 LSA 3876.9 MSA 156.6 SSA 10.9
BDE 2.2881 BRA .2431 BC3 4.5159 FSP -1248 SG1 4918.0 SG2 406.6 THA 163.95 EL1 3605.2 EL2 78.9 ALF 161.36

LAUNCH DATE AUG 28 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 473.456

RL	151.12	LAL	-.00	LOL	334.28	VL	26.720	GAL	-.12	AZL	94.45	HCA	221.63	SMA	127.31	ECC	.18706	INC	4.4546
RP	107.89	LAP	2.96	LOP	195.83	VP	37.652	GAP	6.29	AZP	86.67	TAL	180.54	TAP	42.17	RCA	103.49	APO	151.12
RC	123.660	GL	-35.95	GP	36.11	ZAL	84.58	ZAP	135.01	ETS	43.22	ZAE	123.78	ETE	153.18	ZAC	134.15	ETC	253.13

V1	29.484	V2	35.124	CLP	-151.10														

PLANETOCENTRIC CONIC

C3	12.496	VHL	3.535	DLA	-57.47	RAL	240.63	RAD	6567.5	VEL	11.571	PTH	2.02	VHP	5.532	DPA	19.49	RAP	235.07
ECC	1.2057																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.65	6 20 48	1605.17	41.87	37.79	115.76	133.77	6 47 33	1005.2	47.10	29.72
142.35	15 38 35	5254.80	41.88	242.73	115.77	133.76	17 6 10	4654.8	47.11	234.65
37.65	6 20 48	1605.17	41.87	37.79	115.76	133.77	6 47 33	1005.2	47.10	29.72
142.35	15 38 35	5254.80	41.88	242.73	115.77	133.76	17 6 10	4654.8	47.11	234.65
37.65	6 20 48	1605.17	41.87	37.79	115.76	133.77	6 47 33	1005.2	47.10	29.72
142.35	15 38 35	5254.80	41.88	242.73	115.77	133.76	17 6 10	4654.8	47.11	234.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0260	TRA	.3351	TC3	-4.8564	BAU	.8248	SGT	4857.1	SGR	1298.4	SG3	381.0	ST	3299.3	SR	1020.6
RDE	.6220	RRA	-.1744	RC3	.8870	FAU	.05932	RRT	-.9505	RRF	-.9699	RTF	.9695	CRT	-.9979	CRS	.9982
FDE	-1.6582	FRA	.6449	FC3	-4.1099	BSP	15865	SGB	5027.7	R23	.1364	R13	-.9724	LSA	3692.2	MSA	155.2
BDE	2.1193	BRA	.3778	BC3	4.9367	FSP	-1252	SG1	5012.5	SG2	390.9	THA	165.65	EL1	3452.9	EL2	62.8

SS	1315.2		
CST	-.9926		
SSA	12.3		
ALF	162.84		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 479.447

RL	151.12	LAL	-.00	LOL	334.28	VL	26.687	GAL	.14	AZL	94.06	HCA	224.84	SMA	127.09	ECC	.18905	INC	4.0567
RP	107.93	LAP	2.86	LOP	199.05	VP	37.617	GAP	6.62	AZP	87.12	TAL	179.38	TAP	44.22	RCA	103.07	APO	151.12
RC	125.912	GL	-33.09	GP	33.48	ZAL	82.37	ZAP	137.81	ETS	43.27	ZAE	124.34	ETE	155.33	ZAC	131.89	ETC	254.03

V1	29.484	V2	35.112	CLP	-152.66														

PLANETOCENTRIC CONIC

C3	11.960	VHL	3.458	DLA	-55.11	RAL	245.25	RAD	6567.5	VEL	11.548	PTH	2.02	VHP	5.559	DPA	16.55	RAP	235.47
ECC	1.1968																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.52	6 47 4	1579.85	40.90	33.63	118.07	130.82	7 13 24	979.9	45.82	25.35
139.48	15 49 10	5261.53	40.92	242.36	118.09	130.81	17 16 51	4661.5	45.83	234.08
40.52	6 47 4	1579.85	40.90	33.63	118.07	130.82	7 13 24	979.9	45.82	25.35
139.48	15 49 10	5261.53	40.92	242.36	118.09	130.81	17 16 51	4661.5	45.83	234.08
40.52	6 47 4	1579.85	40.90	33.63	118.07	130.82	7 13 24	979.9	45.82	25.35
139.48	15 49 10	5261.53	40.92	242.36	118.09	130.81	17 16 51	4661.5	45.83	234.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8693	TRA	.4919	TC3	-5.2024	BAU	.8419	SGT	4956.7	SGR	1186.8	SG3	375.0	ST	3128.3	SR	896.0
RDE	.5309	RRA	-.1952	RC3	.8115	FAU	.05737	RRT	-.9434	RRF	-.9612	RTF	.9676	CRT	-.9985	CRS	.9959
FDE	-1.4174	FRA	.7775	FC3	-4.1528	BSP	16050	SGB	5096.9	R23	.1292	R13	-.9700	LSA	3455.8	MSA	159.8
BDE	1.9432	BRA	.5292	BC3	5.2653	FSP	-1228	SG1	5082.4	SG2	384.0	THA	167.20	EL1	3253.7	EL2	47.9

SS	1174.4		
CST	-.9898		
SSA	13.7		
ALF	164.04		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 485.417

RL	151.12	LAL	-.00	LOL	334.28	VL	26.654	GAL	.43	AZL	93.70	HCA	228.05	SMA	126.88	ECC	.19119	INC	3.7015
RP	107.97	LAP	2.75	LOP	202.27	VP	37.582	GAP	6.95	AZP	87.52	TAL	178.20	TAP	46.25	RCA	102.62	APO	151.14
RC	128.158	GL	-30.31	GP	31.13	ZAL	80.04	ZAP	140.39	ETS	43.34	ZAE	124.72	ETE	157.27	ZAC	129.89	ETC	254.81

V1	29.484	V2	35.099	CLP	-154.17														

PLANETOCENTRIC CONIC

C3	11.622	VHL	3.409	DLA	-52.76	RAL	249.57	RAD	6567.4	VEL	11.533	PTH	2.01	VHP	5.615	DPA	13.85	RAP	236.09
ECC	1.1913																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.43	7 12 44	1555.59	39.71	29.63	120.41	128.12	7 38 39	955.6	44.33	21.24
136.57	15 57 58	5273.80	39.72	242.44	120.42	128.11	17 25 51	4673.8	44.34	234.05
43.43	7 12 44	1555.59	39.71	29.63	120.41	128.12	7 38 39	955.6	44.33	21.24
136.57	15 57 58	5273.80	39.72	242.44	120.42	128.11	17 25 51	4673.8	44.34	234.05
43.43	7 12 44	1555.59	39.71	29.63	120.41	128.12	7 38 39	955.6	44.33	21.24
136.57	15 57 58	5273.80	39.72	242.44	120.42	128.11	17 25 51	4673.8	44.34	234.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7197	TRA	.6466	TC3	-5.5119	BAU	.8643	SGT	5069.6	SGR	1095.2	SG3	367.8	ST	2942.2	SR	796.7
RDE	.4626	RRA	-.2083	RC3	.7484	FAU	.05577	RRT	-.9372	RRF	-.9510	RTF	.9677	CRT	-.9992	CRS	.9913
FDE	-1.1999	FRA	.8844	FC3	-4.1543	BSP	16334	SGB	5186.6	R23	.1123	R13	-.9694	LSA	3217.3	MSA	163.0
BDE	1.7809	BRA	.6793	BC3	5.5624	FSP	-1213	SG1	5173.0	SG2	374.4	THA	168.49	EL1	3048.0	EL2	30.9

SS	1042.4		
CST	-.9863		
SSA	15.0		
ALF	164.86		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 491.365

RL	151.12	LAL	-.00	LOL	334.28	VL	26.620	GAL	.72	AZL	93.38	HCA	231.26	SMA	126.66	ECC	.19348	INC	3.3806
RP	108.01	LAP	2.64	LOP	205.49	VP	37.546	GAP	7.29	AZP	87.88	TAL	177.00	TAP	48.26	RCA	102.16	APO	151.17
RC	130.397	GL	-27.63	GP	29.04	ZAL	77.61	ZAP	142.78	ETS	43.44	ZAE	124.97	ETE	159.01	ZAC	128.14	ETC	255.50

V1	29.484	V2	35.086	CLP	-155.62														

PLANETOCENTRIC CONIC

C3	11.454	VHL	3.384	DLA	-50.41	RAL	253.62	RAD	6567.4	VEL	11.526	PTH	2.01	VHP	5.694	DPA	11.38	RAP	236.89
ECC	1.1885																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.38	7 37 59	1531.73	38.32	25.78	122.79	125.68	8 3 31	931.7	42.67	17.35
133.62	16 5 1	5291.59	38.33	242.97	122.80	125.67	17 33 12	4691.6	42.68	234.55
46.38	7 37 59	1531.73	38.32	25.78	122.79	125.68	8 3 31	931.7	42.67	17.35
133.62	16 5 1	5291.59	38.33	242.97	122.80	125.67	17 33 12	4691.6	42.68	234.55
46.38	7 37 59	1531.73	38.32	25.78	122.79	125.68	8 3 31	931.7	42.67	17.35
133.62	16 5 1	5291.59	38.33	242.97	122.80	125.67	17 33 12	4691.6	42.68	234.55

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5728	TRA	.8100	TC3	-5.7367	BAU	.8846	SGT	5176.7	SGR	1019.3	SG3	359.2	ST	2742.2	SR	717.6
RDE	.4109	RRA	-.2205	RC3	.6799	FAU	.05365	RRT	-.9286	RRF	-.9392	RTF	.9673	CRT	-.9997	CRS	.9825
FDE	-1.0031	FRA	.9865	FC3	-4.0546	BSP	16648	SGB	5276.1	R23	.0977	R13	-.9687	LSA	2975.7	MSA	170.2
BDE	1.6256	BRA	.8395	BC3	5.7769	FSP	-1193	SG1	5262.9	SG2	371.9	THA	169.59	EL1	2834.5	EL2	17.5

SS	921.5		
CST	-.9809		
SSA	16.3		
ALF	165.34		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 497.291

RL	151.12	LAL	-.00	LOL	334.28	VL	26.586	GAL	1.03	AZL	93.09	HCA	234.46	SMA	126.44	ECC	.19595	INC	3.0875
RP	108.05	LAP	2.51	LOP	208.71	VP	37.510	GAP	7.62	AZP	88.20	TAL	175.77	TAP	50.24	RCA	101.67	APO	151.22
RC	132.627	GL	-25.05	GP	27.16	ZAL	75.11	ZAP	145.00	ETS	43.61	ZAE	125.11	ETE	160.56	ZAC	126.59	ETC	256.13

V1	29.484	V2	35.074	CLP	-157.02														

PLANETOCENTRIC CONIC

C3	11.435	VHL	3.382	DLA	-48.09	RAL	257.42	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	5.792	DPA	9.11	RAP	237.86

ECC	1.1882																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.36	8 2 58	1507.80	36.80	22.06	125.23	123.47	8 28 6	907.8	40.89	13.64
130.64	16 10 22	5314.84	36.81	243.98	125.24	123.46	17 38 57	4714.8	40.90	235.56
49.36	8 2 58	1507.80	36.80	22.06	125.23	123.47	8 28 6	907.8	40.89	13.64
130.64	16 10 22	5314.84	36.81	243.98	125.24	123.46	17 38 57	4714.8	40.90	235.56
49.36	8 2 58	1507.80	36.80	22.06	125.23	123.47	8 28 6	907.8	40.89	13.64
130.64	16 10 22	5314.84	36.81	243.98	125.24	123.46	17 38 57	4714.8	40.90	235.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4299	TRA	.9724	TC3	-5.9034	BAU	.9074	SGT	5281.5	SGR	953.0	SG3	348.6	ST	2536.1	SR	653.2	SS	810.2
RDE	.3715	RRA	-.2290	RC3	.6180	FAU	.05160	RRT	-.9191	RRF	-.9254	RTF	.9676	CRT	-.9993	CRS	.9668	CST	-.9736
FDE	-.8248	FRA	1.0688	FC3	-3.9064	BSP	17076	SGB	5366.8	R23	.0803	R13	-.9686	LSA	2735.4	MSA	179.2	SSA	17.3
BDE	1.4774	BRA	.9990	BC3	5.9357	FSP	-1177	SG1	5354.0	SG2	370.3	THA	170.54	EL1	2618.7	EL2	24.3	ALF	165.56

LAUNCH DATE AUG 28 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 503.194

RL	151.12	LAL	-.00	LOL	334.28	VL	26.552	GAL	1.35	AZL	92.82	HCA	237.67	SMA	126.22	ECC	.19859	INC	2.8172
RP	108.09	LAP	2.38	LOP	211.92	VP	37.474	GAP	7.96	AZP	88.49	TAL	174.52	TAP	52.19	RCA	101.16	APO	151.29
RC	134.850	GL	-22.57	GP	25.49	ZAL	72.56	ZAP	147.05	ETS	43.84	ZAE	125.18	ETE	161.94	ZAC	125.23	ETC	256.71

V1	29.484	V2	35.061	CLP	-158.37														

PLANETOCENTRIC CONIC

C3	11.554	VHL	3.399	DLA	-45.80	RAL	261.00	RAD	6567.4	VEL	11.530	PTH	2.01	VHP	5.907	DPA	7.01	RAP	238.97

ECC	1.1901																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.36	8 27 55	1483.11	35.17	18.42	127.74	121.48	8 52 38	883.1	39.04	10.05
127.64	16 13 59	5343.80	35.18	245.46	127.75	121.47	17 43 3	4743.8	39.04	237.09
52.36	8 27 55	1483.11	35.17	18.42	127.74	121.48	8 52 38	883.1	39.04	10.05
127.64	16 13 59	5343.80	35.18	245.46	127.75	121.47	17 43 3	4743.8	39.04	237.09
52.36	8 27 55	1483.11	35.17	18.42	127.74	121.48	8 52 38	883.1	39.04	10.05
127.64	16 13 59	5343.80	35.18	245.46	127.75	121.47	17 43 3	4743.8	39.04	237.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2779	TRA	1.1538	TC3	-5.9522	BAU	.9233	SGT	5366.2	SGR	895.5	SG3	336.8	ST	2314.2	SR	597.9	SS	707.3
RDE	.3393	RRA	-.2397	RC3	.5480	FAU	.04877	RRT	-.9066	RRF	-.9096	RTF	.9667	CRT	-.9966	CRS	.9369	CST	-.9611
FDE	-.6531	FRA	1.1559	FC3	-3.6544	BSP	17229	SGB	5440.4	R23	.0686	R13	-.9674	LSA	2484.8	MSA	196.1	SSA	18.2
BDE	1.3222	BRA	1.1784	BC3	5.9774	FSP	-1132	SG1	5427.6	SG2	373.7	THA	171.36	EL1	2389.7	EL2	47.8	ALF	165.55

LAUNCH DATE AUG 28 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 509.071

RL	151.12	LAL	-.00	LOL	334.28	VL	26.517	GAL	1.69	AZL	92.57	HCA	240.87	SMA	126.00	ECC	.20143	INC	2.5656
RP	108.13	LAP	2.24	LOP	215.13	VP	37.437	GAP	8.31	AZP	88.75	TAL	173.26	TAP	54.13	RCA	100.62	APO	151.38
RC	137.063	GL	-20.20	GP	23.99	ZAL	70.00	ZAP	148.95	ETS	44.16	ZAE	125.20	ETE	163.16	ZAC	124.04	ETC	257.26

V1	29.484	V2	35.047	CLP	-159.67														

PLANETOCENTRIC CONIC

C3	11.802	VHL	3.435	DLA	-43.56	RAL	264.37	RAD	6567.5	VEL	11.541	PTH	2.01	VHP	6.037	DPA	5.08	RAP	240.22

ECC	1.1942																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.40	8 52 59	1457.15	33.47	14.82	130.32	119.70	9 17 16	857.2	37.13	6.52
124.60	16 15 49	5378.66	33.48	247.44	130.33	119.68	17 45 27	4778.7	37.14	239.13
55.40	8 52 59	1457.15	33.47	14.82	130.32	119.70	9 17 16	857.2	37.13	6.52
124.60	16 15 49	5378.66	33.48	247.44	130.33	119.68	17 45 27	4778.7	37.14	239.13
55.40	8 52 59	1457.15	33.47	14.82	130.32	119.70	9 17 16	857.2	37.13	6.52
124.60	16 15 49	5378.66	33.48	247.44	130.33	119.68	17 45 27	4778.7	37.14	239.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1304	TRA	1.3396	TC3	-5.9383	BAU	.9401	SGT	5450.5	SGR	847.4	SG3	324.7	ST	2103.5	SR	554.4	SS	623.9
RDE	.3160	RRA	-.2492	RC3	.4860	FAU	.04606	RRT	-.8929	RRF	-.8925	RTF	.9661	CRT	-.9894	CRS	.8879	CST	-.9442
FDE	-.5026	FRA	1.2313	FC3	-3.3787	BSP	17472	SGB	5515.9	R23	.0570	R13	-.9667	LSA	2252.5	MSA	217.2	SSA	18.7
BDE	1.1737	BRA	1.3625	BC3	5.9582	FSP	-1094	SG1	5503.0	SG2	377.9	THA	172.06	EL1	2173.9	EL2	78.1	ALF	165.37

LAUNCH DATE AUG 28 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 514.923

RL	151.12	LAL	-.00	LOL	334.28	VL	26.482	GAL	2.05	AZL	92.33	HCA	244.07	SMA	125.78	ECC	.20448	INC	2.3294
RP	108.17	LAP	2.09	LOP	218.34	VP	37.400	GAP	8.66	AZP	88.98	TAL	171.98	TAP	56.05	RCA	100.06	APO	151.50
RC	139.266	GL	-17.95	GP	22.64	ZAL	67.44	ZAP	150.73	ETS	44.58	ZAE	125.17	ETE	164.24	ZAC	122.99	ETC	257.80

V1	29.484	V2	35.034	CLP	-160.93														

PLANETOCENTRIC CONIC

C3	12.179	VHL	3.490	DLA	-41.38	RAL	267.55	RAD	6567.5	VEL	11.557	PTH	2.02	VHP	6.181	DPA	3.30	RAP	241.58

ECC	1.2004																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.47	9 18 24	1429.14	31.72	11.21	132.97	118.10	9 42 13	829.1	35.20	2.99
121.53	16 15 44	5419.92	31.74	249.93	132.97	118.08	17 46 4	4819.9	35.21	241.70
58.47	9 18 24	1429.14	31.72	11.21	132.97	118.10	9 42 13	829.1	35.20	2.99
121.53	16 15 44	5419.92	31.74	249.93	132.97	118.08	17 46 4	4819.9	35.21	241.70
58.47	9 18 24	1429.14	31.72	11.21	132.97	118.10	9 42 13	829.1	35.20	2.99
121.53	16 15 44	5419.92	31.74	249.93	132.97	118.08	17 46 4	4819.9	35.21	241.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9839	TRA	1.5328	TC3	-5.8559	BAU	.9560	SGT	5528.4	SGR	806.4	SG3	312.3	ST	1907.1	SR	519.5	SS	559.5
RDE	.2990	RRA	-.2583	RC3	.4292	FAU	.04333	RRT	-.8778	RRF	-.8741	RTF	.9657	CRT	-.9739	CRS	.8130	CST	-.9229
FDE	-.3690	FRA	1.2987	FC3	-3.0800	BSP	17714	SGB	5586.9	R23	.0467	R13	-.9661	LSA	2039.7	MSA	243.4	SSA	19.0
BDE	1.0284	BRA	1.5545	BC3	5.8716	FSP	-1057	SG1	5573.8	SG2	383.2	THA	172.67	EL1	1973.3	EL2	114.0	ALF	165.09

LAUNCH DATE AUG 28 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 520.747

RL	151.12	LAL	-.00	LOL	334.28	VL	26.447	GAL	2.42	AZL	92.11	HCA	247.27	SMA	125.56	ECC	.20775	INC	2.1058	V1	29.484
RP	108.21	LAP	1.94	LOP	221.54	VP	37.362	GAP	9.01	AZP	89.19	TAL	170.68	TAP	57.95	RCA	99.47	APO	151.64	V2	35.021
RC	141.459	GL	-15.82	GP	21.43	ZAL	64.91	ZAP	152.38	ETS	45.10	ZAE	125.12	ETE	165.20	ZAC	122.06	ETC	258.32	CLP	-162.15

PLANETOCENTRIC CONIC

C3	12.685	VHL	3.562	DLA	-39.26	RAL	270.54	RAD	6567.5	VEL	11.579	PTH	2.02	VHP	6.337	DPA	1.65	RAP	243.04	ECC	1.2088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.58	9 44 25	1398.24	29.96	7.52	135.67	116.66	10 7 43	798.2	33.28	359.38
118.42	16 13 34	5468.14	29.98	252.97	135.68	116.64	17 44 42	4868.1	33.29	244.83
61.58	9 44 25	1398.24	29.96	7.52	135.67	116.66	10 7 43	798.2	33.28	359.38
118.42	16 13 34	5468.14	29.98	252.97	135.68	116.64	17 44 42	4868.1	33.29	244.83
61.58	9 44 25	1398.24	29.96	7.52	135.67	116.66	10 7 43	798.2	33.28	359.38
118.42	16 13 34	5468.14	29.98	252.97	135.68	116.64	17 44 42	4868.1	33.29	244.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8381	TRA	1.7346	TC3	-5.7132	BAU	.9710	SGT	5600.8	SGR	771.4	SG3	299.8	ST	1732.6	SR	491.2	SS	514.6
RDE	.2872	RRA	-.2676	RC3	.3779	FAU	.04061	RRT	-.8616	RRF	-.8548	RTF	.9652	CRT	-.9449	CRS	.7094	CST	-.9000
FDE	-.2499	FRA	1.3598	FC3	-2.7713	BSP	17956	SGB	5653.6	R23	.0378	R13	-.9655	LSA	1852.6	MSA	274.8	SSA	19.0
BDE	.8860	BRA	1.7551	BC3	5.7257	FSP	-1019	SG1	5640.2	SG2	388.9	THA	173.20	EL1	1794.2	EL2	155.2	ALF	164.89

LAUNCH DATE AUG 28 1970 FLIGHT TIME 184.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 526.542

RL	151.12	LAL	-.00	LOL	334.28	VL	26.411	GAL	2.82	AZL	91.89	HCA	250.47	SMA	125.34	ECC	.21126	INC	1.8926	V1	29.484
RP	108.25	LAP	1.78	LOP	224.74	VP	37.325	GAP	9.38	AZP	89.37	TAL	169.36	TAP	59.83	RCA	98.86	APO	151.82	V2	35.008
RC	143.643	GL	-13.81	GP	20.34	ZAL	62.42	ZAP	153.93	ETS	45.75	ZAE	125.04	ETE	166.05	ZAC	121.24	ETC	258.84	CLP	-163.33

PLANETOCENTRIC CONIC

C3	13.325	VHL	3.650	DLA	-37.22	RAL	273.36	RAD	6567.5	VEL	11.607	PTH	2.03	VHP	6.506	DPA	.13	RAP	244.60	ECC	1.2193

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.77	10 11 23	1363.33	28.20	3.66	138.42	115.36	10 34 7	763.3	31.37	355.61
115.23	16 9 4	5524.26	28.22	256.62	138.43	115.35	17 41 9	4924.3	31.38	248.56
64.77	10 11 23	1363.33	28.20	3.66	138.42	115.36	10 34 7	763.3	31.37	355.61
115.23	16 9 4	5524.26	28.22	256.62	138.43	115.35	17 41 9	4924.3	31.38	248.56
64.77	10 11 23	1363.33	28.20	3.66	138.42	115.36	10 34 7	763.3	31.37	355.61
115.23	16 9 4	5524.26	28.22	256.62	138.43	115.35	17 41 9	4924.3	31.38	248.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6921	TRA	1.9456	TC3	-5.5183	BAU	.9848	SGT	5667.2	SGR	741.4	SG3	287.5	ST	1587.0	SR	468.2	SS	488.3
RDE	.2794	RRA	-.2772	RC3	.3322	FAU	.03794	RRT	-.8446	RRF	-.8350	RTF	.9648	CRT	-.8962	CRS	.5821	CST	-.8814
FDE	-.1440	FRA	1.4156	FC3	-2.4652	BSP	18175	SGB	5715.4	R23	.0301	R13	-.9651	LSA	1697.0	MSA	309.7	SSA	18.8
BDE	.7464	BRA	1.9652	BC3	5.5283	FSP	-981	SG1	5701.8	SG2	394.5	THA	173.66	EL1	1642.4	EL2	200.7	ALF	164.96

LAUNCH DATE AUG 28 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 532.304

RL	151.12	LAL	-.00	LOL	334.28	VL	26.376	GAL	3.23	AZL	91.69	HCA	253.66	SMA	125.11	ECC	.21503	INC	1.6878	V1	29.484
RP	108.29	LAP	1.62	LOP	227.94	VP	37.287	GAP	9.75	AZP	89.53	TAL	168.04	TAP	61.70	RCA	98.21	APO	152.02	V2	34.995
RC	145.816	GL	-11.92	GP	19.36	ZAL	60.00	ZAP	155.38	ETS	46.52	ZAE	124.95	ETE	166.80	ZAC	120.52	ETC	259.36	CLP	-164.48

PLANETOCENTRIC CONIC

C3	14.105	VHL	3.756	DLA	-35.26	RAL	276.01	RAD	6567.6	VEL	11.640	PTH	2.04	VHP	6.687	DPA	-1.28	RAP	246.24	ECC	1.2321

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.06	10 39 50	1322.72	26.47	359.50	141.22	114.19	11 1 52	722.7	29.50	351.53
111.94	16 1 48	5589.76	26.48	260.97	141.23	114.18	17 34 58	4989.8	29.51	253.00
68.06	10 39 50	1322.72	26.47	359.50	141.22	114.19	11 1 52	722.7	29.50	351.53
111.94	16 1 48	5589.76	26.48	260.97	141.23	114.18	17 34 58	4989.8	29.51	253.00
68.06	10 39 50	1322.72	26.47	359.50	141.22	114.19	11 1 52	722.7	29.50	351.53
111.94	16 1 48	5589.76	26.48	260.97	141.23	114.18	17 34 58	4989.8	29.51	253.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5622	TRA	2.1505	TC3	-5.3261	BAU	1.0059	SGT	5734.3	SGR	716.3	SG3	275.2	ST	1484.2	SR	452.5	SS	475.3
RDE	.2775	RRA	-.2849	RC3	.2991	FAU	.03597	RRT	-.8279	RRF	-.8153	RTF	.9656	CRT	-.8285	CRS	.4605	CST	-.8777
FDE	-.0633	FRA	1.4549	FC3	-2.2077	BSP	18776	SGB	5778.9	R23	.0215	R13	-.9657	LSA	1586.6	MSA	340.2	SSA	18.3
BDE	.6269	BRA	2.1693	BC3	5.3345	FSP	-972	SG1	5765.1	SG2	399.6	THA	174.07	EL1	1532.1	EL2	245.5	ALF	165.44

LAUNCH DATE AUG 28 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 538.035

RL	151.12	LAL	-.00	LOL	334.28	VL	26.340	GAL	3.66	AZL	91.49	HCA	256.86	SMA	124.89	ECC	.21909	INC	1.4898	V1	29.484
RP	108.33	LAP	1.45	LOP	231.13	VP	37.250	GAP	10.13	AZP	89.66	TAL	166.70	TAP	63.56	RCA	97.53	APO	152.26	V2	34.982
RC	147.979	GL	-10.15	GP	18.47	ZAL	57.65	ZAP	156.73	ETS	47.44	ZAE	124.85	ETE	167.47	ZAC	119.87	ETC	259.88	CLP	-165.60

PLANETOCENTRIC CONIC

C3	15.036	VHL	3.878	DLA	-33.38	RAL	278.51	RAD	6567.6	VEL	11.680	PTH	2.05	VHP	6.879	DPA	-2.59	RAP	247.96	ECC	1.2475

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.54	11 10 32	1273.89	24.76	354.85	144.07	113.14	11 31 46	673.9	27.67	346.96
108.46	15 51 4	5666.98	24.77	266.18	144.07	113.12	17 25 31	5067.0	27.68	258.29
71.54	11 10 32	1273.89	24.76	354.85	144.07	113.14	11 31 46	673.9	27.67	346.96
108.46	15 51 4	5666.98	24.77	266.18	144.07	113.12	17 25 31	5067.0	27.68	258.29
110.00	15 4 26	5809.95	20.20	274.89	141.70	118.18	16 41 16	5209.9	23.80	267.60
110.00	16 56 20	5466.97	29.51	252.66	146.08	108.09	18 27 27	4867.0	31.70	244.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4039	TRA	2.3940	TC3	-5.0206	BAU	1.0106	SGT	5784.6	SGR	693.2	SG3	263.9	ST	1408.9	SR	434.5	SS	478.7
RDE	.2739	RRA	-.2974	RC3	.2570	FAU	.03293	RRT	-.8098	RRF	-.7953	RTF	.9643	CRT	-.7236	CRS	.3119	CST	-.8806
FDE	.0299	FRA	1.5126	FC3	-1.8959	BSP	18680	SGB	5826.0	R23	.0181	R13	-.9645	LSA	1503.8	MSA	375.5	SSA	17.9
BDE	.4881	BRA	2.4124	BC3	5.0272	FSP	-914	SG1	5811.9	SG2	404.8	THA	174.43	EL1	1445.1	EL2	292.4	ALF	166.87

LAUNCH DATE AUG 28 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 543.728

RL	151.12	LAL	-.00	LOL	334.28	VL	26.304	GAL	4.12	AZL	91.30	HCA	260.05	SMA	124.67	ECC	.22344	INC	1.2970
RP	108.37	LAP	1.28	LOP	234.33	VP	37.212	GAP	10.53	AZP	89.78	TAL	165.36	TAP	65.41	RCA	96.82	APO	152.53
RC	150.132	GL	-8.50	GP	17.66	ZAL	55.38	ZAP	158.01	ETS	48.52	ZAE	124.75	ETE	168.06	ZAC	119.29	ETC	260.40

V1	29.484	V2	34.969	CLP	-166.69														

PLANETOCENTRIC CONIC

C3	16.131	VHL	4.016	DLA	-31.59	RAL	280.87	RAD	6567.6	VEL	11.727	PTH	2.07	VHP	7.085	DPA	-3.80	RAP	249.75
ECC	1.2655																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.36	11 45 6	1211.55	23.10	349.33	146.95	112.18	12 5 18	611.6	25.90	341.51
104.64	15 35 17	5761.06	23.11	272.62	146.95	112.17	17 11 19	5161.1	25.91	264.80
75.36	11 45 6	1211.55	23.10	349.33	146.95	112.18	12 5 18	611.6	25.90	341.51
104.64	15 35 17	5761.06	23.11	272.62	146.95	112.17	17 11 19	5161.1	25.91	264.80
110.00	14 29 42	677.30	14.95	305.98	142.63	121.10	14 40 59	77.3	18.96	299.16
110.00	17 49 52	5343.31	31.79	243.75	150.08	103.27	19 18 56	4743.3	33.29	234.84

DIFFERENTIAL CORRECTIONS

TDE	-.2542	TRA	2.6392	TC3	-4.7181	BAU	1.0186
RDE	.2741	RRA	-.3090	RC3	.2239	FAU	.03035
FDE	.1059	FRA	1.5598	FC3	-1.6287	BSP	18788
BDE	.3739	BRA	2.6572	BC3	4.7234	FSP	-872

MID-COURSE EXECUTION ACCURACY

SGT	5833.8	SGR	673.1	SG3	252.8		
RRT	-.7922	RRF	-.7760	RTF	.9639		
SGB	5872.5	R23	.0141	R13	-.9640		
SG1	5858.2	SG2	409.1	THA	174.75		

ORBIT DETERMINATION ACCURACY

ST	1379.4	SR	420.8	SS	489.2		
CRT	-.6000	CRS	.1867	CST	-.8971		
LSA	1469.4	MSA	399.5	SSA	17.5		
EL1	1403.7	EL2	330.8	ALF	169.01		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 549.381

RL	151.12	LAL	-.00	LOL	334.28	VL	26.269	GAL	4.60	AZL	91.11	HCA	263.23	SMA	124.45	ECC	.22814	INC	1.1082
RP	108.41	LAP	1.10	LOP	237.52	VP	37.175	GAP	10.94	AZP	89.87	TAL	164.01	TAP	67.25	RCA	96.06	APO	152.85
RC	152.275	GL	-6.97	GP	16.93	ZAL	53.20	ZAP	159.21	ETS	49.77	ZAE	124.64	ETE	168.59	ZAC	118.77	ETC	260.93

V1	29.484	V2	34.956	CLP	-167.75														

PLANETOCENTRIC CONIC

C3	17.405	VHL	4.172	DLA	-29.90	RAL	283.09	RAD	6567.7	VEL	11.781	PTH	2.08	VHP	7.304	DPA	-4.92	RAP	251.60
ECC	1.2864																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.98	12 27 29	1122.81	21.49	341.98	149.86	111.30	12 46 12	522.8	24.19	334.22
100.02	15 10 36	5884.71	21.50	281.20	149.86	111.29	16 48 41	5284.7	24.20	273.44
79.98	12 27 29	1122.81	21.49	341.98	149.86	111.30	12 46 12	522.8	24.19	334.22
100.02	15 10 36	5884.71	21.50	281.20	149.86	111.29	16 48 41	5284.7	24.20	273.44
110.00	14 10 22	787.34	10.99	312.05	144.31	122.57	14 23 29	187.3	15.21	305.48
110.00	18 26 54	5268.18	32.83	238.14	153.43	100.10	19 54 43	4668.2	33.88	229.06

DIFFERENTIAL CORRECTIONS

TDE	-.1055	TRA	2.8935	TC3	-4.4069	BAU	1.0264
RDE	.2765	RRA	-.3207	RC3	.1954	FAU	.02794
FDE	.1723	FRA	1.6030	FC3	-1.3896	BSP	18947
BDE	.2960	BRA	2.9113	BC3	4.4112	FSP	-837

MID-COURSE EXECUTION ACCURACY

SGT	5878.3	SGR	655.0	SG3	242.1		
RRT	-.7750	RRF	-.7572	RTF	.9636		
SGB	5914.7	R23	.0107	R13	-.9637		
SG1	5900.3	SG2	412.4	THA	175.04		

ORBIT DETERMINATION ACCURACY

ST	1387.2	SR	409.3	SS	503.9		
CRT	-.4671	CRS	.0808	CST	-.9183		
LSA	1474.9	MSA	412.5	SSA	17.0		
EL1	1401.2	EL2	358.3	ALF	171.60		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 554.987

RL	151.12	LAL	-.00	LOL	334.28	VL	26.233	GAL	5.11	AZL	90.92	HCA	266.42	SMA	124.24	ECC	.23320	INC	.9218
RP	108.45	LAP	.92	LOP	240.70	VP	37.138	GAP	11.37	AZP	89.94	TAL	162.66	TAP	69.08	RCA	95.26	APO	153.21
RC	154.408	GL	-5.55	GP	16.27	ZAL	51.11	ZAP	160.33	ETS	51.21	ZAE	124.52	ETE	169.07	ZAC	118.29	ETC	261.47

V1	29.484	V2	34.943	CLP	-168.80														

PLANETOCENTRIC CONIC

C3	18.877	VHL	4.345	DLA	-28.29	RAL	285.18	RAD	6567.8	VEL	11.843	PTH	2.10	VHP	7.537	DPA	-5.96	RAP	253.51
ECC	1.3107																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 47 10	911.82	19.16	325.50	152.47	111.26	14 2 22	311.8	21.88	317.89
90.00	14 7 36	845.58	20.74	321.29	153.10	109.73	14 21 41	245.6	23.24	313.51
100.00	13 56 46	880.71	13.54	320.61	149.86	116.90	14 11 27	280.7	17.05	313.57
100.00	16 40 41	5639.96	26.62	264.83	155.05	104.13	18 14 41	5040.0	28.30	256.43
110.00	13 57 5	879.72	7.57	317.01	146.33	123.44	14 11 45	279.7	11.91	310.61
110.00	18 56 51	5213.71	33.41	233.99	156.57	97.71	20 23 45	4613.7	34.11	224.82

DIFFERENTIAL CORRECTIONS

TDE	.0230	TRA	3.1382	TC3	-4.1341	BAU	1.0443
RDE	.2831	RRA	-.3304	RC3	.1760	FAU	.02628
FDE	.2176	FRA	1.6308	FC3	-1.2053	BSP	19608
BDE	.2841	BRA	3.1555	BC3	4.1379	FSP	-831

MID-COURSE EXECUTION ACCURACY

SGT	5915.6	SGR	638.5	SG3	230.9		
RRT	-.7582	RRF	-.7393	RTF	.9645		
SGB	5950.0	R23	.0067	R13	-.9645		
SG1	5935.5	SG2	414.9	THA	175.30		

ORBIT DETERMINATION ACCURACY

ST	1414.4	SR	401.8	SS	512.8		
CRT	-.3493	CRS	.0056	CST	-.9383		
LSA	1500.8	MSA	415.2	SSA	16.3		
EL1	1421.9	EL2	374.6	ALF	173.91		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 560.550

RL	151.12	LAL	-.00	LOL	334.28	VL	26.198	GAL	5.65	AZL	90.74	HCA	269.60	SMA	124.02	ECC	.23866	INC	.7369
RP	108.49	LAP	.74	LOP	243.89	VP	37.102	GAP	11.82	AZP	90.00	TAL	161.30	TAP	70.91	RCA	94.42	APO	153.62
RC	156.530	GL	-4.24	GP	15.66	ZAL	49.11	ZAP	161.39	ETS	52.86	ZAE	124.41	ETE	169.50	ZAC	117.86	ETC	262.01

V1	29.484	V2	34.931	CLP	-169.82														

PLANETOCENTRIC CONIC

C3	20.571	VHL	4.536	DLA	-26.78	RAL	287.15	RAD	6567.8	VEL	11.914	PTH	2.12	VHP	7.785	DPA	-6.91	RAP	255.47
ECC	1.3385																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 43 23	1167.00	12.18	340.98	153.02	115.76	13 2 50	567.0	15.54	333.92
90.00	15 27 6	631.20	24.97	307.01	157.86	103.80	15 37 38	31.2	26.63	298.74
100.00	13 32 26	1008.55	9.49	327.94	151.62	118.48	13 49 15	408.5	13.22	321.14
100.00	17 20 44	5552.92	27.92	258.69	158.59	101.15	18 53 17	4952.9	29.17	250.11
110.00	13 47 15	962.06	4.45	321.35	148.55	123.93	14 3 17	362.1	8.88	315.06
110.00	19 22 25	5172.18	33.74	230.79	159.60	95.85	20 48 37	4572.2	34.18	221.58

DIFFERENTIAL CORRECTIONS

TDE	.1954	TRA	3.4384	TC3	-3.7697	BAU	1.0375
RDE	.2861	RRA	-.3453	RC3	.1483	FAU	.02342
FDE	.2836	FRA	1.6831	FC3	-.9854	BSP	19243
BDE	.3464	BRA	3.4557	BC3	3.7726	FSP	-770

MID-COURSE EXECUTION ACCURACY

SGT	5951.9	SGR	622.5	SG3	222.0		
RRT	-.7418	RRF	-.7220	RTF	.9635		
SGB	5984.4	R23	.0056	R13	-.9636		
SG1	5969.9	SG2	416.2	THA	175.54		

ORBIT DETERMINATION ACCURACY

ST	1483.9	SR	390.0	SS	537.9		
CRT	-.2163	CRS	-.0790	CST	-.9556		
LSA	1573.0	MSA	410.8	SSA	16.0		
EL1	1486.4	EL2	380.1	ALF	176.52		

LAUNCH DATE AUG 28 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 566.055

RL 151.12 LAL -.00 LOL 334.28 VL 26.162 GAL 6.21 AZL 90.55 HCA 272.79 SMA 123.81 ECC .24456 INC .5523 V1 29.484
RP 108.53 LAP .55 LOP 247.07 VP 37.065 GAP 12.28 AZP 90.03 TAL 159.95 TAP 72.74 RCA 93.53 APO 154.08 V2 34.919
RC 158.641 GL -3.03 GP 15.11 ZAL 47.22 ZAP 162.38 ETS 54.74 ZAE 124.29 ETE 169.88 ZAC 117.47 ETC 262.56 CLP-170.84

PLANETOCENTRIC CONIC

C3 22.514 VHL 4.745 DLA -25.35 RAL 289.00 RAD 6567.9 VEL 11.996 PTH 2.14 VHP 8.050 DPA -7.79 RAP 257.47 ECC 1.3705

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 19 9	1295.44	8.27	348.39	154.90	117.18	12 40 44	695.4	11.85	341.54
90.00	16 6 8	5834.30	26.22	279.01	161.39	101.09	17 43 22	5234.3	27.49	270.58
100.00	13 16 22	1110.71	6.13	333.66	153.74	119.31	13 34 53	510.7	9.99	327.00
100.00	17 51 36	5494.26	28.62	254.47	161.87	99.03	19 23 11	4894.3	29.57	245.80
110.00	13 39 39	1037.65	1.57	325.31	150.92	124.15	13 56 57	437.7	6.04	319.07
110.00	19 44 48	5140.09	33.93	228.31	162.60	94.39	21 10 29	4540.1	34.17	219.07

DIFFERENTIAL CORRECTIONS
TDE .3488 TRA 3.7306 TC3-3.4540 BAU 1.0403
RDE .2927 RRA -.3581 RC3 .1287 FAU .02130
FDE .3309 FRA 1.7212 FC3 -.8190 BSP 19386
BDE .4553 BRA 3.7478 BC3 3.4564 FSP -739

MID-COURSE EXECUTION ACCURACY
SGT 5980.8 SGR 607.2 SG3 212.6
RRT -.7259 RRF -.7055 RTF .9637
SGB 6011.5 R23 .0037 R13 -.9637
SG1 5997.1 SG2 416.5 THA 175.76

ORBIT DETERMINATION ACCURACY
ST 1556.7 SR 381.5 SS 554.7
CRT -.1114 CRS -.1383 CST -.9683
LSA 1647.8 MSA 401.6 SSA 15.5
EL1 1557.4 EL2 378.9 ALF 178.34

LAUNCH DATE AUG 28 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 571.500

RL 151.12 LAL -.00 LOL 334.28 VL 26.127 GAL 6.81 AZL 90.37 HCA 275.96 SMA 123.59 ECC .25094 INC .3669 V1 29.484
RP 108.56 LAP .37 LOP 250.25 VP 37.029 GAP 12.78 AZP 90.04 TAL 158.60 TAP 74.57 RCA 92.58 APO 154.61 V2 34.907
RC 160.740 GL -1.91 GP 14.61 ZAL 45.42 ZAP 163.31 ETS 56.87 ZAE 124.16 ETE 170.23 ZAC 117.10 ETC 263.11 CLP-171.84

PLANETOCENTRIC CONIC

C3 24.738 VHL 4.974 DLA -24.01 RAL 290.75 RAD 6568.0 VEL 12.088 PTH 2.16 VHP 8.332 DPA -8.59 RAP 259.50 ECC 1.4071

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 2 58	1398.36	5.03	354.22	157.10	117.90	12 26 17	798.4	8.72	347.49
90.00	16 36 14	5777.44	26.90	274.99	164.67	99.19	18 12 32	5177.4	27.90	266.47
100.00	13 4 31	1199.70	3.14	338.58	156.06	119.74	13 24 30	599.7	7.08	332.00
100.00	18 17 23	5451.34	29.03	251.35	165.03	97.44	19 48 14	4851.3	29.76	242.62
110.00	13 33 38	1108.36	-1.13	328.99	153.39	124.17	13 52 7	508.4	3.36	322.79
110.00	20 4 45	5115.44	34.05	226.39	165.58	93.26	21 30 0	4515.4	34.12	217.15

DIFFERENTIAL CORRECTIONS
TDE .5043 TRA 4.0372 TC3-3.1465 BAU 1.0413
RDE .3003 RRA -.3709 RC3 .1113 FAU .01927
FDE .3731 FRA 1.7586 FC3 -.6745 BSP 19532
BDE .5869 BRA 4.0542 BC3 3.1485 FSP -710

MID-COURSE EXECUTION ACCURACY
SGT 6004.5 SGR 592.2 SG3 203.6
RRT -.7106 RRF -.6899 RTF .9640
SGB 6033.6 R23 .0023 R13 -.9640
SG1 6019.3 SG2 415.7 THA 175.97

ORBIT DETERMINATION ACCURACY
ST 1636.8 SR 373.4 SS 570.4
CRT -.0223 CRS -.1869 CST -.9775
LSA 1729.6 MSA 390.0 SSA 15.1
EL1 1636.8 EL2 373.3 ALF 179.69

LAUNCH DATE AUG 28 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 576.876

RL 151.12 LAL -.00 LOL 334.28 VL 26.092 GAL 7.45 AZL 90.18 HCA 279.14 SMA 123.38 ECC .25786 INC .1793 V1 29.484
RP 108.60 LAP .18 LOP 253.42 VP 36.994 GAP 13.30 AZP 90.03 TAL 157.26 TAP 76.40 RCA 91.57 APO 155.20 V2 34.896
RC 162.826 GL -.89 GP 14.15 ZAL 43.72 ZAP 164.17 ETS 59.28 ZAE 124.03 ETE 170.54 ZAC 116.76 ETC 263.67 CLP-172.83

PLANETOCENTRIC CONIC

C3 27.284 VHL 5.223 DLA -22.75 RAL 292.39 RAD 6568.1 VEL 12.193 PTH 2.19 VHP 8.634 DPA -9.31 RAP 261.58 ECC 1.4490

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 50 57	1488.05	2.15	359.24	159.48	118.24	12 15 45	888.1	5.91	352.58
90.00	17 1 22	5736.21	27.32	272.04	167.85	97.77	18 36 58	5136.2	28.11	263.47
100.00	12 55 18	1280.31	.41	343.00	158.51	119.89	13 16 39	680.3	4.38	336.47
100.00	18 39 41	5419.19	29.30	249.00	168.13	96.23	20 10 0	4819.2	29.85	240.24
110.00	13 28 48	1175.30	-3.69	332.49	155.96	124.01	13 48 23	575.3	.80	326.28
110.00	20 22 41	5096.96	34.11	224.95	168.56	92.41	21 47 38	4497.0	34.07	215.71

DIFFERENTIAL CORRECTIONS
TDE .6625 TRA 4.3589 TC3-2.8496 BAU 1.0400
RDE .3089 RRA -.3837 RC3 .0958 FAU .01735
FDE .4113 FRA 1.7954 FC3 -.5506 BSP 19688
BDE .7310 BRA 4.3758 BC3 2.8512 FSP -683

MID-COURSE EXECUTION ACCURACY
SGT 6022.5 SGR 577.2 SG3 195.0
RRT -.6956 RRF -.6749 RTF .9646
SGB 6050.1 R23 .0012 R13 -.9646
SG1 6035.9 SG2 413.8 THA 176.17

ORBIT DETERMINATION ACCURACY
ST 1719.1 SR 365.5 SS 584.7
CRT .0525 CRS -.2273 CST -.9840
LSA 1813.3 MSA 377.4 SSA 14.6
EL1 1719.2 EL2 365.0 ALF .67

LAUNCH DATE AUG 28 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 582.173

RL 151.12 LAL -.00 LOL 334.28 VL 26.057 GAL 8.13 AZL 89.99 HCA 282.32 SMA 123.18 ECC .26538 INC .0000 V1 29.484
RP 108.63 LAP -.01 LOP 256.60 VP 36.959 GAP 13.85 AZP 90.00 TAL 155.93 TAP 78.25 RCA 90.49 APO 155.87 V2 34.885
RC 164.900 GL .05 GP 13.73 ZAL 42.12 ZAP 164.97 ETS 61.99 ZAE 123.89 ETE 170.83 ZAC 116.43 ETC 264.24 CLP-173.81

PLANETOCENTRIC CONIC

C3 30.198 VHL 5.495 DLA -21.57 RAL 293.93 RAD 6568.2 VEL 12.311 PTH 2.22 VHP 8.959 DPA -9.97 RAP 263.67 ECC 1.4970

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 41 32	1569.27	-.47	3.77	161.99	118.31	12 7 41	969.3	3.32	357.14
90.00	17 23 6	5705.69	27.58	269.85	170.98	96.70	18 58 11	5105.7	28.22	261.24
100.00	12 47 55	1354.97	-2.12	347.10	161.07	119.82	13 10 30	755.0	1.86	340.58
100.00	18 59 23	5395.22	29.46	247.23	171.20	95.31	20 29 18	4795.2	29.88	238.46
110.00	13 24 51	1239.21	-6.11	335.85	158.59	123.70	13 45 31	639.2	-1.64	329.62
110.00	20 38 56	5083.75	34.14	223.92	171.55	91.80	22 3 40	4483.7	34.01	214.68

DIFFERENTIAL CORRECTIONS
TDE .8235 TRA 4.6969 TC3-2.5664 BAU 1.0366
RDE .3184 RRA -.3963 RC3 .0820 FAU .01552
FDE .4458 FRA 1.8324 FC3 -.4451 BSP 19865
BDE .8829 BRA 4.7136 BC3 2.5677 FSP -658

MID-COURSE EXECUTION ACCURACY
SGT 6035.1 SGR 561.9 SG3 186.8
RRT -.6809 RRF -.6605 RTF .9653
SGB 6061.2 R23 .0004 R13 -.9653
SG1 6047.3 SG2 410.7 THA 176.36

ORBIT DETERMINATION ACCURACY
ST 1800.0 SR 357.7 SS 597.6
CRT .1152 CRS -.2611 CST -.9886
LSA 1895.3 MSA 364.4 SSA 14.1
EL1 1800.5 EL2 355.2 ALF 1.36

LAUNCH DATE AUG 28 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 587.381

RL	151.12	LAL	-.00	LOL	334.28	VL	26.023	GAL	8.85	AZL	89.79	HCA	285.49	SMA	122.97	ECC	.27356	INC	.2062
RP	108.66	LAP	-.20	LOP	259.77	VP	36.925	GAP	14.43	AZP	89.94	TAL	154.62	TAP	80.11	RCA	89.33	APO	156.61
RC	166.961	GL	.92	GP	13.34	ZAL	40.61	ZAP	165.70	ETS	65.03	ZAE	123.74	ETE	171.10	ZAC	116.12	ETC	264.81

V1	29.484	V2	34.874	CLP	-174.80														

PLANETOCENTRIC CONIC

C3	33,536	VHL	5.791	DLA	-20.46	RAL	295.38	RAD	6568.3	VEL	12.446	PTH	2.25	VHP	9.307	DPA	-10.57	RAP	265.79
ECC	1.5519																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 33 55	1644.44	-2.89	7.96	164.59	118.18	12 1 19	1044.4	.90	1.33
90.00	17 42 16	5683.28	27.75	268.23	174.07	95.90	19 16 59	5083.3	28.27	259.60
100.00	12 41 53	1425.12	-4.49	350.96	163.71	119.58	13 5 38	825.1	-.52	344.43
100.00	19 16 59	5377.84	29.56	245.95	174.26	94.65	20 46 37	4777.8	29.89	237.16
110.00	13 21 36	1300.61	-8.42	339.11	161.29	123.25	13 43 17	700.6	-3.98	332.83
110.00	20 53 45	5075.11	34.16	223.25	174.55	91.40	22 18 20	4475.1	33.97	214.01

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9887	TRA	5.0533	TC3	-2.2965	BAU	1.0301	SGT	6042.3	SGR	546.1	SG3	179.0	ST	1877.9	SR	349.8	SS	609.6
RDE	.3285	RRA	-.4085	RC3	.0695	FAU	.01377	RRT	-.6663	RRF	-.6465	RTF	.9662	CRT	.1683	CRS	-.2901	CST	-.9919
FDE	.4778	FRA	1.8701	FC3	-.3553	BSP	20041	SGB	6066.9	R23	-.0002	R13	-.9662	LSA	1974.0	MSA	351.5	SSA	13.7
BDE	1.0419	BRA	5.0698	BC3	2.2975	FSP	-635	SG1	6053.3	SG2	406.5	THA	176.54	EL1	1878.8	EL2	344.7	ALF	1.86

LAUNCH DATE AUG 28 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 592.485

RL	151.12	LAL	-.00	LOL	334.28	VL	25.989	GAL	9.63	AZL	89.59	HCA	288.66	SMA	122.77	ECC	.28248	INC	.4076
RP	108.69	LAP	-.39	LOP	262.94	VP	36.891	GAP	15.06	AZP	89.87	TAL	153.33	TAP	81.99	RCA	88.09	APO	157.45
RC	169.007	GL	1.71	GP	12.99	ZAL	39.19	ZAP	166.35	ETS	68.43	ZAE	123.58	ETE	171.34	ZAC	115.82	ETC	265.38

V1	29.484	V2	34.864	CLP	-175.79														

PLANETOCENTRIC CONIC

C3	37.367	VHL	6.113	DLA	-19.43	RAL	296.74	RAD	6568.5	VEL	12.599	PTH	2.29	VHP	9.684	DPA	-11.09	RAP	267.93
ECC	1.6150																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 27 38	1715.00	-5.15	11.92	167.26	117.88	11 56 13	1115.0	-1.38	5.27
90.00	17 59 23	5667.36	27.85	267.08	177.14	95.33	19 33 50	5067.4	28.30	258.44
100.00	12 36 51	1491.65	-6.71	354.65	166.41	119.20	13 1 42	891.7	-2.77	348.08
100.00	19 32 51	5365.94	29.62	245.07	177.31	94.19	21 2 17	4765.9	29.89	236.28
110.00	13 18 54	1359.84	-10.61	342.29	164.05	122.69	13 41 34	759.8	-6.23	335.94
110.00	21 7 17	5070.52	34.16	222.89	177.56	91.19	22 31 47	4470.5	33.95	213.65

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1589	TRA	5.4299	TC3	-2.0410	BAU	1.0200	SGT	6044.2	SGR	529.7	SG3	171.6	ST	1951.1	SR	341.8	SS	620.8
RDE	.3393	RRA	-.4202	RC3	.0583	FAU	.01207	RRT	-.6517	RRF	-.6327	RTF	.9673	CRT	.2135	CRS	-.3152	CST	-.9942
FDE	.5076	FRA	1.9091	FC3	-.2797	BSP	20220	SGB	6067.4	R23	-.0006	R13	-.9673	LSA	2047.9	MSA	338.8	SSA	13.3
BDE	1.2075	BRA	5.4462	BC3	2.0418	FSP	-613	SG1	6054.1	SG2	401.2	THA	176.72	EL1	1952.5	EL2	333.7	ALF	2.21

LAUNCH DATE AUG 28 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 597.469

RL	151.12	LAL	-.00	LOL	334.28	VL	25.955	GAL	10.46	AZL	89.38	HCA	291.83	SMA	122.57	ECC	.29223	INC	.6166
RP	108.72	LAP	-.57	LOP	266.11	VP	36.859	GAP	15.74	AZP	89.77	TAL	152.07	TAP	83.89	RCA	86.75	APO	158.39
RC	171.039	GL	2.44	GP	12.66	ZAL	37.87	ZAP	166.94	ETS	72.22	ZAE	123.41	ETE	171.57	ZAC	115.53	ETC	265.96

V1	29.484	V2	34.855	CLP	-176.78														

PLANETOCENTRIC CONIC

C3	41.775	VHL	6.463	DLA	-18.47	RAL	298.01	RAD	6568.6	VEL	12.773	PTH	2.32	VHP	10.091	DPA	-11.56	RAP	270.07
ECC	1.6875																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 22 22	1781.83	-7.26	15.69	170.00	117.44	11 52 3	1181.8	-3.53	9.00
90.00	18 14 47	5656.85	27.92	266.32	180.20	94.96	19 49 4	5056.8	28.31	257.67
100.00	12 32 36	1555.18	-8.81	358.20	169.17	118.68	12 58 31	955.2	-4.91	351.58
100.00	19 47 14	5358.73	29.66	244.54	180.35	93.91	21 16 32	4758.7	29.89	235.74
110.00	13 16 39	1417.16	-12.70	345.42	166.85	122.01	13 40 16	817.2	-8.38	338.98
110.00	21 19 40	5069.52	34.17	222.81	180.58	91.14	22 44 9	4469.5	33.95	213.57

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3361	TRA	5.8299	TC3	-1.7994	BAU	1.0053	SGT	6041.6	SGR	512.7	SG3	164.5	ST	2019.8	SR	333.5	SS	631.8
RDE	.3506	RRA	-.4311	RC3	.0482	FAU	.01041	RRT	-.6368	RRF	-.6188	RTF	.9686	CRT	.2529	CRS	-.3377	CST	-.9958
FDE	.5363	FRA	1.9505	FC3	-.2156	BSP	20377	SGB	6063.3	R23	-.0008	R13	-.9686	LSA	2117.4	MSA	326.1	SSA	12.9
BDE	1.3813	BRA	5.8458	BC3	1.8000	FSP	-591	SG1	6050.5	SG2	394.7	THA	176.89	EL1	2021.6	EL2	322.3	ALF	2.45

LAUNCH DATE AUG 28 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 602.313

RL	151.12	LAL	-.00	LOL	334.28	VL	25.922	GAL	11.35	AZL	89.17	HCA	294.99	SMA	122.38	ECC	.30291	INC	.8348
RP	108.75	LAP	-.76	LOP	269.28	VP	36.827	GAP	16.47	AZP	89.65	TAL	150.84	TAP	85.83	RCA	85.31	APO	159.44
RC	173.056	GL	3.10	GP	12.37	ZAL	36.64	ZAP	167.44	ETS	76.39	ZAE	123.22	ETE	171.79	ZAC	115.25	ETC	266.53

V1	29.484	V2	34.846	CLP	-177.78														

PLANETOCENTRIC CONIC

C3	46.859	VHL	6.845	DLA	-17.57	RAL	299.19	RAD	6568.8	VEL	12.970	PTH	2.36	VHP	10.533	DPA	-11.96	RAP	272.22
ECC	1.7712																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 17 52	1845.54	-9.24	19.33	172.77	116.88	11 48 38	1245.5	-5.56	12.58
90.00	18 28 42	5650.93	27.95	265.89	183.23	94.74	20 2 53	5050.9	28.31	257.24
100.00	12 28 58	1616.12	-10.78	1.65	171.96	118.05	12 55 54	1016.1	-6.94	354.96
100.00	20 0 17	5355.59	29.67	244.31	183.38	93.79	21 29 33	4755.6	29.88	235.51
110.00	13 14 44	1472.74	-14.68	348.50	169.68	121.22	13 39 17	872.7	-10.44	341.97
110.00	21 31 1	5071.73	34.16	222.98	183.61	91.24	22 55 32	4471.7	33.96	213.74

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.5217	TRA	6.2566	TC3	-1.5715	BAU	.9848	SGT	6035.4	SGR	494.8	SG3	157.9	ST	2083.8	SR	324.9	SS	643.1
RDE	.3624	RRA	-.4411	RC3	.0390	FAU	.00876	RRT	-.6214	RRF	-.6046	RTF	.9700	CRT	.2878	CRS	-.3584	CST	-.9970
FDE	.5645	FRA	1.9950	FC3	-.1618	BSP	20490	SGB	6055.6	R23	-.0008	R13	-.9700	LSA	2182.3	MSA	313.6	SSA	12.4
BDE	1.5642	BRA	6.2721	BC3	1.5720	FSP	-569	SG1	6043.2	SG2	387.2	THA	177.07	EL1	2085.9	EL2	310.8	ALF	2.63

LAUNCH DATE AUG 28 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 606.991
RL 151.12 LAL -.00 LOL 334.28 VL 25.889 GAL 12.31 AZL 88.94 HCA 298.16 SMA 122.19 ECC .31464 INC 1.0645 V1 29.484
RP 108.78 LAP -.94 LOP 272.45 VP 36.796 GAP 17.26 AZP 89.50 TAL 149.65 TAP 87.81 RCA 83.74 APO 160.63 V2 34.837
RC 175.059 GL 3.71 GP 12.09 ZAL 35.51 ZAP 167.85 ETS 80.97 ZAE 123.00 ETE 171.99 ZAC 114.97 ETC 267.10 CLP-178.80
PLANETOCENTRIC CONIC
C3 52.746 VHL 7.263 DLA -16.74 RAL 300.29 RAD 6568.9 VEL 13.195 PTH 2.41 VHP 11.015 DPA -12.31 RAP 274.36 ECC 1.8681

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 1	1906.49	-11.10	22.84	175.57	116.22	11 45 47	1306.5	-7.49	16.03
90.00	18 41 18	5648.99	27.96	265.75	186.24	94.67	20 15 27	5049.0	28.31	257.10
100.00	12 25 51	1674.70	-12.63	5.01	174.78	117.32	12 53 45	1074.7	-8.87	358.24
100.00	20 12 9	5356.02	29.67	244.34	186.39	93.80	21 41 25	4756.0	29.88	235.54
110.00	13 13 6	1526.67	-16.56	351.55	172.55	120.34	13 38 32	926.7	-12.41	344.90
110.00	21 41 24	5076.81	34.16	223.38	186.63	91.48	23 6 1	4476.8	33.98	214.14

DIFFERENTIAL CORRECTIONS
TDE 1.7175 TRA 6.7132 TC3-1.3568 BAU .9570
RDE .3748 RRA -.4497 RC3 .0307 FAU .00709
FDE .5929 FRA 2.0434 FC3 -.1164 BSP 20551
BDE 1.7579 BRA 6.7282 BC3 1.3571 FSP -546

MID-COURSE EXECUTION ACCURACY
SGT 6025.5 SGR 476.1 SG3 151.7
RRT -.6052 RRF -.5898 RTF .9717
SGB 6044.3 R23 -.0007 R13 -.9717
SG1 6032.4 SG2 378.6 THA 177.25

ORBIT DETERMINATION ACCURACY
ST 2143.0 SR 315.9 SS 655.1
CRT .3193 CRS -.3778 CST -.9979
LSA 2242.9 MSA 301.1 SSA 12.0
EL1 2145.4 EL2 299.0 ALF 2.75

LAUNCH DATE AUG 28 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 611.472
RL 151.12 LAL -.00 LOL 334.28 VL 25.857 GAL 13.36 AZL 88.69 HCA 301.32 SMA 122.00 ECC .32757 INC 1.3080 V1 29.484
RP 108.80 LAP -1.12 LOP 275.61 VP 36.765 GAP 18.12 AZP 89.32 TAL 148.51 TAP 89.83 RCA 82.04 APO 161.96 V2 34.829
RC 177.047 GL 4.27 GP 11.84 ZAL 34.46 ZAP 168.16 ETS 85.93 ZAE 122.76 ETE 172.18 ZAC 114.69 ETC 267.67 CLP-179.83
PLANETOCENTRIC CONIC
C3 59.589 VHL 7.719 DLA -15.97 RAL 301.30 RAD 6569.1 VEL 13.452 PTH 2.46 VHP 11.543 DPA -12.60 RAP 276.49 ECC 1.9807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 10 39	1964.95	-12.83	26.26	178.39	115.46	11 43 24	1365.0	-9.30	19.36
90.00	18 52 44	5650.52	27.95	265.86	189.22	94.73	20 26 54	5050.5	28.31	257.21
100.00	12 23 7	1731.12	-14.37	8.30	177.62	116.50	12 51 58	1131.1	-10.70	1.44
100.00	20 22 57	5359.59	29.66	244.60	189.37	93.94	21 52 16	4759.6	29.89	235.81
110.00	13 11 40	1579.02	-18.34	354.57	175.43	119.37	13 37 59	979.0	-14.29	347.80
110.00	21 50 53	5084.46	34.14	223.98	189.64	91.83	23 15 37	4484.5	34.02	214.73

DIFFERENTIAL CORRECTIONS
TDE 1.9267 TRA 7.2051 TC3-1.1459 BAU .9130
RDE .3877 RRA -.4567 RC3 .0233 FAU .00538
FDE .6221 FRA 2.0969 FC3 -.0781 BSP 20665
BDE 1.9653 BRA 7.2196 BC3 1.1461 FSP -522

MID-COURSE EXECUTION ACCURACY
SGT 6009.7 SGR 456.6 SG3 145.8
RRT -.5880 RRF -.5740 RTF .9740
SGB 6027.0 R23 -.0012 R13 -.9740
SG1 6015.7 SG2 368.9 THA 177.43

ORBIT DETERMINATION ACCURACY
ST 2198.3 SR 306.6 SS 668.3
CRT .3486 CRS -.3967 CST -.9985
LSA 2300.0 MSA 288.5 SSA 11.5
EL1 2201.0 EL2 287.0 ALF 2.83

LAUNCH DATE AUG 28 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 615.717
RL 151.12 LAL -.00 LOL 334.28 VL 25.826 GAL 14.49 AZL 88.43 HCA 304.48 SMA 121.82 ECC .34186 INC 1.5683 V1 29.484
RP 108.83 LAP -1.29 LOP 278.78 VP 36.736 GAP 19.07 AZP 89.11 TAL 147.44 TAP 91.92 RCA 80.17 APO 163.46 V2 34.822
RC 179.021 GL 4.78 GP 11.60 ZAL 33.51 ZAP 168.36 ETS 91.25 ZAE 122.49 ETE 172.37 ZAC 114.41 ETC 268.23 CLP 179.10
PLANETOCENTRIC CONIC
C3 67.582 VHL 8.221 DLA -15.26 RAL 302.22 RAD 6569.3 VEL 13.745 PTH 2.51 VHP 12.123 DPA -12.85 RAP 278.60 ECC 2.1122

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 7 41	2021.06	-14.45	29.59	181.21	114.62	11 41 22	1421.1	-11.01	22.60
90.00	19 3 3	5655.10	27.93	266.19	192.16	94.89	20 37 18	5055.1	28.31	257.54
100.00	12 20 42	1785.45	-15.99	11.52	180.46	115.59	12 50 28	1185.5	-12.42	4.55
100.00	20 32 43	5365.94	29.62	245.07	192.32	94.19	22 2 9	4765.9	29.89	236.28
110.00	13 10 25	1629.76	-20.00	357.56	178.32	118.31	13 37 34	1029.8	-16.07	350.66
110.00	21 59 30	5094.40	34.12	224.75	192.62	92.29	23 24 24	4494.4	34.06	215.51

DIFFERENTIAL CORRECTIONS
TDE 2.1493 TRA 7.7357 TC3 -.9660 BAU .8729
RDE .4013 RRA -.4616 RC3 .0166 FAU .00362
FDE .6528 FRA 2.1564 FC3 -.0464 BSP 20377
BDE 2.1865 BRA 7.7495 BC3 .9662 FSP -497

MID-COURSE EXECUTION ACCURACY
SGT 5999.8 SGR 436.1 SG3 140.4
RRT -.5687 RRF -.5565 RTF .9755
SGB 6015.7 R23 -.0003 R13 -.9755
SG1 6005.0 SG2 358.4 THA 177.62

ORBIT DETERMINATION ACCURACY
ST 2248.8 SR 297.0 SS 683.2
CRT .3761 CRS -.4155 CST -.9989
LSA 2352.8 MSA 275.9 SSA 11.2
EL1 2251.6 EL2 274.9 ALF 2.89

LAUNCH DATE AUG 28 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 619.676
RL 151.12 LAL -.00 LOL 334.28 VL 25.795 GAL 15.73 AZL 88.15 HCA 307.64 SMA 121.64 ECC .35769 INC 1.8491 V1 29.484
RP 108.85 LAP -1.46 LOP 281.94 VP 36.708 GAP 20.11 AZP 88.87 TAL 146.44 TAP 94.08 RCA 78.13 APO 165.15 V2 34.815
RC 180.980 GL 5.24 GP 11.39 ZAL 32.66 ZAP 168.44 ETS 96.86 ZAE 122.18 ETE 172.56 ZAC 114.14 ETC 268.78 CLP 178.00
PLANETOCENTRIC CONIC
C3 76.968 VHL 8.773 DLA -14.61 RAL 303.05 RAD 6569.5 VEL 14.083 PTH 2.57 VHP 12.763 DPA -13.04 RAP 280.68 ECC 2.2667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 5 3	2074.86	-15.95	32.82	184.01	113.71	11 39 38	1474.9	-12.61	25.74
90.00	19 12 19	5662.37	27.88	266.72	195.05	95.15	20 46 42	5062.4	28.30	258.08
100.00	12 18 33	1837.71	-17.50	14.66	183.28	114.62	12 49 11	1237.7	-14.04	7.59
100.00	20 41 30	5374.76	29.58	245.72	195.21	94.53	22 11 5	4774.8	29.89	236.93
110.00	13 9 16	1678.86	-21.56	.52	181.19	117.19	13 37 15	1078.9	-17.74	353.47
110.00	22 7 17	5106.37	34.08	225.68	195.55	92.84	23 32 23	4506.4	34.10	216.44

DIFFERENTIAL CORRECTIONS
TDE 2.3888 TRA 8.3103 TC3 -.7897 BAU .8127
RDE .4157 RRA -.4636 RC3 .0109 FAU .00177
FDE .6853 FRA 2.2227 FC3 -.0199 BSP 20116
BDE 2.4247 BRA 8.3232 BC3 .7898 FSP -470

MID-COURSE EXECUTION ACCURACY
SGT 5984.2 SGR 414.7 SG3 135.3
RRT -.5472 RRF -.5367 RTF .9776
SGB 5998.5 R23 .0000 R13 -.9776
SG1 5988.5 SG2 346.9 THA 177.82

ORBIT DETERMINATION ACCURACY
ST 2294.9 SR 287.3 SS 699.9
CRT .4029 CRS -.4348 CST -.9993
LSA 2402.0 MSA 263.3 SSA 10.8
EL1 2297.9 EL2 262.6 ALF 2.93

LAUNCH DATE AUG 29 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 7 1970

HELIOCENTRIC CONIC DISTANCE 163.045

RL	151.09	LAL	-.00	LOL	335.25	VL	23.155	GAL	-.51	AZL	92.08	HCA	66.92	SMA	108.72	ECC	.38974	INC	2.0788	V1	29.490
RP	108.19	LAP	-1.91	LOP	42.15	VP	35.109	GAP	-22.94	AZP	90.82	TAL	180.80	TAP	247.72	RCA	66.35	APO	151.10	V2	35.027
RC	40.525	GL	-7.53	GP	-8.46	ZAL	88.31	ZAP	14.31	ETS	141.19	ZAE	175.80	ETE	331.39	ZAC	91.69	ETC	258.89	CLP	11.59

PLANETOCENTRIC CONIC

C3	41.054	VHL	6.407	DLA	-28.89	RAL	243.69	RAD	6568.6	VEL	12.744	PTH	2.32	VHP	13.876	DPA	-25.49	RAP	228.89	ECC	1.6756

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.00	10 18 1	1232.47	15.23	347.25	124.12	114.86	10 38 34	632.5	18.45	340.02
96.00	11 57 52	909.38	15.24	323.58	124.13	114.85	12 13 2	309.4	18.47	316.35
100.00	11 24 29	1016.79	9.22	328.41	121.03	118.56	11 41 26	416.8	12.97	321.62
100.00	13 34 6	600.30	21.42	303.53	126.90	111.36	13 44 6	.3	24.13	295.78
110.00	11 15 20	1045.60	1.27	325.72	116.17	124.16	11 32 45	445.6	5.74	319.49
110.00	15 59 44	5432.30	30.22	250.20	130.28	106.79	17 30 17	4832.3	32.22	241.56

DIFFERENTIAL CORRECTIONS

TDE	.1718	TRA	-.7515	TC3	.0509	BAU	.0305	SGT	785.5	SGR	441.6	SG3	56.5	ST	276.8	SR	440.6	SS	182.6
RDE	-.4927	RRA	-.0095	RC3	-.0222	FAU	.01942	RRT	-.1791	RRF	.1925	RTF	-.6603	CRT	-.5496	CRS	-.6562	CST	.9858
FDE	-.1126	FRA	.3694	FC3	-.4096	BSP	2079	SGB	901.2	R23	-.0234	R13	.6642	LSA	496.9	MSA	238.7	SSA	15.2
BDE	.5218	BRA	.7516	BC3	.0556	FSP	-126	SG1	791.2	SG2	431.4	THA	171.79	EL1	473.9	EL2	215.1	ALF	114.38

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 169.673

RL	151.09	LAL	-.00	LOL	335.25	VL	23.536	GAL	-.63	AZL	91.86	HCA	70.12	SMA	110.33	ECC	.36952	INC	1.8636	V1	29.490
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.375	GAP	-21.66	AZP	90.63	TAL	181.07	TAP	251.19	RCA	69.56	APO	151.10	V2	35.040
RC	40.252	GL	-7.31	GP	-8.87	ZAL	88.68	ZAP	13.22	ETS	135.18	ZAE	173.07	ETE	335.50	ZAC	91.48	ETC	259.12	CLP	9.84

PLANETOCENTRIC CONIC

C3	36.192	VHL	6.016	DLA	-28.61	RAL	243.31	RAD	6568.4	VEL	12.552	PTH	2.27	VHP	13.168	DPA	-26.33	RAP	230.28	ECC	1.5956

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.75	10 30 51	1154.39	15.98	341.87	121.63	114.05	10 50 6	554.4	19.09	334.56
94.25	11 42 4	923.77	15.99	324.99	121.64	114.04	11 57 27	323.8	19.11	317.68
100.00	11 14 20	1013.26	9.34	328.21	118.27	118.52	11 31 13	413.3	13.08	321.41
100.00	13 41 17	5828.18	22.86	277.55	124.56	109.80	15 18 25	5228.2	25.35	269.63
110.00	11 10 8	1026.45	2.00	324.72	113.79	124.13	11 27 14	426.4	6.47	318.48
110.00	16 1 58	5387.76	31.05	247.00	127.45	105.06	17 31 45	4787.8	32.81	238.22

DIFFERENTIAL CORRECTIONS

TDE	.1737	TRA	-.7335	TC3	.0833	BAU	.0435	SGT	818.9	SGR	446.6	SG3	62.4	ST	290.4	SR	444.7	SS	187.0
RDE	-.4669	RRA	-.0049	RC3	-.0337	FAU	.02034	RRT	-.2006	RRF	.2151	RTF	-.6803	CRT	-.5666	CRS	-.6527	CST	.9889
FDE	-.1130	FRA	.3777	FC3	-.4865	BSP	2193	SGB	932.7	R23	-.0258	R13	.6846	LSA	507.4	MSA	243.6	SSA	15.6
BDE	.4982	BRA	.7335	BC3	.0899	FSP	-141	SG1	825.6	SG2	433.9	THA	171.35	EL1	483.4	EL2	220.2	ALF	116.11

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 176.334

RL	151.09	LAL	-.00	LOL	335.25	VL	23.887	GAL	-.76	AZL	91.66	HCA	73.32	SMA	111.88	ECC	.35063	INC	1.6568	V1	29.490
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.623	GAP	-20.44	AZP	90.48	TAL	181.41	TAP	254.73	RCA	72.65	APO	151.11	V2	35.053
RC	40.156	GL	-7.01	GP	-9.33	ZAL	89.19	ZAP	12.32	ETS	128.01	ZAE	170.28	ETE	336.97	ZAC	91.22	ETC	259.35	CLP	8.08

PLANETOCENTRIC CONIC

C3	31.981	VHL	5.655	DLA	-28.23	RAL	242.80	RAD	6568.3	VEL	12.384	PTH	2.24	VHP	12.491	DPA	-27.20	RAP	231.65	ECC	1.5263

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 44 24	1072.81	14.89	335.40	118.21	114.36	11 2 17	472.8	18.06	328.15
90.00	11 24 26	942.95	18.38	327.45	119.76	111.93	11 40 9	343.0	21.19	319.91
100.00	11 2 5	1015.54	9.27	328.34	115.34	118.55	11 19 1	415.5	13.01	321.55
100.00	13 49 26	5763.49	24.29	273.27	122.06	107.99	15 25 29	5163.5	26.52	265.18
110.00	11 3 17	1011.81	2.56	323.96	111.24	124.10	11 20 8	411.8	7.02	317.71
110.00	16 4 44	5339.99	31.85	243.50	124.44	103.13	17 33 44	4740.0	33.32	234.59

DIFFERENTIAL CORRECTIONS

TDE	.1752	TRA	-.7163	TC3	.1249	BAU	.0573	SGT	854.3	SGR	451.4	SG3	69.1	ST	304.3	SR	448.1	SS	190.9
RDE	-.4422	RRA	-.0009	RC3	-.0488	FAU	.02142	RRT	-.2243	RRF	.2414	RTF	-.7000	CRT	-.5829	CRS	-.6487	CST	.9914
FDE	-.1132	FRA	.3859	FC3	-.5799	BSP	2341	SGB	966.2	R23	-.0298	R13	.7047	LSA	517.7	MSA	248.0	SSA	16.1
BDE	.4757	BRA	.7163	BC3	.1341	FSP	-159	SG1	862.3	SG2	435.8	THA	170.90	EL1	492.7	EL2	224.8	ALF	117.88

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 183.024

RL	151.09	LAL	-.00	LOL	335.25	VL	24.211	GAL	-.90	AZL	91.46	HCA	76.53	SMA	113.37	ECC	.33303	INC	1.4567	V1	29.490
RP	108.07	LAP	-1.42	LOP	51.77	VP	35.853	GAP	-19.27	AZP	90.34	TAL	181.81	TAP	258.34	RCA	75.61	APO	151.12	V2	35.066
RC	40.238	GL	-6.64	GP	-9.83	ZAL	89.84	ZAP	11.66	ETS	119.67	ZAE	167.49	ETE	337.49	ZAC	90.90	ETC	259.58	CLP	6.31

PLANETOCENTRIC CONIC

C3	28.337	VHL	5.323	DLA	-27.74	RAL	242.16	RAD	6568.1	VEL	12.236	PTH	2.20	VHP	11.846	DPA	-28.11	RAP	233.00	ECC	1.4664

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 29	1141.39	12.93	339.47	114.32	115.41	10 30 30	541.4	16.25	332.37
90.00	11 52 12	813.71	21.45	319.23	117.95	108.94	12 5 46	213.7	23.84	311.37
100.00	10 48 5	1023.08	9.02	328.76	112.29	118.62	11 5 8	423.1	12.77	321.98
100.00	13 58 17	5695.29	25.64	268.66	119.38	105.92	15 33 12	5095.3	27.58	260.39
110.00	10 54 47	1002.04	2.93	323.45	108.56	124.07	11 11 29	402.0	7.38	317.19
110.00	16 8 5	5289.10	32.57	239.71	121.28	101.00	17 36 14	4689.1	33.74	230.67

DIFFERENTIAL CORRECTIONS

TDE	.1762	TRA	-.6982	TC3	.1734	BAU	.0705	SGT	889.3	SGR	456.3	SG3	76.5	ST	317.6	SR	450.5	SS	193.6
RDE	-.4186	RRA	.0028	RC3	-.0679	FAU	.02259	RRT	-.2506	RRF	.2705	RTF	-.7180	CRT	-.5990	CRS	-.6418	CST	.9933
FDE	-.1124	FRA	.3941	FC3	-.6901	BSP	2477	SGB	999.6	R23	-.0342	R13	.7233	LSA	527.1	MSA	251.4	SSA	16.7
BDE	.4541	BRA	.6982	BC3	.1862	FSP	-179	SG1	899.0	SG2	437.0	THA	170.38	EL1	501.7	EL2	228.4	ALF	119.61

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 189.738

RL	151.09	LAL	-.00	LOL	335.25	VL	24.508	GAL	-1.06	AZL	91.26	HCA	79.73	SMA	114.79	ECC	.31668	INC	1.2618
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.067	GAP	-18.16	AZP	90.22	TAL	182.28	TAP	262.02	RCA	78.44	APO	151.14
RC	40.497	GL	-6.17	GP	-10.38	ZAL	90.63	ZAP	11.30	ETS	110.33	ZAE	164.73	ETE	337.53	ZAC	90.52	ETC	259.81

V1 29.490 V2 35.079 CLP 4.51

PLANETOCENTRIC CONIC

C3 25.188 VHL 5.019 DLA -27.13 RAL 241.39 RAD 6568.0 VEL 12.106 PTH 2.17 VHP 11.229 DPA -29.04 RAP 234.33 ECC 1.4145

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 46 49	1183.28	11.69	341.93	110.76	115.97	10 6 32	583.3	15.09	334.90
90.00	12 10 43	713.36	23.52	312.60	115.54	106.24	12 22 37	113.4	25.52	304.50
100.00	10 32 32	1035.57	8.61	329.46	109.15	118.74	10 49 48	435.6	12.38	322.70
100.00	14 7 41	5624.34	26.87	263.74	116.53	103.61	15 41 25	5024.3	28.48	255.31
110.00	10 44 41	997.43	3.11	323.20	105.77	124.06	11 1 19	397.4	7.56	316.94
110.00	16 12 1	5235.25	33.20	235.64	117.97	98.66	17 39 17	4635.2	34.04	226.50

DIFFERENTIAL CORRECTIONS

TOE	.1766	TRA	-.6801	TC3	.2319	BAU	.0840
RDE	-.3959	RRA	.0062	RC3	-.0921	FAU	.02391
FDE	-.1102	FRA	.4021	FC3	-.8217	BSP	2625
BDE	.4335	BRA	.6801	BC3	.2495	FSP	-202

MID-COURSE EXECUTION ACCURACY

SGT	925.1	SGR	461.4	SG3	84.7		
RRT	-.2802	RRF	.3032	RTF	-.7354		
SGB	1033.8	R23	-.0393	R13	.7413		
SG1	936.7	SG2	437.4	THA	169.80		

ORBIT DETERMINATION ACCURACY

ST	330.5	SR	451.9	SS	195.0
CRT	-.6145	CRS	-.6310	CST	.9944
LSA	535.4	MSA	254.0	SSA	17.3
EL1	510.0	EL2	231.0	ALF	121.31

LAUNCH DATE AUG 29 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 196.471

RL	151.09	LAL	-.00	LOL	335.25	VL	24.782	GAL	-1.21	AZL	91.07	HCA	82.95	SMA	116.14	ECC	.30154	INC	1.0705
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.266	GAP	-17.10	AZP	90.13	TAL	182.81	TAP	265.76	RCA	81.12	APO	151.16
RC	40.930	GL	-5.60	GP	-10.99	ZAL	91.55	ZAP	11.31	ETS	100.44	ZAE	162.04	ETE	337.28	ZAC	90.08	ETC	260.05

V1 29.490 V2 35.092 CLP 2.67

PLANETOCENTRIC CONIC

C3 22.471 VHL 4.740 DLA -26.39 RAL 240.50 RAD 6567.9 VEL 11.994 PTH 2.14 VHP 10.641 DPA -30.02 RAP 235.62 ECC 1.3698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 23 46	1220.43	10.58	344.08	107.30	116.42	9 44 6	620.4	14.04	337.12
90.00	12 26 43	620.34	25.15	306.27	112.83	103.47	12 37 3	20.3	26.75	297.97
100.00	10 15 39	1052.85	8.04	330.43	105.95	118.89	10 33 12	452.9	11.84	323.70
100.00	14 17 31	5551.19	27.94	258.57	113.51	101.09	15 50 2	4951.2	29.18	249.99
110.00	10 33 4	998.20	3.08	323.24	102.90	124.06	10 49 42	398.2	7.53	316.98
110.00	16 16 35	5178.60	33.69	231.29	114.53	96.14	17 42 54	4578.6	34.18	222.08

DIFFERENTIAL CORRECTIONS

TOE	.1759	TRA	-.6619	TC3	.3004	BAU	.0974
RDE	-.3741	RRA	.0093	RC3	-.1222	FAU	.02537
FDE	-.1061	FRA	.4100	FC3	-.9774	BSP	2755
BDE	.4133	BRA	.6620	BC3	.3243	FSP	-228

MID-COURSE EXECUTION ACCURACY

SGT	961.2	SGR	466.9	SG3	93.9		
RRT	-.3127	RRF	.3395	RTF	-.7517		
SGB	1068.6	R23	-.0453	R13	.7583		
SG1	975.1	SG2	437.2	THA	169.16		

ORBIT DETERMINATION ACCURACY

ST	342.1	SR	452.2	SS	194.5
CRT	-.6280	CRS	-.6136	CST	.9942
LSA	541.7	MSA	256.2	SSA	18.0
EL1	517.0	EL2	232.9	ALF	122.89

LAUNCH DATE AUG 29 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 203.219

RL	151.09	LAL	-.00	LOL	335.25	VL	25.032	GAL	-1.37	AZL	90.88	HCA	86.16	SMA	117.43	ECC	.28757	INC	.8818
RP	107.95	LAP	-.88	LOP	61.41	VP	36.450	GAP	-16.08	AZP	90.06	TAL	183.41	TAP	269.56	RCA	83.66	APO	151.19
RC	41.530	GL	-4.92	GP	-11.67	ZAL	92.59	ZAP	11.70	ETS	90.63	ZAE	159.44	ETE	336.81	ZAC	89.55	ETC	260.28

V1 29.490 V2 35.105 CLP .81

PLANETOCENTRIC CONIC

C3 20.130 VHL 4.487 DLA -25.52 RAL 239.52 RAD 6567.8 VEL 11.896 PTH 2.11 VHP 10.080 DPA -31.04 RAP 236.88 ECC 1.3313

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 1 5	1257.35	9.45	346.21	103.90	116.82	9 22 3	657.4	12.97	339.31
90.00	12 41 32	5818.54	26.42	277.90	109.90	100.57	14 18 30	5218.5	27.61	269.44
100.00	9 57 36	1074.90	7.32	331.67	102.75	119.06	10 15 31	474.9	11.14	324.96
100.00	14 27 42	5476.23	28.80	253.17	110.35	98.37	15 58 59	4876.2	29.66	244.47
110.00	10 20 2	1004.52	2.84	323.58	99.99	124.08	10 36 46	404.5	7.29	317.32
110.00	16 21 46	5119.37	34.03	226.70	110.99	93.44	17 47 5	4519.4	34.13	217.45

DIFFERENTIAL CORRECTIONS

TOE	.1735	TRA	-.6453	TC3	.3787	BAU	.1106
RDE	-.3531	RRA	.0123	RC3	-.1594	FAU	.02700
FDE	-.0996	FRA	.4180	FC3	-1.1613	BSP	2863
BDE	.3935	BRA	.6454	BC3	.4109	FSP	-257

MID-COURSE EXECUTION ACCURACY

SGT	999.2	SGR	473.4	SG3	104.1		
RRT	-.3477	RRF	.3800	RTF	-.7661		
SGB	1105.7	R23	-.0539	R13	.7737		
SG1	1015.8	SG2	436.6	THA	168.49		

ORBIT DETERMINATION ACCURACY

ST	352.5	SR	451.0	SS	192.1
CRT	-.6378	CRS	-.5872	CST	.9919
LSA	545.4	MSA	258.3	SSA	18.8
EL1	522.2	EL2	234.5	ALF	124.34

LAUNCH DATE AUG 29 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 209.976

RL	151.09	LAL	-.00	LOL	335.25	VL	25.262	GAL	-1.53	AZL	90.69	HCA	89.37	SMA	118.64	ECC	.27471	INC	.6943
RP	107.91	LAP	-.69	LOP	64.62	VP	36.620	GAP	-15.10	AZP	90.01	TAL	184.05	TAP	273.43	RCA	86.05	APO	151.23
RC	42.291	GL	-4.12	GP	-12.43	ZAL	93.75	ZAP	12.47	ETS	81.50	ZAE	156.97	ETE	336.16	ZAC	88.94	ETC	260.51

V1 29.490 V2 35.117 CLP -1.10

PLANETOCENTRIC CONIC

C3 18.120 VHL 4.257 DLA -24.50 RAL 238.45 RAD 6567.7 VEL 11.811 PTH 2.09 VHP 9.546 DPA -32.12 RAP 238.08 ECC 1.2982

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 38 22	1295.95	8.26	348.42	100.57	117.18	8 59 58	696.0	11.84	341.57
90.00	12 55 44	5730.30	27.37	271.62	106.81	97.56	14 31 14	5130.3	28.13	263.04
100.00	9 38 32	1101.70	6.43	333.16	99.58	119.26	9 56 54	501.7	10.28	326.49
100.00	14 38 15	5399.79	29.43	247.57	107.08	95.49	16 8 15	4799.8	29.88	238.79
110.00	10 5 42	1016.48	2.38	324.20	97.08	124.11	10 22 39	416.5	6.84	317.95
110.00	16 27 34	5057.76	34.18	221.89	107.38	90.60	17 51 52	4457.8	33.88	212.66

DIFFERENTIAL CORRECTIONS

TOE	.1709	TRA	-.6244	TC3	.4684	BAU	.1239
RDE	-.3329	RRA	.0153	RC3	-.2050	FAU	.02882
FDE	-.0902	FRA	.4262	FC3	-1.3769	BSP	3055
BDE	.3742	BRA	.6246	BC3	.5113	FSP	-289

MID-COURSE EXECUTION ACCURACY

SGT	1032.0	SGR	481.4	SG3	115.5		
RRT	-.3897	RRF	.4246	RTF	-.7813		
SGB	1138.8	R23	-.0589	R13	.7899		
SG1	1052.5	SG2	434.7	THA	167.54		

ORBIT DETERMINATION ACCURACY

ST	360.3	SR	448.2	SS	187.6
CRT	-.6504	CRS	-.5479	CST	.9852
LSA	546.4	MSA	258.8	SSA	19.6
EL1	525.6	EL2	233.4	ALF	125.66

LAUNCH DATE AUG 29 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 216.740

RL	151.09	LAL	-.00	LOL	335.25	VL	25.472	GAL	-1.69	AZL	90.51	HCA	92.59	SMA	119.78	ECC	.26292	INC	.5070	V1	29.490
RP	107.88	LAP	-.51	LOP	67.84	VP	36.777	GAP	-14.16	AZP	89.98	TAL	184.75	TAP	277.34	RCA	88.29	APO	151.27	V2	35.129
RC	43.202	GL	-3.19	GP	-13.26	ZAL	95.02	ZAP	13.61	ETS	73.45	ZAE	154.65	ETE	335.34	ZAC	88.24	ETC	260.73	CLP	-3.07

PLANETOCENTRIC CONIC

C3	16.399	VHL	4.050	DLA	-23.32	RAL	237.32	RAD	6567.7	VEL	11.738	PTH	2.07	VHP	9.038	DPA	-33.26	RAP	239.22	ECC	1.2699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 15 27	1337.23	6.96	350.77	97.34	117.52	8 37 44	737.2	10.60	343.97
90.00	13 9 38	5642.90	27.99	265.30	103.62	94.45	14 43 41	5042.9	28.32	256.65
100.00	9 18 38	1133.26	5.38	334.91	96.47	119.45	9 37 32	533.3	9.26	328.28
100.00	14 49 8	5322.10	29.80	241.83	103.74	92.49	16 17 50	4722.1	29.83	233.02
110.00	9 50 16	1034.11	1.71	325.12	94.20	124.15	10 7 30	434.1	6.18	318.89
110.00	16 34 0	4994.01	34.11	216.91	103.75	87.65	17 57 14	4394.0	33.41	207.74

DIFFERENTIAL CORRECTIONS

TDE	.1652	TRA	-.6060	TC3	.5673	BAU	.1368	SGT	1066.6	SGR	491.4	SG3	128.1	ST	365.1	SR	443.1	SS	180.7
RDE	-.3131	RRA	.0183	RC3	-.2602	FAU	.03084	RRT	-.4325	RRF	.4728	RTF	-.7943	CRT	-.6552	CRS	-.4845	CST	.9708
FDE	-.0761	FRA	.4346	FC3	-1.6283	BSP	3210	SGB	1174.3	R23	-.0679	R13	.8043	LSA	542.2	MSA	260.4	SSA	20.6
BDE	.3540	BRA	.6063	BC3	.6241	FSP	-327	SG1	1091.6	SG2	432.9	THA	166.58	EL1	524.8	EL2	232.9	ALF	126.71

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 223.507

RL	151.09	LAL	-.00	LOL	335.25	VL	25.664	GAL	-1.84	AZL	90.32	HCA	95.81	SMA	120.85	ECC	.25214	INC	.3184	V1	29.490
RP	107.84	LAP	-.32	LOP	71.06	VP	36.921	GAP	-13.26	AZP	89.97	TAL	185.49	TAP	281.30	RCA	90.38	APO	151.32	V2	35.141
RC	44.254	GL	-2.12	GP	-14.20	ZAL	96.37	ZAP	15.06	ETS	66.62	ZAE	152.47	ETE	334.36	ZAC	87.42	ETC	260.94	CLP	-5.09

PLANETOCENTRIC CONIC

C3	14.931	VHL	3.864	DLA	-21.98	RAL	236.15	RAD	6567.6	VEL	11.675	PTH	2.05	VHP	8.555	DPA	-34.47	RAP	240.28	ECC	1.2457

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 52 19	1381.81	5.56	353.28	94.25	117.81	8 15 21	781.8	9.24	346.54
90.00	13 23 27	5555.93	28.29	258.96	100.37	91.29	14 56 2	4955.9	28.17	250.30
100.00	8 58 4	1169.61	4.15	336.92	93.48	119.63	9 17 34	569.6	8.07	330.32
100.00	15 0 23	5243.36	29.89	235.97	100.38	89.41	16 27 46	4643.4	29.49	227.19
110.00	9 33 52	1057.39	.82	326.34	91.40	124.17	9 51 29	457.4	5.30	320.11
110.00	16 41 4	4928.34	33.81	211.81	100.14	84.65	18 3 13	4328.3	32.70	202.75

DIFFERENTIAL CORRECTIONS

TDE	.1575	TRA	-.5875	TC3	.6746	BAU	.1496	SGT	1099.4	SGR	504.4	SG3	142.2	ST	366.4	SR	435.5	SS	172.6
RDE	-.2936	RRA	.0215	RC3	-.3266	FAU	.03309	RRT	-.4789	RRF	.5247	RTF	-.8064	CRT	-.6563	CRS	-.3889	CST	.9416
FDE	-.0573	FRA	.4437	FC3	-1.9187	BSP	3350	SGB	1209.6	R23	-.0777	R13	.8181	LSA	533.3	MSA	262.4	SSA	21.7
BDE	.3332	BRA	.5879	BC3	.7495	FSP	-368	SG1	1130.3	SG2	430.7	THA	165.45	EL1	519.9	EL2	231.6	ALF	127.58

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 230.272

RL	151.09	LAL	-.00	LOL	335.25	VL	25.838	GAL	-1.99	AZL	90.13	HCA	99.03	SMA	121.85	ECC	.24232	INC	.1274	V1	29.490
RP	107.81	LAP	-.13	LOP	74.28	VP	37.053	GAP	-12.39	AZP	89.98	TAL	186.25	TAP	285.29	RCA	92.32	APO	151.37	V2	35.152
RC	45.436	GL	-.89	GP	-15.24	ZAL	97.79	ZAP	16.81	ETS	60.95	ZAE	150.46	ETE	333.20	ZAC	86.49	ETC	261.14	CLP	-7.17

PLANETOCENTRIC CONIC

C3	13.686	VHL	3.699	DLA	-20.47	RAL	234.97	RAD	6567.5	VEL	11.622	PTH	2.04	VHP	8.098	DPA	-35.76	RAP	241.25	ECC	1.2252

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 29 2	1430.05	4.02	355.99	91.32	118.05	7 52 52	830.0	7.74	349.29
90.00	13 37 18	5469.19	28.26	252.62	97.14	88.11	15 8 27	4869.2	27.70	243.99
100.00	8 36 59	1210.74	2.77	339.18	90.63	119.78	8 57 10	610.7	6.71	332.62
100.00	15 12 2	5163.73	29.68	230.07	97.06	86.31	16 38 5	4563.7	28.86	221.36
110.00	9 16 43	1086.25	-.29	327.84	88.72	124.18	9 34 49	486.3	4.20	321.63
110.00	16 48 48	4860.98	33.26	206.63	96.61	81.63	18 9 49	4261.0	31.75	197.73

DIFFERENTIAL CORRECTIONS

TDE	.1473	TRA	-.5700	TC3	.7866	BAU	.1619	SGT	1130.7	SGR	521.3	SG3	157.8	ST	363.7	SR	424.6	SS	165.0
RDE	-.2740	RRA	.0251	RC3	-.4053	FAU	.03557	RRT	-.5266	RRF	.5792	RTF	-.8168	CRT	-.6507	CRS	-.2438	CST	.8845
FDE	-.0322	FRA	.4538	FC3	-2.2502	BSP	3482	SGB	1245.1	R23	-.0900	R13	.8305	LSA	518.3	MSA	265.8	SSA	23.0
BDE	.3111	BRA	.5705	BC3	.8849	FSP	-414	SG1	1169.0	SG2	428.6	THA	164.17	EL1	509.5	EL2	230.1	ALF	128.28

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 237.034

RL	151.09	LAL	-.00	LOL	335.25	VL	25.997	GAL	-2.13	AZL	89.93	HCA	102.26	SMA	122.78	ECC	.23342	INC	.0637	V1	29.490
RP	107.77	LAP	.06	LOP	77.50	VP	37.175	GAP	-11.56	AZP	90.01	TAL	187.04	TAP	289.30	RCA	94.12	APO	151.43	V2	35.163
RC	46.738	GL	.48	GP	-16.40	ZAL	99.25	ZAP	18.81	ETS	56.29	ZAE	148.61	ETE	331.86	ZAC	85.43	ETC	261.32	CLP	-9.34

PLANETOCENTRIC CONIC

C3	12.636	VHL	3.555	DLA	-18.79	RAL	233.80	RAD	6567.5	VEL	11.577	PTH	2.02	VHP	7.667	DPA	-37.15	RAP	242.11	ECC	1.2080

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 5 40	1482.20	2.34	358.91	88.60	118.23	7 30 22	882.2	6.10	352.25
90.00	13 51 21	5382.52	27.90	246.30	93.98	84.96	15 21 3	4782.5	26.91	237.78
100.00	8 15 34	1256.61	1.21	341.70	87.97	119.87	8 36 31	656.6	5.18	335.16
100.00	15 24 7	5083.35	29.18	224.14	93.83	83.23	16 48 51	4483.3	27.94	215.56
110.00	8 58 59	1120.58	-1.60	329.63	86.21	124.15	9 17 40	520.6	2.89	323.43
110.00	16 57 12	4792.14	32.46	201.42	93.22	78.64	18 17 4	4192.1	30.55	192.72

DIFFERENTIAL CORRECTIONS

TDE	.1334	TRA	-.5532	TC3	.9006	BAU	.1738	SGT	1159.0	SGR	543.2	SG3	175.1	ST	355.6	SR	409.4	SS	161.8
RDE	-.2537	RRA	.0292	RC3	-.4979	FAU	.03830	RRT	-.5741	RRF	.6346	RTF	-.8260	CRT	-.6344	CRS	-.0302	CST	.7790
FDE	.0017	FRA	.4655	FC3	-2.6237	BSP	3600	SGB	1280.0	R23	-.1042	R13	.8425	LSA	495.7	MSA	271.8	SSA	24.4
BDE	.2867	BRA	.5540	BC3	1.0291	FSP	-465	SG1	1206.6	SG2	427.2	THA	162.71	EL1	491.6	EL2	228.9	ALF	128.72

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 29 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 243.788

RL 151.09 LAL -.00 LOL 335.25 VL 26.141 GAL -2.27 AZL 89.73 HCA 105.48 SMA 123.63 ECC .22537 INC .2651 V1 29.490
RP 107.74 LAP .26 LOP 80.73 VP 37.285 GAP -10.76 AZP 90.07 TAL 187.85 TAP 293.33 RCA 95.77 APO 151.50 V2 35.174
RC 48.150 GL 2.02 GP -17.70 ZAL 100.72 ZAP 21.06 ETS 52.46 ZAE 146.91 ETE 330.30 ZAC 84.22 ETC 261.47 CLP -11.60

PLANETOCENTRIC CONIC

C3 11.759 VHL 3.429 DLA -16.94 RAL 232.67 RAD 6567.4 VEL 11.539 PTH 2.01 VHP 7.261 DPA -38.64 RAP 242.84 ECC 1.1935

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 42 18	1538.42	.53	2.05	86.11	118.31	7 7 57	938.4	4.31	355.41
90.00	14 5 42	5295.86	27.23	240.05	90.97	81.90	15 33 58	4695.9	25.82	231.66
100.00	7 53 58	1307.18	-.50	344.48	85.54	119.89	8 15 45	707.2	3.48	337.95
100.00	15 36 43	5002.33	28.39	218.25	90.76	80.23	17 0 6	4402.3	26.75	209.84
110.00	8 40 52	1160.24	-3.11	331.70	83.91	124.06	9 0 12	560.2	1.38	325.50
110.00	17 6 19	4722.03	31.40	196.23	90.02	75.74	18 25 1	4122.0	29.12	187.76

DIFFERENTIAL CORRECTIONS
TDE .1156 TRA -.5390 TC3 1.0067 BAU .1846
RDE -.2323 RRA .0343 RC3 -.6048 FAU .04122
FDE .0460 FRA .4804 FC3-3.0344 BSP 3667
BDE .2595 BRA .5401 BC3 1.1744 FSP -518

MID-COURSE EXECUTION ACCURACY
SGT 1183.4 SGR 571.2 SG3 194.0
RRT -.6181 RRF .6890 RTF -.8325
SGB 1314.0 R23 -.1227 R13 .8528
SG1 1242.5 SG2 427.7 THA 161.06

ORBIT DETERMINATION ACCURACY
ST 342.8 SR 388.7 SS 169.7
CRT -.6027 CRS .2335 CST .6203
LSA 465.9 MSA 282.4 SSA 26.0
EL1 465.2 EL2 228.6 ALF 129.09

LAUNCH DATE AUG 29 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 250.533

RL 151.09 LAL -.00 LOL 335.25 VL 26.272 GAL -2.40 AZL 89.53 HCA 108.71 SMA 124.43 ECC .21812 INC .4708 V1 29.490
RP 107.71 LAP .45 LOP 83.96 VP 37.386 GAP -9.99 AZP 90.15 TAL 188.65 TAP 297.36 RCA 97.29 APO 151.57 V2 35.184
RC 49.661 GL 3.72 GP -19.16 ZAL 102.19 ZAP 23.54 ETS 49.31 ZAE 145.35 ETE 328.51 ZAC 82.84 ETC 261.61 CLP -13.95

PLANETOCENTRIC CONIC

C3 11.035 VHL 3.322 DLA -14.93 RAL 231.61 RAD 6567.4 VEL 11.508 PTH 2.00 VHP 6.882 DPA -40.26 RAP 243.42 ECC 1.1816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 19 3	1598.79	-1.42	5.42	83.90	118.28	6 45 42	998.8	2.37	358.79
90.00	14 20 29	5209.13	26.24	233.89	88.16	78.96	15 47 19	4609.1	24.46	225.68
100.00	7 32 19	1362.39	-2.37	347.51	83.38	119.81	7 55 2	762.4	1.61	340.99
100.00	15 49 55	4920.77	27.31	212.43	87.91	77.35	17 11 55	4320.8	25.29	204.21
110.00	8 22 32	1205.08	-4.82	334.05	81.85	123.88	8 42 37	605.1	-.34	327.84
110.00	17 16 11	4650.84	30.09	191.09	87.07	72.96	18 33 41	4050.8	27.47	182.89

DIFFERENTIAL CORRECTIONS
TDE .0914 TRA -.5291 TC3 1.0945 BAU .1937
RDE -.2084 RRA .0411 RC3 -.7257 FAU .04426
FDE .1054 FRA .5007 FC3-3.4725 BSP 3657
BDE .2276 BRA .5307 BC3 1.3132 FSP -571

MID-COURSE EXECUTION ACCURACY
SGT 1202.3 SGR 605.9 SG3 214.3
RRT -.6542 RRF .7402 RTF -.8359
SGB 1346.3 R23 -.1473 R13 .8616
SG1 1275.1 SG2 432.1 THA 159.26

ORBIT DETERMINATION ACCURACY
ST 324.9 SR 360.5 SS 196.9
CRT -.5397 CRS .4894 CST .4538
LSA 427.4 MSA 301.5 SSA 27.6
EL1 426.8 EL2 231.1 ALF 129.55

LAUNCH DATE AUG 29 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 257.264

RL 151.09 LAL -.00 LOL 335.25 VL 26.389 GAL -2.51 AZL 89.32 HCA 111.94 SMA 125.15 ECC .21162 INC .6847 V1 29.490
RP 107.68 LAP .64 LOP 87.19 VP 37.478 GAP -9.24 AZP 90.26 TAL 189.45 TAP 301.39 RCA 98.67 APO 151.64 V2 35.193
RC 51.263 GL 5.59 GP -20.79 ZAL 103.61 ZAP 26.26 ETS 46.67 ZAE 143.90 ETE 326.46 ZAC 81.28 ETC 261.71 CLP -16.43

PLANETOCENTRIC CONIC

C3 10.449 VHL 3.232 DLA -12.75 RAL 230.63 RAD 6567.4 VEL 11.482 PTH 2.00 VHP 6.528 DPA -42.01 RAP 243.80 ECC 1.1720

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 55 56	1663.48	-3.50	9.03	81.99	118.12	6 23 39	1063.5	.28	2.40
90.00	14 35 50	5122.19	24.97	227.85	85.59	76.19	16 1 12	4522.2	22.82	219.83
100.00	7 10 41	1422.29	-4.39	350.80	81.50	119.60	7 34 23	822.3	-.42	344.27
100.00	16 3 45	4838.61	25.95	206.71	85.31	74.62	17 24 24	4238.6	23.59	198.70
110.00	8 4 5	1255.03	-6.71	336.69	80.07	123.60	8 25 0	655.0	-2.25	330.44
110.00	17 26 50	4578.64	28.54	186.04	84.39	70.34	18 43 9	3978.6	25.60	178.11

DIFFERENTIAL CORRECTIONS
TDE .0842 TRA -.5005 TC3 1.2409 BAU .2121
RDE -.1851 RRA .0460 RC3 -.8745 FAU .04823
FDE .1628 FRA .5081 FC3-3.9961 BSP 4090
BDE .2034 BRA .5026 BC3 1.5181 FSP -661

MID-COURSE EXECUTION ACCURACY
SGT 1221.9 SGR 659.0 SG3 238.4
RRT -.7185 RRF .7938 RTF -.8512
SGB 1388.3 R23 -.1404 R13 .8795
SG1 1322.1 SG2 423.7 THA 156.23

ORBIT DETERMINATION ACCURACY
ST 311.9 SR 329.5 SS 229.8
CRT -.5470 CRS .6437 CST .2704
LSA 406.4 MSA 304.5 SSA 28.8
EL1 399.3 EL2 215.5 ALF 132.14

LAUNCH DATE AUG 29 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 263.981

RL 151.09 LAL -.00 LOL 335.25 VL 26.495 GAL -2.62 AZL 89.09 HCA 115.17 SMA 125.81 ECC .20582 INC .9086 V1 29.490
RP 107.65 LAP .82 LOP 90.42 VP 37.560 GAP -8.53 AZP 90.39 TAL 190.23 TAP 305.39 RCA 99.92 APO 151.71 V2 35.202
RC 52.948 GL 7.63 GP -22.60 ZAL 104.96 ZAP 29.22 ETS 44.44 ZAE 142.53 ETE 324.12 ZAC 79.51 ETC 261.77 CLP -19.03

PLANETOCENTRIC CONIC

C3 9.987 VHL 3.160 DLA -10.42 RAL 229.78 RAD 6567.4 VEL 11.462 PTH 1.99 VHP 6.203 DPA -43.92 RAP 243.96 ECC 1.1644

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 33 4	1732.50	-5.71	12.90	80.42	117.78	6 1 56	1132.5	-1.94	6.25
90.00	14 51 52	5035.04	23.42	221.93	83.33	73.62	16 15 47	4435.0	20.95	214.13
100.00	6 49 13	1486.78	-6.55	354.38	79.96	119.23	7 14 0	886.8	-2.61	347.81
100.00	16 18 24	4755.98	24.34	201.10	83.02	72.09	17 37 40	4156.0	21.66	193.32
110.00	7 45 43	1309.89	-8.76	339.60	78.61	123.17	8 7 32	709.9	-4.34	333.31
110.00	17 38 24	4505.64	26.77	181.11	82.04	67.91	18 53 29	3905.6	23.54	173.44

DIFFERENTIAL CORRECTIONS
TDE .0627 TRA -.4852 TC3 1.3262 BAU .2246
RDE -.1565 RRA .0542 RC3-1.0347 FAU .05200
FDE .2451 FRA .5278 FC3-4.5076 BSP 4239
BDE .1686 BRA .4882 BC3 1.6821 FSP -739

MID-COURSE EXECUTION ACCURACY
SGT 1231.0 SGR 719.8 SG3 262.9
RRT -.7559 RRF .8374 RTF -.8563
SGB 1426.0 R23 -.1538 R13 .8910
SG1 1360.8 SG2 426.3 THA 153.33

ORBIT DETERMINATION ACCURACY
ST 292.5 SR 286.0 SS 288.6
CRT -.4876 CRS .7509 CST .1904
LSA 387.5 MSA 315.4 SSA 29.8
EL1 352.8 EL2 206.9 ALF 136.32

LAUNCH DATE AUG 29 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 270.682

RL	151.09	LAL	-.00	LOL	335.25	VL	26.589	GAL	-2.72	AZL	88.86	HCA	118.40	SMA	126.41	ECC	.20065	INC	1.1447	V1	29.490
RP	107.63	LAP	1.01	LOP	93.65	VP	37.635	GAP	-7.84	AZP	90.54	TAL	190.97	TAP	309.37	RCA	101.05	APO	151.78	V2	35.210
RC	54.707	GL	9.84	GP	-24.64	ZAL	106.20	ZAP	32.42	ETS	42.50	ZAE	141.21	ETE	321.46	ZAC	77.52	ETC	261.78	CLP	-21.78

PLANETOCENTRIC CONIC

C3	9.640	VHL	3.105	DLA	-7.94	RAL	229.06	RAD	6567.3	VEL	11.447	PTH	1.99	VHP	5.907	DPA	-46.00	RAP	243.84	ECC	1.1587		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 10 26	1806.04	-8.02	17.07	79.22	117.25	5 40 32	1206.0	-4.30	10.36
90.00	15 8 46	4947.49	21.62	216.14	81.42	71.26	16 31 14	4347.5	18.86	208.56
100.00	6 27 57	1555.98	-8.83	358.25	78.79	118.67	6 53 53	956.0	-4.94	351.62
100.00	16 33 57	4672.78	22.49	195.61	81.09	69.77	17 51 49	4072.8	19.53	188.06
110.00	7 27 27	1369.66	-10.97	342.82	77.50	122.58	7 50 17	769.7	-6.60	336.46
110.00	17 50 56	4431.86	24.79	176.29	80.06	65.67	19 4 48	3831.9	21.30	168.88

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0396	TRA	-.4711	TC3	1.3064	BAU	.2373	SGT	1231.7	SGR	795.3	SG3	289.0	ST	274.5	SR	231.0	SS	364.1
RDE	-.1230	RRA	.0646	RC3	-1.2120	FAU	.05592	RRT	-.7863	RRF	.8746	RTF	-.8595	CRT	-.4208	CRS	.7964	CST	.1897
FDE	.3449	FRA	.5518	FC3	-5.0217	BSP	4385	SGB	1466.1	R23	-.1656	R13	.9026	LSA	413.4	MSA	299.2	SSA	29.9
BDE	.1293	BRA	.4756	BC3	1.8415	FSP	-821	SG1	1401.1	SG2	432.0	THA	149.93	EL1	305.3	EL2	188.4	ALF	146.19

LAUNCH DATE AUG 29 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 277.365

RL	151.09	LAL	-.00	LOL	335.25	VL	26.673	GAL	-2.81	AZL	88.60	HCA	121.63	SMA	126.95	ECC	.19608	INC	1.3959	V1	29.490		
RP	107.60	LAP	1.19	LOP	96.89	VP	37.702	GAP	-7.17	AZP	90.73	TAL	191.67	TAP	313.31	RCA	102.06	APO	151.85	V2	35.218		
RC	56.933	GL	12.22	GP	-26.90	ZAL	107.29	ZAP	35.88	ETS	40.75	ZAE	139.89	ETE	318.47	ZAC	75.29	ETC	261.73	CLP	-24.69		

PLANETOCENTRIC CONIC

C3	9.401	VHL	3.066	DLA	-5.32	RAL	228.50	RAD	6567.3	VEL	11.436	PTH	1.98	VHP	5.642	DPA	-48.26	RAP	243.40	ECC	1.1547		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 48 1	1884.36	-10.43	21.56	78.42	116.48	5 19 26	1284.4	-6.79	14.77
90.00	15 26 43	4859.33	19.59	210.48	79.88	69.13	16 47 42	4259.3	16.57	203.10
100.00	6 6 51	1630.05	-11.22	2.45	78.01	117.89	6 34 1	1030.1	-7.40	355.74
100.00	16 50 34	4588.87	20.41	190.24	79.53	67.68	18 7 2	3988.9	17.21	182.91
110.00	7 9 21	1434.39	-13.32	346.37	76.78	121.78	7 33 16	834.4	-9.02	339.90
110.00	18 4 33	4357.30	22.62	171.59	78.46	63.66	19 17 10	3757.3	18.89	164.43

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0161	TRA	-.4584	TC3	1.4157	BAU	.2506	SGT	1222.6	SGR	887.3	SG3	315.8	ST	261.2	SR	163.9	SS	453.9
RDE	-.0834	RRA	.0778	RC3	-1.4044	FAU	.05985	RRT	-.8093	RRF	.9049	RTF	-.8606	CRT	-.3895	CRS	.7730	CST	.2507
FDE	.4634	FRA	.5809	FC3	-5.5109	BSP	4537	SGB	1510.7	R23	-.1738	R13	.9145	LSA	475.9	MSA	271.5	SSA	28.9
BDE	.0849	BRA	.4650	BC3	1.9941	FSP	-907	SG1	1444.9	SG2	441.0	THA	145.97	EL1	272.2	EL2	144.8	ALF	160.55

LAUNCH DATE AUG 29 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 284.029

RL	151.09	LAL	-.00	LOL	335.25	VL	26.747	GAL	-2.89	AZL	88.33	HCA	124.86	SMA	127.44	ECC	.19206	INC	1.6653	V1	29.490		
RP	107.58	LAP	1.37	LOP	100.12	VP	37.761	GAP	-6.53	AZP	90.95	TAL	192.33	TAP	317.19	RCA	102.96	APO	151.91	V2	35.225		
RC	58.419	GL	14.77	GP	-29.41	ZAL	108.21	ZAP	39.58	ETS	39.10	ZAE	138.51	ETE	315.12	ZAC	72.80	ETC	261.62	CLP	-27.79		

PLANETOCENTRIC CONIC

C3	9.268	VHL	3.044	DLA	-2.55	RAL	228.12	RAD	6567.3	VEL	11.431	PTH	1.98	VHP	5.410	DPA	-50.71	RAP	242.55	ECC	1.1525		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 25 45	1967.86	-12.92	26.43	78.06	115.42	4 58 33	1367.9	-9.39	19.53
90.00	15 45 54	4770.27	17.33	204.92	78.76	67.25	17 5 24	4170.3	14.10	197.73
100.00	5 45 55	1709.30	-13.70	7.02	77.67	116.83	6 14 24	1109.3	-10.00	.20
100.00	17 8 26	4504.06	18.13	184.98	78.39	65.82	18 23 30	3904.1	14.72	177.85
110.00	6 51 25	1504.22	-15.79	350.27	76.48	120.72	7 16 30	904.2	-11.60	343.68
110.00	18 19 24	4281.91	20.27	167.00	77.28	61.87	19 30 46	3681.9	16.35	160.07

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0084	TRA	-.4478	TC3	1.4024	BAU	.2643	SGT	1200.5	SGR	996.7	SG3	342.4	ST	254.9	SR	89.6	SS	558.5
RDE	-.0348	RRA	.0947	RC3	-1.6069	FAU	.06356	RRT	-.8232	RRF	.9288	RTF	-.8584	CRT	-.5806	CRS	.4930	CST	.3580
FDE	.6046	FRA	.6164	FC3	-5.9368	BSP	4664	SGB	1560.3	R23	-.1772	R13	.9266	LSA	568.8	MSA	246.3	SSA	26.8
BDE	.0358	BRA	.4577	BC3	2.1328	FSP	-989	SG1	1492.4	SG2	455.2	THA	141.40	EL1	260.6	EL2	71.3	ALF	167.52

LAUNCH DATE AUG 29 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 290.672

RL	151.09	LAL	-.00	LOL	335.25	VL	26.813	GAL	-2.96	AZL	88.04	HCA	128.10	SMA	127.87	ECC	.18853	INC	1.9568	V1	29.490		
RP	107.56	LAP	1.54	LOP	103.36	VP	37.813	GAP	-5.91	AZP	91.21	TAL	192.92	TAP	321.02	RCA	103.76	APO	151.98	V2	35.232		
RC	60.358	GL	17.50	GP	-32.18	ZAL	108.93	ZAP	43.54	ETS	37.47	ZAE	137.02	ETE	311.42	ZAC	70.03	ETC	261.42	CLP	-31.08		

PLANETOCENTRIC CONIC

C3	9.242	VHL	3.040	DLA	.34	RAL	227.92	RAD	6567.3	VEL	11.429	PTH	1.98	VHP	5.214	DPA	-53.35	RAP	241.20	ECC	1.1521		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 3 31	2057.09	-15.46	31.75	78.18	114.02	4 37 48	1457.1	-12.09	24.70
90.00	16 6 37	4679.93	14.87	199.43	78.08	65.62	17 24 37	4079.9	11.46	192.42
100.00	5 25 1	1794.19	-16.25	12.04	77.80	115.44	5 54 55	1194.2	-12.69	5.05
100.00	17 27 48	4418.06	15.66	179.79	77.70	64.21	18 41 26	3818.1	12.06	172.85
110.00	6 33 38	1579.44	-18.35	354.60	76.66	119.36	6 59 57	979.4	-14.30	347.82
110.00	18 35 41	4205.58	17.75	162.51	76.55	60.30	19 45 46	3605.6	13.67	155.78

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0411	TRA	-.4482	TC3	1.3035	BAU	.2744	SGT	1160.9	SGR	1117.7	SG3	366.5	ST	266.1	SR	92.8	SS	687.6
RDE	.0286	RRA	.1204	RC3	-1.7979	FAU	.06618	RRT	-.8186	RRF	.9466	RTF	-.8478	CRT	-.8993	CRS	-.7699	CST	.5257
FDE	.7818	FRA	.6741	FC3	-6.1996	BSP	4573	SGB	1611.5	R23	-.1766	R13	.9386	LSA	707.3	MSA	226.6	SSA	23.7
BDE	.0501	BRA	.4641	BC3	2.2207	FSP	-1036	SG1	1536.8	SG2	484.9	THA	136.32	EL1	279.1	EL2	38.7	ALF	162.23

LAUNCH DATE AUG 29 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 297.292

RL	151.09	LAL	-.00	LOL	335.25	VL	26.870	GAL	-3.01	AZL	87.72	HCA	131.33	SMA	128.25	ECC	.18545	INC	2.2755	V1	29.490
RP	107.54	LAP	1.71	LOP	106.60	VP	37.859	GAP	-5.30	AZP	91.50	TAL	193.46	TAP	324.79	RCA	104.46	APO	152.03	V2	35.238
RC	62.346	GL	20.41	GP	-35.21	ZAL	109.43	ZAP	47.74	ETS	35.77	ZAE	135.34	ETE	307.38	ZAC	66.99	ETC	261.13	CLP	-34.60

PLANETOCENTRIC CONIC

C3	9.330	VHL	3.054	DLA	3.37	RAL	227.93	RAD	6567.3	VEL	11.433	PTH	1.98	VHP	5.058	DPA	-56.18	RAP	239.22	ECC	1.1535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 41 0	2153.04	-18.03	37.62	78.81	112.21	4 16 53	1553.0	-14.86	30.38
90.00	16 29 9	4587.67	12.21	193.96	77.88	64.25	17 45 37	3987.7	8.64	187.10
100.00	5 3 55	1885.58	-18.84	17.59	78.45	113.65	5 35 21	1285.6	-15.48	10.41
100.00	17 48 55	4330.36	12.99	174.64	77.48	62.84	19 1 6	3730.4	9.25	167.85
110.00	6 15 47	1660.67	-20.99	359.42	77.35	117.62	6 43 28	1060.7	-17.13	352.42
110.00	18 53 33	4128.04	15.08	158.09	76.28	58.95	20 2 21	3528.0	10.86	151.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0443	TRA	-.4237	TC3	1.2705	BAU	.2988	SGT 1115.0 SGR 1280.8 SG3 391.6	ST 254.0	SR 198.4	SS 788.2
RDE	.0949	RRA	.1410	RC3	-2.0304	FAU	.07000	RRT -.8323 RRF .9614 RTF -.8444	CRT -.6876	CRS -.9729	CST .5294
FDE	.9363	FRA	.6961	FC3	-6.4952	BSP	5133	SGB 1698.1 R23 -.1587 R13 .9516	LSA 823.9	MSA 214.3	SSA 21.0
BDE	.1047	BRA	.4465	BC3	2.3952	FSP	-1158	SG1 1626.9 SG2 486.6 THA 130.26	EL1 298.0	EL2 122.8	ALF 144.96

LAUNCH DATE AUG 29 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 303.890

RL	151.09	LAL	-.00	LOL	335.25	VL	26.919	GAL	-3.06	AZL	87.37	HCA	134.57	SMA	128.58	ECC	.18278	INC	2.6276	V1	29.490
RP	107.53	LAP	1.87	LOP	109.85	VP	37.899	GAP	-4.73	AZP	91.84	TAL	193.92	TAP	328.49	RCA	105.08	APO	152.08	V2	35.243
RC	64.375	GL	23.51	GP	-38.51	ZAL	109.67	ZAP	52.14	ETS	33.90	ZAE	133.41	ETE	303.05	ZAC	63.67	ETC	260.70	CLP	-38.35

PLANETOCENTRIC CONIC

C3	9.545	VHL	3.089	DLA	6.54	RAL	228.15	RAD	6567.3	VEL	11.443	PTH	1.98	VHP	4.947	DPA	-59.15	RAP	236.45	ECC	1.1571

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 17 59	2256.80	-20.57	44.17	80.02	109.90	3 55 35	1656.8	-17.67	36.70
90.00	16 53 59	4492.82	9.34	188.47	78.21	63.15	18 8 52	3892.8	5.67	181.72
100.00	4 42 26	1984.40	-21.42	23.80	79.68	111.37	5 15 30	1384.4	-18.32	16.37
100.00	18 12 13	4240.45	10.15	169.49	77.79	61.73	19 22 53	3640.4	6.29	162.82
110.00	5 57 48	1748.54	-23.66	4.84	78.62	115.42	6 26 56	1148.5	-20.05	357.57
110.00	19 13 20	4049.08	12.26	153.71	76.53	57.84	20 20 49	3449.1	7.93	147.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0543	TRA	-.4128	TC3	1.1328	BAU	.3187	SGT 1045.8 SGR 1453.6 SG3 410.0	ST 253.0	SR 355.8	SS 910.7
RDE	.1831	RRA	.1744	RC3	-2.2258	FAU	.07189	RRT -.8208 RRF .9717 RTF -.8264	CRT -.6404	CRS -.9948	CST .5731
FDE	1.1248	FRA	.7446	FC3	-6.5210	BSP	5405	SGB 1790.7 R23 -.1389 R13 .9631	LSA 988.7	MSA 205.3	SSA 18.0
BDE	.1910	BRA	.4481	BC3	2.4975	FSP	-1221	SG1 1717.9 SG2 505.5 THA 123.89	EL1 401.1	EL2 172.4	ALF 120.76

LAUNCH DATE AUG 29 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 310.464

RL	151.09	LAL	-.00	LOL	335.25	VL	26.961	GAL	-3.09	AZL	86.98	HCA	137.80	SMA	128.86	ECC	.18049	INC	3.0214	V1	29.490
RP	107.51	LAP	2.03	LOP	113.09	VP	37.933	GAP	-4.17	AZP	92.24	TAL	194.30	TAP	332.11	RCA	105.60	APO	152.12	V2	35.247
RC	66.441	GL	26.79	GP	-42.05	ZAL	109.64	ZAP	56.71	ETS	31.79	ZAE	131.18	ETE	298.46	ZAC	60.10	ETC	260.13	CLP	-42.34

PLANETOCENTRIC CONIC

C3	9.910	VHL	3.148	DLA	9.83	RAL	228.61	RAD	6567.4	VEL	11.459	PTH	1.99	VHP	4.886	DPA	-62.22	RAP	232.66	ECC	1.1631

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 53 56	2370.19	-23.02	51.59	81.88	106.97	3 33 26	1770.2	-20.47	43.84
90.00	17 21 40	4394.26	6.27	182.86	79.14	62.33	18 34 54	3794.3	2.51	176.19
100.00	4 20 7	2092.21	-23.92	30.83	81.56	108.48	4 54 59	1492.2	-21.17	23.11
100.00	18 38 10	4147.48	7.10	164.26	78.68	60.89	19 47 17	3547.5	3.17	157.68
110.00	5 39 23	1844.16	-26.32	11.00	80.57	112.64	6 10 7	1244.2	-23.02	3.39
110.00	19 35 23	3968.29	9.30	149.33	77.34	56.96	20 41 31	3368.3	4.88	143.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0542	TRA	-.4007	TC3	.9495	BAU	.3406	SGT 956.5 SGR 1644.4 SG3 421.3	ST 243.6	SR 545.6	SS 1031.0
RDE	.2914	RRA	.2164	RC3	-2.3892	FAU	.07242	RRT -.7931 RRF .9792 RTF -.7942	CRT -.5998	CRS -.9986	CST .5655
FDE	1.3183	FRA	.7950	FC3	-6.3268	BSP	5739	SGB 1902.3 R23 -.1138 R13 .9730	LSA 1174.8	MSA 199.2	SSA 15.2
BDE	.2964	BRA	.4554	BC3	2.5710	FSP	-1265	SG1 1828.8 SG2 523.9 THA 117.18	EL1 567.3	EL2 187.5	ALF 106.89

LAUNCH DATE AUG 29 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 317.013

RL	151.09	LAL	-.00	LOL	335.25	VL	26.997	GAL	-3.12	AZL	86.53	HCA	141.03	SMA	129.10	ECC	.17853	INC	3.4676	V1	29.490
RP	107.50	LAP	2.18	LOP	116.33	VP	37.962	GAP	-3.62	AZP	92.70	TAL	194.61	TAP	335.65	RCA	106.05	APO	152.15	V2	35.251
RC	68.539	GL	30.27	GP	-45.80	ZAL	109.33	ZAP	61.38	ETS	29.34	ZAE	128.61	ETE	293.70	ZAC	56.29	ETC	259.38	CLP	-46.60

PLANETOCENTRIC CONIC

C3	10.463	VHL	3.235	DLA	13.26	RAL	229.31	RAD	6567.4	VEL	11.483	PTH	2.00	VHP	4.882	DPA	-65.30	RAP	227.54	ECC	1.1722

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 28 7	2495.89	-25.25	60.11	84.46	103.26	3 9 43	1895.9	-23.18	52.06
90.00	17 53 4	4290.33	2.95	177.02	80.74	61.82	19 4 34	3690.3	-.84	170.39
100.00	3 56 22	2211.25	-26.25	38.90	84.18	104.84	4 33 13	1611.2	-23.95	30.85
100.00	19 7 30	4050.20	3.85	158.87	80.24	60.33	20 15 0	3450.2	-.13	152.34
110.00	5 20 10	1949.04	-28.87	18.09	83.28	109.15	5 52 39	1349.0	-25.99	10.09
110.00	20 0 11	3885.17	6.18	144.90	78.79	56.31	21 4 56	3285.2	1.71	138.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.0380	TRA	-.3857	TC3	.7326	BAU	.3652	SGT 849.5 SGR 1851.7 SG3 424.0	ST 221.5	SR 764.5	SS 1141.6
RDE	.4227	RRA	.2689	RC3	-2.5062	FAU	.07143	RRT -.7388 RRF .9845 RTF -.7364	CRT -.4843	CRS -.9995	CST .4638
FDE	1.5043	FRA	.8442	FC3	-5.9103	BSP	6140	SGB 2037.3 R23 -.0864 R13 .9808	LSA 1377.8	MSA 195.5	SSA 12.8
BDE	.4244	BRA	.4701	BC3	2.6111	FSP	-1282	SG1 1964.5 SG2 539.6 THA 110.33	EL1 772.5	EL2 191.8	ALF 98.52

LAUNCH DATE AUG 29 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 323.538

RL	151.09	LAL	-.00	LOL	335.25	VL	27.026	GAL	-3.13	AZL	86.02	HCA	144.27	SMA	129.30	ECC	.17687	INC	3.9809	V1	29.490
RP	107.49	LAP	2.32	LOP	119.58	VP	37.985	GAP	-3.10	AZP	93.23	TAL	194.84	TAP	339.10	RCA	106.43	APO	152.17	V2	35.254
RC	70.666	GL	33.94	GP	-49.74	ZAL	108.73	ZAP	66.06	ETS	26.46	ZAE	125.68	ETE	288.79	ZAC	52.28	ETC	258.40	CLP	-51.12

PLANETOCENTRIC CONIC

C3	11.261	VHL	3.356	DLA	16.82	RAL	230.27	RAD	6567.4	VEL	11.517	PTH	2.01	VHP	4.945	DPA	-68.29	RAP	220.68	ECC	1.1853

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 59 18	2638.15	-27.09	70.12	87.83	98.57	2 43 16	2038.1	-25.63	61.76
90.00	18 29 31	4178.12	-.67	170.76	83.14	61.69	19 39 9	3578.1	-4.45	164.12
100.00	3 30 13	2344.97	-28.23	48.34	87.62	100.25	4 9 18	1745.0	-26.53	39.95
100.00	19 41 17	3946.53	.34	153.17	82.58	60.11	20 47 4	3346.5	-3.64	146.65
110.00	4 59 35	2065.35	-31.18	26.35	86.87	104.77	5 34 0	1465.4	-28.84	17.93
110.00	20 28 25	3798.91	2.91	140.38	80.98	55.93	21 31 44	3198.9	-1.58	134.17

DIFFERENTIAL CORRECTIONS

TDE	.0003	TRA	-.3658	TC3	.4902	BAU	.3915
RDE	.5809	RRA	.3344	RC3	-2.5541	FAU	.06861
FDE	1.6708	FRA	.8892	FC3	-5.2745	BSP	6613
BDE	.5809	BRA	.4956	BC3	2.6007	FSP	-1268

MID-COURSE EXECUTION ACCURACY

SGT	730.7	SGR	2068.3	SG3	416.0		
RRT	-.6303	RRF	.9884	RTF	-.6248		
SGB	2193.6	R23	-.0594	R13	.9866		
SG1	2122.8	SG2	552.7	THA	103.49		

ORBIT DETERMINATION ACCURACY

ST	196.0	SR	1009.1	SS	1236.4
CRT	-.1774	CRS	-.9998	CST	.1638
LSA	1596.2	MSA	193.4	SSA	10.7
EL1	1009.8	EL2	192.8	ALF	92.05

LAUNCH DATE AUG 29 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 330.036

RL	151.09	LAL	-.00	LOL	335.25	VL	27.049	GAL	-3.13	AZL	85.42	HCA	147.50	SMA	129.46	ECC	.17549	INC	4.5817	V1	29.490
RP	107.48	LAP	2.46	LOP	122.83	VP	38.004	GAP	-2.59	AZP	93.87	TAL	194.98	TAP	342.48	RCA	106.74	APO	152.18	V2	35.256
RC	72.818	GL	37.79	GP	-53.81	ZAL	107.84	ZAP	70.66	ETS	23.08	ZAE	122.41	ETE	283.80	ZAC	48.13	ETC	257.13	CLP	-55.89

PLANETOCENTRIC CONIC

C3	12.396	VHL	3.521	DLA	20.49	RAL	231.50	RAD	6567.5	VEL	11.566	PTH	2.02	VHP	5.086	DPA	-71.02	RAP	211.56	ECC	1.2040

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 25 9	2804.80	-28.20	82.17	92.03	92.64	2 11 54	2204.8	-27.54	73.57
90.00	19 13 29	4051.75	-4.73	163.70	86.57	62.05	20 21 1	3451.8	-8.43	156.97
100.00	2 59 55	2499.25	-29.59	59.60	91.93	94.48	3 41 34	1899.2	-28.65	50.92
100.00	20 21 25	3832.54	-3.52	146.91	85.90	60.30	21 25 17	3232.5	-7.45	140.33
110.00	4 36 44	2196.33	-33.05	36.10	91.44	99.28	5 13 20	1596.3	-31.41	27.26
110.00	21 1 5	3708.22	-.56	135.64	84.06	55.82	22 2 53	3108.2	-5.04	129.42

DIFFERENTIAL CORRECTIONS

TDE	.0697	TRA	-.3383	TC3	.2382	BAU	.4185
RDE	.7691	RRA	.4157	RC3	-2.5138	FAU	.06389
FDE	1.8037	FRA	.9260	FC3	-4.4620	BSP	7145
BDE	.7722	BRA	.5360	BC3	2.5251	FSP	-1219

MID-COURSE EXECUTION ACCURACY

SGT	621.5	SGR	2285.0	SG3	396.6		
RRT	-.4078	RRF	.9911	RTF	-.3992		
SGB	2368.1	R23	-.0342	R13	.9906		
SG1	2300.0	SG2	563.8	THA	96.74		

ORBIT DETERMINATION ACCURACY

ST	209.7	SR	1271.3	SS	1307.8
CRT	.3885	CRS	-.9999	CST	-.3967
LSA	1825.7	MSA	192.8	SSA	8.9
EL1	1273.9	EL2	192.8	ALF	86.25

LAUNCH DATE AUG 29 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 336.507

RL	151.09	LAL	-.00	LOL	335.25	VL	27.068	GAL	-3.11	AZL	84.70	HCA	150.72	SMA	129.58	ECC	.17436	INC	5.2992	V1	29.490
RP	107.48	LAP	2.59	LOP	126.08	VP	38.019	GAP	-2.10	AZP	94.63	TAL	195.04	TAP	345.76	RCA	106.99	APO	152.18	V2	35.258
RC	74.992	GL	41.82	GP	-57.98	ZAL	106.66	ZAP	75.05	ETS	19.12	ZAE	118.81	ETE	278.72	ZAC	43.86	ETC	255.51	CLP	-60.90

PLANETOCENTRIC CONIC

C3	14.017	VHL	3.744	DLA	24.26	RAL	233.02	RAD	6567.6	VEL	11.636	PTH	2.04	VHP	5.323	DPA	-73.29	RAP	199.64	ECC	1.2307

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 53	3014.66	-27.90	97.50	96.88	84.98	1 30 8	2414.7	-28.31	88.85
90.00	20 10 53	3895.05	-9.64	154.80	91.41	63.25	21 15 48	3295.0	-13.16	147.89
100.00	2 21 43	2686.32	-29.77	73.48	97.02	87.19	3 6 29	2086.3	-29.84	64.68
100.00	21 11 44	3698.61	-7.99	139.48	90.53	61.10	22 13 23	3098.6	-11.78	132.75
110.00	4 10 5	2347.29	-34.10	47.75	97.04	92.47	4 49 12	1747.3	-33.39	38.58
110.00	21 39 52	3610.41	-4.29	130.53	88.26	56.05	22 40 2	3010.4	-8.72	124.24

DIFFERENTIAL CORRECTIONS

TDE	.1833	TRA	-.2983	TC3	-.0022	BAU	.4447
RDE	.9896	RRA	.5156	RC3	-2.3732	FAU	.05743
FDE	1.8909	FRA	.9494	FC3	-3.5472	BSP	7727
BDE	1.0065	BRA	.5957	BC3	2.3732	FSP	-1137

MID-COURSE EXECUTION ACCURACY

SGT	574.0	SGR	2490.1	SG3	366.2		
RRT	-.0039	RRF	.9930	RTF	.0075		
SGB	2555.4	R23	-.0116	R13	.9930		
SG1	2490.1	SG2	574.0	THA	90.05		

ORBIT DETERMINATION ACCURACY

ST	318.2	SR	1537.6	SS	1349.5
CRT	.7886	CRS	-1.0000	CST	-.7925
LSA	2061.3	MSA	193.6	SSA	7.4
EL1	1558.2	EL2	193.1	ALF	80.58

LAUNCH DATE AUG 29 1970 FLIGHT TIME 124.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 342.949

RL	151.09	LAL	-.00	LOL	335.25	VL	27.081	GAL	-3.09	AZL	83.82	HCA	153.95	SMA	129.68	ECC	.17345	INC	6.1772	V1	29.490
RP	107.48	LAP	2.71	LOP	129.33	VP	38.029	GAP	-1.63	AZP	95.55	TAL	195.01	TAP	348.96	RCA	107.18	APO	152.17	V2	35.259
RC	77.186	GL	45.98	GP	-62.23	ZAL	105.23	ZAP	79.13	ETS	14.50	ZAE	114.90	ETE	273.53	ZAC	39.51	ETC	253.40	CLP	-66.12

PLANETOCENTRIC CONIC

C3	16.371	VHL	4.046	DLA	28.11	RAL	234.85	RAD	6567.7	VEL	11.737	PTH	2.07	VHP	5.682	DPA	-74.85	RAP	184.74	ECC	1.2694

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 1 6	3391.06	-22.86	123.80	100.97	72.82	23 57 37	2791.1	-25.00	115.78
90.00	22 0 21	3588.29	-18.34	136.49	99.26	68.04	23 0 9	2988.3	-21.16	128.95
100.00	1 22 36	2947.56	-27.38	92.49	102.29	77.50	2 11 44	2347.6	-28.82	83.98
100.00	22 25 28	3507.03	-14.09	128.53	97.26	63.36	23 23 55	2907.0	-17.55	121.45
110.00	3 36 26	2528.66	-33.74	61.88	103.49	84.13	4 18 35	1928.7	-34.18	52.66
110.00	22 28 7	3498.69	-8.50	124.62	93.98	56.77	23 26 26	2898.7	-12.82	118.19

DIFFERENTIAL CORRECTIONS

TDE	.3590	TRA	-.2396	TC3	-.2081	BAU	.4684
RDE	1.2453	RRA	.6397	RC3	-2.1297	FAU	.04958
FDE	1.9261	FRA	.9588	FC3	-2.6216	BSP	8332
BDE	1.2960	BRA	.6831	BC3	2.1399	FSP	-1025

MID-COURSE EXECUTION ACCURACY

SGT	659.5	SGR	2671.0	SG3	326.8		
RRT	.4495	RRF	.9943	RTF	.4618		
SGB	2751.2	R23	.0087	R13	.9944		
SG1	2688.2	SG2	585.3	THA	83.35		

ORBIT DETERMINATION ACCURACY

ST	521.4	SR	1790.8	SS	1358.5
CRT	.9224	CRS	-1.0000	CST	-.9245
LSA	2299.1	MSA	196.0	SSA	6.1
EL1	1855.0	EL2	194.4	ALF	74.80

LAUNCH DATE AUG 29 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 349.360

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RL  151.09 LAL   -.00 LOL 335.25 VL  27.090 GAL  -3.05 AZL  82.72 HCA 157.16 SMA 129.74 ECC .17274 INC 7.2833 V1  29.490
RP  107.48 LAP   2.82 LOP 132.58 VP  38.035 GAP  -1.17 AZP  96.72 TAL 194.90 TAP 352.06 RCA 107.33 APO 152.15 V2  35.259
RC  79.396 GL   50.24 GP  -66.56 ZAL 103.55 ZAP  82.77 ETS   9.12 ZAE 110.71 ETE 268.11 ZAC  35.08 ETC 250.59 CLP -71.55
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PLANETOCENTRIC CONIC

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C3  19.901 VHL  4.461 DLA  31.96 RAL 237.01 RAD 6567.8 VEL 11.886 PTH   2.11 VHP  6.203 DPA -75.47 RAP 167.53 ECC 1.3275
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.52	20 38 38	3922.06	-22.06	162.85	106.53	66.26	21 44 0	3322.1	-25.08	155.18
105.48	0 43 59	3148.37	-22.05	105.55	106.52	66.25	1 36 27	2548.4	-25.07	97.89
74.52	20 38 38	3922.06	-22.06	162.85	106.53	66.26	21 44 0	3322.1	-25.08	155.18
105.48	0 43 59	3148.37	-22.05	105.55	106.52	66.25	1 36 27	2548.4	-25.07	97.89
110.00	2 45 39	2771.64	-30.54	80.06	109.96	73.85	3 31 51	2171.6	-32.45	71.37
110.00	23 36 7	3346.79	-14.05	116.36	102.13	58.51	24 31 54	2746.8	-18.11	109.60

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .6261 TRA -.1505 TC3 -.3575 BAU  .4863   SGT  894.6 SGR 2808.6 SG3  281.0     ST   807.2 SR  2004.8 SS  1333.2
RDE 1.5351 RRA  .7934 RC3-1.7927 FAU .04077   RRT  .7251 RRF  .9951 RTF  .7375    CRT  .9649 CRS-1.0000 CST -.9665
FDE 1.9068 FRA  .9519 FC3-1.7736 BSP  8946    SGB 2947.6 R23  .0270 R13  .9950    LSA 2531.4 MSA  200.4 SSA    5.1
BDE 1.6579 BRA  .8076 BC3 1.8279 FSP  -890    SG1 2886.0 SG2  599.5 THA  76.40    EL1 2152.2 EL2  197.5 ALF  68.58
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 355.737

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RL  151.09 LAL   -.00 LOL 335.25 VL  27.094 GAL  -3.00 AZL  81.27 HCA 160.37 SMA 129.77 ECC .17220 INC 8.7294 V1  29.490
RP  107.48 LAP   2.92 LOP 135.83 VP  38.038 GAP   -.72 AZP  98.23 TAL 194.70 TAP 355.07 RCA 107.42 APO 152.12 V2  35.258
RC  81.621 GL   54.51 GP  -71.03 ZAL 101.69 ZAP  85.87 ETS   2.74 ZAE 106.23 ETE 262.21 ZAC  30.53 ETC 246.65 CLP -77.21
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PLANETOCENTRIC CONIC

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C3  25.435 VHL  5.043 DLA  35.75 RAL 239.51 RAD 6568.0 VEL 12.117 PTH   2.17 VHP  6.954 DPA -75.01 RAP 149.69 ECC 1.4186
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.21	20 3 42	4119.12	-22.60	178.45	114.19	61.54	21 12 22	3519.1	-26.22	171.03
112.79	1 38 52	3070.38	-22.59	99.79	114.19	61.53	2 30 2	2470.4	-26.21	92.37
67.21	20 3 42	4119.12	-22.60	178.45	114.19	61.54	21 12 22	3519.1	-26.22	171.03
112.79	1 38 52	3070.38	-22.59	99.79	114.19	61.53	2 30 2	2470.4	-26.21	92.37
67.21	20 3 42	4119.12	-22.60	178.45	114.19	61.54	21 12 22	3519.1	-26.22	171.03
112.79	1 38 52	3070.38	-22.59	99.79	114.19	61.53	2 30 2	2470.4	-26.21	92.37

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0339 TRA -.0108 TC3 -.4359 BAU  .4945   SGT 1254.3 SGR 2877.2 SG3  232.3     ST  1174.7 SR  2143.2 SS  1276.4
RDE 1.8507 RRA  .9846 RC3-1.3873 FAU .03159   RRT  .8491 RRF  .9955 RTF  .8629    CRT  .9804 CRS -.9999 CST -.9823
FDE 1.8380 FRA  .9295 FC3-1.0752 BSP  9549    SGB 3138.7 R23  .0443 R13  .9951    LSA 2749.4 MSA  207.5 SSA    4.3
BDE 2.1199 BRA  .9846 BC3 1.4542 FSP  -744    SG1 3076.9 SG2  619.6 THA  68.79    EL1 2435.5 EL2  203.5 ALF  61.53
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 362.074

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RL  151.09 LAL   -.00 LOL 335.25 VL  27.095 GAL  -2.94 AZL  79.29 HCA 163.56 SMA 129.77 ECC .17183 INC10.7122 V1  29.490
RP  107.48 LAP   3.02 LOP 139.08 VP  38.037 GAP   -.30 AZP 100.28 TAL 194.41 TAP 357.97 RCA 107.47 APO 152.07 V2  35.256
RC  83.861 GL   58.65 GP  -75.74 ZAL  99.69 ZAP  88.36 ETS 354.71 ZAE 101.39 ETE 255.10 ZAC  25.78 ETC 240.60 CLP -83.32
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PLANETOCENTRIC CONIC

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C3  34.689 VHL  5.890 DLA  39.32 RAL 242.35 RAD 6568.4 VEL 12.492 PTH   2.26 VHP  8.054 DPA -73.46 RAP 132.98 ECC 1.5709
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.49	19 45 48	4282.26	-21.79	191.23	123.17	56.42	20 57 10	3682.3	-26.04	184.23
118.51	2 19 27	3062.51	-21.77	98.62	123.15	56.41	3 10 29	2462.5	-26.03	91.62
61.49	19 45 48	4282.26	-21.79	191.23	123.17	56.42	20 57 10	3682.3	-26.04	184.23
118.51	2 19 27	3062.51	-21.77	98.62	123.15	56.41	3 10 29	2462.5	-26.03	91.62
61.49	19 45 48	4282.26	-21.79	191.23	123.17	56.42	20 57 10	3682.3	-26.04	184.23
118.51	2 19 27	3062.51	-21.77	98.62	123.15	56.41	3 10 29	2462.5	-26.03	91.62

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.6844 TRA  .2276 TC3 -.4368 BAU  .4845   SGT 1741.1 SGR 2825.6 SG3  184.3     ST  1640.9 SR  2141.6 SS  1195.2
RDE 2.1495 RRA 1.2220 RC3 -.9491 FAU .02254   RRT  .9028 RRF  .9950 RTF  .9221    CRT  .9865 CRS -.9998 CST -.9894
FDE 1.7323 FRA  .8972 FC3 -.5625 BSP  10125   SGB 3319.0 R23  .0611 R13  .9947    LSA 2943.1 MSA  219.1 SSA    3.7
BDE 2.7308 BRA 1.2430 BC3 1.0448 FSP  -597    SG1 3254.7 SG2  650.1 THA  59.57    EL1 2689.4 EL2  214.3 ALF  52.64
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 368.359

```
RL  151.09 LAL   -.00 LOL 335.25 VL  27.092 GAL  -2.86 AZL  76.39 HCA 166.72 SMA 129.75 ECC .17159 INC13.6126 V1  29.490
RP  107.49 LAP   3.10 LOP 142.33 VP  38.033 GAP    .11 AZP 103.26 TAL 194.02 TAP    .74 RCA 107.49 APO 152.02 V2  35.254
RC  86.111 GL   62.41 GP  -80.89 ZAL  97.62 ZAP  90.15 ETS 342.70 ZAE  96.04 ETE 244.35 ZAC  20.66 ETC 229.35 CLP -90.95
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PLANETOCENTRIC CONIC

```
C3  51.634 VHL  7.186 DLA  42.44 RAL 245.48 RAD 6568.9 VEL 13.153 PTH   2.40 VHP  9.740 DPA -70.81 RAP 118.25 ECC 1.8498
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.96	19 38 12	4438.31	-19.12	202.54	133.22	51.36	20 52 10	3838.3	-23.98	196.12
123.04	2 52 2	3106.60	-19.11	100.32	133.21	51.35	3 43 49	2506.6	-23.97	93.90
56.96	19 38 12	4438.31	-19.12	202.54	133.22	51.36	20 52 10	3838.3	-23.98	196.12
123.04	2 52 2	3106.60	-19.11	100.32	133.21	51.35	3 43 49	2506.6	-23.97	93.90
56.96	19 38 12	4438.31	-19.12	202.54	133.22	51.36	20 52 10	3838.3	-23.98	196.12
123.04	2 52 2	3106.60	-19.11	100.32	133.21	51.35	3 43 49	2506.6	-23.97	93.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.8186 TRA  .7018 TC3 -.3676 BAU  .4385   SGT 2430.0 SGR 2494.8 SG3  140.5     ST  2259.0 SR  1828.5 SS  1109.0
RDE 2.2127 RRA 1.4798 RC3 -.5180 FAU .01397   RRT  .9190 RRF  .9901 RTF  .9565    CRT  .9865 CRS -.9987 CST -.9935
FDE 1.6147 FRA  .8654 FC3 -.2343 BSP  10641   SGB 3482.7 R23  .0778 R13  .9941    LSA 3101.5 MSA  239.1 SSA    3.0
BDE 3.5834 BRA 1.6378 BC3  .6352 FSP  -459    SG1 3411.4 SG2  700.8 THA  45.82    EL1 2896.9 EL2  233.7 ALF  38.91
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 374.563

```
RL  151.09 LAL   -.00 LOL 335.25 VL  27.086 GAL  -2.75 AZL  71.74 HCA 169.83 SMA 129.71 ECC .17145 INC18.2635 V1  29.490
RP  107.50 LAP   3.17 LOP 145.58 VP  38.026 GAP    .49 AZP 108.00 TAL 193.51 TAP   3.34 RCA 107.47 APO 151.95 V2  35.251
RC  88.372 GL   65.29 GP  -86.76 ZAL  95.56 ZAP  91.21 ETS 313.87 ZAE  89.79 ETE 217.00 ZAC  14.84 ETC 197.95 CLP-111.93
PLANETOCENTRIC CONIC
C3  87.111 VHL  9.333 DLA  44.64 RAL 248.73 RAD 6569.7 VEL 14.438 PTH   2.62 VHP 12.527 DPA -66.82 RAP 105.39 ECC 2.4336
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.92	19 39 2	4594.90	-14.30	212.24	143.79	47.25	20 55 37	3994.9	-19.64	206.43
126.08	3 17 3	3198.64	-14.28	104.23	143.77	47.24	4 10 21	2598.6	-19.62	98.42
53.92	19 39 2	4594.90	-14.30	212.24	143.79	47.25	20 55 37	3994.9	-19.64	206.43
126.08	3 17 3	3198.64	-14.28	104.23	143.77	47.24	4 10 21	2598.6	-19.62	98.42
53.92	19 39 2	4594.90	-14.30	212.24	143.79	47.25	20 55 37	3994.9	-19.64	206.43
126.08	3 17 3	3198.64	-14.28	104.23	143.77	47.24	4 10 21	2598.6	-19.62	98.42

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.8391 TRA 1.9176 TC3 -.2340 BAU  .3100  SGT 3428.2 SGR 1162.5 SG3  103.8       ST  3011.9 SR   470.6 SS  1044.6
RDE  .5529 RRA 1.2590 RC3 -.1270 FAU .00584  RRT  .7299 RRF  .8231 RTF  .9867       CRT  .8256 CRS -.8614 CST -.9978
FDE 1.5300 FRA  .8588 FC3 -.0580 BSP  11121  SGB 3619.9 R23  .0943 R13  .9937       LSA 3211.2 MSA  269.0 SSA    2.3
BDE 4.8706 BRA 2.2940 BC3  .2662 FSP   -342  SG1 3537.1 SG2  770.1 THA  14.61       EL1 3037.0 EL2  263.3 ALF   7.41
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 380.615

```
RL  151.09 LAL   -.00 LOL 335.25 VL  27.077 GAL  -2.61 AZL  63.17 HCA 172.81 SMA 129.65 ECC .17134 INC26.8260 V1  29.490
RP  107.51 LAP   3.24 LOP 148.83 VP  38.016 GAP    .82 AZP 116.64 TAL 192.81 TAP   5.63 RCA 107.44 APO 151.86 V2  35.247
RC  90.641 GL   66.08 GP  -84.65 ZAL  93.59 ZAP  91.53 ETS 229.32 ZAE  81.62 ETE 133.99 ZAC   7.90 ETC  95.27 CLP 106.65
PLANETOCENTRIC CONIC
C3 178.324 VHL 13.354 DLA  44.78 RAL 251.55 RAD 6570.9 VEL 17.310 PTH   2.95 VHP 17.729 DPA -60.52 RAP  93.96 ECC 3.9348
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.74	19 49 35	4736.91	-7.75	218.90	153.68	45.76	21 8 32	4136.9	-13.28	213.43
126.26	3 29 2	3336.86	-7.73	110.54	153.67	45.75	4 24 39	2736.9	-13.27	105.08
53.74	19 49 35	4736.91	-7.75	218.90	153.68	45.76	21 8 32	4136.9	-13.28	213.43
126.26	3 29 2	3336.86	-7.73	110.54	153.67	45.75	4 24 39	2736.9	-13.27	105.08
53.74	19 49 35	4736.91	-7.75	218.90	153.68	45.76	21 8 32	4136.9	-13.28	213.43
126.26	3 29 2	3336.86	-7.73	110.54	153.67	45.75	4 24 39	2736.9	-13.27	105.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.2737 TRA 2.5304 TC3 -.0015 BAU  .0852  SGT 2076.6 SGR 3088.0 SG3   76.8       ST  1477.7 SR  2725.4 SS  1071.8
RDE-6.2626 RRA-2.5127 RC3 -.0357 FAU-.00384  RRT -.9508 RRF -.9823 RTF  .9904       CRT -.9891 CRS  .9968 CST -.9977
FDE 1.5808 FRA  .9483 FC3  .0186 BSP  11049  SGB 3721.3 R23 -.0869 R13 -.9952       LSA 3274.3 MSA  197.4 SSA    1.7
BDE 7.0666 BRA 3.5660 BC3  .0357 FSP   -243  SG1 3682.0 SG2  539.8 THA 123.41       EL1 3094.3 EL2  191.6 ALF 118.32
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 386.245

```
RL  151.09 LAL   -.00 LOL 335.25 VL  27.065 GAL  -2.39 AZL  43.89 HCA 175.43 SMA 129.57 ECC .17106 INC46.1088 V1  29.490
RP  107.53 LAP   3.29 LOP 152.08 VP  38.003 GAP   1.04 AZP 136.02 TAL 191.69 TAP   7.13 RCA 107.40 APO 151.73 V2  35.243
RC  92.917 GL   61.09 GP  -71.49 ZAL  91.88 ZAP  91.18 ETS 194.29 ZAE  68.28 ETE 100.28 ZAC   8.91 ETC 320.17 CLP  93.74
PLANETOCENTRIC CONIC
C3 495.658 VHL 22.263 DLA  39.37 RAL 252.56 RAD 6572.4 VEL 24.839 PTH   3.34 VHP 29.237 DPA -48.69 RAP  83.46 ECC 9.1573
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.43	20 26 12	4771.83	-1.64	216.47	160.58	50.66	21 45 44	4171.8	-6.69	210.66
118.57	3 0 28	3550.30	-1.62	123.70	160.56	50.66	3 59 39	2950.3	-6.67	117.90
61.43	20 26 12	4771.83	-1.64	216.47	160.58	50.66	21 45 44	4171.8	-6.69	210.66
118.57	3 0 28	3550.30	-1.62	123.70	160.56	50.66	3 59 39	2950.3	-6.67	117.90
61.43	20 26 12	4771.83	-1.64	216.47	160.58	50.66	21 45 44	4171.8	-6.69	210.66
118.57	3 0 28	3550.30	-1.62	123.70	160.56	50.66	3 59 39	2950.3	-6.67	117.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.6131 TRA 1.0182 TC3 -.0375 BAU 1.3780  SGT  561.3 SGR 3614.6 SG3   60.7       ST   427.5 SR  2869.8 SS  1329.3
RD-10.8795 RRA-6.2988 RC3 -.2045 FAU-.02413  RRT  .2975 RRF -.9971 RTF -.2320       CRT  .8955 CRS  .9994 CST  .8789
FDE 1.9775 FRA 1.3394 FC3  .0421 BSP  10716  SGB 3657.9 R23 -.0746 R13 -.9966       LSA 3185.4 MSA  196.1 SSA    1.7
BDE10.9984 BRA 6.3805 BC3  .2079 FSP   -188  SG1 3618.5 SG2  535.3 THA  87.30       EL1 2895.3 EL2  188.5 ALF  82.37
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 397.550

```
RL  151.09 LAL   -.00 LOL 335.25 VL  27.051 GAL  -3.25 AZL 178.63 HCA 183.33 SMA 129.47 ECC .17604 INC88.6154 V1  29.490
RP  107.54 LAP   3.33 LOP 155.33 VP  37.988 GAP   2.79 AZP   1.37 TAL 195.51 TAP  18.85 RCA 106.68 APO 152.26 V2  35.238
RC  95.197 GL  -43.10 GP   48.18 ZAL  91.65 ZAP  91.97 ETS 182.78 ZAE  51.46 ETE 274.88 ZAC 126.18 ETC 281.37 CLP  92.96
PLANETOCENTRIC CONIC
C31561.737 VHL 39.519 DLA -62.33 RAL 224.43 RAD 6573.2 VEL 41.025 PTH   3.57 VHP 50.885 DPA  66.89 RAP  42.53 ECC26.7022
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.83	4 57 32	2424.01	-1.38	73.64	135.15	152.32	5 37 56	1824.0	5.70	70.34
148.17	14 44 45	731.21	-1.37	293.53	135.17	152.32	14 56 56	131.2	5.71	290.22
31.83	4 57 32	2424.01	-1.38	73.64	135.15	152.32	5 37 56	1824.0	5.70	70.34
148.17	14 44 45	731.21	-1.37	293.53	135.17	152.32	14 56 56	131.2	5.71	290.22
31.83	4 57 32	2424.01	-1.38	73.64	135.15	152.32	5 37 56	1824.0	5.70	70.34
148.17	14 44 45	731.21	-1.37	293.53	135.17	152.32	14 56 56	131.2	5.71	290.22

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.9190 TRA 1.2874 TC3 -.1156 BAU 4.9426  SGT 1414.9 SGR 2703.2 SG3   56.4       ST  1010.7 SR  2124.8 SS  2311.5
RD-14.6313 RRA 1.2006 RC3  .2066 FAU-.08635  RRT -.9069 RRF  .9995 RTF -.9072       CRT -.9851 CRS-1.0000 CST  .9858
FDE-3.6212 FRA  .2737 FC3  .0479 BSP   8885  SGB 3051.1 R23 -.0862 R13  .9958       LSA 3294.4 MSA  163.4 SSA    2.5
BDE16.1848 BRA 1.7604 BC3  .2367 FSP   -171  SG1 3003.5 SG2  536.5 THA 116.30       EL1 2347.7 EL2  157.1 ALF 115.23
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LAUNCH DATE AUG 29 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 401.833

RL	151.09	LAL	-.00	LOL	335.25	VL	27.034	GAL	-2.74	AZL	135.33	HCA	184.73	SMA	129.36	ECC	.17449	INC	45.3332	V1	29.490		
RP	107.56	LAP	3.36	LOP	158.58	VP	37.971	GAP	2.63	AZP	44.76	TAL	193.18	TAP	17.91	RCA	106.79	APO	151.93	V2	35.232		
RC	97.481	GL	-61.23	GP	72.42	ZAL	92.35	ZAP	93.35	ETS	180.57	ZAE	76.02	ETE	271.40	ZAC	149.71	ETC	286.61	CLP	101.14		

PLANETOCENTRIC CONIC

C3	479.984	VHL	21.909	DLA	-76.08	RAL	188.37	RAD	6572.3	VEL	24.521	PTH	3.33	VHP	28.023	DPA	80.75	RAP	312.54	ECC	8.8993		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.85	1 58 50	2406.69	2.67	81.07	97.70	166.07	2 38 57	1806.7	10.43	79.53
164.15	12 55 45	622.04	2.67	283.87	97.72	166.07	13 6 7	22.0	10.44	282.33
15.85	1 58 50	2406.69	2.67	81.07	97.70	166.07	2 38 57	1806.7	10.43	79.53
164.15	12 55 45	622.04	2.67	283.87	97.72	166.07	13 6 7	22.0	10.44	282.33
15.85	1 58 50	2406.69	2.67	81.07	97.70	166.07	2 38 57	1806.7	10.43	79.53
164.15	12 55 45	622.04	2.67	283.87	97.72	166.07	13 6 7	22.0	10.44	282.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.2534	TRA	1.0352	TC3	-.0834	BAU	1.4293	SGT	1457.5	SGR	3576.8	SG3	66.3	ST	915.5	SR	2957.9	SS	1569.6				
RD	-11.1015	RRA	-1.7315	RC3	.2065	FAU	-.02139	RRT	-.9438	RRF	.9992	RTF	-.9351	CRT	-.9828	CRS	-1.0000	CST	.9810				
FDE	-2.4376	FRA	-.3612	FC3	.0386	BSP	12055	SGB	3862.3	R23	-.0695	R13	.9970	LSA	3467.5	MSA	165.5	SSA	1.7				
BDE	11.5684	BRA	2.0174	BC3	.2227	FSP	-211	SG1	3836.1	SG2	449.2	THA	111.34	EL1	3092.1	EL2	161.7	ALF	106.97				

LAUNCH DATE AUG 29 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 407.452

RL	151.09	LAL	-.00	LOL	335.25	VL	27.015	GAL	-2.49	AZL	117.30	HCA	187.39	SMA	129.23	ECC	.17450	INC	27.2998	V1	29.490		
RP	107.58	LAP	3.38	LOP	161.83	VP	37.951	GAP	2.84	AZP	62.89	TAL	191.94	TAP	19.34	RCA	106.68	APO	151.78	V2	35.226		
RC	99.767	GL	-65.82	GP	82.51	ZAL	93.29	ZAP	95.85	ETS	153.67	ZAE	88.69	ETE	243.92	ZAC	160.33	ETC	274.78	CLP	141.45		

PLANETOCENTRIC CONIC

C3	184.135	VHL	13.570	DLA	-76.89	RAL	168.04	RAD	6571.0	VEL	17.477	PTH	2.96	VHP	17.257	DPA	72.00	RAP	267.35	ECC	4.0304		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.93	0 35 52	2292.03	10.38	80.23	75.58	166.67	1 14 4	1692.0	18.16	78.71
165.07	11 36 29	5792.24	10.39	260.02	75.60	166.67	13 13 1	5192.2	18.16	258.50
14.93	0 35 52	2292.03	10.38	80.23	75.58	166.67	1 14 4	1692.0	18.16	78.71
165.07	11 36 29	5792.24	10.39	260.02	75.60	166.67	13 13 1	5192.2	18.16	258.50
14.93	0 35 52	2292.03	10.38	80.23	75.58	166.67	1 14 4	1692.0	18.16	78.71
165.07	11 36 29	5792.24	10.39	260.02	75.60	166.67	13 13 1	5192.2	18.16	258.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1026	TRA	-.0380	TC3	-.0031	BAU	.1406	SGT	471.0	SGR	4095.9	SG3	86.8	ST	466.0	SR	2448.0	SS	977.0				
RDE	-5.2578	RRA	-1.8474	RC3	.0570	FAU	.00042	RRT	.6613	RRF	.9959	RTF	.7196	CRT	.9251	CRS	-.9981	CST	-.9465				
FDE	-1.4444	FRA	-.4289	FC3	-.0020	BSP	12867	SGB	4122.9	R23	-.0748	R13	.9965	LSA	2670.6	MSA	179.7	SSA	1.6				
BDE	5.3721	BRA	1.8478	BC3	.0571	FSP	-278	SG1	4107.8	SG2	352.3	THA	85.62	EL1	2485.8	EL2	174.2	ALF	79.96				

LAUNCH DATE AUG 29 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 413.409

RL	151.09	LAL	-.00	LOL	335.25	VL	26.994	GAL	-2.30	AZL	109.16	HCA	190.39	SMA	129.09	ECC	.17496	INC	19.1630	V1	29.490		
RP	107.60	LAP	3.39	LOP	165.07	VP	37.930	GAP	3.14	AZP	71.13	TAL	190.97	TAP	21.36	RCA	106.50	APO	151.67	V2	35.218		
RC	102.053	GL	-65.32	GP	80.49	ZAL	94.05	ZAP	99.04	ETS	62.71	ZAE	96.49	ETE	152.91	ZAC	164.19	ETC	206.17	CLP	-161.86		

PLANETOCENTRIC CONIC

C3	94.942	VHL	9.744	DLA	-76.07	RAL	169.04	RAD	6569.8	VEL	14.707	PTH	2.66	VHP	12.370	DPA	64.51	RAP	255.47	ECC	2.5625		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.87	0 41 45	2164.04	18.68	77.93	74.22	165.28	1 17 49	1564.0	26.40	76.08
164.13	11 38 37	5667.47	18.68	258.65	74.24	165.28	13 13 4	5067.5	26.41	256.80
15.87	0 41 45	2164.04	18.68	77.93	74.22	165.28	1 17 49	1564.0	26.40	76.08
164.13	11 38 37	5667.47	18.68	258.65	74.24	165.28	13 13 4	5067.5	26.41	256.80
15.87	0 41 45	2164.04	18.68	77.93	74.22	165.28	1 17 49	1564.0	26.40	76.08
164.13	11 38 37	5667.47	18.68	258.65	74.24	165.28	13 13 4	5067.5	26.41	256.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.5025	TRA	-1.4308	TC3	-.2213	BAU	.2860	SGT	4079.5	SGR	1179.6	SG3	117.7	ST	2311.1	SR	1081.9	SS	961.8				
RDE	1.8231	RRA	.1987	RC3	.0421	FAU	.01197	RRT	-.8186	RRF	-.8899	RTF	.9885	CRT	-.9441	CRS	.9754	CST	-.9936				
FDE	-1.4337	FRA	-.4296	FC3	-.1091	BSP	13270	SGB	4246.6	R23	.1026	R13	-.9931	LSA	2707.1	MSA	329.4	SSA	2.3				
BDE	3.9486	BRA	1.4446	BC3	.2253	FSP	-379	SG1	4195.2	SG2	658.8	THA	166.34	EL1	2530.9	EL2	325.7	ALF	155.73				

LAUNCH DATE AUG 29 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 419.466

RL	151.09	LAL	-.00	LOL	335.25	VL	26.972	GAL	-2.12	AZL	104.69	HCA	193.50	SMA	128.93	ECC	.17565	INC	14.6889	V1	29.490		
RP	107.63	LAP	3.39	LOP	168.32	VP	37.907	GAP	3.46	AZP	75.70	TAL	190.05	TAP	23.55	RCA	106.29	APO	151.58	V2	35.211		
RC	104.339	GL	-63.10	GP	74.68	ZAL	94.51	ZAP	102.68	ETS	46.17	ZAE	102.31	ETE	136.88	ZAC	163.83	ETC	212.23	CLP	-146.17		

PLANETOCENTRIC CONIC

C3	58.737	VHL	7.664	DLA	-75.03	RAL	176.96	RAD	6569.1	VEL	13.420	PTH	2.45	VHP	9.765	DPA	58.21	RAP	248.99	ECC	1.9667		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.06	1 15 44	2050.30	25.88	75.15	79.49	163.32	1 49 55	1450.3	33.52	72.83
162.94	12 7 47	5558.15	25.88	257.06	79.52	163.32	13 40 25	4958.2	33.52	254.73
17.06	1 15 44	2050.30	25.88	75.15	79.49	163.32	1 49 55	1450.3	33.52	72.83
162.94	12 7 47	5558.15	25.88	257.06	79.52	163.32	13 40 25	4958.2	33.52	254.73
17.06	1 15 44	2050.30	25.88	75.15	79.49	163.32	1 49 55	1450.3	33.52	72.83
162.94	12 7 47	5558.15	25.88	257.06	79.52	163.32	13 40 25	4958.2	33.52	254.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.8208	TRA	-1.0520	TC3	-.5454	BAU	.4744	SGT	3796.9	SGR	2148.8	SG3	157.5	ST	2298.2	SR	1773.2	SS	1127.8				
RDE	2.3223	RRA	.4153	RC3	.2599	FAU	.02177	RRT	-.9381	RRF	-.9867	RTF	.9765	CRT	-.9793	CRS	.9978	CST	-.9906				
FDE	-1.7226	FRA	-.4124	FC3	-.3208	BSP	13811	SGB	4362.8	R23	.1224	R13	-.9901	LSA	3100.4	MSA	293.1	SSA	3.0				
BDE	3.6538	BRA	1.1310	BC3	.6042	FSP	-516	SG1	4313.3	SG2	655.3	THA	151.31	EL1	2888.7	EL2	285.8	ALF	142.50				

LAUNCH DATE AUG 29 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 425.558

RL 151.09 LAL -.00 LOL 335.25 VL 26.948 GAL -1.94 AZL 101.88 HCA 196.65 SMA 128.77 ECC .17649 INC11.8762 V1 29.490
RP 107.65 LAP 3.38 LOP 171.56 VP 37.882 GAP 3.79 AZP 78.61 TAL 189.13 TAP 25.78 RCA 106.04 APO 151.50 V2 35.202
RC 106.624 GL -60.20 GP 68.83 ZAL 94.64 ZAP 106.62 ETS 43.25 ZAE 107.04 ETE 135.05 ZAC 161.05 ETC 225.20 CLP-142.36

PLANETOCENTRIC CONIC

C3 40.797 VHL 6.387 DLA -73.70 RAL 186.59 RAD 6568.6 VEL 12.734 PTH 2.32 VHP 8.217 DPA 52.48 RAP 244.61 ECC 1.6714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.59	1 57 17	1956.35	31.56	71.87	86.24	160.77	2 29 54	1356.4	39.07	68.91
161.41	12 43 6	5470.37	31.57	255.32	86.26	160.77	14 14 17	4870.4	39.08	252.35
18.59	1 57 17	1956.35	31.56	71.87	86.24	160.77	2 29 54	1356.4	39.07	68.91
161.41	12 43 6	5470.37	31.57	255.32	86.26	160.77	14 14 17	4870.4	39.08	252.35
18.59	1 57 17	1956.35	31.56	71.87	86.24	160.77	2 29 54	1356.4	39.07	68.91
161.41	12 43 6	5470.37	31.57	255.32	86.26	160.77	14 14 17	4870.4	39.08	252.35

DIFFERENTIAL CORRECTIONS
TDE-2.7657 TRA -.8156 TC3 -.9314 BAU .5667
RDE 2.1575 RRA .3055 RC3 .4603 FAU .03037
FDE-2.0339 FRA -.3560 FC3 -.6444 BSP 13823
BDE 3.5077 BRA .8709 BC3 1.0389 FSP -644

MID-COURSE EXECUTION ACCURACY
SGT 3790.2 SGR 2246.1 SG3 198.9
RRT -.9452 RRF -.9912 RTF .9708
SGB 4405.8 R23 .1432 R13 -.9863
SG1 4359.4 SG2 637.8 THA 150.04

ORBIT DETERMINATION ACCURACY
ST 2601.5 SR 1957.5 SS 1317.8
CRT -.9880 CRS .9994 CST -.9928
LSA 3503.0 MSA 254.9 SSA 3.8
EL1 3246.7 EL2 242.5 ALF 143.13

LAUNCH DATE AUG 29 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 431.657

RL 151.09 LAL -.00 LOL 335.25 VL 26.922 GAL -1.76 AZL 99.94 HCA 199.83 SMA 128.60 ECC .17747 INC 9.9428 V1 29.490
RP 107.68 LAP 3.36 LOP 174.80 VP 37.855 GAP 4.12 AZP 80.64 TAL 188.19 TAP 28.03 RCA 105.78 APO 151.42 V2 35.193
RC 108.906 GL -57.04 GP 63.30 ZAL 94.44 ZAP 110.70 ETS 42.77 ZAE 110.98 ETE 136.18 ZAC 157.26 ETC 234.38 CLP-141.89

PLANETOCENTRIC CONIC

C3 30.667 VHL 5.538 DLA -72.07 RAL 196.06 RAD 6568.2 VEL 12.330 PTH 2.22 VHP 7.236 DPA 47.13 RAP 241.44 ECC 1.5047

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.47	2 38 57	1880.13	35.81	68.06	92.55	157.69	3 10 17	1280.1	43.14	64.33
159.53	13 16 59	5402.58	35.81	253.42	92.57	157.69	14 47 2	4802.6	43.15	249.69
20.47	2 38 57	1880.13	35.81	68.06	92.55	157.69	3 10 17	1280.1	43.14	64.33
159.53	13 16 59	5402.58	35.81	253.42	92.57	157.69	14 47 2	4802.6	43.15	249.69
20.47	2 38 57	1880.13	35.81	68.06	92.55	157.69	3 10 17	1280.1	43.14	64.33
159.53	13 16 59	5402.58	35.81	253.42	92.57	157.69	14 47 2	4802.6	43.15	249.69

DIFFERENTIAL CORRECTIONS
TDE-2.7615 TRA -.6413 TC3-1.3895 BAU .6270
RDE 1.9053 RRA .1904 RC3 .6387 FAU .03838
FDE-2.2736 FRA -.2742 FC3-1.0834 BSP 14014
BDE 3.3550 BRA .6690 BC3 1.5293 FSP -779

MID-COURSE EXECUTION ACCURACY
SGT 3895.9 SGR 2190.0 SG3 241.7
RRT -.9494 RRF -.9919 RTF .9686
SGB 4469.2 R23 .1576 R13 -.9831
SG1 4428.1 SG2 605.1 THA 151.33

ORBIT DETERMINATION ACCURACY
ST 2929.8 SR 1980.8 SS 1481.0
CRT -.9921 CRS .9998 CST -.9944
LSA 3827.5 MSA 224.9 SSA 4.6
EL1 3530.5 EL2 205.9 ALF 146.02

LAUNCH DATE AUG 29 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 437.752

RL 151.09 LAL -.00 LOL 335.25 VL 26.895 GAL -1.56 AZL 98.53 HCA 203.02 SMA 128.42 ECC .17857 INC 8.5272 V1 29.490
RP 107.71 LAP 3.32 LOP 178.05 VP 37.827 GAP 4.46 AZP 82.14 TAL 187.23 TAP 30.25 RCA 105.48 APO 151.35 V2 35.184
RC 111.186 GL -53.78 GP 58.15 ZAL 93.91 ZAP 114.80 ETS 42.89 ZAE 114.25 ETE 138.33 ZAC 153.21 ETC 240.42 CLP-142.65

PLANETOCENTRIC CONIC

C3 24.415 VHL 4.941 DLA -70.20 RAL 204.74 RAD 6568.0 VEL 12.074 PTH 2.16 VHP 6.593 DPA 42.10 RAP 239.12 ECC 1.4018

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.63	3 18 9	1817.99	38.84	63.82	97.88	154.22	3 48 27	1218.0	45.95	59.24
157.37	13 47 1	5351.35	38.85	251.43	97.89	154.21	15 16 13	4751.3	45.95	246.85
22.63	3 18 9	1817.99	38.84	63.82	97.88	154.22	3 48 27	1218.0	45.95	59.24
157.37	13 47 1	5351.35	38.85	251.43	97.89	154.21	15 16 13	4751.3	45.95	246.85
22.63	3 18 9	1817.99	38.84	63.82	97.88	154.22	3 48 27	1218.0	45.95	59.24
157.37	13 47 1	5351.35	38.85	251.43	97.89	154.21	15 16 13	4751.3	45.95	246.85

DIFFERENTIAL CORRECTIONS
TDE-2.7188 TRA -.4905 TC3-1.8997 BAU .6703
RDE 1.6341 RRA .0935 RC3 .7798 FAU .04527
FDE-2.3981 FRA -.1659 FC3-1.6051 BSP 14239
BDE 3.1721 BRA .4993 BC3 2.0535 FSP -905

MID-COURSE EXECUTION ACCURACY
SGT 4035.1 SGR 2070.4 SG3 280.9
RRT -.9525 RRF -.9913 RTF .9679
SGB 4535.2 R23 .1669 R13 -.9802
SG1 4499.9 SG2 565.2 THA 153.50

ORBIT DETERMINATION ACCURACY
ST 3193.1 SR 1897.4 SS 1587.3
CRT -.9942 CRS .9999 CST -.9953
LSA 4034.1 MSA 202.7 SSA 5.5
EL1 3710.1 EL2 175.9 ALF 149.35

LAUNCH DATE AUG 29 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 443.837

RL 151.09 LAL -.00 LOL 335.25 VL 26.867 GAL -1.36 AZL 97.44 HCA 206.23 SMA 128.23 ECC .17979 INC 7.4412 V1 29.490
RP 107.74 LAP 3.28 LOP 181.28 VP 37.798 GAP 4.79 AZP 83.32 TAL 186.23 TAP 32.46 RCA 105.17 APO 151.28 V2 35.174
RC 113.462 GL -50.53 GP 53.39 ZAL 93.07 ZAP 118.82 ETS 43.13 ZAE 116.94 ETE 140.92 ZAC 149.24 ETC 244.51 CLP-143.93

PLANETOCENTRIC CONIC

C3 20.307 VHL 4.506 DLA -68.15 RAL 212.53 RAD 6567.8 VEL 11.903 PTH 2.11 VHP 6.167 DPA 37.39 RAP 237.46 ECC 1.3342

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.01	3 54 22	1766.62	40.88	59.28	102.20	150.51	4 23 48	1166.6	47.71	53.86
154.99	14 12 56	5313.45	40.89	249.42	102.22	150.50	15 41 29	4713.4	47.71	243.99
25.01	3 54 22	1766.62	40.88	59.28	102.20	150.51	4 23 48	1166.6	47.71	53.86
154.99	14 12 56	5313.45	40.89	249.42	102.22	150.50	15 41 29	4713.4	47.71	243.99
25.01	3 54 22	1766.62	40.88	59.28	102.20	150.51	4 23 48	1166.6	47.71	53.86
154.99	14 12 56	5313.45	40.89	249.42	102.22	150.50	15 41 29	4713.4	47.71	243.99

DIFFERENTIAL CORRECTIONS
TDE-2.6364 TRA -.3509 TC3-2.4455 BAU .7057
RDE 1.3787 RRA .0172 RC3 .8812 FAU .05088
FDE-2.4091 FRA -.0391 FC3-2.1690 BSP 14504
BDE 2.9752 BRA .3513 BC3 2.5995 FSP -1014

MID-COURSE EXECUTION ACCURACY
SGT 4186.9 SGR 1925.4 SG3 314.2
RRT -.9548 RRF -.9898 RTF .9679
SGB 4608.4 R23 .1713 R13 -.9779
SG1 4578.6 SG2 523.5 THA 155.96

ORBIT DETERMINATION ACCURACY
ST 3371.9 SR 1753.2 SS 1632.6
CRT -.9953 CRS 1.0000 CST -.9956
LSA 4132.1 MSA 186.3 SSA 6.5
EL1 3797.5 EL2 150.7 ALF 152.59

LAUNCH DATE AUG 29 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 449.908

RL 151.09 LAL -.00 LOL 335.25 VL 26.837 GAL -1.15 AZL 96.58 HCA 209.43 SMA 128.03 ECC .18113 INC 6.5772 V1 29.490
RP 107.77 LAP 3.23 LOP 184.52 VP 37.767 GAP 5.12 AZP 84.27 TAL 185.20 TAP 34.63 RCA 104.84 APO 151.22 V2 35.164
RC 115.736 GL -47.30 GP 49.03 ZAL 91.93 ZAP 122.68 ETS 43.34 ZAE 119.11 ETE 143.65 ZAC 145.49 ETC 247.40 CLP-145.44

PLANETOCENTRIC CONIC

C3 17.487 VHL 4.182 DLA -65.98 RAL 219.51 RAD 6567.7 VEL 11.784 PTH 2.08 VHP 5.888 DPA 33.00 RAP 236.32 ECC 1.2878

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.54	4 27 51	1723.33	42.11	54.60	105.74	146.72	4 56 35	1123.3	48.62	48.38
152.46	14 35 7	5286.37	42.12	247.50	105.75	146.71	16 3 14	4686.4	48.63	241.28
27.54	4 27 51	1723.33	42.11	54.60	105.74	146.72	4 56 35	1123.3	48.62	48.38
152.46	14 35 7	5286.37	42.12	247.50	105.75	146.71	16 3 14	4686.4	48.63	241.28
27.54	4 27 51	1723.33	42.11	54.60	105.74	146.72	4 56 35	1123.3	48.62	48.38
152.46	14 35 7	5286.37	42.12	247.50	105.75	146.71	16 3 14	4686.4	48.63	241.28

DIFFERENTIAL CORRECTIONS
TDE-2.5262 TRA -.2140 TC3-3.0007 BAU .7350
RDE 1.1549 RRA -.0426 RC3 .9385 FAU .05489
FDE-2.3277 FRA .1004 FC3-2.7174 BSP 14763
BDE 2.7777 BRA .2182 BC3 3.1440 FSP -1100

MID-COURSE EXECUTION ACCURACY
SGT 4335.6 SGR 1772.2 SG3 339.6
RRT -.9558 RRF -.9875 RTF .9681
SGB 4683.8 R23 .1715 R13 -.9760
SG1 4658.6 SG2 485.2 THA 158.41

ORBIT DETERMINATION ACCURACY
ST 3468.8 SR 1583.2 SS 1623.7
CRT -.9960 CRS 1.0000 CST -.9956
LSA 4140.6 MSA 174.5 SSA 7.6
EL1 3810.8 EL2 129.2 ALF 155.52

LAUNCH DATE AUG 29 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 455.963

RL 151.09 LAL -.00 LOL 335.25 VL 26.807 GAL -.92 AZL 95.87 HCA 212.64 SMA 127.83 ECC .18260 INC 5.8699 V1 29.490
RP 107.80 LAP 3.16 LOP 187.75 VP 37.736 GAP 5.45 AZP 85.05 TAL 184.14 TAP 36.78 RCA 104.49 APO 151.17 V2 35.153
RC 118.005 GL -44.14 GP 45.08 ZAL 90.51 ZAP 126.33 ETS 43.48 ZAE 120.82 ETE 146.38 ZAC 142.05 ETC 249.51 CLP-147.04

PLANETOCENTRIC CONIC

C3 15.494 VHL 3.936 DLA -63.73 RAL 225.81 RAD 6567.6 VEL 11.699 PTH 2.06 VHP 5.713 DPA 28.93 RAP 235.63 ECC 1.2550

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.19	4 59 6	1686.11	42.69	49.90	108.71	142.97	5 27 12	1086.1	48.86	43.00
149.81	14 54 10	5268.23	42.70	245.78	108.73	142.97	16 21 59	4668.2	48.87	238.87
30.19	4 59 6	1686.11	42.69	49.90	108.71	142.97	5 27 12	1086.1	48.86	43.00
149.81	14 54 10	5268.23	42.70	245.78	108.73	142.97	16 21 59	4668.2	48.87	238.87
30.19	4 59 6	1686.11	42.69	49.90	108.71	142.97	5 27 12	1086.1	48.86	43.00
149.81	14 54 10	5268.23	42.70	245.78	108.73	142.97	16 21 59	4668.2	48.87	238.87

DIFFERENTIAL CORRECTIONS
TDE-2.3994 TRA -.0785 TC3-3.5536 BAU .7625
RDE .9666 RRA -.0885 RC3 .9605 FAU .05754
FDE-2.1798 FRA .2434 FC3-3.2149 BSP 15043
BDE 2.5868 BRA .1183 BC3 3.6811 FSP -1162

MID-COURSE EXECUTION ACCURACY
SGT 4482.3 SGR 1623.5 SG3 357.4
RRT -.9556 RRF -.9843 RTF .9683
SGB 4767.3 R23 .1677 R13 -.9744
SG1 4745.8 SG2 451.8 THA 160.73

ORBIT DETERMINATION ACCURACY
ST 3494.4 SR 1409.9 SS 1571.0
CRT -.9964 CRS .9999 CST -.9952
LSA 4079.1 MSA 166.2 SSA 8.7
EL1 3766.5 EL2 110.4 ALF 158.08

LAUNCH DATE AUG 29 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 462.001

RL 151.09 LAL -.00 LOL 335.25 VL 26.776 GAL -.69 AZL 95.28 HCA 215.85 SMA 127.63 ECC .18419 INC 5.2767 V1 29.490
RP 107.84 LAP 3.09 LOP 190.98 VP 37.703 GAP 5.78 AZP 85.72 TAL 183.05 TAP 38.90 RCA 104.12 APO 151.13 V2 35.141
RC 120.271 GL -41.04 GP 41.51 ZAL 88.84 ZAP 129.76 ETS 43.56 ZAE 122.14 ETE 149.01 ZAC 138.94 ETC 251.12 CLP-148.66

PLANETOCENTRIC CONIC

C3 14.061 VHL 3.750 DLA -61.42 RAL 231.56 RAD 6567.6 VEL 11.638 PTH 2.04 VHP 5.612 DPA 25.19 RAP 235.30 ECC 1.2314

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.91	5 28 36	1653.38	42.73	45.27	111.34	139.37	5 56 10	1053.4	48.55	37.82
147.09	15 10 33	5257.73	42.74	244.34	111.36	139.36	16 38 11	4657.7	48.56	236.89
32.91	5 28 36	1653.38	42.73	45.27	111.34	139.37	5 56 10	1053.4	48.55	37.82
147.09	15 10 33	5257.73	42.74	244.34	111.36	139.36	16 38 11	4657.7	48.56	236.89
32.91	5 28 36	1653.38	42.73	45.27	111.34	139.37	5 56 10	1053.4	48.55	37.82
147.09	15 10 33	5257.73	42.74	244.34	111.36	139.36	16 38 11	4657.7	48.56	236.89

DIFFERENTIAL CORRECTIONS
TDE-2.2625 TRA .0596 TC3-4.0804 BAU .7876
RDE .8120 RRA -.1240 RC3 .9507 FAU .05884
FDE-1.9897 FRA .3855 FC3-3.6224 BSP 15317
BDE 2.4038 BRA .1376 BC3 4.1897 FSP -1201

MID-COURSE EXECUTION ACCURACY
SGT 4620.8 SGR 1484.7 SG3 368.0
RRT -.9542 RRF -.9799 RTF .9684
SGB 4853.5 R23 .1605 R13 -.9731
SG1 4834.9 SG2 424.7 THA 162.82

ORBIT DETERMINATION ACCURACY
ST 3458.7 SR 1246.5 SS 1485.6
CRT -.9968 CRS .9996 CST -.9946
LSA 3962.0 MSA 160.6 SSA 9.9
EL1 3675.3 EL2 93.2 ALF 160.23

LAUNCH DATE AUG 29 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 468.021

RL 151.09 LAL -.00 LOL 335.25 VL 26.744 GAL -.44 AZL 94.77 HCA 219.06 SMA 127.42 ECC .18592 INC 4.7694 V1 29.490
RP 107.87 LAP 3.00 LOP 194.21 VP 37.669 GAP 6.10 AZP 86.29 TAL 181.93 TAP 40.99 RCA 103.73 APO 151.11 V2 35.130
RC 122.531 GL -38.02 GP 38.31 ZAL 86.96 ZAP 132.94 ETS 43.60 ZAE 123.14 ETE 151.49 ZAC 136.15 ETC 252.40 CLP-150.26

PLANETOCENTRIC CONIC

C3 13.030 VHL 3.610 DLA -59.09 RAL 236.86 RAD 6567.5 VEL 11.594 PTH 2.03 VHP 5.568 DPA 21.76 RAP 235.29 ECC 1.2144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.70	5 56 43	1624.01	42.34	40.78	113.78	135.97	6 23 47	1024.0	47.81	32.92
144.30	15 24 41	5253.91	42.35	243.25	113.79	135.96	16 52 15	4653.9	47.82	235.39
35.70	5 56 43	1624.01	42.34	40.78	113.78	135.97	6 23 47	1024.0	47.81	32.92
144.30	15 24 41	5253.91	42.35	243.25	113.79	135.96	16 52 15	4653.9	47.82	235.39
35.70	5 56 43	1624.01	42.34	40.78	113.78	135.97	6 23 47	1024.0	47.81	32.92
144.30	15 24 41	5253.91	42.35	243.25	113.79	135.96	16 52 15	4653.9	47.82	235.39

DIFFERENTIAL CORRECTIONS
TDE-2.1210 TRA .1988 TC3-4.5708 BAU .8122
RDE .6875 RRA -.1504 RC3 .9192 FAU .05912
FDE-1.7791 FRA .5185 FC3-3.9281 BSP 15622
BDE 2.2297 BRA .2493 BC3 4.6624 FSP -1222

MID-COURSE EXECUTION ACCURACY
SGT 4754.0 SGR 1359.1 SG3 372.5
RRT -.9517 RRF -.9743 RTF .9685
SGB 4944.5 R23 .1492 R13 -.9721
SG1 4928.1 SG2 402.6 THA 164.67

ORBIT DETERMINATION ACCURACY
ST 3373.1 SR 1100.3 SS 1378.8
CRT -.9973 CRS .9991 CST -.9935
LSA 3803.3 MSA 156.7 SSA 11.2
EL1 3547.2 EL2 76.6 ALF 161.97

LAUNCH DATE AUG 29 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 474.023

RL	151.09	LAL	-.00	LOL	335.25	VL	26.711	GAL	-.18	AZL	94.33	HCA	222.27	SMA	127.20	ECC	.18777	INC	4.3279	V1	29.490
RP	107.91	LAP	2.91	LOP	197.44	VP	37.635	GAP	6.43	AZP	86.79	TAL	180.78	TAP	43.05	RCA	103.32	APO	151.09	V2	35.118
RC	124.786	GL	-35.08	GP	35.45	ZAL	84.88	ZAP	135.90	ETS	43.62	ZAE	123.87	ETE	153.77	ZAC	133.67	ETC	253.43	CLP	-151.82

PLANETOCENTRIC CONIC

C3	12.299	VHL	3.507	DLA	-56.73	RAL	241.77	RAD	6567.5	VEL	11.562	PTH	2.02	VHP	5.567	DPA	18.61	RAP	235.54	ECC	1.2024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.55	6 23 48	1596.98	41.59	36.46	116.13	132.81	6 50 25	997.0	46.73	28.31
141.45	15 36 46	5256.23	41.61	242.56	116.14	132.80	17 4 23	4656.2	46.74	234.41
38.55	6 23 48	1596.98	41.59	36.46	116.13	132.81	6 50 25	997.0	46.73	28.31
141.45	15 36 46	5256.23	41.61	242.56	116.14	132.80	17 4 23	4656.2	46.74	234.41
38.55	6 23 48	1596.98	41.59	36.46	116.13	132.81	6 50 25	997.0	46.73	28.31
141.45	15 36 46	5256.23	41.61	242.56	116.14	132.80	17 4 23	4656.2	46.74	234.41

DIFFERENTIAL CORRECTIONS

TDE	-1.9699	TRA	.3490	TC3	-4.9963	BAU	.8338
RDE	.5850	RRA	-.1739	RC3	.8665	FAU	.05832
FDE	-1.5510	FRA	.6527	FC3	-4.1051	BSP	15945
BDE	2.0549	BRA	.3899	BC3	5.0708	FSP	-1234

MID-COURSE EXECUTION ACCURACY

SGT	4870.1	SGR	1245.3	SG3	371.5		
RRT	-.9470	RRF	-.9670	RTF	.9677		
SGB	5026.8	R23	.1390	R13	-.9705		
SG1	5011.8	SG2	388.6	THA	166.30		

ORBIT DETERMINATION ACCURACY

ST	3235.1	SR	968.4	SS	1251.4		
CRT	-.9978	CRS	.9978	CST	-.9916		
LSA	3597.8	MSA	157.4	SSA	12.6		
EL1	3376.3	EL2	61.2	ALF	163.36		

LAUNCH DATE AUG 29 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 480.004

RL	151.09	LAL	-.00	LOL	335.25	VL	26.678	GAL	.09	AZL	93.94	HCA	225.48	SMA	126.99	ECC	.18978	INC	3.9380	V1	29.490
RP	107.95	LAP	2.81	LOP	200.66	VP	37.600	GAP	6.76	AZP	87.24	TAL	179.60	TAP	45.08	RCA	102.89	APO	151.09	V2	35.105
RC	127.036	GL	-32.23	GP	32.89	ZAL	82.64	ZAP	138.63	ETS	43.65	ZAE	124.40	ETE	155.84	ZAC	131.48	ETC	254.31	CLP	-153.34

PLANETOCENTRIC CONIC

C3	11.803	VHL	3.436	DLA	-54.36	RAL	246.35	RAD	6567.4	VEL	11.541	PTH	2.01	VHP	5.600	DPA	15.73	RAP	236.03	ECC	1.1942

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.44	6 50 8	1571.53	40.57	32.30	118.47	129.91	7 16 19	971.5	45.39	23.98
138.56	15 47 0	5264.31	40.58	242.30	118.48	129.90	17 14 44	4664.3	45.40	233.97
41.44	6 50 8	1571.53	40.57	32.30	118.47	129.91	7 16 19	971.5	45.39	23.98
138.56	15 47 0	5264.31	40.58	242.30	118.48	129.90	17 14 44	4664.3	45.40	233.97
41.44	6 50 8	1571.53	40.57	32.30	118.47	129.91	7 16 19	971.5	45.39	23.98
138.56	15 47 0	5264.31	40.58	242.30	118.48	129.90	17 14 44	4664.3	45.40	233.97

DIFFERENTIAL CORRECTIONS

TDE	-1.8140	TRA	.5057	TC3	-5.3496	BAU	.8535
RDE	.5016	RRA	-.1941	RC3	.7974	FAU	.05656
FDE	-1.3193	FRA	.7821	FC3	-4.1489	BSP	15985
BDE	1.8820	BRA	.5416	BC3	5.4087	FSP	-1188

MID-COURSE EXECUTION ACCURACY

SGT	4975.7	SGR	1143.9	SG3	366.3		
RRT	-.9397	RRF	-.9578	RTF	.9657		
SGB	5105.5	R23	.1314	R13	-.9680		
SG1	5091.2	SG2	382.4	THA	167.74		

ORBIT DETERMINATION ACCURACY

ST	3058.2	SR	853.2	SS	1113.9		
CRT	-.9984	CRS	.9949	CST	-.9882		
LSA	3360.7	MSA	163.1	SSA	14.0		
EL1	3174.6	EL2	46.5	ALF	164.43		

LAUNCH DATE AUG 29 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 485.964

RL	151.09	LAL	-.00	LOL	335.25	VL	26.644	GAL	.38	AZL	93.59	HCA	228.69	SMA	126.77	ECC	.19194	INC	3.5891	V1	29.490
RP	107.99	LAP	2.70	LOP	203.88	VP	37.564	GAP	7.09	AZP	87.63	TAL	178.40	TAP	47.09	RCA	102.44	APO	151.10	V2	35.093
RC	129.278	GL	-29.46	GP	30.61	ZAL	80.27	ZAP	141.15	ETS	43.71	ZAE	124.76	ETE	157.71	ZAC	129.55	ETC	255.07	CLP	-154.81

PLANETOCENTRIC CONIC

C3	11.499	VHL	3.391	DLA	-52.00	RAL	250.64	RAD	6567.4	VEL	11.528	PTH	2.01	VHP	5.660	DPA	13.09	RAP	236.73	ECC	1.1893

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.38	7 15 55	1546.96	39.32	28.31	120.84	127.27	7 41 42	947.0	43.84	19.90
135.62	15 55 26	5278.00	39.33	242.50	120.85	127.25	17 23 24	4678.0	43.85	234.08
44.38	7 15 55	1546.96	39.32	28.31	120.84	127.27	7 41 42	947.0	43.84	19.90
135.62	15 55 26	5278.00	39.33	242.50	120.85	127.25	17 23 24	4678.0	43.85	234.08
44.38	7 15 55	1546.96	39.32	28.31	120.84	127.27	7 41 42	947.0	43.84	19.90
135.62	15 55 26	5278.00	39.33	242.50	120.85	127.25	17 23 24	4678.0	43.85	234.08

DIFFERENTIAL CORRECTIONS

TDE	-1.6700	TRA	.6589	TC3	-5.6426	BAU	.8748
RDE	.4419	RRA	-.2056	RC3	.7343	FAU	.05487
FDE	-1.1212	FRA	.8812	FC3	-4.1308	BSP	16379
BDE	1.7275	BRA	.6903	BC3	5.6902	FSP	-1187

MID-COURSE EXECUTION ACCURACY

SGT	5086.9	SGR	1060.1	SG3	359.2		
RRT	-.9333	RRF	-.9470	RTF	.9664		
SGB	5196.2	R23	.1118	R13	-.9681		
SG1	5182.7	SG2	373.7	THA	168.94		

ORBIT DETERMINATION ACCURACY

ST	2875.6	SR	765.7	SS	992.9		
CRT	-.9992	CRS	.9896	CST	-.9846		
LSA	3132.7	MSA	164.6	SSA	15.4		
EL1	2975.7	EL2	28.7	ALF	165.10		

LAUNCH DATE AUG 29 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 491.903

RL	151.09	LAL	-.00	LOL	335.25	VL	26.610	GAL	.68	AZL	93.27	HCA	231.90	SMA	126.55	ECC	.19425	INC	3.2732	V1	29.490
RP	108.03	LAP	2.58	LOP	207.10	VP	37.528	GAP	7.42	AZP	87.98	TAL	177.18	TAP	49.08	RCA	101.97	APO	151.13	V2	35.080
RC	131.513	GL	-26.79	GP	28.57	ZAL	77.80	ZAP	143.48	ETS	43.82	ZAE	124.99	ETE	159.39	ZAC	127.85	ETC	255.75	CLP	-156.23

PLANETOCENTRIC CONIC

C3	11.360	VHL	3.370	DLA	-49.65	RAL	254.67	RAD	6567.4	VEL	11.522	PTH	2.01	VHP	5.743	DPA	10.67	RAP	237.60	ECC	1.1870

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.35	7 41 21	1522.63	37.89	24.46	123.27	124.87	8 6 44	922.6	42.14	16.02
132.65	16 2 9	5297.26	37.90	243.16	123.27	124.86	17 30 26	4697.3	42.15	234.72
47.35	7 41 21	1522.63	37.89	24.46	123.27	124.87	8 6 44	922.6	42.14	16.02
132.65	16 2 9	5297.26	37.90	243.16	123.27	124.86	17 30 26	4697.3	42.15	234.72
47.35	7 41 21	1522.63	37.89	24.46	123.27	124.87	8 6 44	922.6	42.14	16.02
132.65	16 2 9	5297.26	37.90	243.16	123.27	124.86	17 30 26	4697.3	42.15	234.72

DIFFERENTIAL CORRECTIONS

TDE	-1.5230	TRA	.8207	TC3	-5.8562	BAU	.8951
RDE	.3942	RRA	-.2167	RC3	.6677	FAU	.05275
FDE	-.9316	FRA	.9761	FC3	-4.0198	BSP	16653
BDE	1.5732	BRA	.8488	BC3	5.8941	FSP	-1161

MID-COURSE EXECUTION ACCURACY

SGT	5189.3	SGR	987.6	SG3	350.1		
RRT	-.9244	RRF	-.9343	RTF	.9663		
SGB	5282.4	R23	.0955	R13	-.9676		
SG1	5269.4	SG2	370.9	THA	169.97		

ORBIT DETERMINATION ACCURACY

ST	2671.1	SR	691.7	SS	874.4		
CRT	-.9997	CRS	.9792	CST	-.9786		
LSA	2889.3	MSA	171.5	SSA	16.7		
EL1	2759.1	EL2	16.9	ALF	165.49		

LAUNCH DATE AUG 29 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 497.819

RL	151.09	LAL	-.00	LOL	335.25	VL	26.575	GAL	.99	AZL	92.98	HCA	235.10	SMA	126.33	ECC	.19674	INC	2.9841	V1	29.490		
RP	108.07	LAP	2.45	LOP	210.31	VP	37.491	GAP	7.75	AZP	88.29	TAL	175.94	TAP	51.04	RCA	101.47	APO	151.18	V2	35.067		
RC	133.740	GL	-24.22	GP	26.75	ZAL	75.26	ZAP	145.64	ETS	43.99	ZAE	125.13	ETE	160.88	ZAC	126.35	ETC	256.37	CLP	-157.59		

PLANETOCENTRIC CONIC

C3	11.367	VHL	3.371	DLA	-47.32	RAL	258.46	RAD	6567.4	VEL	11.522	PTH	2.01	VHP	5.844	DPA	8.44	RAP	238.63	ECC	1.1871		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
50.35		8	6 37	1498.00		36.33		20.73		125.76		122.71		8 31 35		898.0		40.33		12.31			
129.65		16	7 7	5322.13		36.34		244.30		125.77		122.70		17 35 49		4722.1		40.34		235.88			
50.35		8	6 37	1498.00		36.33		20.73		125.76		122.71		8 31 35		898.0		40.33		12.31			
129.65		16	7 7	5322.13		36.34		244.30		125.77		122.70		17 35 49		4722.1		40.34		235.88			
50.35		8	6 37	1498.00		36.33		20.73		125.76		122.71		8 31 35		898.0		40.33		12.31			
129.65		16	7 7	5322.13		36.34		244.30		125.77		122.70		17 35 49		4722.1		40.34		235.88			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3794	TRA	.9873	TC3	-6.0036	BAU	.9169	SGT	5292.4	SGR	927.2	SG3	340.2	ST	2462.1	SR	632.2	SS	768.3
RDE	.3582	RRA	-.2264	RC3	.6057	FAU	.05061	RRT	-.9141	RRF	-.9200	RTF	.9663	CRT	-.9990	CRS	.9606	CST	-.9699
FDE	-.7609	FRA	1.0611	FC3	-3.8549	BSP	17081	SGB	5373.0	R23	.0797	R13	-.9673	LSA	2649.2	MSA	182.2	SSA	17.8
BDE	1.4252	BRA	1.0129	BC3	6.0341	FSP	-1148	SG1	5360.2	SG2	371.2	THA	170.86	EL1	2541.8	EL2	27.7	ALF	165.61

LAUNCH DATE AUG 29 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 503.712

RL	151.09	LAL	-.00	LOL	335.25	VL	26.540	GAL	1.32	AZL	92.72	HCA	238.31	SMA	126.10	ECC	.19941	INC	2.7169	V1	29.490		
RP	108.11	LAP	2.31	LOP	213.53	VP	37.454	GAP	8.09	AZP	88.57	TAL	174.67	TAP	52.98	RCA	100.96	APO	151.25	V2	35.054		
RC	135.957	GL	-21.76	GP	25.13	ZAL	72.68	ZAP	147.64	ETS	44.24	ZAE	125.20	ETE	162.21	ZAC	125.04	ETC	256.95	CLP	-158.91		

PLANETOCENTRIC CONIC

C3	11.508	VHL	3.392	DLA	-45.04	RAL	262.03	RAD	6567.4	VEL	11.528	PTH	2.01	VHP	5.961	DPA	6.39	RAP	239.80	ECC	1.1894		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
53.39		8	31 54	1472.41		34.67		17.06		128.32		120.77		8 56 27		872.4		38.45		8.69			
126.61		16	10 19	5352.88		34.68		245.94		128.33		120.76		17 39 32		4752.9		38.46		237.57			
53.39		8	31 54	1472.41		34.67		17.06		128.32		120.77		8 56 27		872.4		38.45		8.69			
126.61		16	10 19	5352.88		34.68		245.94		128.33		120.76		17 39 32		4752.9		38.46		237.57			
53.39		8	31 54	1472.41		34.67		17.06		128.32		120.77		8 56 27		872.4		38.45		8.69			
126.61		16	10 19	5352.88		34.68		245.94		128.33		120.76		17 39 32		4752.9		38.46		237.57			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2278	TRA	1.1684	TC3	-6.0389	BAU	.9328	SGT	5374.6	SGR	873.0	SG3	328.5	ST	2239.9	SR	580.9	SS	670.6
RDE	.3289	RRA	-.2368	RC3	.5380	FAU	.04784	RRT	-.9011	RRF	-.9036	RTF	.9656	CRT	-.9956	CRS	.9258	CST	-.9558
FDE	-.5971	FRA	1.1440	FC3	-3.5986	BSP	17230	SGB	5445.0	R23	.0674	R13	-.9663	LSA	2400.9	MSA	199.6	SSA	18.6
BDE	1.2711	BRA	1.1921	BC3	6.0628	FSP	-1102	SG1	5432.1	SG2	374.5	THA	171.63	EL1	2313.4	EL2	53.0	ALF	165.51

LAUNCH DATE AUG 29 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 509.580

RL	151.09	LAL	-.00	LOL	335.25	VL	26.505	GAL	1.67	AZL	92.47	HCA	241.51	SMA	125.88	ECC	.20228	INC	2.4678	V1	29.490		
RP	108.15	LAP	2.17	LOP	216.73	VP	37.417	GAP	8.43	AZP	88.82	TAL	173.39	TAP	54.90	RCA	100.42	APO	151.34	V2	35.041		
RC	138.166	GL	-19.41	GP	23.67	ZAL	70.09	ZAP	149.51	ETS	44.58	ZAE	125.21	ETE	163.39	ZAC	123.88	ETC	257.51	CLP	-160.19		

PLANETOCENTRIC CONIC

C3	11.780	VHL	3.432	DLA	-42.80	RAL	265.39	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	6.093	DPA	4.50	RAP	241.09	ECC	1.1939		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
56.46		8	57 24	1445.26		32.95		13.41		130.95		119.03		9 21 29		845.3		36.53		5.12			
123.54		16	11 40	5389.77		32.96		248.08		130.96		119.02		17 41 29		4789.8		36.54		239.78			
56.46		8	57 24	1445.26		32.95		13.41		130.95		119.03		9 21 29		845.3		36.53		5.12			
123.54		16	11 40	5389.77		32.96		248.08		130.96		119.02		17 41 29		4789.8		36.54		239.78			
56.46		8	57 24	1445.26		32.95		13.41		130.95		119.03		9 21 29		845.3		36.53		5.12			
123.54		16	11 40	5389.77		32.96		248.08		130.96		119.02		17 41 29		4789.8		36.54		239.78			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.0797	TRA	1.3552	TC3	-6.0073	BAU	.9490	SGT	5455.2	SGR	827.7	SG3	316.5	ST	2029.6	SR	540.2	SS	592.3
RDE	.3075	RRA	-.2465	RC3	.4767	FAU	.04510	RRT	-.8867	RRF	-.8858	RTF	.9650	CRT	-.9867	CRS	.8690	CST	-.9365
FDE	-.4525	FRA	1.2177	FC3	-3.3147	BSP	17479	SGB	5517.6	R23	.0562	R13	-.9655	LSA	2170.8	MSA	222.2	SSA	19.1
BDE	1.1226	BRA	1.3774	BC3	6.0262	FSP	-1067	SG1	5504.6	SG2	379.2	THA	172.30	EL1	2098.6	EL2	84.8	ALF	165.26

LAUNCH DATE AUG 29 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 515.422

RL	151.09	LAL	-.00	LOL	335.25	VL	26.469	GAL	2.03	AZL	92.23	HCA	244.71	SMA	125.65	ECC	.20536	INC	2.2335	V1	29.490		
RP	108.19	LAP	2.02	LOP	219.94	VP	37.379	GAP	8.78	AZP	89.05	TAL	172.09	TAP	56.80	RCA	99.85	APO	151.46	V2	35.028		
RC	140.364	GL	-17.18	GP	22.36	ZAL	67.50	ZAP	151.24	ETS	45.02	ZAE	125.19	ETE	164.43	ZAC	122.86	ETC	258.04	CLP	-161.42		

PLANETOCENTRIC CONIC

C3	12.180	VHL	3.490	DLA	-40.62	RAL	268.56	RAD	6567.5	VEL	11.557	PTH	2.02	VHP	6.238	DPA	2.76	RAP	242.50	ECC	1.2004		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
59.57		9	23 20	1415.71		31.19		9.73		133.65		117.46		9 46 56		815.7		34.59		1.52			
120.43		16	11 0	5433.37		31.20		250.75		133.66		117.45		17 41 33		4833.4		34.60		242.54			
59.57		9	23 20	1415.71		31.19		9.73		133.65		117.46		9 46 56		815.7		34.59		1.52			
120.43		16	11 0	5433.37		31.20		250.75		133.66		117.45		17 41 33		4833.4		34.60		242.54			
59.57		9	23 20	1415.71		31.19		9.73		133.65		117.46		9 46 56		815.7		34.59		1.52			
120.43		16	11 0	5433.37		31.20		250.75		133.66		117.45		17 41 33		4833.4		34.60		242.54			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.9331	TRA	1.5495	TC3	-5.9119	BAU	.9651	SGT	5532.3	SGR	789.6	SG3	304.6	ST	1836.5	SR	507.8	SS	534.2
RDE	.2922	RRA	-.2559	RC3	.4222	FAU	.04245	RRT	-.8713	RRF	-.8670	RTF	.9646	CRT	-.9683	CRS	.7844	CST	-.9133
FDE	-.3249	FRA	1.2836	FC3	-3.0176	BSP	17733	SGB	5588.3	R23	.0458	R13	-.9650	LSA	1962.9	MSA	250.0	SSA	19.3
BDE	.9778	BRA	1.5705	BC3	5.9270	FSP	-1032	SG1	5575.1	SG2	384.5	THA	172.88	EL1	1901.5	EL2	122.5	ALF	164.95

LAUNCH DATE AUG 29 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 521.236

RL	151.09	LAL	-.00	LOL	335.25	VL	26.434	GAL	2.41	AZL	92.01	HCA	247.91	SMA	125.43	ECC	.20866	INC	2.0114	V1	29.490
RP	108.23	LAP	1.86	LOP	223.14	VP	37.341	GAP	9.14	AZP	89.24	TAL	170.78	TAP	58.68	RCA	99.26	APO	151.60	V2	35.014
RC	142.552	GL	-15.07	GP	21.18	ZAL	64.95	ZAP	152.85	ETS	45.57	ZAE	125.14	ETE	165.35	ZAC	121.96	ETC	258.57	CLP	-162.62

PLANETOCENTRIC CONIC

C3	12.709	VHL	3.565	DLA	-38.51	RAL	271.55	RAD	6567.5	VEL	11.580	PTH	2.03	VHP	6.396	DPA	1.15	RAP	244.00	ECC	1.2092

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.73	9 50 2	1382.80	29.42	5.93	136.40	116.06	10 13 5	782.8	32.66	357.80
117.27	16 8 8	5484.39	29.43	254.01	136.41	116.04	17 39 32	4884.4	32.67	245.89
62.73	9 50 2	1382.80	29.42	5.93	136.40	116.06	10 13 5	782.8	32.66	357.80
117.27	16 8 8	5484.39	29.43	254.01	136.41	116.04	17 39 32	4884.4	32.67	245.89
62.73	9 50 2	1382.80	29.42	5.93	136.40	116.06	10 13 5	782.8	32.66	357.80
117.27	16 8 8	5484.39	29.43	254.01	136.41	116.04	17 39 32	4884.4	32.67	245.89

DIFFERENTIAL CORRECTIONS

TDE	-.7862	TRA	1.7529	TC3	-5.7538	BAU	.9797
RDE	.2816	RRA	-.2656	RC3	.3723	FAU	.03979
FDE	-.2105	FRA	1.3441	FC3	-2.7102	BSP	17961
BDE	.8351	BRA	1.7729	BC3	5.7659	FSP	-995

MID-COURSE EXECUTION ACCURACY

SGT	5602.6	SGR	756.9	SG3	292.6		
RRT	-.8548	RRF	-.8474	RTF	.9642		
SGB	5653.5	R23	.0369	R13	-.9645		
SG1	5640.0	SG2	390.1	THA	173.38		

ORBIT DETERMINATION ACCURACY

ST	1666.8	SR	481.3	SS	495.4
CRT	-.9343	CRS	.6700	CST	-.8895
LSA	1781.8	MSA	283.0	SSA	19.2
EL1	1727.0	EL2	165.6	ALF	164.76

LAUNCH DATE AUG 29 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 527.021

RL	151.09	LAL	-.00	LOL	335.25	VL	26.398	GAL	2.81	AZL	91.80	HCA	251.10	SMA	125.21	ECC	.21220	INC	1.7994	V1	29.490
RP	108.27	LAP	1.70	LOP	226.34	VP	37.304	GAP	9.50	AZP	89.42	TAL	169.45	TAP	60.55	RCA	98.64	APO	151.77	V2	35.001
RC	144.730	GL	-13.08	GP	20.12	ZAL	62.45	ZAP	154.37	ETS	46.25	ZAE	125.07	ETE	166.17	ZAC	121.17	ETC	259.10	CLP	-163.78

PLANETOCENTRIC CONIC

C3	13.373	VHL	3.657	DLA	-36.47	RAL	274.36	RAD	6567.5	VEL	11.609	PTH	2.03	VHP	6.566	DPA	-.35	RAP	245.60	ECC	1.2201

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.98	10 17 52	1345.24	27.65	1.91	139.21	114.79	10 40 18	745.2	30.75	353.87
114.02	16 2 45	5543.93	27.67	257.92	139.21	114.78	17 35 9	4943.9	30.76	249.88
65.98	10 17 52	1345.24	27.65	1.91	139.21	114.79	10 40 18	745.2	30.75	353.87
114.02	16 2 45	5543.93	27.67	257.92	139.21	114.78	17 35 9	4943.9	30.76	249.88
65.98	10 17 52	1345.24	27.65	1.91	139.21	114.79	10 40 18	745.2	30.75	353.87
114.02	16 2 45	5543.93	27.67	257.92	139.21	114.78	17 35 9	4943.9	30.76	249.88

DIFFERENTIAL CORRECTIONS

TDE	-.6401	TRA	1.9654	TC3	-5.5462	BAU	.9933
RDE	.2749	RRA	-.2756	RC3	.3279	FAU	.03718
FDE	-.1096	FRA	1.3995	FC3	-2.4067	BSP	18185
BDE	.6966	BRA	1.9847	BC3	5.5559	FSP	-959

MID-COURSE EXECUTION ACCURACY

SGT	5667.9	SGR	728.9	SG3	280.8		
RRT	-.8377	RRF	-.8274	RTF	.9638		
SGB	5714.6	R23	.0294	R13	-.9641		
SG1	5700.9	SG2	395.8	THA	173.82		

ORBIT DETERMINATION ACCURACY

ST	1529.8	SR	459.9	SS	475.1
CRT	-.8782	CRS	.5350	CST	-.8729
LSA	1635.7	MSA	318.9	SSA	19.0
EL1	1583.3	EL2	212.6	ALF	164.93

LAUNCH DATE AUG 29 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 532.772

RL	151.09	LAL	-.00	LOL	335.25	VL	26.362	GAL	3.23	AZL	91.60	HCA	254.29	SMA	124.98	ECC	.21601	INC	1.5954	V1	29.490
RP	108.31	LAP	1.54	LOP	229.54	VP	37.266	GAP	9.87	AZP	89.57	TAL	168.11	TAP	62.40	RCA	97.98	APO	151.98	V2	34.988
RC	146.899	GL	-11.22	GP	19.16	ZAL	60.01	ZAP	155.78	ETS	47.06	ZAE	124.99	ETE	166.90	ZAC	120.46	ETC	259.62	CLP	-164.90

PLANETOCENTRIC CONIC

C3	14.180	VHL	3.766	DLA	-34.52	RAL	277.01	RAD	6567.6	VEL	11.643	PTH	2.04	VHP	6.748	DPA	-1.73	RAP	247.28	ECC	1.2334

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.37	10 47 30	1300.90	25.91	357.51	142.05	113.65	11 9 11	700.9	28.88	349.56
110.63	15 54 15	5613.91	25.93	262.60	142.06	113.64	17 27 49	5013.9	28.89	254.64
69.37	10 47 30	1300.90	25.91	357.51	142.05	113.65	11 9 11	700.9	28.88	349.56
110.63	15 54 15	5613.91	25.93	262.60	142.06	113.64	17 27 49	5013.9	28.89	254.64
69.37	10 47 30	1300.90	25.91	357.51	142.05	113.65	11 9 11	700.9	28.88	349.56
110.63	15 54 15	5613.91	25.93	262.60	142.06	113.64	17 27 49	5013.9	28.89	254.64

DIFFERENTIAL CORRECTIONS

TDE	-.5071	TRA	2.1738	TC3	-5.3352	BAU	1.0129
RDE	.2735	RRA	-.2839	RC3	.2943	FAU	.03514
FDE	-.0306	FRA	1.4400	FC3	-2.1451	BSP	18729
BDE	.5762	BRA	2.1923	BC3	5.3433	FSP	-945

MID-COURSE EXECUTION ACCURACY

SGT	5732.0	SGR	705.1	SG3	268.9		
RRT	-.8206	RRF	-.8075	RTF	.9644		
SGB	5775.3	R23	.0214	R13	-.9646		
SG1	5761.3	SG2	400.9	THA	174.21		

ORBIT DETERMINATION ACCURACY

ST	1435.4	SR	444.9	SS	466.8
CRT	-.8007	CRS	.4077	CST	-.8725
LSA	1534.0	MSA	350.3	SSA	18.5
EL1	1480.4	EL2	258.4	ALF	165.61

LAUNCH DATE AUG 29 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 538.492

RL	151.09	LAL	-.00	LOL	335.25	VL	26.326	GAL	3.67	AZL	91.40	HCA	257.49	SMA	124.76	ECC	.22011	INC	1.3979	V1	29.490
RP	108.35	LAP	1.36	LOP	232.73	VP	37.228	GAP	10.26	AZP	89.70	TAL	166.76	TAP	64.25	RCA	97.30	APO	152.22	V2	34.975
RC	149.057	GL	-9.48	GP	18.30	ZAL	57.64	ZAP	157.11	ETS	48.02	ZAE	124.90	ETE	167.54	ZAC	119.82	ETC	260.15	CLP	-166.00

PLANETOCENTRIC CONIC

C3	15.140	VHL	3.891	DLA	-32.66	RAL	279.51	RAD	6567.6	VEL	11.684	PTH	2.06	VHP	6.942	DPA	-3.00	RAP	249.03	ECC	1.2492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.01	11 20 0	1246.35	24.21	352.48	144.94	112.61	11 40 47	646.3	27.06	344.60
106.99	15 41 42	5697.60	24.22	268.28	144.94	112.60	17 16 40	5097.6	27.07	260.40
73.01	11 20 0	1246.35	24.21	352.48	144.94	112.61	11 40 47	646.3	27.06	344.60
106.99	15 41 42	5697.60	24.22	268.28	144.94	112.60	17 16 40	5097.6	27.07	260.40
110.00	14 43 23	5877.54	17.97	278.87	141.67	119.58	16 21 20	5277.5	21.77	271.80
110.00	17 17 30	5402.44	30.79	248.06	147.51	105.64	18 47 33	4802.4	32.62	239.33

DIFFERENTIAL CORRECTIONS

TDE	-.3493	TRA	2.4175	TC3	-5.0240	BAU	1.0182
RDE	.2708	RRA	-.2965	RC3	.2542	FAU	.03223
FDE	.0579	FRA	1.4962	FC3	-1.8433	BSP	18664
BDE	.4420	BRA	2.4356	BC3	5.0304	FSP	-892

MID-COURSE EXECUTION ACCURACY

SGT	5781.7	SGR	683.4	SG3	257.9		
RRT	-.8025	RRF	-.7875	RTF	.9634		
SGB	5822.0	R23	.0176	R13	-.9635		
SG1	5807.8	SG2	405.9	THA	174.55		

ORBIT DETERMINATION ACCURACY

ST	1373.8	SR	428.1	SS	474.4
CRT	-.6855	CRS	.2611	CST	-.8809
LSA	1465.7	MSA	383.7	SSA	18.0
EL1	1406.4	EL2	304.5	ALF	167.34

LAUNCH DATE AUG 29 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 544.174
RL 151.09 LAL -.00 LOL 335.25 VL 26.290 GAL 4.13 AZL 91.21 HCA 260.67 SMA 124.54 ECC .22452 INC 1.2053 VI 29.490
RP 108.39 LAP 1.19 LOP 235.92 VP 37.191 GAP 10.65 AZP 89.80 TAL 165.40 TAP 66.08 RCA 96.58 APO 152.50 V2 34.962
RC 151.205 GL -7.86 GP 17.51 ZAL 55.36 ZAP 158.36 ETS 49.14 ZAE 124.80 ETE 168.12 ZAC 119.26 ETC 260.68 CLP-167.08
PLANETOCENTRIC CONIC
C3 16.266 VHL 4.033 DLA -30.88 RAL 281.87 RAD 6567.7 VEL 11.732 PTH 2.07 VHP 7.150 DPA -4.19 RAP 250.85 ECC 1.2677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.13	11 57 35	1174.32	22.56	346.28	147.86	111.67	12 17 9	574.3	25.30	338.47
102.87	15 22 55	5802.08	22.57	275.48	147.86	111.66	16 59 37	5202.1	25.31	267.67
77.13	11 57 35	1174.32	22.56	346.28	147.86	111.67	12 17 9	574.3	25.30	338.47
102.87	15 22 55	5802.08	22.57	275.48	147.86	111.66	16 59 37	5202.1	25.31	267.67
110.00	14 17 0	720.67	13.41	308.40	143.03	121.74	14 29 1	120.7	17.51	301.68
110.00	18 2 40	5303.73	32.38	240.81	151.16	101.62	19 31 4	4703.7	33.64	231.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE -.1982 TRA 2.6646 TC3-4.7127 BAU 1.0260 SGT 5829.7 SGR 664.3 SG3 247.3 ST 1357.7 SR 415.0 SS 487.9
ROE .2715 RRA -.3084 RC3 .2216 FAU .02970 RRT -.7849 RRF -.7681 RTF .9630 CRT -.5534 CRS .1390 CST -.9009
FOE .1314 FRA 1.5436 FC3-1.5808 BSP 18765 SGB 5867.4 R23 .0137 R13 -.9631 LSA 1445.5 MSA 404.8 SSA 17.5
BOE .3361 BRA 2.6824 BC3 4.7179 FSP -852 SG1 5853.0 SG2 410.0 THA 174.86 EL1 1378.2 EL2 340.5 ALF 169.77

LAUNCH DATE AUG 29 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 549.815
RL 151.09 LAL -.00 LOL 335.25 VL 26.254 GAL 4.62 AZL 91.02 HCA 263.86 SMA 124.32 ECC .22927 INC 1.0164 VI 29.490
RP 108.43 LAP 1.01 LOP 239.11 VP 37.153 GAP 11.07 AZP 89.89 TAL 164.04 TAP 67.90 RCA 95.82 APO 152.82 V2 34.949
RC 153.343 GL -6.36 GP 16.80 ZAL 53.17 ZAP 159.53 ETS 50.43 ZAE 124.70 ETE 168.64 ZAC 118.74 ETC 261.22 CLP-168.13
PLANETOCENTRIC CONIC
C3 17.575 VHL 4.192 DLA -29.20 RAL 284.08 RAD 6567.7 VEL 11.788 PTH 2.08 VHP 7.370 DPA -5.28 RAP 252.73 ECC 1.2892

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.56	12 47 36	1060.74	20.96	337.16	150.81	110.81	13 5 17	460.7	23.60	329.42
97.44	14 50 34	663.24	20.97	308.00	150.81	110.80	15 1 38	63.2	23.61	300.26
100.00	14 16 25	772.82	16.77	314.23	148.93	115.11	14 29 18	172.8	20.01	306.94
100.00	16 4 27	5714.42	25.28	269.96	152.39	106.51	17 39 41	5114.4	27.30	261.74
110.00	14 0 33	822.78	9.69	313.96	144.90	122.94	14 14 16	222.8	13.96	307.47
110.00	18 36 48	5237.23	33.18	235.79	154.42	98.75	20 4 5	4637.2	34.03	226.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE -.0487 TRA 2.9203 TC3-4.3945 BAU 1.0335 SGT 5872.4 SGR 646.9 SG3 236.9 ST 1377.7 SR 404.2 SS 504.3
ROE .2745 RRA -.3203 RC3 .1937 FAU .02734 RRT -.7676 RRF -.7494 RTF .9628 CRT -.4164 CRS .0386 CST -.9239
FOE .1949 FRA 1.5864 FC3-1.3469 BSP 18926 SGB 5907.9 R23 .0104 R13 -.9629 LSA 1464.2 MSA 414.2 SSA 17.0
BOE .2787 BRA 2.9378 BC3 4.3988 FSP -818 SG1 5893.5 SG2 413.2 THA 175.14 EL1 1388.7 EL2 364.6 ALF 172.52

LAUNCH DATE AUG 29 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 555.411
RL 151.09 LAL -.00 LOL 335.25 VL 26.218 GAL 5.14 AZL 90.83 HCA 267.05 SMA 124.10 ECC .23438 INC .8299 VI 29.490
RP 108.47 LAP .83 LOP 242.29 VP 37.116 GAP 11.49 AZP 89.96 TAL 162.68 TAP 69.72 RCA 95.01 APO 153.18 V2 34.937
RC 155.470 GL -4.97 GP 16.15 ZAL 51.08 ZAP 160.63 ETS 51.92 ZAE 124.59 ETE 169.10 ZAC 118.28 ETC 261.76 CLP-169.16
PLANETOCENTRIC CONIC
C3 19.086 VHL 4.369 DLA -27.61 RAL 286.17 RAD 6567.8 VEL 11.852 PTH 2.10 VHP 7.605 DPA -6.28 RAP 254.66 ECC 1.3141

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 1 50	1062.26	15.19	334.76	151.98	114.19	13 19 33	462.3	18.33	327.49
90.00	14 53 0	700.32	23.77	311.72	155.29	105.86	15 4 40	100.3	25.72	303.59
100.00	13 40 55	935.96	11.82	323.81	150.30	117.66	13 56 31	336.0	15.43	316.88
100.00	16 56 36	5589.89	27.40	261.32	156.31	102.44	18 29 46	4989.9	28.84	252.81
110.00	13 48 52	911.01	6.39	318.66	147.04	123.65	14 4 3	311.0	10.77	312.31
110.00	19 5 9	5187.62	33.63	231.98	157.52	96.54	20 31 37	4587.6	34.17	222.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE .1020 TRA 3.1879 TC3-4.0713 BAU 1.0397 SGT 5910.4 SGR 630.8 SG3 226.9 ST 1425.7 SR 394.5 SS 522.2
ROE .2789 RRA -.3326 RC3 .1691 FAU .02508 RRT -.7507 RRF -.7314 RTF .9627 CRT -.2854 CRS -.0442 CST -.9442
FOE .2515 FRA 1.6271 FC3-1.1378 BSP 19084 SGB 5943.9 R23 .0077 R13 -.9628 LSA 1513.1 MSA 414.0 SSA 16.5
BOE .2970 BRA 3.2052 BC3 4.0748 FSP -786 SG1 5929.4 SG2 415.4 THA 175.40 EL1 1430.5 EL2 376.8 ALF 175.15

LAUNCH DATE AUG 29 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 560.957
RL 151.09 LAL -.00 LOL 335.25 VL 26.182 GAL 5.68 AZL 90.64 HCA 270.23 SMA 123.88 ECC .23991 INC .6445 VI 29.490
RP 108.51 LAP .64 LOP 245.48 VP 37.080 GAP 11.94 AZP 90.00 TAL 161.31 TAP 71.54 RCA 94.16 APO 153.60 V2 34.925
RC 157.587 GL -3.68 GP 15.56 ZAL 49.08 ZAP 161.66 ETS 53.62 ZAE 124.48 ETE 169.51 ZAC 117.85 ETC 262.31 CLP-170.17
PLANETOCENTRIC CONIC
C3 20.824 VHL 4.563 DLA -26.11 RAL 288.14 RAD 6567.8 VEL 11.925 PTH 2.12 VHP 7.855 DPA -7.21 RAP 256.64 ECC 1.3427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 27 16	1224.00	10.47	344.29	153.52	116.46	12 47 40	624.0	13.94	337.33
90.00	15 43 15	5868.08	25.76	281.38	159.14	102.19	17 21 4	5268.1	27.18	273.00
100.00	13 20 53	1050.86	8.11	330.32	152.27	118.87	13 38 24	450.9	11.90	323.59
100.00	17 32 20	5516.46	28.37	256.08	159.71	99.84	19 4 16	4916.5	29.44	247.44
110.00	13 40 4	990.69	3.37	322.85	149.35	124.04	13 56 34	390.7	7.81	316.58
110.00	19 29 39	5149.39	33.88	229.03	160.54	94.81	20 55 28	4549.4	34.18	219.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TOE .2547 TRA 3.4689 TC3-3.7470 BAU 1.0439 SGT 5943.3 SGR 615.5 SG3 217.4 ST 1493.3 SR 385.7 SS 540.2
ROE .2847 RRA -.3453 RC3 .1471 FAU .02291 RRT -.7344 RRF -.7142 RTF .9628 CRT -.1681 CRS -.1117 CST -.9602
FOE .3023 FRA 1.6668 FC3 -.9525 BSP 19228 SGB 5975.1 R23 .0054 R13 -.9628 LSA 1582.6 MSA 407.2 SSA 16.0
BOE .3820 BRA 3.4860 BC3 3.7499 FSP -755 SG1 5960.5 SG2 416.6 THA 175.63 EL1 1494.9 EL2 379.8 ALF 177.34

LAUNCH DATE AUG 29 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 566.449

```
RL  151.09 LAL   -.00 LOL 335.25 VL  26.146 GAL   6.26 AZL  90.46 HCA 273.41 SMA 123.67 ECC .24589 INC  .4592 V1  29.490
RP  108.54 LAP    .46 LOP 248.66 VP  37.043 GAP  12.41 AZP  90.03 TAL 159.95 TAP  73.36 RCA  93.26 APO 154.07 V2  34.913
RC 159.692 GL   -2.50 GP   15.02 ZAL  47.19 ZAP 162.63 ETS  55.56 ZAE 124.36 ETE 169.89 ZAC 117.46 ETC 262.87 CLP-171.17
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PLANETOCENTRIC CONIC

```
C3  22.816 VHL  4.777 DLA -24.70 RAL 289.99 RAD 6567.9 VEL 12.008 PTH   2.14 VHP  8.122 DPA  -8.05 RAP 258.66 ECC 1.3755
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 7 20	1339.29	6.90	350.88	155.60	117.53	12 29 40	739.3	10.53	344.09
90.00	16 17 58	5796.95	26.68	276.38	162.54	99.85	17 54 35	5196.9	27.77	267.88
100.00	13 6 54	1147.01	4.91	335.67	154.51	119.52	13 26 1	547.0	8.81	329.05
100.00	18 1 6	5464.45	28.92	252.31	162.94	97.93	19 32 10	4864.5	29.71	243.59
110.00	13 33 13	1064.45	.55	326.70	151.80	124.18	13 50 58	464.4	5.03	320.48
110.00	19 51 16	5119.78	34.03	226.73	163.54	93.46	21 16 35	4519.8	34.13	217.49

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .4100 TRA 3.7636 TC3-3.4278 BAU 1.0463   SGT 5971.1 SGR  600.6 SG3  208.3      ST  1572.7 SR   377.4 SS   557.5
RDE  .2915 RRA -.3581 RC3  .1277 FAU .02083   RRT -.7185 RRF -.6978 RTF  .9630      CRT -.0671 CRS -.1673 CST -.9720
FDE  .3481 FRA 1.7054 FC3 -.7903 BSP  19360   SGB 6001.2 R23  .0036 R13 -.9631      LSA 1664.1 MSA  396.5 SSA   15.5
BDE  .5031 BRA 3.7806 BC3 3.4301 FSP   -724   SG1 5986.7 SG2  416.6 THA 175.85      EL1 1573.0 EL2  376.5 ALF 179.02
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 571.878

```
RL  151.09 LAL   -.00 LOL 335.25 VL  26.111 GAL   6.87 AZL  90.27 HCA 276.59 SMA 123.45 ECC .25236 INC  .2729 V1  29.490
RP  108.58 LAP    .27 LOP 251.84 VP  37.007 GAP  12.91 AZP  90.03 TAL 158.59 TAP  75.18 RCA  92.30 APO 154.61 V2  34.901
RC 161.784 GL   -1.41 GP   14.53 ZAL  45.39 ZAP 163.53 ETS' 57.75 ZAE 124.24 ETE 170.23 ZAC 117.09 ETC 263.43 CLP-172.16
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PLANETOCENTRIC CONIC

```
C3  25.098 VHL  5.010 DLA -23.37 RAL 291.73 RAD 6568.0 VEL 12.103 PTH   2.17 VHP  8.407 DPA  -8.83 RAP 260.72 ECC 1.4131
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 53 15	1436.00	3.83	356.33	157.92	118.08	12 17 11	836.0	7.55	349.63
90.00	16 45 57	5746.91	27.22	272.81	165.79	98.14	18 21 44	5146.9	28.06	264.25
100.00	12 56 20	1232.39	2.03	340.37	156.92	119.83	13 16 52	632.4	5.99	333.82
100.00	18 25 34	5425.75	29.25	249.48	166.08	96.48	19 55 59	4825.8	29.83	240.72
110.00	13 27 47	1133.79	-2.10	330.32	154.34	124.13	13 46 40	533.8	2.39	324.12
110.00	20 10 36	5097.12	34.11	224.96	166.53	92.42	21 35 33	4497.1	34.07	215.72

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .5672 TRA 4.0722 TC3-3.1177 BAU 1.0468   SGT 5993.2 SGR  585.8 SG3  199.6      ST  1657.1 SR   369.5 SS   573.4
RDE  .2994 RRA -.3710 RC3  .1103 FAU .01884   RRT -.7031 RRF -.6822 RTF  .9634      CRT  .0176 CRS -.2127 CST -.9803
FDE  .3893 FRA 1.7433 FC3 -.6499 BSP  19509   SGB 6021.8 R23  .0023 R13 -.9634      LSA 1750.3 MSA  384.2 SSA   15.0
BDE  .6413 BRA 4.0891 BC3 3.1197 FSP   -696   SG1 6007.4 SG2  415.6 THA 176.05      EL1 1657.1 EL2  369.4 ALF    .24
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 577.237

```
RL  151.09 LAL   -.00 LOL 335.25 VL  26.076 GAL   7.51 AZL  90.08 HCA 279.76 SMA 123.24 ECC .25937 INC  .0836 V1  29.490
RP  108.61 LAP    .08 LOP 255.01 VP  36.972 GAP  13.43 AZP  90.01 TAL 157.24 TAP  77.00 RCA  91.28 APO 155.21 V2  34.890
RC 163.865 GL    -.41 GP   14.08 ZAL  43.69 ZAP 164.37 ETS  60.23 ZAE 124.12 ETE 170.54 ZAC 116.74 ETC 264.00 CLP-173.15
```

PLANETOCENTRIC CONIC

```
C3  27.710 VHL  5.264 DLA -22.12 RAL 293.37 RAD 6568.1 VEL 12.210 PTH   2.19 VHP  8.712 DPA  -9.53 RAP 262.81 ECC 1.4560
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 42 32	1521.94	1.06	1.13	160.39	118.30	12 7 54	921.9	4.84	354.48
90.00	17 9 45	5710.03	27.54	270.16	168.95	96.85	18 44 56	5110.0	28.21	261.56
100.00	12 48 1	1310.55	-.62	344.66	159.45	119.89	13 9 52	710.6	3.37	338.14
100.00	18 46 57	5396.65	29.45	247.34	169.18	95.37	20 16 54	4796.7	29.88	238.56
110.00	13 23 24	1199.67	-4.61	333.77	156.97	123.91	13 43 23	599.7	-.13	327.55
110.00	20 28 4	5080.30	34.15	223.65	169.52	91.64	21 52 44	4480.3	34.00	214.41

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .7273 TRA 4.3965 TC3-2.8196 BAU 1.0451   SGT 6010.3 SGR  570.9 SG3  191.3      ST  1742.5 SR   361.8 SS   587.7
RDE  .3082 RRA -.3838 RC3  .0949 FAU .01696   RRT -.6880 RRF -.6672 RTF  .9640      CRT  .0883 CRS -.2505 CST -.9861
FDE  .4264 FRA 1.7807 FC3 -.5297 BSP  19664   SGB 6037.3 R23  .0012 R13 -.9640      LSA 1837.0 MSA  371.2 SSA   14.6
BDE  .7899 BRA 4.4132 BC3 2.8212 FSP   -670   SG1 6023.1 SG2  413.4 THA 176.24      EL1 1742.8 EL2  360.3 ALF   1.10
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 582.515

```
RL  151.09 LAL   -.00 LOL 335.25 VL  26.041 GAL   8.20 AZL  89.89 HCA 282.94 SMA 123.03 ECC .26700 INC  .1074 V1  29.490
RP  108.65 LAP   -.11 LOP 258.18 VP  36.937 GAP  13.99 AZP  89.98 TAL 155.90 TAP  78.84 RCA  90.18 APO 155.88 V2  34.880
RC 165.932 GL     .50 GP   13.67 ZAL  42.09 ZAP 165.14 ETS  63.01 ZAE 123.98 ETE 170.82 ZAC 116.42 ETC 264.57 CLP-174.12
```

PLANETOCENTRIC CONIC

```
C3  30.699 VHL  5.541 DLA -20.96 RAL 294.91 RAD 6568.2 VEL 12.332 PTH   2.22 VHP  9.040 DPA -10.16 RAP 264.92 ECC 1.5052
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 34 1	1600.59	-1.48	5.52	162.97	118.28	12 0 42	1000.6	2.31	358.89
90.00	17 30 33	5682.64	27.75	268.18	172.07	95.88	19 5 16	5082.6	28.27	259.56
100.00	12 41 18	1383.42	-3.08	348.66	162.08	119.75	13 4 22	783.4	.90	342.14
100.00	19 5 57	5375.04	29.58	245.75	172.26	94.54	20 35 32	4775.0	29.89	236.96
110.00	13 19 49	1262.72	-7.00	337.09	159.66	123.54	13 40 52	662.7	-2.54	330.84
110.00	20 43 56	5068.51	34.17	222.73	172.53	91.10	22 8 24	4468.5	33.94	213.49

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .8904 TRA 4.7369 TC3-2.5355 BAU 1.0412   SGT 6021.4 SGR  555.6 SG3  183.4      ST  1825.2 SR   354.1 SS   600.8
RDE  .3179 RRA -.3963 RC3  .0811 FAU .01516   RRT -.6731 RRF -.6527 RTF  .9648      CRT  .1474 CRS -.2824 CST -.9901
FDE  .4603 FRA 1.8182 FC3 -.4275 BSP  19841   SGB 6047.0 R23  .0003 R13 -.9648      LSA 1920.7 MSA  358.1 SSA   14.1
BDE  .9454 BRA 4.7534 BC3 2.5368 FSP   -646   SG1 6033.1 SG2  410.1 THA 176.43      EL1 1825.9 EL2  350.1 ALF   1.70
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 587.702

```
RL  151.09 LAL   -.00 LOL 335.25 VL  26.006 GAL   8.94 AZL  89.70 HCA 286.11 SMA 122.83 ECC .27530 INC  .3044 V1  29.490
RP  108.68 LAP   -.29 LOP 261.36 VP  36.903 GAP  14.58 AZP  89.92 TAL 154.58 TAP  80.69 RCA  89.01 APO 156.64 V2  34.869
RC 167.985 GL    1.34 GP   13.29 ZAL  40.58 ZAP 165.85 ETS  66.13 ZAE 123.84 ETE 171.08 ZAC 116.10 ETC 265.14 CLP-175.10
```

PLANETOCENTRIC CONIC

```
C3  34.126 VHL  5.842 DLA -19.87 RAL 296.36 RAD 6568.3 VEL 12.470 PTH   2.26 VHP  9.393 DPA -10.72 RAP 267.06 ECC 1.5616
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 27 5	1673.88	-3.84	9.61	165.63	118.08	11 54 59	1073.9	-.05	2.98
90.00	17 49 1	5662.64	27.88	266.74	175.17	95.16	19 23 24	5062.6	28.30	258.10
100.00	12 35 47	1452.19	-5.40	352.46	164.77	119.45	12 59 59	852.2	-1.43	345.91
100.00	19 23 0	5359.57	29.66	244.60	175.33	93.94	20 52 20	4759.6	29.89	235.80
110.00	13 16 53	1323.39	-9.27	340.33	162.41	123.05	13 38 56	723.4	-4.85	334.02
110.00	20 58 24	5061.12	34.18	222.15	175.55	90.75	22 22 45	4461.1	33.90	212.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.0581 TRA 5.0962 TC3-2.2652 BAU 1.0339   SGT 6027.3 SGR  539.9 SG3  175.8   ST  1904.1 SR   346.3 SS   612.7
RDE  .3282 RRA -.4084 RC3  .0687 FAU .01342   RRT -.6582 RRF -.6385 RTF  .9658   CRT  .1974 CRS -.3097 CST -.9930
FDE  .4917 FRA 1.8566 FC3 -.3406 BSP  20014   SGB 6051.5 R23 -.0002 R13 -.9658   LSA 2000.4 MSA  345.3 SSA   13.7
BDE 1.1078 BRA 5.1125 BC3 2.2663 FSP   -624   SG1 6037.8 SG2  405.7 THA 176.61   EL1 1905.4 EL2  339.3 ALF   2.12
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 592.783

```
RL  151.09 LAL   -.00 LOL 335.25 VL  25.972 GAL   9.72 AZL  89.49 HCA 289.28 SMA 122.62 ECC .28435 INC  .5080 V1  29.490
RP  108.71 LAP   -.48 LOP 264.53 VP  36.869 GAP  15.21 AZP  89.83 TAL 153.29 TAP  82.56 RCA  87.76 APO 157.49 V2  34.859
RC 170.025 GL    2.11 GP   12.94 ZAL  39.17 ZAP 166.48 ETS  69.60 ZAE 123.68 ETE 171.32 ZAC 115.80 ETC 265.72 CLP-176.08
```

PLANETOCENTRIC CONIC

```
C3  38.060 VHL  6.169 DLA -18.86 RAL 297.71 RAD 6568.5 VEL 12.627 PTH   2.29 VHP  9.773 DPA -11.23 RAP 269.20 ECC 1.6264
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 21 20	1742.97	-6.04	13.50	168.36	117.72	11 50 23	1143.0	-2.28	6.83
90.00	18 5 35	5648.68	27.96	265.72	178.25	94.66	19 39 43	5048.7	28.31	257.07
100.00	12 31 10	1517.60	-7.57	356.10	167.53	119.00	12 56 28	917.6	-3.65	349.51
100.00	19 38 25	5349.28	29.70	243.84	178.39	93.54	21 7 35	4749.3	29.88	235.04
110.00	13 14 27	1382.01	-11.42	343.49	165.21	122.44	13 37 29	782.0	-7.06	337.11
110.00	21 11 38	5057.64	34.18	221.88	178.58	90.59	22 35 56	4457.6	33.88	212.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.2309 TRA 5.4760 TC3-2.0101 BAU 1.0232   SGT 6028.2 SGR  523.5 SG3  168.6   ST  1977.8 SR   338.4 SS   624.0
RDE  .3392 RRA -.4198 RC3  .0575 FAU .01176   RRT -.6433 RRF -.6244 RTF  .9670   CRT  .2401 CRS -.3336 CST -.9950
FDE  .5212 FRA 1.8965 FC3 -.2674 BSP  20193   SGB 6050.8 R23 -.0005 R13 -.9670   LSA 2074.8 MSA  332.6 SSA   13.2
BDE 1.2768 BRA 5.4921 BC3 2.0109 FSP   -602   SG1 6037.6 SG2  400.2 THA 176.79   EL1 1979.5 EL2  328.2 ALF   2.42
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 597.741

```
RL  151.09 LAL   -.00 LOL 335.25 VL  25.938 GAL  10.57 AZL  89.28 HCA 292.45 SMA 122.43 ECC .29426 INC  .7193 V1  29.490
RP  108.74 LAP   -.66 LOP 267.70 VP  36.837 GAP  15.90 AZP  89.73 TAL 152.02 TAP  84.46 RCA  86.40 APO 158.45 V2  34.850
RC 172.049 GL    2.81 GP   12.63 ZAL  37.85 ZAP 167.04 ETS  73.46 ZAE 123.51 ETE 171.55 ZAC 115.50 ETC 266.30 CLP-177.07
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PLANETOCENTRIC CONIC

```
C3  42.589 VHL  6.526 DLA -17.91 RAL 298.98 RAD 6568.6 VEL 12.804 PTH   2.33 VHP 10.186 DPA -11.66 RAP 271.36 ECC 1.7009
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 16 29	1808.61	-8.10	17.22	171.14	117.23	11 46 38	1208.6	-4.39	10.50
90.00	18 20 31	5639.81	28.01	265.08	181.31	94.34	19 54 31	5039.8	28.32	256.43
100.00	12 27 16	1580.19	-9.62	359.61	170.33	118.44	12 53 37	980.2	-5.75	352.97
100.00	19 52 25	5343.46	29.72	243.41	181.44	93.32	21 21 28	4743.5	29.87	234.61
110.00	13 12 25	1438.78	-13.48	346.61	168.05	121.72	13 36 23	838.8	-9.19	340.14
110.00	21 23 46	5057.64	34.18	221.88	181.62	90.59	22 48 4	4457.6	33.88	212.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.4108 TRA 5.8798 TC3-1.7690 BAU 1.0076   SGT 6024.7 SGR  506.4 SG3  161.8   ST  2046.4 SR   330.2 SS   635.2
RDE  .3508 RRA -.4305 RC3  .0473 FAU .01011   RRT -.6280 RRF -.6102 RTF  .9683   CRT  .2773 CRS -.3551 CST -.9964
FDE  .5496 FRA 1.9389 FC3 -.2055 BSP  20350   SGB 6045.9 R23 -.0007 R13 -.9683   LSA 2144.2 MSA  320.2 SSA   12.8
BDE 1.4538 BRA 5.8955 BC3 1.7697 FSP   -581   SG1 6033.1 SG2  393.5 THA 176.97   EL1 2048.5 EL2  316.9 ALF   2.63
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 602.554

```
RL  151.09 LAL   -.00 LOL 335.25 VL  25.904 GAL  11.47 AZL  89.06 HCA 295.61 SMA 122.23 ECC .30511 INC  .9402 V1  29.490
RP  108.77 LAP   -.85 LOP 270.86 VP  36.805 GAP  16.64 AZP  89.59 TAL 150.79 TAP  86.40 RCA  84.94 APO 159.52 V2  34.841
RC 174.060 GL    3.45 GP   12.33 ZAL  36.63 ZAP 167.52 ETS  77.70 ZAE 123.31 ETE 171.76 ZAC 115.21 ETC 266.87 CLP-178.07
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PLANETOCENTRIC CONIC

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C3  47.817 VHL  6.915 DLA -17.03 RAL 300.15 RAD 6568.8 VEL 13.007 PTH   2.37 VHP 10.634 DPA -12.04 RAP 273.51 ECC 1.7869
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 12 21	1871.30	-10.03	20.81	173.96	116.62	11 43 33	1271.3	-6.38	14.03
90.00	18 34 2	5635.30	28.03	264.75	184.35	94.18	20 7 58	5035.3	28.32	256.10
100.00	12 23 57	1640.31	-11.55	3.03	173.17	117.76	12 51 17	1040.3	-7.74	356.31
100.00	20 5 8	5341.53	29.73	243.27	184.48	93.24	21 34 10	4741.5	29.86	234.46
110.00	13 10 42	1493.85	-15.43	349.69	170.93	120.89	13 35 35	893.9	-11.22	343.11
110.00	21 34 53	5060.75	34.18	222.12	184.66	90.74	22 59 13	4460.7	33.90	212.89

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.6000 TRA 6.3109 TC3-1.5415 BAU  .9858   SGT 6017.5 SGR  488.4 SG3  155.3   ST  2110.3 SR   321.7 SS   646.8
RDE  .3628 RRA -.4400 RC3  .0381 FAU .00847   RRT -.6121 RRF -.5956 RTF  .9699   CRT  .3105 CRS -.3751 CST -.9974
FDE  .5779 FRA 1.9845 FC3 -.1534 BSP  20453   SGB 6037.3 R23 -.0007 R13 -.9699   LSA 2209.1 MSA  307.8 SSA   12.4
BDE 1.6406 BRA 6.3262 BC3 1.5420 FSP   -560   SG1 6024.9 SG2  385.7 THA 177.14   EL1 2112.7 EL2  305.4 ALF   2.77
```

LAUNCH DATE AUG 29 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 607.196

RL	151.09	LAL	-.00	LOL	335.25	VL	25.872	GAL	12.45	AZL	88.83	HCA	298.78	SMA	122.04	ECC	.31705	INC	1.1732	VI	29.490
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.774	GAP	17.44	AZP	89.44	TAL	149.60	TAP	88.37	RCA	83.35	APO	160.73	V2	34.833
RC	176.055	GL	4.04	GP	12.07	ZAL	35.49	ZAP	167.90	ETS	82.34	ZAE	123.10	ETE	171.96	ZAC	114.93	ETC	267.45	CLP	-179.08

PLANETOCENTRIC CONIC

C3	53.874	VHL	7.340	DLA	-16.21	RAL	301.25	RAD	6568.9	VEL	13.238	PTH	2.42	VHP	11.124	DPA	-12.37	RAP	275.66	ECC	1.8866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 8 48	1931.37	-11.84	24.29	176.80	115.91	11 40 59	1331.4	-8.26	17.44
90.00	18 46 18	5634.59	28.04	264.70	187.37	94.15	20 20 13	5034.6	28.32	256.04
100.00	12 21 4	1698.16	-13.36	6.37	176.03	116.99	12 49 23	1098.2	-9.64	359.57
100.00	20 16 43	5343.04	29.73	243.38	187.50	93.30	21 45 46	4743.0	29.87	234.58
110.00	13 9 14	1547.31	-17.27	352.73	173.83	119.97	13 35 1	947.3	-13.16	346.04
110.00	21 45 3	5066.65	34.17	222.59	187.70	91.01	23 9 30	4466.7	33.93	213.35

DIFFERENTIAL CORRECTIONS

TDE	1.8000	TRA	6.7723	TC3	-1.3278	BAU	.9566
RDE	.3755	RRA	-.4481	RC3	.0299	FAU	.00682
FDE	.6066	FRA	2.0343	FC3	-.1095	BSP	20497
BDE	1.8387	BRA	6.7871	BC3	1.3282	FSP	-537

MID-COURSE EXECUTION ACCURACY

SGT	6006.9	SGR	469.6	SG3	149.3		
RRT	-.5953	RRF	-.5802	RTF	.9716		
SGB	6025.3	R23	-.0006	R13	-.9716		
SG1	6013.5	SG2	376.9	THA	177.33		

ORBIT DETERMINATION ACCURACY

ST	2169.2	SR	312.8	SS	659.1
CRT	.3408	CRS	-.3941	CST	-.9982
LSA	2269.4	MSA	295.5	SSA	12.0
EL1	2171.9	EL2	293.7	ALF	2.87

LAUNCH DATE AUG 29 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 611.634

RL	151.09	LAL	-.00	LOL	335.25	VL	25.839	GAL	13.52	AZL	88.58	HCA	301.94	SMA	121.85	ECC	.33021	INC	1.4206	VI	29.490
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.744	GAP	18.31	AZP	89.25	TAL	148.46	TAP	90.40	RCA	81.62	APO	162.09	V2	34.825
RC	178.036	GL	4.58	GP	11.82	ZAL	34.45	ZAP	168.18	ETS	87.35	ZAE	122.86	ETE	172.16	ZAC	114.65	ETC	268.01	CLP	179.88

PLANETOCENTRIC CONIC

C3	60.922	VHL	7.805	DLA	-15.46	RAL	302.25	RAD	6569.1	VEL	13.501	PTH	2.47	VHP	11.660	DPA	-12.63	RAP	277.79	ECC	2.0026

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 5 42	1989.03	-13.53	27.68	179.66	115.11	11 38 51	1389.0	-10.04	20.75
90.00	18 57 25	5637.21	28.02	264.89	190.36	94.25	20 31 22	5037.2	28.32	256.24
100.00	12 18 34	1753.91	-15.06	9.64	178.90	116.13	12 47 48	1153.9	-11.42	2.74
100.00	20 27 14	5347.57	29.71	243.71	190.49	93.48	21 56 22	4747.6	29.87	234.91
110.00	13 7 57	1599.19	-19.01	355.75	176.75	118.96	13 34 37	999.2	-15.00	348.93
110.00	21 54 20	5075.05	34.16	223.24	190.72	91.40	23 18 55	4475.0	33.97	214.00

DIFFERENTIAL CORRECTIONS

TDE	2.0168	TRA	7.2698	TC3	-1.1271	BAU	.9182
RDE	.3888	RRA	-.4545	RC3	.0224	FAU	.00512
FDE	.6363	FRA	2.0892	FC3	-.0727	BSP	20428
BDE	2.0539	BRA	7.2840	BC3	1.1274	FSP	-513

MID-COURSE EXECUTION ACCURACY

SGT	5995.3	SGR	450.0	SG3	143.6		
RRT	-.5766	RRF	-.5635	RTF	.9735		
SGB	6012.1	R23	.0000	R13	-.9735		
SG1	6000.9	SG2	367.3	THA	177.51		

ORBIT DETERMINATION ACCURACY

ST	2225.7	SR	303.7	SS	672.8
CRT	.3698	CRS	-.4128	CST	-.9987
LSA	2327.7	MSA	283.0	SSA	11.5
EL1	2228.5	EL2	281.8	ALF	2.94

LAUNCH DATE AUG 29 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 615.829

RL	151.09	LAL	-.00	LOL	335.25	VL	25.808	GAL	14.67	AZL	88.31	HCA	305.10	SMA	121.67	ECC	.34476	INC	1.6855	VI	29.490
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.715	GAP	19.27	AZP	89.03	TAL	147.39	TAP	92.49	RCA	79.72	APO	163.62	V2	34.818
RC	180.002	GL	5.07	GP	11.59	ZAL	33.51	ZAP	168.35	ETS	92.70	ZAE	122.59	ETE	172.34	ZAC	114.36	ETC	268.57	CLP	178.82

PLANETOCENTRIC CONIC

C3	69.163	VHL	8.316	DLA	-14.76	RAL	303.17	RAD	6569.3	VEL	13.803	PTH	2.52	VHP	12.250	DPA	-12.85	RAP	279.91	ECC	2.1382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 2 58	2044.39	-15.11	30.98	182.51	114.24	11 37 2	1444.4	-11.71	23.96
90.00	19 7 28	5642.76	27.99	265.29	193.31	94.45	20 41 30	5042.8	28.32	256.64
100.00	12 16 21	1807.59	-16.64	12.84	181.77	115.20	12 46 29	1207.6	-13.11	5.83
100.00	20 36 45	5354.79	29.68	244.25	193.44	93.76	22 6 0	4754.8	29.88	235.45
110.00	13 6 50	1649.47	-20.64	358.74	179.67	117.88	13 34 19	1049.5	-16.75	351.78
110.00	22 2 46	5085.68	34.14	224.07	193.70	91.89	23 27 32	4485.7	34.02	214.83

DIFFERENTIAL CORRECTIONS

TDE	2.2411	TRA	7.8069	TC3	-.9394	BAU	.8687
RDE	.4027	RRA	-.4585	RC3	.0159	FAU	.00335
FDE	.6674	FRA	2.1501	FC3	-.0419	BSP	20290
BDE	2.2770	BRA	7.8203	BC3	.9395	FSP	-488

MID-COURSE EXECUTION ACCURACY

SGT	5980.1	SGR	429.4	SG3	138.3		
RRT	-.5569	RRF	-.5451	RTF	.9755		
SGB	5995.5	R23	-.0001	R13	-.9755		
SG1	5984.9	SG2	356.3	THA	177.70		

ORBIT DETERMINATION ACCURACY

ST	2273.8	SR	294.2	SS	688.0
CRT	.3958	CRS	-.4315	CST	-.9991
LSA	2378.4	MSA	270.7	SSA	11.1
EL1	2276.9	EL2	269.8	ALF	2.97

LAUNCH DATE AUG 29 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 619.727

RL	151.09	LAL	-.00	LOL	335.25	VL	25.777	GAL	15.94	AZL	88.03	HCA	308.26	SMA	121.50	ECC	.36091	INC	1.9717	VI	29.490
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.688	GAP	20.33	AZP	88.78	TAL	146.40	TAP	94.65	RCA	77.65	APO	165.34	V2	34.812
RC	181.954	GL	5.51	GP	11.38	ZAL	32.66	ZAP	168.40	ETS	98.31	ZAE	122.27	ETE	172.53	ZAC	114.08	ETC	269.12	CLP	177.71

PLANETOCENTRIC CONIC

C3	78.850	VHL	8.880	DLA	-14.12	RAL	303.99	RAD	6569.5	VEL	14.149	PTH	2.58	VHP	12.902	DPA	-13.02	RAP	281.99	ECC	2.2977

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 0 31	2097.46	-16.57	34.20	185.33	113.30	11 35 29	1497.5	-13.27	27.07
90.00	19 16 28	5650.91	27.95	265.88	196.19	94.74	20 50 39	5050.9	28.31	257.24
100.00	12 14 22	1859.21	-18.11	15.97	184.62	114.20	12 45 21	1259.2	-14.69	8.85
100.00	20 45 19	5364.39	29.63	244.96	196.34	94.13	22 14 43	4764.4	29.89	236.16
110.00	13 5 48	1698.09	-22.16	1.70	182.57	116.72	13 34 6	1098.1	-18.39	354.59
110.00	22 10 22	5098.28	34.10	225.05	196.64	92.47	23 35 20	4498.3	34.07	215.81

DIFFERENTIAL CORRECTIONS

TDE	2.4861	TRA	8.3886	TC3	-.7647	BAU	.8062
RDE	.4175	RRA	-.4595	RC3	.0103	FAU	.00149
FDE	.7005	FRA	2.2181	FC3	-.0164	BSP	20022
BDE	2.5209	BRA	8.4012	BC3	.7648	FSP	-462

MID-COURSE EXECUTION ACCURACY

SGT	5964.0	SGR	407.9	SG3	133.4		
RRT	-.5340	RRF	-.5240	RTF	.9777		
SGB	5977.9	R23	.0002	R13	-.9777		
SG1	5968.0	SG2	344.7	THA	177.90		

ORBIT DETERMINATION ACCURACY

ST	2319.1	SR	284.6	SS	705.3
CRT	.4220	CRS	-.4507	CST	-.9994
LSA	2426.9	MSA	258.3	SSA	10.7
EL1	2322.3	EL2	257.7	ALF	3.00

LAUNCH DATE AUG 30 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 8 1970

HELIOCENTRIC CONIC DISTANCE 163.898

RL	151.05	LAL	-.00	LOL	336.22	VL	23.308	GAL	-.90	AZL	91.98	HCA	67.55	SMA	109.32	ECC	.38198	INC	1.9836
RP	108.17	LAP	-1.83	LOP	43.75	VP	35.211	GAP	-22.45	AZP	90.76	TAL	181.46	TAP	249.01	RCA	67.56	APO	151.08
RC	40.367	GL	-7.41	GP	-8.67	ZAL	89.68	ZAP	13.93	ETS	138.88	ZAE	174.23	ETE	334.80	ZAC	91.61	ETC	259.04

V1	29.497	V2	35.033	CLP	10.94														

PLANETOCENTRIC CONIC

C3	39.136	VHL	6.256	DLA	-28.70	RAL	243.25	RAD	6568.5	VEL	12.669	PTH	2.30	VHP	13.608	DPA	-25.99	RAP	229.82
ECC	1.6441																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.13	10 21 34	1190.58	15.47	344.29	122.86	114.48	10 41 25	590.6	18.65	337.03
94.87	11 42 57	927.11	15.49	325.00	122.86	114.47	11 58 24	327.1	18.66	317.73
100.00	11 12 45	1024.46	8.97	328.84	119.54	118.63	11 29 49	424.5	12.73	322.06
100.00	13 34 28	5856.50	22.19	279.39	125.80	110.55	15 12 4	5256.5	24.79	271.55
110.00	11 7 5	1042.24	1.40	325.54	114.90	124.16	11 24 28	442.2	5.87	319.31
110.00	15 56 36	5411.48	30.62	248.72	128.90	105.99	17 26 48	4811.5	32.51	240.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.1717	TRA	-.7301	TC3	.0674	BAU	.0380	SGT	782.9	SGR	441.4	SG3	57.8	ST	277.5	SR	440.0	SS	177.6
RDE	-.4804	RRA	-.0104	RC3	-.0272	FAU	.01974	RRT	-.1845	RRF	.1982	RTF	-.6613	CRT	-.5605	CRS	-.6566	CST	.9871
FDE	-.1091	FRA	.3576	FC3	-.4366	BSP	2066	SGB	898.8	R23	-.0236	R13	.6654	LSA	496.3	MSA	235.8	SSA	15.3
BDE	.5101	BRA	.7301	BC3	.0727	FSP	-129	SG1	788.9	SG2	430.5	THA	171.52	EL1	474.5	EL2	213.1	ALF	114.79

LAUNCH DATE AUG 30 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 170.541

RL	151.05	LAL	-.00	LOL	336.22	VL	23.680	GAL	-1.01	AZL	91.77	HCA	70.75	SMA	110.92	ECC	.36215	INC	1.7694
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.472	GAP	-21.19	AZP	90.58	TAL	181.78	TAP	252.53	RCA	70.75	APO	151.09
RC	40.182	GL	-7.15	GP	-9.10	ZAL	90.15	ZAP	12.90	ETS	132.42	ZAE	171.48	ETE	336.90	ZAC	91.38	ETC	259.27

V1	29.497	V2	35.046	CLP	9.18														

PLANETOCENTRIC CONIC

C3	34.513	VHL	5.875	DLA	-28.36	RAL	242.78	RAD	6568.4	VEL	12.485	PTH	2.26	VHP	12.908	DPA	-26.84	RAP	231.19
ECC	1.5680																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.41	10 46 56	1070.72	16.17	335.83	120.26	113.61	11 4 47	470.7	19.23	328.49
91.59	11 13 52	983.44	16.19	329.45	120.26	113.60	11 30 15	383.4	19.25	322.11
100.00	11 1 27	1023.59	9.00	328.79	116.66	118.62	11 18 31	423.6	12.76	322.01
100.00	13 42 1	5793.85	23.63	275.29	123.34	108.86	15 18 35	5193.9	25.99	267.28
110.00	11 0 54	1025.32	2.04	324.66	112.40	124.13	11 18 0	425.3	6.51	318.42
110.00	15 59 3	5364.89	31.45	245.34	125.94	104.15	17 28 28	4764.9	33.07	236.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.1731	TRA	-.7125	TC3	.1039	BAU	.0514	SGT	816.6	SGR	446.5	SG3	64.0	ST	290.9	SR	443.9	SS	181.5
RDE	-.4552	RRA	-.0063	RC3	-.0403	FAU	.02074	RRT	-.2063	RRF	.2221	RTF	-.6816	CRT	-.5765	CRS	-.6522	CST	.9899
FDE	-.1093	FRA	.3655	FC3	-.5203	BSP	2195	SGB	930.7	R23	-.0269	R13	.6861	LSA	506.5	MSA	240.5	SSA	15.8
BDE	.4870	BRA	.7125	BC3	.1114	FSP	-145	SG1	823.8	SG2	433.1	THA	171.08	EL1	483.9	EL2	218.1	ALF	116.47

LAUNCH DATE AUG 30 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 177.215

RL	151.05	LAL	-.00	LOL	336.22	VL	24.023	GAL	-1.13	AZL	91.56	HCA	73.96	SMA	112.46	ECC	.34365	INC	1.5634
RP	108.09	LAP	-1.50	LOP	50.17	VP	35.715	GAP	-19.98	AZP	90.43	TAL	182.16	TAP	256.12	RCA	73.81	APO	151.11
RC	40.174	GL	-6.81	GP	-9.57	ZAL	90.75	ZAP	12.08	ETS	124.77	ZAE	168.69	ETE	337.67	ZAC	91.09	ETC	259.50

V1	29.497	V2	35.060	CLP	7.41														

PLANETOCENTRIC CONIC

C3	30.517	VHL	5.524	DLA	-27.92	RAL	242.17	RAD	6568.2	VEL	12.324	PTH	2.22	VHP	12.240	DPA	-27.71	RAP	232.54
ECC	1.5022																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 7	1132.13	13.20	338.93	115.88	115.28	10 34 59	532.1	16.50	331.80
90.00	11 39 50	860.07	20.40	322.22	119.02	110.07	11 54 10	260.1	22.95	314.47
100.00	10 48 15	1028.24	8.85	329.05	113.63	118.67	11 5 23	428.2	12.61	322.28
100.00	13 50 24	5727.23	25.03	270.83	120.70	106.90	15 25 51	5127.2	27.10	262.64
110.00	10 53 4	1013.11	2.51	324.02	109.74	124.10	11 9 57	413.1	6.97	317.77
110.00	16 2 4	5315.12	32.22	241.66	122.81	102.10	17 30 39	4715.1	33.55	232.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.1743	TRA	-.6946	TC3	.1482	BAU	.0648	SGT	851.0	SGR	451.5	SG3	70.9	ST	304.2	SR	447.1	SS	184.4
RDE	-.4310	RRA	-.0027	RC3	-.0571	FAU	.02185	RRT	-.2306	RRF	.2492	RTF	-.7006	CRT	-.5927	CRS	-.6468	CST	.9921
FDE	-.1089	FRA	.3726	FC3	-.6199	BSP	2331	SGB	963.3	R23	-.0313	R13	.7057	LSA	516.1	MSA	244.4	SSA	16.4
BDE	.4649	BRA	.6946	BC3	.1588	FSP	-164	SG1	859.6	SG2	434.9	THA	170.60	EL1	493.0	EL2	222.2	ALF	118.17

LAUNCH DATE AUG 30 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 183.916

RL	151.05	LAL	-.00	LOL	336.22	VL	24.339	GAL	-1.27	AZL	91.36	HCA	77.16	SMA	113.93	ECC	.32646	INC	1.3637
RP	108.05	LAP	-1.33	LOP	53.38	VP	35.940	GAP	-18.83	AZP	90.30	TAL	182.62	TAP	259.78	RCA	76.74	APO	151.13
RC	40.345	GL	-6.39	GP	-10.09	ZAL	91.50	ZAP	11.53	ETS	115.98	ZAE	165.92	ETE	337.85	ZAC	90.75	ETC	259.73

V1	29.497	V2	35.073	CLP	5.61														

PLANETOCENTRIC CONIC

C3	27.067	VHL	5.203	DLA	-27.36	RAL	241.44	RAD	6568.1	VEL	12.184	PTH	2.19	VHP	11.603	DPA	-28.62	RAP	233.88
ECC	1.4455																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 50 28	1176.71	11.89	341.54	112.25	115.89	10 10 4	576.7	15.28	334.50
90.00	11 59 37	755.54	22.69	315.41	116.73	107.41	12 12 12	155.5	24.86	307.41
100.00	10 33 23	1038.02	8.53	329.60	110.49	118.76	10 50 41	438.0	12.31	322.85
100.00	13 59 22	5657.51	26.32	266.05	117.88	104.71	15 33 40	5057.5	28.08	257.70
110.00	10 43 36	1005.95	2.78	323.65	106.96	124.08	11 0 22	405.9	7.24	317.40
110.00	16 5 39	5262.34	32.90	237.69	119.53	99.85	17 33 21	4662.3	33.91	228.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TOE	.1752	TRA	-.6760	TC3	.2015	BAU	.0782	SGT	885.3	SGR	456.5	SG3	78.5	ST	317.1	SR	449.2	SS	186.0
RDE	-.4079	RRA	.0006	RC3	-.0782	FAU	.02309	RRT	-.2582	RRF	.2794	RTF	-.7190	CRT	-.6092	CRS	-.6375	CST	.9937
FDE	-.1073	FRA	.3797	FC3	-.7385	BSP	2474	SGB	996.1	R23	-.0354	R13	.7246	LSA	524.9	MSA	247.3	SSA	17.0
BDE	.4439	BRA	.6760	BC3	.2161	FSP	-185	SG1	895.6	SG2	436.0	THA	170.03	EL1	501.6	EL2	225.2	ALF	119.87

LAUNCH DATE AUG 30 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 190.638

RL	151.05	LAL	-.00	LOL	336.22	VL	24.629	GAL	-1.41	AZL	91.17	HCA	80.37	SMA	115.34	ECC	.31051	INC	1.1688	V1	29.497
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.150	GAP	-17.73	AZP	90.20	TAL	183.14	TAP	263.51	RCA	79.53	APO	151.15	V2	35.086
RC	40.692	GL	-5.87	GP	-10.67	ZAL	92.39	ZAP	11.31	ETS	106.34	ZAE	163.20	ETE	337.70	ZAC	90.34	ETC	259.96	CLP	3.78

PLANETOCENTRIC CONIC

C3	24.092	VHL	4.908	DLA	-26.68	RAL	240.58	RAD	6568.0	VEL	12.061	PTH	2.16	VHP	10.994	DPA	-29.57	RAP	235.19	ECC	1.3965		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 27 14	1213.64	10.78	343.69	108.73	116.34	9 47 28	613.6	14.24	336.72
90.00	12 15 58	661.13	24.47	309.06	114.09	104.71	12 27 0	61.1	26.25	300.85
100.00	10 17 4	1052.70	8.05	330.43	107.29	118.89	10 34 37	452.7	11.84	323.69
100.00	14 8 50	5585.34	27.47	261.00	114.89	102.28	15 41 55	4985.3	28.88	252.48
110.00	10 32 33	1004.08	2.85	323.55	104.09	124.08	10 49 17	404.1	7.31	317.30
110.00	16 9 50	5206.72	33.47	233.45	116.10	97.40	17 36 37	4606.7	34.13	224.27

DIFFERENTIAL CORRECTIONS

TDE	.1753	TRA	-.6580	TC3	.2640	BAU	.0915
RDE	-.3857	RRA	.0036	RC3	-.1048	FAU	.02448
FDE	-.1041	FRA	.3867	FC3	-.8795	BSP	2613
BDE	.4237	BRA	.6580	BC3	.2840	FSP	-209

MID-COURSE EXECUTION ACCURACY

SGT	920.9	SGR	461.9	SG3	87.1		
RRT	-.2887	RRF	.3134	RTF	-.7359		
SGB	1030.2	R23	-.0410	R13	.7423		
SG1	933.2	SG2	436.4	THA	169.42		

ORBIT DETERMINATION ACCURACY

ST	329.3	SR	450.3	SS	186.1
CRT	-.6240	CRS	-.6233	CST	.9941
LSA	532.1	MSA	249.7	SSA	17.7
EL1	509.4	EL2	227.5	ALF	121.49

LAUNCH DATE AUG 30 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 197.379

RL	151.05	LAL	-.00	LOL	336.22	VL	24.895	GAL	-1.56	AZL	90.98	HCA	83.58	SMA	116.68	ECC	.29578	INC	.9776	V1	29.497
RP	107.97	LAP	-.97	LOP	59.80	VP	36.344	GAP	-16.68	AZP	90.11	TAL	183.72	TAP	267.30	RCA	82.17	APO	151.19	V2	35.098
RC	41.209	GL	-5.25	GP	-11.31	ZAL	93.40	ZAP	11.47	ETS	96.38	ZAE	160.57	ETE	337.31	ZAC	89.86	ETC	260.20	CLP	1.92

PLANETOCENTRIC CONIC

C3	21.532	VHL	4.640	DLA	-25.87	RAL	239.61	RAD	6567.9	VEL	11.955	PTH	2.13	VHP	10.414	DPA	-30.56	RAP	236.46	ECC	1.3544		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 4 37	1249.41	9.69	345.76	105.28	116.74	9 25 26	649.4	13.21	338.84
90.00	12 30 52	5858.75	25.89	280.73	111.21	101.89	14 8 31	5258.8	27.27	272.33
100.00	9 59 30	1072.18	7.41	331.52	104.05	119.04	10 17 22	472.2	11.23	324.81
100.00	14 18 41	5511.21	28.43	255.70	111.75	99.65	15 50 32	4911.2	29.47	247.05
110.00	10 20 3	1007.70	2.72	323.74	101.16	124.09	10 36 51	407.7	7.17	317.49
110.00	16 14 37	5148.46	33.89	228.96	112.56	94.77	17 40 25	4548.5	34.18	219.72

DIFFERENTIAL CORRECTIONS

TDE	.1737	TRA	-.6392	TC3	.3373	BAU	.1049
RDE	-.3645	RRA	.0063	RC3	-.1378	FAU	.02602
FDE	-.0986	FRA	.3934	FC3	-1.0462	BSP	2750
BDE	.4037	BRA	.6392	BC3	.3644	FSP	-235

MID-COURSE EXECUTION ACCURACY

SGT	955.7	SGR	467.9	SG3	96.6		
RRT	-.3223	RRF	.3512	RTF	-.7523		
SGB	1064.1	R23	-.0473	R13	.7596		
SG1	970.6	SG2	436.1	THA	168.73		

ORBIT DETERMINATION ACCURACY

ST	339.6	SR	450.0	SS	184.2
CRT	-.6362	CRS	-.6005	CST	.9926
LSA	536.8	MSA	251.6	SSA	18.4
EL1	515.3	EL2	228.8	ALF	122.93

LAUNCH DATE AUG 30 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 204.132

RL	151.05	LAL	-.00	LOL	336.22	VL	25.138	GAL	-1.71	AZL	90.79	HCA	86.80	SMA	117.94	ECC	.28221	INC	.7886	V1	29.497
RP	107.93	LAP	-.79	LOP	63.01	VP	36.523	GAP	-15.67	AZP	90.04	TAL	184.36	TAP	271.16	RCA	84.66	APO	151.22	V2	35.111
RC	41.891	GL	-4.51	GP	-12.01	ZAL	94.54	ZAP	12.01	ETS	86.76	ZAE	158.04	ETE	336.74	ZAC	89.30	ETC	260.43	CLP	.03

PLANETOCENTRIC CONIC

C3	19.333	VHL	4.397	DLA	-24.91	RAL	238.55	RAD	6567.8	VEL	11.862	PTH	2.10	VHP	9.861	DPA	-31.60	RAP	237.68	ECC	1.3182		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 0	1286.40	8.55	347.88	101.88	117.10	9 3 27	686.4	12.12	341.01
90.00	12 45 1	5770.31	26.98	274.48	108.14	98.95	14 21 12	5170.3	27.94	265.95
100.00	9 40 51	1096.45	6.60	332.87	100.83	119.22	9 59 7	496.4	10.45	326.19
100.00	14 28 52	5435.49	29.17	250.19	108.49	96.85	15 59 28	4835.5	29.81	241.45
110.00	10 6 12	1016.91	2.37	324.22	98.21	124.11	10 23 9	416.9	6.83	317.98
110.00	16 20 0	5087.79	34.13	224.24	108.94	91.99	17 44 48	4487.8	34.03	214.99

DIFFERENTIAL CORRECTIONS

TDE	.1719	TRA	-.6195	TC3	.4211	BAU	.1182
RDE	-.3439	RRA	.0089	RC3	-.1783	FAU	.02774
FDE	-.0904	FRA	.4002	FC3	-1.2420	BSP	2912
BDE	.3845	BRA	.6195	BC3	.4573	FSP	-266

MID-COURSE EXECUTION ACCURACY

SGT	989.7	SGR	475.0	SG3	107.1		
RRT	-.3613	RRF	.3929	RTF	-.7681		
SGB	1097.8	R23	-.0523	R13	.7763		
SG1	1008.0	SG2	434.9	THA	167.87		

ORBIT DETERMINATION ACCURACY

ST	348.7	SR	448.2	SS	180.2
CRT	-.6492	CRS	-.5658	CST	.9875
LSA	539.3	MSA	252.4	SSA	19.2
EL1	519.8	EL2	228.7	ALF	124.33

LAUNCH DATE AUG 30 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 210.894

RL	151.05	LAL	-.00	LOL	336.22	VL	25.361	GAL	-1.86	AZL	90.60	HCA	90.02	SMA	119.13	ECC	.26975	INC	.6006	V1	29.497
RP	107.89	LAP	-.60	LOP	66.23	VP	36.689	GAP	-14.71	AZP	90.00	TAL	185.05	TAP	275.07	RCA	87.00	APO	151.27	V2	35.123
RC	42.728	GL	-3.65	GP	-12.80	ZAL	95.79	ZAP	12.94	ETS	78.01	ZAE	155.66	ETE	336.00	ZAC	88.65	ETC	260.65	CLP	-1.92

PLANETOCENTRIC CONIC

C3	17.450	VHL	4.177	DLA	-23.81	RAL	237.42	RAD	6567.7	VEL	11.783	PTH	2.08	VHP	9.335	DPA	-32.69	RAP	238.85	ECC	1.2872		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 13	1325.79	7.32	350.12	98.58	117.43	8 41 19	725.8	10.94	343.31
90.00	12 58 46	5682.93	27.75	268.21	104.95	95.89	14 33 29	5082.9	28.27	259.58
100.00	9 21 17	1125.48	5.64	334.48	97.66	119.40	9 40 2	525.5	9.51	327.84
100.00	14 39 24	5358.47	29.66	244.52	105.13	93.90	16 8 42	4758.5	29.89	235.72
110.00	9 51 10	1031.77	1.80	325.00	95.28	124.14	10 8 21	431.8	6.27	318.76
110.00	16 26 0	5024.95	34.17	219.33	105.27	89.08	17 49 45	4424.9	33.67	210.12

DIFFERENTIAL CORRECTIONS

TDE	.1672	TRA	-.6019	TC3	.5141	BAU	.1312
RDE	-.3240	RRA	.0115	RC3	-.2276	FAU	.02965
FDE	-.0786	FRA	.4071	FC3	-1.4710	BSP	3047
BDE	.3646	BRA	.6020	BC3	.5622	FSP	-299

MID-COURSE EXECUTION ACCURACY

SGT	1025.2	SGR	483.7	SG3	118.9		
RRT	-.4015	RRF	.4388	RTF	-.7817		
SGB	1133.6	R23	-.0614	R13	.7912		
SG1	1047.4	SG2	433.6	THA	167.01		

ORBIT DETERMINATION ACCURACY

ST	355.0	SR	444.5	SS	173.9
CRT	-.6552	CRS	-.5117	CST	.9765
LSA	537.5	MSA	254.1	SSA	20.2
EL1	520.8	EL2	228.9	ALF	125.46

LAUNCH DATE AUG 30 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 217.660

RL	151.05	LAL	-.00	LOL	336.22	VL	25.565	GAL	-2.01	AZL	90.41	HCA	93.23	SMA	120.25	ECC	.25834	INC	.4124	V1	29.497
RP	107.86	LAP	-.41	LOP	69.45	VP	36.842	GAP	-13.78	AZP	89.98	TAL	185.79	TAP	279.02	RCA	89.19	APO	151.32	V2	35.135
RC	43.711	GL	-2.65	GP	-13.67	ZAL	97.13	ZAP	14.21	ETS	70.43	ZAE	153.42	ETE	335.10	ZAC	87.90	ETC	260.86	CLP	-3.92

PLANETOCENTRIC CONIC

C3	15.844	VHL	3.980	DLA	-22.54	RAL	236.23	RAD	6567.6	VEL	11.714	PTH	2.06	VHP	8.835	DPA	-33.85	RAP	239.95	ECC	1.2607

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 13	1368.29	5.98	352.52	95.39	117.73	8 19 1	768.3	9.65	345.76
90.00	13 12 20	5596.15	28.19	261.90	101.68	92.76	14 45 36	4996.2	28.28	253.23
100.00	9 0 58	1159.28	4.50	336.35	94.58	119.58	9 20 17	559.3	8.41	329.74
100.00	14 50 16	5280.39	29.88	238.73	101.74	90.86	16 18 16	4680.4	29.68	229.93
110.00	9 35 6	1052.26	1.01	326.07	92.41	124.17	9 52 39	452.3	5.49	319.84
110.00	16 32 37	4960.18	33.99	214.28	101.61	86.10	17 55 17	4360.2	33.07	205.16

DIFFERENTIAL CORRECTIONS

TDE	.1607	TRA	-.5830	TC3	.6157	BAU	.1439
RDE	-.3045	RRA	.0141	RC3	-.2871	FAU	.03179
FDE	-.0621	FRA	.4139	FC3	-1.7368	BSP	3197
BDE	.3443	BRA	.5832	BC3	.6793	FSP	-338

MID-COURSE EXECUTION ACCURACY

SGT	1058.0	SGR	494.8	SG3	132.1		
RRT	-.4458	RRF	.4884	RTF	-.7944		
SGB	1168.0	R23	-.0707	R13	.8053		
SG1	1085.3	SG2	431.8	THA	165.96		

ORBIT DETERMINATION ACCURACY

ST	357.8	SR	438.4	SS	165.8		
CRT	-.6584	CRS	-.4280	CST	.9529		
LSA	531.0	MSA	255.6	SSA	21.3		
EL1	517.9	EL2	228.0	ALF	126.37		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 224.428

RL	151.05	LAL	-.00	LOL	336.22	VL	25.751	GAL	-2.15	AZL	90.22	HCA	96.45	SMA	121.30	ECC	.24795	INC	.2227	V1	29.497
RP	107.82	LAP	-.22	LOP	72.67	VP	36.982	GAP	-12.89	AZP	89.97	TAL	186.56	TAP	283.02	RCA	91.23	APO	151.38	V2	35.146
RC	44.829	GL	-1.51	GP	-14.65	ZAL	98.55	ZAP	15.79	ETS	64.06	ZAE	151.34	ETE	334.04	ZAC	87.04	ETC	261.07	CLP	-5.98

PLANETOCENTRIC CONIC

C3	14.479	VHL	3.805	DLA	-21.11	RAL	235.02	RAD	6567.6	VEL	11.656	PTH	2.05	VHP	8.361	DPA	-35.09	RAP	240.96	ECC	1.2383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 1	1414.30	4.52	355.11	92.36	117.98	7 56 35	814.3	8.23	348.40
90.00	13 23 53	5509.74	28.31	255.58	98.40	89.59	14 57 43	4909.7	27.96	246.93
100.00	8 40 6	1197.82	3.20	338.47	91.63	119.74	9 0 3	597.8	7.14	331.90
100.00	15 1 29	5201.45	29.82	232.86	98.36	87.77	16 28 11	4601.5	29.19	224.11
110.00	9 18 13	1078.32	.02	327.43	89.64	124.18	9 36 12	478.3	4.50	321.21
110.00	16 39 51	4893.72	33.56	209.14	98.00	83.09	18 1 25	4293.7	32.24	200.15

DIFFERENTIAL CORRECTIONS

TDE	.1521	TRA	-.5648	TC3	.7253	BAU	.1566
RDE	-.2851	RRA	.0170	RC3	-.3579	FAU	.03414
FDE	-.0401	FRA	.4218	FC3	-2.0416	BSP	3337
BDE	.3231	BRA	.5650	BC3	.8088	FSP	-381

MID-COURSE EXECUTION ACCURACY

SGT	1090.0	SGR	509.1	SG3	146.7		
RRT	-.4931	RRF	.5413	RTF	-.8064		
SGB	1203.0	R23	-.0807	R13	.8192		
SG1	1123.7	SG2	429.6	THA	164.75		

ORBIT DETERMINATION ACCURACY

ST	357.1	SR	429.4	SS	157.5		
CRT	-.6566	CRS	-.2992	CST	.9051		
LSA	519.3	MSA	257.9	SSA	22.6		
EL1	510.5	EL2	226.5	ALF	127.11		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 231.193

RL	151.05	LAL	-.00	LOL	336.22	VL	25.920	GAL	-2.29	AZL	90.03	HCA	99.68	SMA	122.28	ECC	.23850	INC	.0288	V1	29.497
RP	107.79	LAP	-.03	LOP	75.89	VP	37.110	GAP	-12.03	AZP	89.99	TAL	187.37	TAP	287.04	RCA	93.12	APO	151.44	V2	35.158
RC	46.073	GL	-.22	GP	-15.73	ZAL	100.03	ZAP	17.65	ETS	58.80	ZAE	149.43	ETE	332.79	ZAC	86.06	ETC	261.26	CLP	-8.11

PLANETOCENTRIC CONIC

C3	13.326	VHL	3.650	DLA	-19.52	RAL	233.81	RAD	6567.5	VEL	11.607	PTH	2.03	VHP	7.913	DPA	-36.41	RAP	241.88	ECC	1.2193

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 9 43	1464.08	2.92	357.90	89.51	118.18	7 34 7	864.1	6.67	351.22
90.00	13 39 33	5423.55	28.11	249.29	95.17	86.44	15 9 56	4823.6	27.32	240.71
100.00	8 18 50	1241.05	1.74	340.85	88.85	119.85	8 39 31	641.1	5.70	334.30
100.00	15 13 7	5121.81	29.46	226.97	95.05	84.69	16 38 29	4521.8	28.41	218.32
110.00	9 0 42	1109.82	-1.19	329.07	87.02	124.17	9 19 12	509.8	3.30	322.86
110.00	16 47 44	4825.81	32.88	203.95	94.51	80.09	18 8 10	4225.8	31.17	195.15

DIFFERENTIAL CORRECTIONS

TDE	.1407	TRA	-.5468	TC3	.8396	BAU	.1690
RDE	-.2654	RRA	.0201	RC3	-.4418	FAU	.03677
FDE	-.0111	FRA	.4300	FC3	-2.3888	BSP	3479
BDE	.3004	BRA	.5472	BC3	.9487	FSP	-429

MID-COURSE EXECUTION ACCURACY

SGT	1119.7	SGR	527.9	SG3	162.9		
RRT	-.5418	RRF	.5966	RTF	-.8171		
SGB	1237.9	R23	-.0926	R13	.8323		
SG1	1161.7	SG2	427.7	THA	163.35		

ORBIT DETERMINATION ACCURACY

ST	351.8	SR	416.8	SS	151.6		
CRT	-.6474	CRS	-.1072	CST	.8137		
LSA	501.4	MSA	261.6	SSA	24.0		
EL1	496.9	EL2	224.9	ALF	127.63		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 92.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 237.953

RL	151.05	LAL	-.00	LOL	336.22	VL	26.074	GAL	-2.43	AZL	89.84	HCA	102.90	SMA	123.18	ECC	.22995	INC	.1637	V1	29.497
RP	107.76	LAP	.16	LOP	79.12	VP	37.228	GAP	-11.21	AZP	90.04	TAL	188.19	TAP	291.09	RCA	94.86	APO	151.51	V2	35.168
RC	47.431	GL	1.22	GP	-16.95	ZAL	101.53	ZAP	19.77	ETS	54.48	ZAE	147.67	ETE	331.35	ZAC	84.94	ETC	261.43	CLP	-10.33

PLANETOCENTRIC CONIC

C3	12.360	VHL	3.516	DLA	-17.76	RAL	232.64	RAD	6567.5	VEL	11.565	PTH	2.02	VHP	7.490	DPA	-37.83	RAP	242.68	ECC	1.2034

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 46 24	1517.78	1.19	.90	86.89	118.29	7 11 42	917.8	4.97	354.25
90.00	13 53 27	5337.52	27.59	243.05	92.05	83.36	15 22 25	4737.5	26.38	234.59
100.00	7 57 20	1288.91	.12	343.47	86.29	119.89	8 18 49	688.9	4.09	336.94
100.00	15 25 13	5041.62	28.81	221.10	91.87	81.67	16 49 14	4441.6	27.36	212.60
110.00	8 42 45	1146.63	-2.59	330.99	84.60	124.10	9 1 51	546.6	1.90	324.79
110.00	16 56 17	4756.68	31.95	198.78	91.19	77.16	18 15 34	4156.7	29.86	190.19

DIFFERENTIAL CORRECTIONS

TDE	.1261	TRA	-.5300	TC3	.9519	BAU	.1808
RDE	-.2449	RRA	.0238	RC3	-.5394	FAU	.03962
FDE	.0272	FRA	.4399	FC3	-2.7754	BSP	3600
BDE	.2754	BRA	.5305	BC3	1.0941	FSP	-482

MID-COURSE EXECUTION ACCURACY

SGT	1145.8	SGR	552.0	SG3	180.8		
RRT	-.5895	RRF	.6521	RTF	-.8259		
SGB	1271.8	R23	-.1069	R13	.8441		
SG1	1198.2	SG2	426.4	THA	161.76		

ORBIT DETERMINATION ACCURACY

ST	341.6	SR	399.4	SS	153.7		
CRT	-.6272	CRS	.1504	CST	.6598		
LSA	476.8	MSA	268.1	SSA	25.6		
EL1	475.7	EL2	223.4	ALF	127.97		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 244.704

RL	151.05	LAL	-.00	LOL	336.22	VL	26.213	GAL	-2.55	AZL	89.63	HCA	106.13	SMA	124.02	ECC	.22225	INC	.3654	V1	29.497
RP	107.72	LAP	.35	LOP	82.34	VP	37.335	GAP	-10.42	AZP	90.10	TAL	189.01	TAP	295.14	RCA	96.46	APO	151.59	V2	35.179
RC	48.893	GL	2.82	GP	-18.30	ZAL	103.03	ZAP	22.12	ETS	50.92	ZAE	146.06	ETE	329.69	ZAC	83.67	ETC	261.57	CLP	-12.64

PLANETOCENTRIC CONIC

C3	11.558	VHL	3.400	DLA	-15.84	RAL	231.51	RAD	6567.4	VEL	11.530	PTH	2.01	VHP	7.094	DPA	-39.36	RAP	243.33	ECC	1.1902		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 23 11	1575.48	-.67	4.11	84.53	118.31	6 49 26	975.5	3.12	357.48
90.00	14 7 42	5251.60	26.76	236.90	89.12	80.38	15 35 14	4651.6	25.16	228.59
100.00	7 35 45	1341.32	-1.66	346.35	83.98	119.85	7 58 7	741.3	2.33	339.83
100.00	15 37 49	4961.00	27.88	215.29	88.88	78.75	17 0 30	4361.0	26.04	206.97
110.00	8 24 31	1188.55	-4.19	333.18	82.40	123.96	8 44 20	588.5	.30	326.97
110.00	17 5 32	4686.53	30.78	193.65	88.09	74.33	18 23 39	4086.5	28.32	185.31

DIFFERENTIAL CORRECTIONS

TDE	.1078	TRA	-.5149	TC3	1.0594	BAU	.1922				
RDE	-.2229	RRA	.0285	RC3	-.6520	FAU	.04274				
FDE	.0767	FRA	.4524	FC3	-3.2012	BSP	3698				
BDE	.2476	BRA	.5157	BC3	1.2439	FSP	-540				

MID-COURSE EXECUTION ACCURACY

SGT	1168.5	SGR	583.2	SG3	200.5						
RRT	-.6348	RRF	.7066	RTF	-.8333						
SGB	1306.0	R23	-.1235	R13	.8556						
SG1	1234.3	SG2	426.6	THA	159.92						

ORBIT DETERMINATION ACCURACY

ST	326.7	SR	376.1	SS	170.6		
CRT	-.5909	CRS	.4213	CST	.4646		
LSA	446.0	MSA	278.6	SSA	27.3		
EL1	445.8	EL2	222.4	ALF	128.27		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 251.445

RL	151.05	LAL	-.00	LOL	336.22	VL	26.338	GAL	-2.67	AZL	89.43	HCA	109.36	SMA	124.79	ECC	.21533	INC	.5732	V1	29.497		
RP	107.69	LAP	.54	LOP	85.57	VP	37.432	GAP	-9.65	AZP	90.19	TAL	189.84	TAP	299.19	RCA	97.92	APO	151.66	V2	35.188		
RC	50.451	GL	4.57	GP	-19.82	ZAL	104.50	ZAP	24.71	ETS	47.98	ZAE	144.58	ETE	327.79	ZAC	82.22	ETC	261.69	CLP	-15.06		

PLANETOCENTRIC CONIC

C3	10.903	VHL	3.302	DLA	-13.77	RAL	230.47	RAD	6567.4	VEL	11.502	PTH	2.00	VHP	6.723	DPA	-41.01	RAP	243.81	ECC	1.1794		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 0 9	1637.22	-2.66	7.56	82.46	118.20	6 27 26	1037.2	1.13	.93
90.00	14 22 26	5165.74	25.64	230.86	86.41	77.56	15 48 32	4565.7	23.67	222.74
100.00	7 14 14	1398.18	-3.58	349.48	81.95	119.70	7 37 32	798.2	.40	342.95
100.00	15 51 2	4880.02	26.67	209.57	86.14	75.97	17 12 22	4280.0	24.48	201.46
110.00	8 6 12	1235.42	-5.97	335.65	80.47	123.72	8 26 48	635.4	-1.50	329.42
110.00	17 15 33	4615.54	29.36	188.61	85.26	71.66	18 32 29	4015.5	26.58	180.53

DIFFERENTIAL CORRECTIONS

TDE	.0850	TRA	-.5031	TC3	1.1463	BAU	.2020				
RDE	-.1984	RRA	.0345	RC3	-.7786	FAU	.04598				
FDE	.1405	FRA	.4691	FC3	-3.6507	BSP	3728				
BDE	.2159	BRA	.5042	BC3	1.3857	FSP	-598				

MID-COURSE EXECUTION ACCURACY

SGT	1184.3	SGR	621.9	SG3	221.5						
RRT	-.6727	RRF	.7572	RTF	-.8372						
SGB	1337.6	R23	-.1450	R13	.8653						
SG1	1266.5	SG2	430.3	THA	157.86						

ORBIT DETERMINATION ACCURACY

ST	308.1	SR	345.2	SS	207.7		
CRT	-.5275	CRS	.6334	CST	.3039		
LSA	411.5	MSA	295.2	SSA	28.9		
EL1	405.5	EL2	222.8	ALF	128.91		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 258.171

RL	151.05	LAL	-.00	LOL	336.22	VL	26.451	GAL	-2.78	AZL	89.21	HCA	112.59	SMA	125.49	ECC	.20914	INC	.7897	V1	29.497		
RP	107.67	LAP	.73	LOP	88.80	VP	37.521	GAP	-8.92	AZP	90.30	TAL	190.64	TAP	303.23	RCA	99.25	APO	151.74	V2	35.198		
RC	52.096	GL	6.49	GP	-21.51	ZAL	105.90	ZAP	27.53	ETS	45.50	ZAE	143.21	ETE	325.61	ZAC	80.58	ETC	261.77	CLP	-17.61		

PLANETOCENTRIC CONIC

C3	10.378	VHL	3.222	DLA	-11.54	RAL	229.53	RAD	6567.4	VEL	11.479	PTH	2.00	VHP	6.380	DPA	-42.82	RAP	244.09	ECC	1.1708		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 37 20	1703.11	-4.77	11.25	80.70	117.95	6 5 43	1103.1	-.99	4.61
90.00	14 37 45	5079.82	24.25	224.95	83.99	74.91	16 2 25	4479.8	21.94	217.04
100.00	6 52 50	1459.50	-5.64	352.86	80.23	119.40	7 17 10	859.5	-1.68	346.31
100.00	16 4 55	4798.67	25.20	203.97	83.69	73.37	17 24 54	4198.7	22.68	196.08
110.00	7 47 53	1287.12	-7.91	338.39	78.83	123.36	8 9 20	687.1	-3.47	332.12
110.00	17 26 22	4543.82	27.72	183.67	82.73	69.15	18 42 6	3943.8	24.63	175.86

DIFFERENTIAL CORRECTIONS

TDE	.0726	TRA	-.4794	TC3	1.2671	BAU	.2181				
RDE	-.1732	RRA	.0396	RC3	-.9298	FAU	.04994				
FDE	.2082	FRA	.4778	FC3	-4.1661	BSP	4063				
BDE	.1878	BRA	.4810	BC3	1.5716	FSP	-685				

MID-COURSE EXECUTION ACCURACY

SGT	1200.1	SGR	677.4	SG3	245.8						
RRT	-.7275	RRF	.8075	RTF	-.8488						
SGB	1378.1	R23	-.1458	R13	.8809						
SG1	1310.8	SG2	425.6	THA	154.84						

ORBIT DETERMINATION ACCURACY

ST	292.2	SR	309.3	SS	253.4		
CRT	-.5070	CRS	.7526	CST	.1645		
LSA	393.8	MSA	298.8	SSA	30.1		
EL1	369.7	EL2	210.8	ALF	131.80		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 264.883

RL	151.05	LAL	-.00	LOL	336.22	VL	26.552	GAL	-2.88	AZL	88.98	HCA	115.82	SMA	126.13	ECC	.20363	INC	1.0164	V1	29.497		
RP	107.64	LAP	.92	LOP	92.04	VP	37.600	GAP	-8.21	AZP	90.44	TAL	191.42	TAP	307.24	RCA	100.45	APO	151.82	V2	35.206		
RC	53.818	GL	8.57	GP	-23.40	ZAL	107.21	ZAP	30.60	ETS	43.37	ZAE	141.90	ETE	323.13	ZAC	78.74	ETC	261.81	CLP	-20.29		

PLANETOCENTRIC CONIC

C3	9.973	VHL	3.158	DLA	-9.17	RAL	228.72	RAD	6567.4	VEL	11.461	PTH	1.99	VHP	6.066	DPA	-44.78	RAP	244.12	ECC	1.1641		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 14 49	1773.18	-6.99	15.20	79.30	117.51	5 44 22	1173.2	-3.25	8.52
90.00	14 53 48	4993.80	22.60	219.19	81.88	72.47	16 17 2	4393.8	19.99	211.48
100.00	6 31 41	1525.22	-7.82	356.52	78.85	118.94	6 57 6	925.2	-3.90	349.93
100.00	16 19 38	4716.99	23.50	198.51	81.56	70.97	17 38 15	4117.0	20.69	190.84
110.00	7 29 43	1343.48	-10.01	341.41	77.53	122.86	7 52 7	743.5	-5.61	335.08
110.00	17 38 5	4471.49	25.88	178.86	80.55	66.84	18 52 36	3871.5	22.52	171.31

DIFFERENTIAL CORRECTIONS

TDE	.0507	TRA	-.4649	TC3	1.3395	BAU	.2306				
RDE	-.1428	RRA	.0477	RC3	-1.0936	FAU	.05383				
FDE	.2982	FRA	.4966	FC3	-4.6729	BSP	4205				
BDE	.1515	BRA	.4673	BC3	1.7292	FSP	-764				

MID-COURSE EXECUTION ACCURACY

SGT	1205.9	SGR	742.9	SG3	271.0						
RRT	-.7626	RRF	.8492	RTF	-.8532						
SGB	1416.4	R23	-.1586	R13	.8928						
SG1	1349.7	SG2	429.3	THA	151.72						

ORBIT DETERMINATION ACCURACY

ST	273.5	SR	261.2	SS	321.2		
CRT	-.4356	CRS	.8191	CST	.1348		
LSA	397.3	MSA	295.6	SSA	30.8		
EL1	320.6	EL2	200.5	ALF	138.03		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 271.577

RL	151.05	LAL	-.00	LOL	336.22	VL	26.643	GAL	-2.98	AZL	88.74	HCA	119.05	SMA	126.71	ECC	.19874	INC	1.2562	V1	29.497
RP	107.61	LAP	1.10	LOP	95.27	VP	37.671	GAP	-7.53	AZP	90.61	TAL	192.17	TAP	311.22	RCA	101.53	APO	151.89	V2	35.214
RC	55.612	GL	10.81	GP	-25.51	ZAL	108.39	ZAP	33.91	ETS	41.49	ZAE	140.63	ETE	320.33	ZAC	76.67	ETC	261.79	CLP	-23.13

PLANETOCENTRIC CONIC

C3	9.679	VHL	3.111	DLA	-6.66	RAL	228.06	RAD	6567.3	VEL	11.449	PTH	1.99	VHP	5.781	DPA	-46.91	RAP	243.86	ECC	1.1593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 52 36	1847.61	-9.31	19.44	78.29	116.86	5 23 24	1247.6	-5.63	12.70
90.00	15 10 45	4907.50	20.72	213.56	80.14	70.26	16 32 33	4307.5	17.85	206.06
100.00	6 10 46	1595.44	-10.11	.48	77.86	118.28	6 37 21	995.4	-6.26	353.81
100.00	16 35 17	4634.89	21.58	193.17	79.80	68.79	17 52 31	4034.9	18.50	185.72
110.00	7 11 45	1404.51	-12.24	344.72	76.60	122.17	7 35 9	804.5	-7.91	338.31
110.00	17 50 47	4398.59	23.84	174.17	78.75	64.75	19 4 5	3798.6	20.24	166.88

DIFFERENTIAL CORRECTIONS

TDE	.0277	TRA	-.4514	TC3	1.3837	BAU	.2433
RDE	-.1069	RRA	.0579	RC3	-1.2731	FAU	.05782
FDE	.4067	FRA	.5191	FC3	-5.1715	BSP	4348
BDE	.1104	BRA	.4551	BC3	1.8802	FSP	-848

MID-COURSE EXECUTION ACCURACY

SGT	1201.9	SGR	823.3	SG3	297.3		
RRT	-.7902	RRF	.8841	RTF	-.8554		
SGB	1456.8	R23	-.1691	R13	.9047		
SG1	1389.9	SG2	436.3	THA	148.06		

ORBIT DETERMINATION ACCURACY

ST	257.5	SR	200.9	SS	403.8
CRT	-.3620	CRS	.8365	CST	.1769
LSA	440.3	MSA	273.8	SSA	30.4
EL1	275.9	EL2	174.8	ALF	152.35

LAUNCH DATE AUG 30 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 278.252

RL	151.05	LAL	-.00	LOL	336.22	VL	26.723	GAL	-3.06	AZL	88.49	HCA	122.28	SMA	127.23	ECC	.19443	INC	1.5116	V1	29.497
RP	107.59	LAP	1.28	LOP	98.51	VP	37.735	GAP	-6.87	AZP	90.81	TAL	192.86	TAP	315.15	RCA	102.49	APO	151.97	V2	35.222
RC	57.469	GL	13.21	GP	-27.85	ZAL	109.40	ZAP	37.47	ETS	39.77	ZAE	139.33	ETE	317.17	ZAC	74.35	ETC	261.72	CLP	-26.14

PLANETOCENTRIC CONIC

C3	9.489	VHL	3.080	DLA	-4.02	RAL	227.57	RAD	6567.3	VEL	11.440	PTH	1.98	VHP	5.527	DPA	-49.22	RAP	243.24	ECC	1.1562

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 30 37	1926.68	-11.70	24.02	77.68	115.97	5 2 44	1326.7	-8.12	17.17
90.00	15 28 48	4820.66	18.63	208.05	78.79	68.28	16 49 9	4220.7	15.52	200.75
100.00	5 50 5	1670.36	-12.50	4.76	77.27	117.38	6 17 55	1070.4	-8.73	358.00
100.00	16 52 2	4552.21	19.45	187.95	78.44	66.84	18 7 54	3952.2	16.15	180.71
110.00	6 54 0	1470.25	-14.60	348.36	76.06	121.26	7 18 30	870.3	-10.35	341.83
110.00	18 4 36	4325.08	21.63	169.61	77.34	62.86	19 16 41	3725.1	17.82	162.55

DIFFERENTIAL CORRECTIONS

TDE	.0047	TRA	-.4392	TC3	1.3960	BAU	.2569
RDE	-.0641	RRA	.0707	RC3	-1.4668	FAU	.06180
FDE	.5343	FRA	.5463	FC3	-5.6381	BSP	4498
BDE	.0643	BRA	.4449	BC3	2.0249	FSP	-934

MID-COURSE EXECUTION ACCURACY

SGT	1187.6	SGR	921.0	SG3	324.3		
RRT	-.8103	RRF	.9125	RTF	-.8553		
SGB	1502.9	R23	-.1751	R13	.9171		
SG1	1435.0	SG2	446.7	THA	143.80		

ORBIT DETERMINATION ACCURACY

ST	247.2	SR	128.6	SS	499.0
CRT	-.3609	CRS	.7714	CST	.2672
LSA	513.4	MSA	249.5	SSA	28.9
EL1	252.7	EL2	117.3	ALF	166.38

LAUNCH DATE AUG 30 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 284.908

RL	151.05	LAL	-.00	LOL	336.22	VL	26.793	GAL	-3.13	AZL	88.21	HCA	125.52	SMA	127.69	ECC	.19064	INC	1.7860	V1	29.497
RP	107.57	LAP	1.45	LOP	101.74	VP	37.791	GAP	-6.24	AZP	91.04	TAL	193.50	TAP	319.02	RCA	103.35	APO	152.04	V2	35.229
RC	59.382	GL	15.78	GP	-30.45	ZAL	110.23	ZAP	41.28	ETS	38.11	ZAE	137.96	ETE	313.65	ZAC	71.77	ETC	261.57	CLP	-29.34

PLANETOCENTRIC CONIC

C3	9.404	VHL	3.067	DLA	-1.26	RAL	227.26	RAD	6567.3	VEL	11.436	PTH	1.98	VHP	5.309	DPA	-51.72	RAP	242.17	ECC	1.1548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 8 47	2010.83	-14.16	28.98	77.52	114.78	4 42 18	1410.8	-10.70	22.01
90.00	15 48 9	4732.95	16.33	202.63	77.87	66.54	17 7 2	4132.9	13.02	195.52
100.00	5 29 33	1750.33	-14.95	9.43	77.13	116.19	5 58 43	1150.3	-11.31	2.53
100.00	17 10 5	4468.68	17.13	182.82	77.49	65.12	18 24 33	3868.7	13.64	175.78
110.00	6 36 27	1540.91	-17.05	352.37	75.96	120.09	7 2 8	940.9	-12.93	345.69
110.00	18 19 40	4250.85	19.26	165.16	76.36	61.20	19 30 31	3650.8	15.27	158.31

DIFFERENTIAL CORRECTIONS

TDE	-.0178	TRA	-.4289	TC3	1.3668	BAU	.2712
RDE	-.0119	RRA	.0874	RC3	-1.6693	FAU	.06553
FDE	.6833	FRA	.5801	FC3	-6.0327	BSP	4652
BDE	.0214	BRA	.4377	BC3	2.1575	FSP	-1018

MID-COURSE EXECUTION ACCURACY

SGT	1160.2	SGR	1037.0	SG3	350.9		
RRT	-.8215	RRF	.9347	RTF	-.8516		
SGB	1556.1	R23	-.1752	R13	.9298		
SG1	1486.0	SG2	461.6	THA	138.90		

ORBIT DETERMINATION ACCURACY

ST	244.0	SR	62.0	SS	606.4
CRT	-.7809	CRS	.1116	CST	.3825
LSA	614.7	MSA	229.4	SSA	26.4
EL1	248.9	EL2	38.0	ALF	168.51

LAUNCH DATE AUG 30 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 291.542

RL	151.05	LAL	-.00	LOL	336.22	VL	26.855	GAL	-3.19	AZL	87.92	HCA	128.75	SMA	128.10	ECC	.18733	INC	2.0835	V1	29.497
RP	107.55	LAP	1.62	LOP	104.98	VP	37.841	GAP	-5.62	AZP	91.30	TAL	194.08	TAP	322.83	RCA	104.10	APO	152.10	V2	35.235
RC	61.346	GL	18.52	GP	-33.29	ZAL	110.83	ZAP	45.33	ETS	36.43	ZAE	136.44	ETE	309.79	ZAC	68.92	ETC	261.33	CLP	-32.76

PLANETOCENTRIC CONIC

C3	9.424	VHL	3.070	DLA	1.63	RAL	227.14	RAD	6567.3	VEL	11.437	PTH	1.98	VHP	5.127	DPA	-54.40	RAP	240.56	ECC	1.1551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 46 57	2100.69	-16.65	34.40	77.84	113.24	4 21 58	1500.7	-13.37	27.26
90.00	16 9 5	4643.93	13.85	197.28	77.39	65.05	17 26 29	4043.9	10.37	190.33
100.00	5 9 3	1835.88	-17.45	14.55	77.47	114.66	5 39 39	1235.9	-13.98	7.48
100.00	17 29 40	4383.98	14.64	177.77	77.00	63.64	18 42 44	3784.0	10.98	170.89
110.00	6 19 2	1616.84	-19.59	356.80	76.34	118.59	6 45 59	1016.8	-15.62	349.92
110.00	18 36 11	4175.78	16.74	160.79	75.82	59.75	19 45 47	3575.8	12.60	154.14

DIFFERENTIAL CORRECTIONS

TDE	-.0431	TRA	-.4251	TC3	1.2706	BAU	.2842
RDE	.0545	RRA	.1114	RC3	-1.8639	FAU	.06833
FDE	.8614	FRA	.6299	FC3	-6.2776	BSP	4689
BDE	.0695	BRA	.4395	BC3	2.2557	FSP	-1078

MID-COURSE EXECUTION ACCURACY

SGT	1115.9	SGR	1167.5	SG3	374.8		
RRT	-.8182	RRF	.9513	RTF	-.8406		
SGB	1615.0	R23	-.1686	R13	.9425		
SG1	1540.0	SG2	486.4	THA	133.42		

ORBIT DETERMINATION ACCURACY

ST	252.5	SR	124.1	SS	730.9
CRT	-.7609	CRS	-.9249	CST	.5188
LSA	752.8	MSA	214.9	SSA	23.1
EL1	271.1	EL2	75.0	ALF	157.69

LAUNCH DATE AUG 30 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 298.153

RL	151.05	LAL	-.00	LOL	336.22	VL	26.909	GAL	-3.24	AZL	87.59	HCA	131.98	SMA	128.46	ECC	.18445	INC	2.4095	V1	29.497
RP	107.53	LAP	1.79	LOP	108.22	VP	37.884	GAP	-5.03	AZP	91.61	TAL	194.59	TAP	326.57	RCA	104.76	APO	152.15	V2	35.240
RC	63.355	GL	21.43	GP	-36.40	ZAL	111.19	ZAP	49.62	ETS	34.64	ZAE	134.72	ETE	305.59	ZAC	65.79	ETC	260.98	CLP	-36.40

PLANETOCENTRIC CONIC

C3	9.559	VHL	3.092	DLA	4.64	RAL	227.23	RAD	6567.3	VEL	11.443	PTH	1.98	VHP	4.986	DPA	-57.25	RAP	238.27	ECC	1.1573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 24 49	2197.30	-19.15	40.39	78.69	111.27	4 1 26	1597.3	-16.09	33.05
90.00	16 31 57	4552.92	11.17	191.94	77.40	63.81	17 47 50	3952.9	7.56	185.12
100.00	4 48 20	1927.90	-19.97	20.22	78.33	112.71	5 20 28	1327.9	-16.72	12.94
100.00	17 51 7	4297.55	11.97	172.75	76.99	62.40	19 2 44	3697.6	8.18	166.01
110.00	6 1 35	1698.67	-22.17	1.73	77.25	116.71	6 29 54	1098.7	-18.41	354.62
110.00	18 54 22	4099.55	14.07	156.49	75.76	58.52	20 2 41	3499.5	9.81	149.99

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0485	TRA	-.4070	TC3	1.1928	BAU	.3064	SGT	1060.5	SGR	1331.7	SG3	397.7	ST	245.1	SR	252.3	SS	838.9
RDE	.1284	RRA	.1343	RC3	-2.0801	FAU	.07153	RRT	-.8207	RRF	.9645	RTF	-.8303	CRT	-.6339	CRS	-.9893	CST	.5395
FDE	1.0298	FRA	.6593	FC3	-6.4781	BSP	5129	SGB	1702.4	R23	-.1507	R13	.9551	LSA	886.1	MSA	204.6	SSA	20.3
BDE	.1372	BRA	.4286	BC3	2.3978	FSP	-1179	SG1	1628.7	SG2	495.5	THA	127.18	EL1	318.0	EL2	150.4	ALF	133.69

LAUNCH DATE AUG 30 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 304.740

RL	151.05	LAL	-.00	LOL	336.22	VL	26.955	GAL	-3.28	AZL	87.23	HCA	135.22	SMA	128.77	ECC	.18197	INC	2.7704	V1	29.497
RP	107.52	LAP	1.95	LOP	111.47	VP	37.921	GAP	-4.46	AZP	91.97	TAL	195.02	TAP	330.24	RCA	105.34	APO	152.20	V2	35.245
RC	65.403	GL	24.52	GP	-39.75	ZAL	111.29	ZAP	54.09	ETS	32.65	ZAE	132.73	ETE	301.11	ZAC	62.41	ETC	260.50	CLP	-40.29

PLANETOCENTRIC CONIC

C3	9.825	VHL	3.135	DLA	7.77	RAL	227.55	RAD	6567.4	VEL	11.455	PTH	1.99	VHP	4.892	DPA	-60.22	RAP	235.11	ECC	1.1617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 2 4	2301.92	-21.59	47.09	80.12	108.78	3 40 26	1701.9	-18.82	39.51
90.00	16 57 13	4459.13	8.30	186.54	77.94	62.83	18 11 32	3859.1	4.59	179.82
100.00	4 27 9	2027.48	-22.46	26.57	79.79	110.26	5 0 57	1427.5	-19.50	19.03
100.00	18 14 49	4208.79	9.12	167.70	77.50	61.41	19 24 58	3608.8	5.23	161.06
110.00	5 43 57	1787.17	-24.77	7.29	78.75	114.34	6 13 44	1187.2	-21.27	359.89
110.00	19 14 31	4021.87	11.27	152.22	76.21	57.51	20 21 32	3421.9	6.91	145.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0532	TRA	-.3962	TC3	1.0386	BAU	.3272	SGT	983.7	SGR	1508.9	SG3	414.1	ST	240.6	SR	420.3	SS	958.8
RDE	.2230	RRA	.1678	RC3	-2.2642	FAU	.07307	RRT	-.8018	RRF	.9738	RTF	-.8055	CRT	-.6014	CRS	-.9976	CST	.5586
FDE	1.2207	FRA	.7061	FC3	-6.4387	BSP	5426	SGB	1801.2	R23	-.1281	R13	.9662	LSA	1055.7	MSA	197.8	SSA	17.3
BDE	.2293	BRA	.4302	BC3	2.4911	FSP	-1238	SG1	1726.4	SG2	513.8	THA	120.59	EL1	449.7	EL2	179.7	ALF	112.85

LAUNCH DATE AUG 30 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 311.304

RL	151.05	LAL	-.00	LOL	336.22	VL	26.994	GAL	-3.30	AZL	86.82	HCA	138.45	SMA	129.03	ECC	.17984	INC	3.1751	V1	29.497
RP	107.51	LAP	2.11	LOP	114.71	VP	37.953	GAP	-3.91	AZP	92.38	TAL	195.38	TAP	333.83	RCA	105.83	APO	152.24	V2	35.249
RC	67.486	GL	27.79	GP	-43.33	ZAL	111.11	ZAP	58.70	ETS	30.38	ZAE	130.42	ETE	296.40	ZAC	58.78	ETC	259.86	CLP	-44.43

PLANETOCENTRIC CONIC

C3	10.248	VHL	3.201	DLA	11.04	RAL	228.10	RAD	6567.4	VEL	11.473	PTH	1.99	VHP	4.849	DPA	-63.25	RAP	230.84	ECC	1.1687

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 38 10	2416.55	-23.90	54.69	82.21	105.65	3 18 26	1816.5	-21.52	46.83
90.00	17 25 31	4361.30	5.22	181.00	79.09	62.13	18 38 12	3761.3	1.45	174.35
100.00	4 5 2	2136.35	-24.84	33.78	81.91	107.18	4 40 39	1536.3	-22.25	25.94
100.00	18 41 19	4116.73	6.08	162.55	78.62	60.68	19 49 56	3516.7	2.13	155.99
110.00	5 25 50	1883.54	-27.32	13.62	80.94	111.39	5 57 13	1283.5	-24.17	5.87
110.00	19 37 1	3942.30	8.33	147.94	77.24	56.73	20 42 43	3342.3	3.89	141.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0458	TRA	-.3844	TC3	.8416	BAU	.3500	SGT	887.9	SGR	1702.6	SG3	422.8	ST	226.3	SR	618.3	SS	1074.4
RDE	.3384	RRA	.2105	RC3	-2.4120	FAU	.07314	RRT	-.7612	RRF	.9806	RTF	-.7608	CRT	-.5335	CRS	-.9993	CST	.5105
FDE	1.4126	FRA	.7559	FC3	-6.1788	BSP	5775	SGB	1920.3	R23	-.1013	R13	.9756	LSA	1245.0	MSA	193.5	SSA	14.6
BDE	.3415	BRA	.4382	BC3	2.5546	FSP	-1272	SG1	1845.3	SG2	531.3	THA	113.74	EL1	631.1	EL2	187.5	ALF	102.14

LAUNCH DATE AUG 30 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 317.843

RL	151.05	LAL	-.00	LOL	336.22	VL	27.026	GAL	-3.32	AZL	86.36	HCA	141.69	SMA	129.25	ECC	.17804	INC	3.6350	V1	29.497
RP	107.50	LAP	2.25	LOP	117.96	VP	37.979	GAP	-3.37	AZP	92.85	TAL	195.65	TAP	337.34	RCA	106.24	APO	152.27	V2	35.253
RC	69.600	GL	31.26	GP	-47.10	ZAL	110.64	ZAP	63.38	ETS	27.74	ZAE	127.77	ETE	291.52	ZAC	54.95	ETC	259.03	CLP	-48.84

PLANETOCENTRIC CONIC

C3	10.868	VHL	3.297	DLA	14.43	RAL	228.90	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	4.865	DPA	-66.25	RAP	225.14	ECC	1.1789

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 12 15	2544.17	-25.96	63.47	85.03	101.72	2 54 39	1944.2	-24.09	55.31
90.00	17 57 47	4257.51	1.89	175.19	80.93	61.74	19 8 44	3657.5	-1.90	168.56
100.00	3 41 18	2256.97	-27.01	42.09	84.77	103.33	4 18 55	1657.0	-24.90	33.92
100.00	19 11 24	4019.93	2.83	157.20	80.41	60.23	20 18 24	3419.9	-1.15	150.68
110.00	5 6 48	1989.45	-29.74	20.91	83.91	107.69	5 39 58	1389.4	-27.03	12.77
110.00	20 2 24	3860.22	5.24	143.59	78.91	56.17	21 6 44	3260.2	.76	137.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0199	TRA	-.3689	TC3	.6155	BAU	.3753	SGT	777.3	SGR	1909.7	SG3	422.1	ST	202.0	SR	842.7	SS	1177.7
RDE	.4771	RRA	.2639	RC3	-2.5084	FAU	.07158	RRT	-.6826	RRF	.9855	RTF	-.6786	CRT	-.3375	CRS	-.9997	CST	.3231
FDE	1.5914	FRA	.8044	FC3	-5.7016	BSP	6204	SGB	2061.9	R23	-.0736	R13	.9828	LSA	1449.6	MSA	190.9	SSA	12.3
BDE	.4775	BRA	.4536	BC3	2.5828	FSP	-1281	SG1	1988.4	SG2	545.6	THA	106.83	EL1	845.6	EL2	189.5	ALF	94.87

LAUNCH DATE AUG 30 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 324.356

RL	151.05	LAL	-.00	LOL	336.22	VL	27.053	GAL	-3.32	AZL	85.83	HCA	144.92	SMA	129.43	ECC	.17652	INC	4.1657
RP	107.49	LAP	2.39	LOP	121.20	VP	38.001	GAP	-2.85	AZP	93.41	TAL	195.84	TAP	340.76	RCA	106.59	APO	152.28
RC	71.740	GL	34.91	GP	-51.03	ZAL	109.88	ZAP	68.03	ETS	24.64	ZAE	124.77	ETE	286.53	ZAC	50.94	ETC	257.95

V1	29.497	V2	35.255	CLP	-53.51														

PLANETOCENTRIC CONIC

C3	11.752	VHL	3.428	DLA	17.94	RAL	229.95	RAD	6567.4	VEL	11.539	PTH	2.01	VHP	4.950	DPA	-69.10	RAP	217.58
ECC	1.1934																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 42 55	2689.68	-27.56	73.82	88.63	96.78	2 27 45	2089.7	-26.33	65.36
90.00	18 35 33	4144.33	-1.76	168.88	83.61	61.73	19 44 37	3544.3	-5.52	162.22
100.00	3 14 51	2393.24	-28.77	51.83	88.45	98.49	3 54 44	1793.2	-27.29	43.34
100.00	19 46 18	3916.00	-.69	151.50	83.02	60.11	20 51 34	3316.0	-4.66	144.96
110.00	4 46 15	2107.26	-31.87	29.42	87.76	103.07	5 21 23	1507.3	-29.75	20.86
110.00	20 31 23	3774.75	1.99	139.11	81.35	55.87	21 34 18	3174.8	-2.51	132.91

DIFFERENTIAL CORRECTIONS

TDE	.0311	TRA	-.3484	TC3	.3685	BAU	.4019
RDE	.6429	RRA	.3307	RC3	-2.5313	FAU	.06814
FDE	1.7463	FRA	.8486	FC3	-5.0198	BSP	6693
BDE	.6437	BRA	.4803	BC3	2.5580	FSP	-1256

MID-COURSE EXECUTION ACCURACY

SGT	664.1	SGR	2122.3	SG3	410.6		
RRT	-.5237	RRF	.9890	RTF	-.5164		
SGB	2223.8	R23	-.0468	R13	.9879		
SG1	2152.7	SG2	557.8	THA	99.98		

ORBIT DETERMINATION ACCURACY

ST	191.0	SR	1089.9	SS	1263.7		
CRT	.1131	CRS	-.9999	CST	-.1223		
LSA	1668.8	MSA	189.8	SSA	10.3		
EL1	1090.1	EL2	189.7	ALF	88.83		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 330.842

RL	151.05	LAL	-.00	LOL	336.22	VL	27.074	GAL	-3.31	AZL	85.21	HCA	148.15	SMA	129.58	ECC	.17526	INC	4.7893
RP	107.48	LAP	2.53	LOP	124.45	VP	38.017	GAP	-2.35	AZP	94.07	TAL	195.95	TAP	344.09	RCA	106.87	APO	152.29
RC	73.903	GL	38.75	GP	-55.07	ZAL	108.82	ZAP	72.56	ETS	21.01	ZAE	121.43	ETE	281.46	ZAC	46.81	ETC	256.58

V1	29.497	V2	35.257	CLP	-58.43														

PLANETOCENTRIC CONIC

C3	12.999	VHL	3.605	DLA	21.56	RAL	231.29	RAD	6567.5	VEL	11.592	PTH	2.03	VHP	5.116	DPA	-71.62	RAP	207.70
ECC	1.2139																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 7 21	2862.48	-28.31	86.39	93.01	90.52	1 55 4	2262.5	-27.94	77.75
90.00	19 21 46	4014.41	-5.92	161.59	87.38	62.26	20 28 40	3414.4	-9.59	154.84
100.00	2 43 38	2552.03	-29.80	63.51	92.96	92.44	3 26 10	1952.0	-29.15	54.76
100.00	20 28 10	3800.10	-4.61	145.13	86.66	60.43	21 31 30	3200.1	-8.51	138.51
110.00	4 23 11	2240.58	-33.48	39.48	92.59	97.32	5 0 32	1640.6	-32.11	30.52
110.00	21 5 7	3684.31	-1.47	134.40	84.71	55.84	22 6 31	3084.3	-5.94	128.16

DIFFERENTIAL CORRECTIONS

TDE	.1176	TRA	-.3188	TC3	.1200	BAU	.4288
RDE	.8380	RRA	.4138	RC3	-2.4644	FAU	.06284
FDE	1.8632	FRA	.8848	FC3	-4.1852	BSP	7232
BDE	.8462	BRA	.5224	BC3	2.4674	FSP	-1196

MID-COURSE EXECUTION ACCURACY

SGT	582.4	SGR	2330.5	SG3	387.9		
RRT	-.2136	RRF	.9915	RTF	-.2031		
SGB	2402.2	R23	-.0226	R13	.9913		
SG1	2334.1	SG2	568.1	THA	93.25		

ORBIT DETERMINATION ACCURACY

ST	248.3	SR	1349.6	SS	1324.8		
CRT	.6390	CRS	-.9999	CST	-.6438		
LSA	1897.9	MSA	189.9	SSA	8.5		
EL1	1359.1	EL2	189.7	ALF	83.16		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 337.301

RL	151.05	LAL	-.00	LOL	336.22	VL	27.090	GAL	-3.29	AZL	84.46	HCA	151.37	SMA	129.69	ECC	.17423	INC	5.5375
RP	107.48	LAP	2.65	LOP	127.70	VP	38.030	GAP	-1.87	AZP	94.86	TAL	195.97	TAP	347.34	RCA	107.09	APO	152.28
RC	76.087	GL	42.76	GP	-59.19	ZAL	107.49	ZAP	76.83	ETS	16.78	ZAE	117.78	ETE	276.30	ZAC	42.58	ETC	254.82

V1	29.497	V2	35.258	CLP	-63.58														

PLANETOCENTRIC CONIC

C3	14.778	VHL	3.844	DLA	25.29	RAL	232.92	RAD	6567.6	VEL	11.669	PTH	2.05	VHP	5.383	DPA	-73.61	RAP	195.09
ECC	1.2432																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 42	3087.96	-27.35	102.79	97.90	82.38	1 9 10	2488.0	-28.13	94.21
90.00	20 24 26	3845.18	-11.16	151.92	92.71	63.80	21 28 31	3245.2	-14.59	144.92
100.00	2 2 56	2748.72	-29.47	78.10	98.17	84.78	2 48 44	2148.7	-29.89	69.32
100.00	21 21 54	3659.65	-9.26	137.29	91.71	61.45	22 22 53	3059.7	-13.00	130.50
110.00	3 55 49	2395.50	-34.18	51.51	98.41	90.24	4 35 45	1795.5	-33.77	42.29
110.00	21 45 29	3585.64	-5.23	129.23	89.25	56.17	22 45 15	2985.6	-9.64	122.91

DIFFERENTIAL CORRECTIONS

TDE	.2534	TRA	-.2755	TC3	-.1094	BAU	.4548
RDE	1.0640	RRA	.5158	RC3	-2.2992	FAU	.05594
FDE	1.9315	FRA	.9079	FC3	-3.2771	BSP	7825
BDE	1.0937	BRA	.5848	BC3	2.3018	FSP	-1105

MID-COURSE EXECUTION ACCURACY

SGT	596.6	SGR	2522.4	SG3	354.9		
RRT	.2402	RRF	.9932	RTF	.2527		
SGB	2592.0	R23	-.0010	R13	.9933		
SG1	2526.6	SG2	578.2	THA	86.57		

ORBIT DETERMINATION ACCURACY

ST	401.5	SR	1607.0	SS	1355.6		
CRT	.8746	CRS	-1.0000	CST	-.8770		
LSA	2131.8	MSA	191.3	SSA	7.1		
EL1	1645.5	EL2	190.1	ALF	77.51		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 343.731

RL	151.05	LAL	-.00	LOL	336.22	VL	27.101	GAL	-3.26	AZL	83.54	HCA	154.59	SMA	129.76	ECC	.17341	INC	6.4578
RP	107.48	LAP	2.77	LOP	130.95	VP	38.038	GAP	-1.40	AZP	95.84	TAL	195.90	TAP	350.49	RCA	107.26	APO	152.26
RC	78.289	GL	46.90	GP	-63.39	ZAL	105.89	ZAP	80.74	ETS	11.88	ZAE	113.83	ETE	271.02	ZAC	38.27	ETC	252.53

V1	29.497	V2	35.259	CLP	-68.95														

PLANETOCENTRIC CONIC

C3	17.370	VHL	4.168	DLA	29.07	RAL	234.87	RAD	6567.7	VEL	11.779	PTH	2.08	VHP	5.778	DPA	-74.86	RAP	179.83
ECC	1.2859																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.12	21 30 2	3687.07	-20.95	144.81	101.38	69.37	22 31 29	3087.1	-23.57	137.05
96.88	23 23 42	3319.50	-20.93	117.84	101.37	69.35	24 19 1	2719.5	-23.56	110.09
100.00	0 50 52	3052.38	-25.62	99.78	103.06	74.05	1 41 44	2452.4	-27.56	91.52
100.00	22 49 29	3429.43	-16.40	123.93	99.34	64.65	23 46 38	2829.4	-19.68	116.68
110.00	3 20 13	2584.68	-33.26	66.18	104.95	81.63	4 3 18	1984.7	-34.06	57.03
110.00	22 36 37	3469.89	-9.57	123.08	95.44	57.03	23 34 27	2869.9	-13.85	116.59

DIFFERENTIAL CORRECTIONS

TDE	.4585	TRA	-.2112	TC3	-.2977	BAU	.4772
RDE	1.3226	RRA	.6424	RC3	-2.0332	FAU	.04774
FDE	1.9479	FRA	.9174	FC3	-2.3794	BSP	8424
BDE	1.3998	BRA	.6762	BC3	2.0549	FSP	-986

MID-COURSE EXECUTION ACCURACY

SGT	754.5	SGR	2683.2	SG3	313.7		
RRT	.6081	RRF	.9943	RTF	.6208		
SGB	2787.2	R23	.0184	R13	.9944		
SG1	2724.1	SG2	589.9	THA	79.81		

ORBIT DETERMINATION ACCURACY

ST	638.2	SR	1844.1	SS	1354.4		
CRT	.9485	CRS	-1.0000	CST	-.9501		
LSA	2367.4	MSA	194.4	SSA	6.0		
EL1	1941.9	EL2	192.0	ALF	71.64		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 350.129

RL	151.05	LAL	-.00	LOL	336.22	VL	27.107	GAL	-3.22	AZL	82.37	HCA	157.81	SMA	129.81	ECC	.17278	INC	7.6252
RP	107.48	LAP	2.87	LOP	134.20	VP	38.042	GAP	-.95	AZP	97.07	TAL	195.75	TAP	353.55	RCA	107.38	APO	152.24
RC	80.507	GL	51.13	GP	-67.67	ZAL	104.06	ZAP	84.19	ETS	6.18	ZAE	109.61	ETE	265.46	ZAC	33.88	ETC	249.48

V1	29.497	V2	35.258	CLP	-74.54														

PLANETOCENTRIC CONIC

C3	21.276	VHL	4.613	DLA	32.86	RAL	237.15	RAD	6567.9	VEL	11.944	PTH	2.13	VHP	6.345	DPA	-75.16	RAP	162.84
ECC	1.3502																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.58	20 22 29	3977.78	-22.19	167.17	108.02	65.11	21 28 47	3377.8	-25.35	159.56
107.42	0 53 24	3124.63	-22.18	103.80	108.02	65.10	1 45 28	2524.6	-25.34	96.19
72.58	20 22 29	3977.78	-22.19	167.17	108.02	65.11	21 28 47	3377.8	-25.35	159.56
107.42	0 53 24	3124.63	-22.18	103.80	108.02	65.10	1 45 28	2524.6	-25.34	96.19
110.00	2 21 11	2854.57	-28.82	85.91	111.00	70.78	3 8 46	2254.6	-31.17	77.49
110.00	23 53 52	3295.84	-15.84	113.49	104.49	59.31	24 48 48	2695.8	-19.79	106.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7656	TRA	-.1127	TC3	-.4241	BAU	.4934	SGT	1041.8	SGR	2793.2	SG3	267.2	ST	952.4	SR	2031.5
RDE	1.6100	RRA	.7986	RC3	-1.6820	FAU	.03879	RRT	.7946	RRF	.9950	RTF	.8076	CRT	.9741	CRS	-1.0000
FDE	1.9108	FRA	.9107	FC3	-1.5785	BSP	9039	SGB	2981.1	R23	.0361	R13	.9947	LSA	2595.5	MSA	199.4
BDE	1.7828	BRA	.8065	BC3	1.7346	FSP	-850	SG1	2919.0	SG2	605.3	THA	72.73	EL1	2235.1	EL2	195.7

SS	1320.0	CST	-.9756	SSA	5.0
ALF	65.25				

LAUNCH DATE AUG 30 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 356.492

RL	151.05	LAL	-.00	LOL	336.22	VL	27.110	GAL	-3.16	AZL	80.84	HCA	161.01	SMA	129.82	ECC	.17232	INC	9.1645
RP	107.48	LAP	2.97	LOP	137.45	VP	38.043	GAP	-.51	AZP	98.67	TAL	195.50	TAP	356.51	RCA	107.45	APO	152.20
RC	82.739	GL	55.36	GP	-72.11	ZAL	102.04	ZAP	87.07	ETS	359.39	ZAE	105.10	ETE	259.30	ZAC	29.36	ETC	245.16

V1	29.497	V2	35.257	CLP	-80.42														

PLANETOCENTRIC CONIC

C3	27.461	VHL	5.240	DLA	36.57	RAL	239.79	RAD	6568.1	VEL	12.200	PTH	2.19	VHP	7.160	DPA	-74.45	RAP	145.73
ECC	1.4519																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.83	19 53 22	4160.44	-22.44	181.66	115.97	60.34	21 2 42	3560.4	-26.21	174.33
114.17	1 43 32	3067.05	-22.43	99.42	115.96	60.33	2 34 39	2467.0	-26.20	92.10
65.83	19 53 22	4160.44	-22.44	181.66	115.97	60.34	21 2 42	3560.4	-26.21	174.33
114.17	1 43 32	3067.05	-22.43	99.42	115.96	60.33	2 34 39	2467.0	-26.20	92.10
65.83	19 53 22	4160.44	-22.44	181.66	115.97	60.34	21 2 42	3560.4	-26.21	174.33
114.17	1 43 32	3067.05	-22.43	99.42	115.96	60.33	2 34 39	2467.0	-26.20	92.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2322	TRA	.0441	TC3	-.4764	BAU	.4982	SGT	1438.0	SGR	2823.4	SG3	219.0	ST	1347.4	SR	2129.8
RDE	1.9120	RRA	.9932	RC3	-1.2706	FAU	.02960	RRT	.8774	RRF	.9952	RTF	.8929	CRT	.9841	CRS	-.9999
FDE	1.8283	FRA	.8907	FC3	-.9332	BSP	9630	SGB	3168.5	R23	.0530	R13	.9946	LSA	2808.7	MSA	207.4
BDE	2.2746	BRA	.9941	BC3	1.3570	FSP	-704	SG1	3105.8	SG2	627.1	THA	64.82	EL1	2512.1	EL2	202.8

SS	1257.0	CST	-.9861	SSA	4.2
ALF	57.86				

LAUNCH DATE AUG 30 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 362.812

RL	151.05	LAL	-.00	LOL	336.22	VL	27.109	GAL	-3.09	AZL	78.70	HCA	164.20	SMA	129.82	ECC	.17201	INC	11.2992
RP	107.49	LAP	3.06	LOP	140.70	VP	38.040	GAP	-.09	AZP	100.88	TAL	195.17	TAP	359.37	RCA	107.49	APO	152.15
RC	84.985	GL	59.42	GP	-76.82	ZAL	99.90	ZAP	89.31	ETS	350.63	ZAE	100.21	ETE	251.60	ZAC	24.60	ETC	238.31

V1	29.497	V2	35.255	CLP	-86.95														

PLANETOCENTRIC CONIC

C3	37.953	VHL	6.161	DLA	40.03	RAL	242.77	RAD	6568.5	VEL	12.622	PTH	2.29	VHP	8.360	DPA	-72.70	RAP	129.88
ECC	1.6246																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.44	19 38 36	4318.89	-21.25	193.92	125.20	55.25	20 50 35	3718.9	-25.65	187.05
119.56	2 22 4	3071.32	-21.24	98.97	125.19	55.24	3 13 16	2471.3	-25.64	92.10
60.44	19 38 36	4318.89	-21.25	193.92	125.20	55.25	20 50 35	3718.9	-25.65	187.05
119.56	2 22 4	3071.32	-21.24	98.97	125.19	55.24	3 13 16	2471.3	-25.64	92.10
60.44	19 38 36	4318.89	-21.25	193.92	125.20	55.25	20 50 35	3718.9	-25.65	187.05
119.56	2 22 4	3071.32	-21.24	98.97	125.19	55.24	3 13 16	2471.3	-25.64	92.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.9780	TRA	.3176	TC3	-.4519	BAU	.4824	SGT	1960.3	SGR	2708.5	SG3	172.3	ST	1843.3	SR	2060.1
RDE	2.1618	RRA	1.2299	RC3	-.8365	FAU	.02068	RRT	.9132	RRF	.9940	RTF	.9365	CRT	.9878	CRS	-.9997
FDE	1.7147	FRA	.8622	FC3	-.4717	BSP	10195	SGB	3343.5	R23	.0695	R13	.9941	LSA	2995.3	MSA	220.2
BDE	2.9301	BRA	1.2703	BC3	.9507	FSP	-560	SG1	3277.7	SG2	660.2	THA	54.91	EL1	2756.0	EL2	214.9

SS	1174.1	CST	-.9913	SSA	3.6
ALF	48.22				

LAUNCH DATE AUG 30 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 369.076

RL	151.05	LAL	-.00	LOL	336.22	VL	27.104	GAL	-3.00	AZL	75.53	HCA	167.35	SMA	129.78	ECC	.17181	INC	14.4713
RP	107.50	LAP	3.14	LOP	143.95	VP	38.035	GAP	.31	AZP	104.13	TAL	194.74	TAP	2.08	RCA	107.49	APO	152.08
RC	87.241	GL	63.04	GP	-82.02	ZAL	97.70	ZAP	90.84	ETS	336.64	ZAE	94.75	ETE	238.96	ZAC	19.41	ETC	224.81

V1	29.497	V2	35.253	CLP	-96.07

PLANETOCENTRIC CONIC

C3	57.583	VHL	7.588	DLA	42.97	RAL	246.03	RAD	6569.0	VEL	13.377	PTH	2.44	VHP	10.219	DPA	-69.87	RAP	115.82
ECC	1.9477																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.22	19 33 25	4473.41	-18.16	204.81	135.43	50.36	20 47 58	3873.4	-23.14	198.54
123.78	2 53 18	3125.32	-18.14	101.15	135.42	50.35	3 45 24	2525.3	-23.12	94.87
56.22	19 33 25	4473.41	-18.16	204.81	135.43	50.36	20 47 58	3873.4	-23.14	198.54
123.78	2 53 18	3125.32	-18.14	101.15	135.42	50.35	3 45 24	2525.3	-23.12	94.87
56.22	19 33 25	4473.41	-18.16	204.81	135.43	50.36	20 47 58	3873.4	-23.14	198.54
123.78	2 53 18	3125.32	-18.14	101.15	135.42	50.35	3 45 24	2525.3	-23.12	94.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.2842	TRA	.8832	TC3	-.3601	BAU	.4244	SGT	2697.9	SGR	2231.0	SG3	130.5	ST	2494.9	SR	1591.9
RDE	2.0224	RRA	1.4517	RC3	-.4175	FAU	.01229	RRT	.9135	RRF	.9837	RTF	.9651	CRT	.9845	CRS	-.9972
FDE	1.5982	FRA	.8377	FC3	-.1847	BSP	10700	SGB	3500.8	R23	.0861	R13	.9935	LSA	3144.4	MSA	242.1
BDE	3.8570	BRA	1.6992	BC3	.5513	FSP	-428	SG1	3427.1	SG2	714.6	THA	39.09	EL1	2950.0	EL2	236.4

SS	1089.8	CST	-.9948	SSA	2.9
ALF	32.37				

LAUNCH DATE AUG 30 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 375.251

```
RL  151.05 LAL   -.00 LOL 336.22 VL  27.096 GAL  -2.89 AZL  70.32 HCA 170.44 SMA 129.73 ECC .17170 INC19.6766 V1  29.497
RP  107.51 LAP   3.21 LOP 147.20 VP  38.026 GAP    .68 AZP 109.42 TAL 194.17 TAP   4.61 RCA 107.46 APO 152.00 V2  35.249
RC  89.506 GL   65.64 GP  -87.76 ZAL  95.52 ZAP  91.64 ETS 298.64 ZAE  88.25 ETE 202.50 ZAC  13.38 ETC 183.21 CLP-137.00
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PLANETOCENTRIC CONIC

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C3 100.058 VHL 10.003 DLA  44.84 RAL 249.37 RAD 6569.9 VEL 14.879 PTH   2.69 VHP 13.352 DPA -65.57 RAP 103.42 ECC 2.6467
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.65	19 36 37	4627.95	-12.94	213.96	146.03	46.68	20 53 44	4028.0	-18.35	208.26
126.35	3 16 43	3226.18	-12.92	105.45	146.01	46.68	4 10 30	2626.2	-18.33	99.74
53.65	19 36 37	4627.95	-12.94	213.96	146.03	46.68	20 53 44	4028.0	-18.35	208.26
126.35	3 16 43	3226.18	-12.92	105.45	146.01	46.68	4 10 30	2626.2	-18.33	99.74
53.65	19 36 37	4627.95	-12.94	213.96	146.03	46.68	20 53 44	4028.0	-18.35	208.26
126.35	3 16 43	3226.18	-12.92	105.45	146.01	46.68	4 10 30	2626.2	-18.33	99.74

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.2448 TRA 2.2976 TC3 -.1919 BAU  .2656   SGT 3552.1 SGR  750.3 SG3   96.3     ST  3055.4 SR   419.5 SS  1038.7
 RDE -.6502 RRA  .7964 RC3 -.0509 FAU .00415   RRT  .0429 RRF  .1444 RTF  .9932     CRT -.7891 CRS  .7597 CST -.9989
 FDE 1.5306 FRA  .8464 FC3 -.0359 BSP  11127   SGB 3630.5 R23  .0999 R13  .9934     LSA 3243.7 MSA  261.9 SSA    2.1
 BDE 5.2850 BRA 2.4317 BC3  .1985 FSP   -317   SG1 3552.3 SG2  749.6 THA    .54     EL1 3073.4 EL2  256.2 ALF 173.77
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 381.243

```
RL  151.05 LAL   -.00 LOL 336.22 VL  27.085 GAL  -2.73 AZL  60.40 HCA 173.38 SMA 129.66 ECC .17159 INC29.6017 V1  29.497
RP  107.52 LAP   3.26 LOP 150.45 VP  38.014 GAP    .99 AZP 119.44 TAL 193.39 TAP   6.78 RCA 107.41 APO 151.90 V2  35.245
RC  91.778 GL   65.69 GP  -82.53 ZAL  93.48 ZAP  91.71 ETS 218.14 ZAE  79.44 ETE 123.54 ZAC   6.24 ETC  74.92 CLP 103.28
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PLANETOCENTRIC CONIC

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C3 215.042 VHL 14.664 DLA  44.24 RAL 252.14 RAD 6571.2 VEL 18.340 PTH   3.03 VHP 19.382 DPA -58.57 RAP  92.28 ECC 4.5390
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.48	19 50 52	4758.75	-6.29	219.47	155.66	46.12	21 10 11	4158.7	-11.80	214.01
125.52	3 24 38	3373.66	-6.28	112.48	155.64	46.12	4 20 51	2773.7	-11.78	107.01
54.48	19 50 52	4758.75	-6.29	219.47	155.66	46.12	21 10 11	4158.7	-11.80	214.01
125.52	3 24 38	3373.66	-6.28	112.48	155.64	46.12	4 20 51	2773.7	-11.78	107.01
54.48	19 50 52	4758.75	-6.29	219.47	155.66	46.12	21 10 11	4158.7	-11.80	214.01
125.52	3 24 38	3373.66	-6.28	112.48	155.64	46.12	4 20 51	2773.7	-11.78	107.01

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.3276 TRA 2.1977 TC3  .0049 BAU  .2250   SGT 1504.5 SGR 3394.1 SG3   72.0     ST   977.9 SR  2943.6 SS  1099.9
 RDE-7.4123 RRA-3.2182 RC3 -.0781 FAU-.00636   RRT -.9283 RRF -.9886 RTF  .9712     CRT -.9807 CRS  .9979 CST -.9914
 FDE 1.6309 FRA  .9737 FC3  .0256 BSP  11010   SGB 3712.6 R23 -.0852 R13 -.9954     LSA 3285.7 MSA  187.8 SSA    1.8
 BDE 7.7692 BRA 3.8970 BC3  .0783 FSP   -228   SG1 3676.5 SG2  516.5 THA 112.84     EL1 3096.5 EL2  181.7 ALF 108.11
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 386.694

```
RL  151.05 LAL   -.00 LOL 336.22 VL  27.072 GAL  -2.47 AZL  37.13 HCA 175.85 SMA 129.56 ECC .17120 INC52.8680 V1  29.497
RP  107.53 LAP   3.31 LOP 153.70 VP  38.000 GAP   1.16 AZP 142.80 TAL 192.09 TAP   7.94 RCA 107.38 APO 151.74 V2  35.240
RC  94.056 GL   58.55 GP  -67.46 ZAL  91.73 ZAP  91.17 ETS 191.71 ZAE  64.21 ETE  98.37 ZAC  12.13 ETC 305.78 CLP  93.06
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PLANETOCENTRIC CONIC

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C3 638.926 VHL 25.277 DLA  36.72 RAL 252.75 RAD 6572.6 VEL 27.572 PTH   3.40 VHP 33.085 DPA -44.76 RAP  82.08 ECC11.5151
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.58	20 43 46	4730.51	-.77	212.40	161.73	53.29	22 2 37	4130.5	-5.54	206.38
114.42	2 36 33	3629.43	-.76	129.53	161.71	53.29	3 37 2	3029.4	-5.53	123.52
65.58	20 43 46	4730.51	-.77	212.40	161.73	53.29	22 2 37	4130.5	-5.54	206.38
114.42	2 36 33	3629.43	-.76	129.53	161.71	53.29	3 37 2	3029.4	-5.53	123.52
65.58	20 43 46	4730.51	-.77	212.40	161.73	53.29	22 2 37	4130.5	-5.54	206.38
114.42	2 36 33	3629.43	-.76	129.53	161.71	53.29	3 37 2	3029.4	-5.53	123.52

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.4979 TRA  .8214 TC3 -.0503 BAU 1.9086   SGT  662.8 SGR 3510.1 SG3   58.3     ST   570.5 SR  2726.5 SS  1423.9
 RD-11.7294 RRA-7.1088 RC3 -.2177 FAU-.03211   RRT  .5667 RRF -.9978 RTF -.5175     CRT  .9409 CRS  .9995 CST  .9296
 FDE 2.1263 FRA 1.4807 FC3  .0435 BSP  10827   SGB 3572.1 R23 -.0751 R13 -.9967     LSA 3122.1 MSA  198.1 SSA    1.6
 BDE11.9924 BRA 7.1561 BC3 -.2234 FSP   -186   SG1 3530.6 SG2  542.9 THA  83.74     EL1 2779.0 EL2  189.5 ALF  78.81
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 397.647

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RL  151.05 LAL   -.00 LOL 336.22 VL  27.056 GAL  -3.26 AZL 167.58 HCA 183.43 SMA 129.45 ECC .17598 INC77.5771 V1  29.497
RP  107.55 LAP   3.35 LOP 156.95 VP  37.984 GAP   2.81 AZP  12.44 TAL 195.57 TAP  19.00 RCA 106.67 APO 152.24 V2  35.235
RC  96.339 GL  -48.05 GP   54.10 ZAL  91.83 ZAP  92.21 ETS 182.65 ZAE  57.43 ETE 273.89 ZAC 131.90 ETC 281.95 CLP  93.77
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PLANETOCENTRIC CONIC

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C31258.084 VHL 35.469 DLA -66.97 RAL 220.26 RAD 6573.1 VEL 37.140 PTH   3.54 VHP 45.633 DPA  72.65 RAP  36.45 ECC21.7049
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.39	4 24 19	2436.67	-.98	76.45	130.66	156.96	5 4 56	1836.7	6.38	73.73
153.61	14 36 48	704.02	-.97	290.17	130.68	156.96	14 48 32	104.0	6.39	287.45
26.39	4 24 19	2436.67	-.98	76.45	130.66	156.96	5 4 56	1836.7	6.38	73.73
153.61	14 36 48	704.02	-.97	290.17	130.68	156.96	14 48 32	104.0	6.39	287.45
26.39	4 24 19	2436.67	-.98	76.45	130.66	156.96	5 4 56	1836.7	6.38	73.73
153.61	14 36 48	704.02	-.97	290.17	130.68	156.96	14 48 32	104.0	6.39	287.45

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.7233 TRA 1.2728 TC3 -.1124 BAU 4.1346   SGT 1446.0 SGR 2934.3 SG3   57.4     ST  1097.7 SR  2488.6 SS  2266.8
 RD-15.4016 RRA  .2928 RC3  .2186 FAU-.06804   RRT -.9132 RRF  .9994 RTF -.9123     CRT -.9874 CRS-1.0000 CST  .9877
 FDE-3.5584 FRA  .0582 FC3  .0468 BSP   9911   SGB 3271.2 R23 -.0779 R13  .9964     LSA 3536.9 MSA  164.2 SSA    2.4
 BDE16.8051 BRA 1.3060 BC3  .2458 FSP   -179   SG1 3227.1 SG2  535.8 THA 114.96     EL1 2715.3 EL2  159.0 ALF 113.62
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 402.344

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RL  151.05 LAL   -.00 LOL 336.22 VL  27.038 GAL  -2.83 AZL 130.30 HCA 185.22 SMA 129.33 ECC .17486 INC40.2998 V1  29.497
RP  107.57 LAP   3.37 LOP 160.20 VP  37.965 GAP   2.77 AZP  49.82 TAL 193.57 TAP  18.79 RCA 106.72 APO 151.95 V2  35.229
RC  98.624 GL  -62.88 GP   75.37 ZAL  92.73 ZAP  93.92 ETS 178.29 ZAE  79.23 ETE 268.56 ZAC 152.53 ETC 286.47 CLP 105.72
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PLANETOCENTRIC CONIC

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C3 385.130 VHL 19.625 DLA -76.91 RAL 182.27 RAD 6572.1 VEL 22.504 PTH   3.26 VHP 25.095 DPA  79.51 RAP 293.87 ECC 7.3383
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.91	1 28 41	2388.04	4.02	81.34	91.32	166.87	2 8 29	1788.0	11.81	79.91
165.09	12 29 23	600.14	4.03	283.21	91.35	166.87	12 39 23	.1	11.81	281.78
14.91	1 28 41	2388.04	4.02	81.34	91.32	166.87	2 8 29	1788.0	11.81	79.91
165.09	12 29 23	600.14	4.03	283.21	91.35	166.87	12 39 23	.1	11.81	281.78
14.91	1 28 41	2388.04	4.02	81.34	91.32	166.87	2 8 29	1788.0	11.81	79.91
165.09	12 29 23	600.14	4.03	283.21	91.35	166.87	12 39 23	.1	11.81	281.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 2.1437 TRA  .8836 TC3 -.0676 BAU 1.0208   SGT 1326.1 SGR 3692.4 SG3   69.0          ST   713.1 SR  2836.5 SS  1368.9
RDE-9.4084 RRA-1.8287 RC3  .1864 FAU-.01487   RRT -.9387 RRF  .9989 RTF -.9266          CRT -.9695 CRS -.9999 CST  .9657
FDE-2.1021 FRA -.3833 FC3  .0334 BSP  12245   SGB 3923.3 R23 -.0702 R13  .9970          LSA 3224.6 MSA  173.7 SSA    1.6
BDE 9.6496 BRA 2.0310 BC3  .1983 FSP   -220   SG1 3899.4 SG2  432.8 THA 108.87          EL1 2919.8 EL2  169.8 ALF 103.74
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 408.062

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RL  151.05 LAL   -.00 LOL 336.22 VL  27.018 GAL  -2.60 AZL 115.19 HCA 187.99 SMA 129.19 ECC .17499 INC25.1910 V1  29.497
RP  107.59 LAP   3.39 LOP 163.45 VP  37.945 GAP   3.00 AZP  65.02 TAL 192.40 TAP  20.39 RCA 106.59 APO 151.80 V2  35.222
RC 100.910 GL  -65.91 GP   82.71 ZAL  93.74 ZAP  96.66 ETS 133.93 ZAE  90.49 ETE 223.75 ZAC 161.42 ETC 258.79 CLP 156.08
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PLANETOCENTRIC CONIC

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C3 158.366 VHL 12.584 DLA -76.84 RAL 167.56 RAD 6570.7 VEL 16.724 PTH   2.90 VHP 16.024 DPA  70.36 RAP 263.30 ECC 3.6063
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.98	0 30 9	2266.49	12.07	79.89	74.69	166.54	1 7 56	1666.5	19.84	78.33
165.02	11 30 33	5766.88	12.07	259.73	74.71	166.54	13 6 40	5166.9	19.84	258.18
14.98	0 30 9	2266.49	12.07	79.89	74.69	166.54	1 7 56	1666.5	19.84	78.33
165.02	11 30 33	5766.88	12.07	259.73	74.71	166.54	13 6 40	5166.9	19.84	258.18
14.98	0 30 9	2266.49	12.07	79.89	74.69	166.54	1 7 56	1666.5	19.84	78.33
165.02	11 30 33	5766.88	12.07	259.73	74.71	166.54	13 6 40	5166.9	19.84	258.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.5959 TRA -.6531 TC3 -.0078 BAU  .0257   SGT 1761.8 SGR 3745.6 SG3   91.4          ST  1245.2 SR  2081.0 SS   931.7
RDE-4.0327 RRA-1.6322 RC3  .0093 FAU .00327   RRT  .9751 RRF  .9919 RTF  .9939          CRT  .9856 CRS -.9951 CST -.9975
FDE-1.3667 FRA -.4270 FC3 -.0179 BSP  12922   SGB 4139.3 R23 -.0808 R13  .9959          LSA 2591.1 MSA  187.3 SSA    1.6
BDE 4.7960 BRA 1.7580 BC3  .0121 FSP   -293   SG1 4124.1 SG2  355.1 THA  65.17          EL1 2418.3 EL2  181.1 ALF  59.28
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 414.042

```
RL  151.05 LAL   -.00 LOL 336.22 VL  26.995 GAL  -2.41 AZL 108.06 HCA 191.01 SMA 129.04 ECC .17550 INC18.0595 V1  29.497
RP  107.61 LAP   3.39 LOP 166.70 VP  37.922 GAP   3.30 AZP  72.25 TAL 191.43 TAP  22.44 RCA 106.40 APO 151.69 V2  35.215
RC 103.196 GL  -64.88 GP   79.17 ZAL  94.54 ZAP 100.01 ETS  57.66 ZAE  97.77 ETE 147.58 ZAC 164.27 ETC 205.63 CLP-157.67
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PLANETOCENTRIC CONIC

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C3  85.279 VHL  9.235 DLA -75.89 RAL 170.71 RAD 6569.7 VEL 14.374 PTH   2.61 VHP 11.760 DPA  63.10 RAP 253.47 ECC 2.4035
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.08	0 44 54	2139.90	20.23	77.42	75.38	164.94	1 20 34	1539.9	27.93	75.49
163.92	11 40 53	5644.11	20.23	258.35	75.40	164.94	13 14 57	5044.1	27.94	256.42
16.08	0 44 54	2139.90	20.23	77.42	75.38	164.94	1 20 34	1539.9	27.93	75.49
163.92	11 40 53	5644.11	20.23	258.35	75.40	164.94	13 14 57	5044.1	27.94	256.42
16.08	0 44 54	2139.90	20.23	77.42	75.38	164.94	1 20 34	1539.9	27.93	75.49
163.92	11 40 53	5644.11	20.23	258.35	75.40	164.94	13 14 57	5044.1	27.94	256.42

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-3.2218 TRA-1.3465 TC3 -.2886 BAU  .3415   SGT 4002.3 SGR 1448.1 SG3  123.5          ST  2247.8 SR  1249.8 SS   969.5
RDE 1.9814 RRA  .2951 RC3  .0802 FAU .01411   RRT -.8815 RRF -.9439 RTF  .9854          CRT -.9572 CRS  .9863 CST -.9918
FDE-1.4463 FRA -.4247 FC3 -.1433 BSP  13328   SGB 4256.2 R23  .1093 R13 -.9922          LSA 2729.5 MSA  323.4 SSA    2.4
BDE 3.7823 BRA 1.3784 BC3  .2995 FSP   -399   SG1 4206.2 SG2  650.7 THA 161.86          EL1 2552.1 EL2  318.7 ALF 151.49
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 420.102

```
RL  151.05 LAL   -.00 LOL 336.22 VL  26.972 GAL  -2.22 AZL 104.01 HCA 194.13 SMA 128.88 ECC .17621 INC14.0098 V1  29.497
RP  107.64 LAP   3.39 LOP 169.94 VP  37.898 GAP   3.62 AZP  76.40 TAL 190.49 TAP  24.62 RCA 106.17 APO 151.59 V2  35.207
RC 105.482 GL  -62.43 GP   73.28 ZAL  95.02 ZAP 103.78 ETS  46.21 ZAE 103.33 ETE 136.81 ZAC 163.27 ETC 215.62 CLP-145.86
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PLANETOCENTRIC CONIC

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C3  54.172 VHL  7.360 DLA -74.73 RAL 179.22 RAD 6569.0 VEL 13.249 PTH   2.42 VHP  9.427 DPA  56.87 RAP 247.72 ECC 1.8915
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.41	1 21 32	2029.75	27.13	74.47	81.17	162.78	1 55 22	1429.7	34.74	72.02
162.59	12 12 11	5538.94	27.14	256.73	81.19	162.78	13 44 30	4938.9	34.75	254.27
17.41	1 21 32	2029.75	27.13	74.47	81.17	162.78	1 55 22	1429.7	34.74	72.02
162.59	12 12 11	5538.94	27.14	256.73	81.19	162.78	13 44 30	4938.9	34.75	254.27
17.41	1 21 32	2029.75	27.13	74.47	81.17	162.78	1 55 22	1429.7	34.74	72.02
162.59	12 12 11	5538.94	27.14	256.73	81.19	162.78	13 44 30	4938.9	34.75	254.27

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.7971 TRA-1.0166 TC3 -.6322 BAU  .5062   SGT 3825.2 SGR 2117.3 SG3  163.8          ST  2356.8 SR  1759.2 SS  1146.5
RDE 2.2162 RRA  .3879 RC3  .2980 FAU .02372   RRT -.9394 RRF -.9875 RTF  .9758          CRT -.9809 CRS  .9981 CST -.9910
FDE-1.7484 FRA -.4049 FC3 -.3791 BSP  13876   SGB 4372.1 R23  .1287 R13 -.9891          LSA 3143.7 MSA  283.9 SSA    3.1
BDE 3.5687 BRA 1.0881 BC3  .6989 FSP   -539   SG1 4324.7 SG2  641.8 THA 151.85          EL1 2928.0 EL2  275.4 ALF 143.41
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 426.191

RL 151.05 LAL -.00 LOL 336.22 VL 26.946 GAL -2.04 AZL 101.41 HCA 197.29 SMA 128.71 ECC .17708 INC11.4100 VI 29.497
RP 107.66 LAP 3.37 LOP 173.18 VP 37.871 GAP 3.95 AZP 79.09 TAL 189.55 TAP 26.84 RCA 105.92 APO 151.50 V2 35.198
RC 107.765 GL -59.43 GP 67.49 ZAL 95.16 ZAP 107.79 ETS 43.90 ZAE 107.88 ETE 135.73 ZAC 160.20 ETC 227.73 CLP-142.93

PLANETOCENTRIC CONIC

C3 38.284 VHL 6.187 DLA -73.28 RAL 188.88 RAD 6568.5 VEL 12.635 PTH 2.29 VHP 8.018 DPA 51.19 RAP 243.76 ECC 1.6301

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.07	2 3 28	1939.26	32.51	71.00	87.83	160.05	2 35 47	1339.3	39.98	67.87
160.93	12 47 17	5455.36	32.52	254.94	87.85	160.05	14 18 12	4855.4	39.99	251.81
19.07	2 3 28	1939.26	32.51	71.00	87.83	160.05	2 35 47	1339.3	39.98	67.87
160.93	12 47 17	5455.36	32.52	254.94	87.85	160.05	14 18 12	4855.4	39.99	251.81
19.07	2 3 28	1939.26	32.51	71.00	87.83	160.05	2 35 47	1339.3	39.98	67.87
160.93	12 47 17	5455.36	32.52	254.94	87.85	160.05	14 18 12	4855.4	39.99	251.81

DIFFERENTIAL CORRECTIONS
TDE-2.7593 TRA -.7945 TC3-1.0365 BAU .5870
RDE 2.0358 RRA .2759 RC3 .4906 FAU .03200
FDE-2.0384 FRA -.3429 FC3 -.7236 BSP 13811
BDE 3.4290 BRA .8411 BC3 1.1468 FSP -660

MID-COURSE EXECUTION ACCURACY
SGT 3835.8 SGR 2170.5 SG3 204.1
RRT -.9449 RRF -.9910 RTF .9703
SGB 4407.4 R23 .1497 R13 -.9851
SG1 4362.8 SG2 624.9 THA 151.22

ORBIT DETERMINATION ACCURACY
ST 2668.1 SR 1904.0 SS 1327.7
CRT -.9886 CRS .9994 CST -.9930
LSA 3527.8 MSA 248.4 SSA 3.9
EL1 3269.4 EL2 234.3 ALF 144.59

LAUNCH DATE AUG 30 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 432.283

RL 151.05 LAL -.00 LOL 336.22 VL 26.919 GAL -1.85 AZL 99.60 HCA 200.47 SMA 128.53 ECC .17807 INC 9.5967 VI 29.497
RP 107.69 LAP 3.34 LOP 176.43 VP 37.844 GAP 4.28 AZP 81.00 TAL 188.59 TAP 29.06 RCA 105.64 APO 151.42 V2 35.189
RC 110.046 GL -56.21 GP 62.03 ZAL 94.96 ZAP 111.91 ETS 43.49 ZAE 111.67 ETE 137.05 ZAC 156.33 ETC 236.06 CLP-142.71

PLANETOCENTRIC CONIC

C3 29.131 VHL 5.397 DLA -71.55 RAL 198.16 RAD 6568.2 VEL 12.268 PTH 2.21 VHP 7.118 DPA 45.87 RAP 240.88 ECC 1.4794

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.07	2 44 39	1865.80	36.49	67.02	93.86	156.82	3 15 44	1265.8	43.77	63.09
158.93	13 20 9	5391.14	36.50	253.00	93.88	156.82	14 50 0	4791.1	43.78	249.06
21.07	2 44 39	1865.80	36.49	67.02	93.86	156.82	3 15 44	1265.8	43.77	63.09
158.93	13 20 9	5391.14	36.50	253.00	93.88	156.82	14 50 0	4791.1	43.78	249.06
21.07	2 44 39	1865.80	36.49	67.02	93.86	156.82	3 15 44	1265.8	43.77	63.09
158.93	13 20 9	5391.14	36.50	253.00	93.88	156.82	14 50 0	4791.1	43.78	249.06

DIFFERENTIAL CORRECTIONS
TDE-2.7429 TRA -.6264 TC3-1.5129 BAU .6430
RDE 1.7877 RRA .1680 RC3 .6610 FAU .03971
FDE-2.2470 FRA -.2574 FC3-1.1801 BSP 14026
BDE 3.2740 BRA .6486 BC3 1.6510 FSP -792

MID-COURSE EXECUTION ACCURACY
SGT 3944.7 SGR 2104.3 SG3 245.3
RRT -.9487 RRF -.9914 RTF .9681
SGB 4470.9 R23 .1636 R13 -.9817
SG1 4431.5 SG2 592.1 THA 152.63

ORBIT DETERMINATION ACCURACY
ST 2979.6 SR 1905.4 SS 1475.9
CRT -.9923 CRS .9998 CST -.9945
LSA 3826.0 MSA 220.5 SSA 4.8
EL1 3531.1 EL2 199.6 ALF 147.49

LAUNCH DATE AUG 30 1970 FLIGHT TIME 154.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 438.370

RL 151.05 LAL -.00 LOL 336.22 VL 26.891 GAL -1.65 AZL 98.26 HCA 203.67 SMA 128.34 ECC .17919 INC 8.2551 VI 29.497
RP 107.72 LAP 3.30 LOP 179.66 VP 37.815 GAP 4.61 AZP 82.43 TAL 187.60 TAP 31.27 RCA 105.34 APO 151.34 V2 35.179
RC 112.324 GL -52.92 GP 56.96 ZAL 94.42 ZAP 116.01 ETS 43.57 ZAE 114.81 ETE 139.25 ZAC 152.29 ETC 241.57 CLP-143.54

PLANETOCENTRIC CONIC

C3 23.401 VHL 4.837 DLA -69.60 RAL 206.61 RAD 6567.9 VEL 12.032 PTH 2.15 VHP 6.527 DPA 40.87 RAP 238.80 ECC 1.3851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.32	3 23 8	1805.73	39.30	62.63	98.88	153.23	3 53 14	1205.7	46.33	57.84
156.68	13 49 3	5342.83	39.31	250.97	98.89	153.23	15 18 5	4742.8	46.34	246.18
23.32	3 23 8	1805.73	39.30	62.63	98.88	153.23	3 53 14	1205.7	46.33	57.84
156.68	13 49 3	5342.83	39.31	250.97	98.89	153.23	15 18 5	4742.8	46.34	246.18
23.32	3 23 8	1805.73	39.30	62.63	98.88	153.23	3 53 14	1205.7	46.33	57.84
156.68	13 49 3	5342.83	39.31	250.97	98.89	153.23	15 18 5	4742.8	46.34	246.18

DIFFERENTIAL CORRECTIONS
TDE-2.6882 TRA -.4799 TC3-2.0393 BAU .6847
RDE 1.5295 RRA .0790 RC3 .7943 FAU .04628
FDE-2.3433 FRA -.1487 FC3-1.7121 BSP 14273
BDE 3.0929 BRA .4863 BC3 2.1885 FSP -912

MID-COURSE EXECUTION ACCURACY
SGT 4085.3 SGR 1986.1 SG3 282.6
RRT -.9517 RRF -.9907 RTF .9674
SGB 4542.5 R23 .1717 R13 -.9789
SG1 4508.8 SG2 552.5 THA 154.77

ORBIT DETERMINATION ACCURACY
ST 3221.9 SR 1813.5 SS 1567.6
CRT -.9942 CRS .9999 CST -.9952
LSA 4010.9 MSA 199.8 SSA 5.7
EL1 3693.3 EL2 170.8 ALF 150.70

LAUNCH DATE AUG 30 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 444.446

RL 151.05 LAL -.00 LOL 336.22 VL 26.862 GAL -1.44 AZL 97.22 HCA 206.87 SMA 128.15 ECC .18043 INC 7.2174 VI 29.497
RP 107.75 LAP 3.26 LOP 182.90 VP 37.785 GAP 4.94 AZP 83.55 TAL 186.58 TAP 33.45 RCA 105.03 APO 151.27 V2 35.169
RC 114.599 GL -49.65 GP 52.29 ZAL 93.55 ZAP 120.00 ETS 43.74 ZAE 117.39 ETE 141.82 ZAC 148.36 ETC 245.33 CLP-144.82

PLANETOCENTRIC CONIC

C3 19.599 VHL 4.427 DLA -67.50 RAL 214.18 RAD 6567.8 VEL 11.874 PTH 2.11 VHP 6.135 DPA 36.21 RAP 237.33 ECC 1.3225

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.77	3 58 41	1755.86	41.15	58.00	102.94	149.45	4 27 57	1155.9	47.89	52.36
154.23	14 13 55	5307.32	41.16	248.95	102.96	149.45	15 42 23	4707.3	47.90	243.31
25.77	3 58 41	1755.86	41.15	58.00	102.94	149.45	4 27 57	1155.9	47.89	52.36
154.23	14 13 55	5307.32	41.16	248.95	102.96	149.45	15 42 23	4707.3	47.90	243.31
25.77	3 58 41	1755.86	41.15	58.00	102.94	149.45	4 27 57	1155.9	47.89	52.36
154.23	14 13 55	5307.32	41.16	248.95	102.96	149.45	15 42 23	4707.3	47.90	243.31

DIFFERENTIAL CORRECTIONS
TDE-2.5970 TRA -.3406 TC3-2.5937 BAU .7181
RDE 1.2899 RRA .0075 RC3 .8857 FAU .05143
FDE-2.3326 FRA -.0209 FC3-2.2720 BSP 14515
BDE 2.8997 BRA .3407 BC3 2.7408 FSP -1012

MID-COURSE EXECUTION ACCURACY
SGT 4230.6 SGR 1844.6 SG3 313.5
RRT -.9535 RRF -.9890 RTF .9673
SGB 4615.2 R23 .1754 R13 -.9766
SG1 4586.7 SG2 512.7 THA 157.12

ORBIT DETERMINATION ACCURACY
ST 3379.5 SR 1669.6 SS 1600.4
CRT -.9952 CRS 1.0000 CST -.9954
LSA 4090.9 MSA 184.7 SSA 6.7
EL1 3766.6 EL2 146.7 ALF 153.78

LAUNCH DATE AUG 30 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 450.508
RL 151.05 LAL -.00 LOL 336.22 VL 26.832 GAL -1.22 AZL 96.39 HCA 210.08 SMA 127.95 ECC .18179 INC 6.3867 V1 29.497
RP 107.79 LAP 3.20 LOP 186.14 VP 37.753 GAP 5.27 AZP 84.47 TAL 185.52 TAP 35.60 RCA 104.69 APO 151.21 V2 35.158
RC 116.871 GL -46.42 GP 48.03 ZAL 92.38 ZAP 123.81 ETS 43.88 ZAE 119.45 ETE 144.51 ZAC 144.69 ETC 248.01 CLP-146.31
PLANETOCENTRIC CONIC
C3 16.971 VHL 4.120 DLA -65.29 RAL 220.99 RAD 6567.7 VEL 11.762 PTH 2.08 VHP 5.879 DPA 31.88 RAP 236.37 ECC 1.2793

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.35	4 31 40	1713.61	42.22	53.26	106.30	145.63	5 0 14	1113.6	48.64	46.85
151.65	14 35 16	5282.24	42.23	247.05	106.31	145.63	16 3 18	4682.2	48.64	240.64
28.35	4 31 40	1713.61	42.22	53.26	106.30	145.63	5 0 14	1113.6	48.64	46.85
151.65	14 35 16	5282.24	42.23	247.05	106.31	145.63	16 3 18	4682.2	48.64	240.64
28.35	4 31 40	1713.61	42.22	53.26	106.30	145.63	5 0 14	1113.6	48.64	46.85
151.65	14 35 16	5282.24	42.23	247.05	106.31	145.63	16 3 18	4682.2	48.64	240.64

DIFFERENTIAL CORRECTIONS
TDE-2.4807 TRA -.2042 TC3-3.1577 BAU .7473
RDE 1.0808 RRA -.0486 RC3 .9367 FAU .05512
FDE-2.2356 FRA .1177 FC3-2.8117 BSP 14774
BDE 2.7059 BRA .2099 BC3 3.2937 FSP -1090

MID-COURSE EXECUTION ACCURACY
SGT 4374.3 SGR 1697.4 SG3 336.7
RRT -.9541 RRF -.9864 RTF .9672
SGB 4692.1 R23 .1750 R13 -.9746
SG1 4667.8 SG2 476.3 THA 159.46

ORBIT DETERMINATION ACCURACY
ST 3457.1 SR 1504.1 SS 1580.9
CRT -.9958 CRS 1.0000 CST -.9953
LSA 4084.5 MSA 173.8 SSA 7.8
EL1 3768.0 EL2 126.1 ALF 156.55

LAUNCH DATE AUG 30 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 456.554
RL 151.05 LAL -.00 LOL 336.22 VL 26.801 GAL -.99 AZL 95.70 HCA 213.28 SMA 127.74 ECC .18327 INC 5.7030 V1 29.497
RP 107.82 LAP 3.13 LOP 189.37 VP 37.721 GAP 5.59 AZP 85.23 TAL 184.44 TAP 37.72 RCA 104.33 APO 151.15 V2 35.147
RC 119.138 GL -43.25 GP 44.17 ZAL 90.93 ZAP 127.40 ETS 43.96 ZAE 121.08 ETE 147.17 ZAC 141.33 ETC 249.99 CLP-147.87
PLANETOCENTRIC CONIC
C3 15.105 VHL 3.886 DLA -63.01 RAL 227.16 RAD 6567.6 VEL 11.683 PTH 2.05 VHP 5.720 DPA 27.88 RAP 235.81 ECC 1.2486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.03	5 2 34	1677.07	42.67	48.53	109.16	141.89	5 30 32	1077.1	48.73	41.46
148.97	14 53 37	5265.84	42.67	245.38	109.17	141.89	16 21 23	4665.8	48.74	238.32
31.03	5 2 34	1677.07	42.67	48.53	109.16	141.89	5 30 32	1077.1	48.73	41.46
148.97	14 53 37	5265.84	42.67	245.38	109.17	141.89	16 21 23	4665.8	48.74	238.32
31.03	5 2 34	1677.07	42.67	48.53	109.16	141.89	5 30 32	1077.1	48.73	41.46
148.97	14 53 37	5265.84	42.67	245.38	109.17	141.89	16 21 23	4665.8	48.74	238.32

DIFFERENTIAL CORRECTIONS
TDE-2.3517 TRA -.0696 TC3-3.7131 BAU .7741
RDE .9067 RRA -.0909 RC3 .9525 FAU .05740
FDE-2.0819 FRA .2567 FC3-3.2902 BSP 15059
BDE 2.5205 BRA .1145 BC3 3.8334 FSP -1147

MID-COURSE EXECUTION ACCURACY
SGT 4516.8 SGR 1556.3 SG3 352.6
RRT -.9538 RRF -.9828 RTF .9675
SGB 4777.4 R23 .1698 R13 -.9732
SG1 4756.7 SG2 444.2 THA 161.64

ORBIT DETERMINATION ACCURACY
ST 3468.8 SR 1339.8 SS 1522.5
CRT -.9963 CRS .9999 CST -.9949
LSA 4014.7 MSA 165.7 SSA 9.0
EL1 3717.0 EL2 107.5 ALF 158.93

LAUNCH DATE AUG 30 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 462.583
RL 151.05 LAL -.00 LOL 336.22 VL 26.769 GAL -.75 AZL 95.13 HCA 216.49 SMA 127.53 ECC .18488 INC 5.1273 V1 29.497
RP 107.86 LAP 3.05 LOP 192.60 VP 37.687 GAP 5.92 AZP 85.87 TAL 183.32 TAP 39.82 RCA 103.95 APO 151.11 V2 35.136
RC 121.402 GL -40.15 GP 40.69 ZAL 89.23 ZAP 130.76 ETS 43.99 ZAE 122.33 ETE 149.73 ZAC 138.30 ETC 251.52 CLP-149.44
PLANETOCENTRIC CONIC
C3 13.761 VHL 3.710 DLA -60.69 RAL 232.82 RAD 6567.5 VEL 11.625 PTH 2.04 VHP 5.633 DPA 24.20 RAP 235.61 ECC 1.2265

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.79	5 31 49	1644.81	42.60	43.90	111.72	138.31	5 59 14	1044.8	48.31	36.32
146.21	15 9 28	5256.83	42.61	244.01	111.74	138.31	16 37 5	4656.8	48.32	236.43
33.79	5 31 49	1644.81	42.60	43.90	111.72	138.31	5 59 14	1044.8	48.31	36.32
146.21	15 9 28	5256.83	42.61	244.01	111.74	138.31	16 37 5	4656.8	48.32	236.43
33.79	5 31 49	1644.81	42.60	43.90	111.72	138.31	5 59 14	1044.8	48.31	36.32
146.21	15 9 28	5256.83	42.61	244.01	111.74	138.31	16 37 5	4656.8	48.32	236.43

DIFFERENTIAL CORRECTIONS
TDE-2.2122 TRA .0676 TC3-4.2426 BAU .7995
RDE .7629 RRA -.1238 RC3 .9403 FAU .05850
FDE-1.8883 FRA .3939 FC3-3.6802 BSP 15347
BDE 2.3401 BRA .1411 BC3 4.3455 FSP -1181

MID-COURSE EXECUTION ACCURACY
SGT 4650.6 SGR 1424.0 SG3 361.5
RRT -.9521 RRF -.9780 RTF .9675
SGB 4863.7 R23 .1615 R13 -.9719
SG1 4845.7 SG2 417.8 THA 163.62

ORBIT DETERMINATION ACCURACY
ST 3418.7 SR 1184.3 SS 1431.4
CRT -.9967 CRS .9996 CST -.9941
LSA 3887.6 MSA 160.3 SSA 10.2
EL1 3616.9 EL2 90.6 ALF 160.94

LAUNCH DATE AUG 30 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 468.593
RL 151.05 LAL -.00 LOL 336.22 VL 26.736 GAL -.50 AZL 94.63 HCA 219.70 SMA 127.32 ECC .18662 INC 4.6329 V1 29.497
RP 107.89 LAP 2.96 LOP 195.83 VP 37.653 GAP 6.24 AZP 86.43 TAL 182.18 TAP 41.88 RCA 103.56 APO 151.08 V2 35.124
RC 123.660 GL -37.14 GP 37.58 ZAL 87.30 ZAP 133.88 ETS 44.00 ZAE 123.27 ETE 152.13 ZAC 135.60 ETC 252.73 CLP-151.00
PLANETOCENTRIC CONIC
C3 12.795 VHL 3.577 DLA -58.34 RAL 238.04 RAD 6567.5 VEL 11.584 PTH 2.03 VHP 5.598 DPA 20.83 RAP 235.70 ECC 1.2106

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.60	5 59 50	1615.63	42.11	39.41	114.14	134.96	6 26 46	1015.6	47.48	31.45
143.40	15 23 7	5254.46	42.12	243.01	114.15	134.95	16 50 42	4654.5	47.49	235.05
36.60	5 59 50	1615.63	42.11	39.41	114.14	134.96	6 26 46	1015.6	47.48	31.45
143.40	15 23 7	5254.46	42.12	243.01	114.15	134.95	16 50 42	4654.5	47.49	235.05
36.60	5 59 50	1615.63	42.11	39.41	114.14	134.96	6 26 46	1015.6	47.48	31.45
143.40	15 23 7	5254.46	42.12	243.01	114.15	134.95	16 50 42	4654.5	47.49	235.05

DIFFERENTIAL CORRECTIONS
TDE-2.0688 TRA .2095 TC3-4.7292 BAU .8237
RDE .6476 RRA -.1501 RC3 .9066 FAU .05858
FDE-1.6789 FRA .5268 FC3-3.9638 BSP 15664
BDE 2.1678 BRA .2577 BC3 4.8153 FSP -1201

MID-COURSE EXECUTION ACCURACY
SGT 4778.8 SGR 1306.3 SG3 365.1
RRT -.9491 RRF -.9719 RTF .9673
SGB 4954.1 R23 .1506 R13 -.9707
SG1 4938.1 SG2 398.3 THA 165.36

ORBIT DETERMINATION ACCURACY
ST 3320.9 SR 1046.6 SS 1322.0
CRT -.9972 CRS .9989 CST -.9929
LSA 3721.1 MSA 157.7 SSA 11.6
EL1 3481.1 EL2 74.6 ALF 162.55

LAUNCH DATE AUG 30 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 474.585

RL 151.05 LAL -.00 LOL 336.22 VL 26.703 GAL -.23 AZL 94.20 HCA 222.91 SMA 127.10 ECC .18850 INC 4.2015 V1 29.497
RP 107.93 LAP 2.86 LOP 199.05 VP 37.618 GAP 6.57 AZP 86.92 TAL 181.01 TAP 43.92 RCA 103.14 APO 151.06 V2 35.112
RC 125.912 GL -34.20 GP 34.80 ZAL 85.18 ZAP 136.76 ETS 44.00 ZAE 123.96 ETE 154.33 ZAC 133.20 ETC 253.73 CLP-152.52

PLANETOCENTRIC CONIC

C3 12.113 VHL 3.480 DLA -55.97 RAL 242.90 RAD 6567.5 VEL 11.554 PTH 2.02 VHP 5.604 DPA 17.75 RAP 236.05 ECC 1.1994

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.48	6 26 55	1588.60	41.29	35.10	116.50	131.85	6 53 23	988.6	46.33	26.88
140.52	15 34 49	5258.17	41.31	242.43	116.51	131.84	17 2 27	4658.2	46.34	234.21
39.48	6 26 55	1588.60	41.29	35.10	116.50	131.85	6 53 23	988.6	46.33	26.88
140.52	15 34 49	5258.17	41.31	242.43	116.51	131.84	17 2 27	4658.2	46.34	234.21
39.48	6 26 55	1588.60	41.29	35.10	116.50	131.85	6 53 23	988.6	46.33	26.88
140.52	15 34 49	5258.17	41.31	242.43	116.51	131.84	17 2 27	4658.2	46.34	234.21

DIFFERENTIAL CORRECTIONS
TDE-1.9195 TRA .3550 TC3-5.1456 BAU .8446
RDE .5545 RRA -.1697 RC3 .8520 FAU .05759
FDE-1.4611 FRA .6476 FC3-4.1158 BSP 15941
BDE 1.9980 BRA .3934 BC3 5.2156 FSP -1205

MID-COURSE EXECUTION ACCURACY
SGT 4889.2 SGR 1197.5 SG3 362.7
RRT -.9445 RRF -.9639 RTF .9672
SGB 5033.8 R23 .1361 R13 -.9698
SG1 5019.1 SG2 383.4 THA 166.90

ORBIT DETERMINATION ACCURACY
ST 3177.3 SR 925.2 SS 1197.7
CRT -.9979 CRS .9974 CST -.9910
LSA 3515.9 MSA 156.1 SSA 13.0
EL1 3308.8 EL2 58.1 ALF 163.79

LAUNCH DATE AUG 30 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 480.556

RL 151.05 LAL -.00 LOL 336.22 VL 26.669 GAL .04 AZL 93.82 HCA 226.12 SMA 126.88 ECC .19052 INC 3.8194 V1 29.497
RP 107.97 LAP 2.75 LOP 202.27 VP 37.582 GAP 6.89 AZP 87.35 TAL 179.82 TAP 45.94 RCA 102.71 APO 151.05 V2 35.099
RC 128.158 GL -31.35 GP 32.31 ZAL 82.90 ZAP 139.43 ETS 44.02 ZAE 124.46 ETE 156.33 ZAC 131.08 ETC 254.58 CLP-154.00

PLANETOCENTRIC CONIC

C3 11.656 VHL 3.414 DLA -53.59 RAL 247.44 RAD 6567.4 VEL 11.534 PTH 2.01 VHP 5.642 DPA 14.92 RAP 236.62 ECC 1.1918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.39	6 53 19	1562.93	40.21	30.95	118.87	129.00	7 19 22	962.9	44.92	22.58
137.61	15 44 39	5267.68	40.22	242.29	118.88	128.99	17 12 27	4667.7	44.93	233.91
42.39	6 53 19	1562.93	40.21	30.95	118.87	129.00	7 19 22	962.9	44.92	22.58
137.61	15 44 39	5267.68	40.22	242.29	118.88	128.99	17 12 27	4667.7	44.93	233.91
42.39	6 53 19	1562.93	40.21	30.95	118.87	129.00	7 19 22	962.9	44.92	22.58
137.61	15 44 39	5267.68	40.22	242.29	118.88	128.99	17 12 27	4667.7	44.93	233.91

DIFFERENTIAL CORRECTIONS
TDE-1.7716 TRA .5122 TC3-5.4640 BAU .8598
RDE .4812 RRA -.1888 RC3 .7675 FAU .05499
FDE-1.2502 FRA .7712 FC3-4.0838 BSP 15836
BDE 1.8358 BRA .5459 BC3 5.5176 FSP -1138

MID-COURSE EXECUTION ACCURACY
SGT 4985.7 SGR 1100.8 SG3 355.5
RRT -.9346 RRF -.9536 RTF .9651
SGB 5105.8 R23 .1301 R13 -.9672
SG1 5091.4 SG2 383.4 THA 168.27

ORBIT DETERMINATION ACCURACY
ST 3006.8 SR 823.5 SS 1072.1
CRT -.9986 CRS .9942 CST -.9877
LSA 3292.8 MSA 160.3 SSA 14.6
EL1 3117.2 EL2 42.7 ALF 164.70

LAUNCH DATE AUG 30 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 486.508

RL 151.05 LAL -.00 LOL 336.22 VL 26.634 GAL .33 AZL 93.48 HCA 229.33 SMA 126.66 ECC .19270 INC 3.4766 V1 29.497
RP 108.01 LAP 2.64 LOP 205.49 VP 37.546 GAP 7.22 AZP 87.73 TAL 178.60 TAP 47.93 RCA 102.25 APO 151.06 V2 35.086
RC 130.397 GL -28.60 GP 30.10 ZAL 80.49 ZAP 141.89 ETS 44.08 ZAE 124.80 ETE 158.14 ZAC 129.21 ETC 255.33 CLP-155.43

PLANETOCENTRIC CONIC

C3 11.385 VHL 3.374 DLA -51.22 RAL 251.70 RAD 6567.4 VEL 11.523 PTH 2.01 VHP 5.706 DPA 12.34 RAP 237.39 ECC 1.1874

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.35	7 19 14	1538.01	38.90	26.97	121.28	126.41	7 44 52	938.0	43.33	18.53
134.65	15 52 45	5282.80	38.91	242.60	121.29	126.40	17 20 48	4682.8	43.34	234.16
45.35	7 19 14	1538.01	38.90	26.97	121.28	126.41	7 44 52	938.0	43.33	18.53
134.65	15 52 45	5282.80	38.91	242.60	121.29	126.40	17 20 48	4682.8	43.34	234.16
45.35	7 19 14	1538.01	38.90	26.97	121.28	126.41	7 44 52	938.0	43.33	18.53
134.65	15 52 45	5282.80	38.91	242.60	121.29	126.40	17 20 48	4682.8	43.34	234.16

DIFFERENTIAL CORRECTIONS
TDE-1.6191 TRA .6705 TC3-5.7688 BAU .8849
RDE .4224 RRA -.2027 RC3 .7200 FAU .05395
FDE-1.0449 FRA .8770 FC3-4.1022 BSP 16382
BDE 1.6733 BRA .7004 BC3 5.8135 FSP -1156

MID-COURSE EXECUTION ACCURACY
SGT 5100.9 SGR 1026.0 SG3 350.6
RRT -.9292 RRF -.9427 RTF .9652
SGB 5203.0 R23 .1110 R13 -.9668
SG1 5189.7 SG2 372.8 THA 169.36

ORBIT DETERMINATION ACCURACY
ST 2805.4 SR 736.1 SS 943.7
CRT -.9993 CRS .9875 CST -.9827
LSA 3045.4 MSA 166.1 SSA 15.9
EL1 2900.2 EL2 26.5 ALF 165.31

LAUNCH DATE AUG 30 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 492.434

RL 151.05 LAL -.00 LOL 336.22 VL 26.599 GAL .64 AZL 93.17 HCA 232.53 SMA 126.43 ECC .19504 INC 3.1656 V1 29.497
RP 108.05 LAP 2.51 LOP 208.71 VP 37.509 GAP 7.55 AZP 88.07 TAL 177.36 TAP 49.89 RCA 101.77 APO 151.09 V2 35.074
RC 132.627 GL -25.94 GP 28.12 ZAL 77.99 ZAP 144.17 ETS 44.20 ZAE 125.02 ETE 159.75 ZAC 127.56 ETC 256.00 CLP-156.82

PLANETOCENTRIC CONIC

C3 11.273 VHL 3.358 DLA -48.87 RAL 255.71 RAD 6567.4 VEL 11.518 PTH 2.01 VHP 5.792 DPA 9.96 RAP 238.32 ECC 1.1855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.35	7 44 51	1513.17	37.43	23.12	123.74	124.07	8 10 5	913.2	41.59	14.67
131.65	15 59 5	5303.56	37.44	243.40	123.76	124.06	17 27 28	4703.6	41.60	234.94
48.35	7 44 51	1513.17	37.43	23.12	123.74	124.07	8 10 5	913.2	41.59	14.67
131.65	15 59 5	5303.56	37.44	243.40	123.76	124.06	17 27 28	4703.6	41.60	234.94
48.35	7 44 51	1513.17	37.43	23.12	123.74	124.07	8 10 5	913.2	41.59	14.67
131.65	15 59 5	5303.56	37.44	243.40	123.76	124.06	17 27 28	4703.6	41.60	234.94

DIFFERENTIAL CORRECTIONS
TDE-1.4933 TRA .8124 TC3-6.0429 BAU .9164
RDE .3848 RRA -.2083 RC3 .6760 FAU .05297
FDE -.8885 FRA .9461 FC3-4.0675 BSP 17206
BDE 1.5421 BRA .8387 BC3 6.0806 FSP -1186

MID-COURSE EXECUTION ACCURACY
SGT 5234.7 SGR 964.0 SG3 343.3
RRT -.9223 RRF -.9301 RTF .9675
SGB 5322.7 R23 .0863 R13 -.9686
SG1 5310.1 SG2 367.2 THA 170.31

ORBIT DETERMINATION ACCURACY
ST 2628.3 SR 676.4 SS 844.5
CRT -.9997 CRS .9777 CST -.9783
LSA 2837.4 MSA 167.4 SSA 17.1
EL1 2713.9 EL2 17.2 ALF 165.57

LAUNCH DATE AUG 30 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 498.343

RL 151.05 LAL -.00 LOL 336.22 VL 26.564 GAL .96 AZL 92.88 HCA 235.74 SMA 126.21 ECC .19755 INC 2.8804 V1 29.497
RP 108.09 LAP 2.38 LOP 211.92 VP 37.472 GAP 7.88 AZP 88.38 TAL 176.09 TAP 51.83 RCA 101.28 APO 151.14 V2 35.061
RC 134.850 GL -23.39 GP 26.35 ZAL 75.41 ZAP 146.28 ETS 44.38 ZAE 125.15 ETE 161.19 ZAC 126.12 ETC 256.61 CLP-158.15

PLANETOCENTRIC CONIC

C3 11.305 VHL 3.362 DLA -46.54 RAL 259.49 RAD 6567.4 VEL 11.519 PTH 2.01 VHP 5.895 DPA 7.78 RAP 239.41 ECC 1.1861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.38	8 10 26	1487.73	35.84	19.36	126.29	121.96	8 35 14	887.7	39.76	10.94
128.62	16 3 40	5330.16	35.85	244.68	126.30	121.95	17 32 30	4730.2	39.76	236.27
51.38	8 10 26	1487.73	35.84	19.36	126.29	121.96	8 35 14	887.7	39.76	10.94
128.62	16 3 40	5330.16	35.85	244.68	126.30	121.95	17 32 30	4730.2	39.76	236.27
51.38	8 10 26	1487.73	35.84	19.36	126.29	121.96	8 35 14	887.7	39.76	10.94
128.62	16 3 40	5330.16	35.85	244.68	126.30	121.95	17 32 30	4730.2	39.76	236.27

DIFFERENTIAL CORRECTIONS
TDE-1.3283 TRA 1.0009 TC3-6.0988 BAU .9261
RDE .3457 RRA -.2235 RC3 .5932 FAU .04961
FDE -.6995 FRA 1.0515 FC3-3.7990 BSP 17078
BDE 1.3726 BRA 1.0256 BC3 6.1276 FSP -1118

MID-COURSE EXECUTION ACCURACY
SGT 5300.3 SGR 901.6 SG3 331.6
RRT -.9088 RRF -.9142 RTF .9651
SGB 5376.4 R23 .0786 R13 -.9660
SG1 5363.6 SG2 371.8 THA 171.17

ORBIT DETERMINATION ACCURACY
ST 2385.8 SR 612.2 SS 727.1
CRT -.9986 CRS .9532 CST -.9658
LSA 2561.5 MSA 185.0 SSA 18.2
EL1 2462.9 EL2 31.6 ALF 165.63

LAUNCH DATE AUG 30 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 504.226

RL 151.05 LAL -.00 LOL 336.22 VL 26.528 GAL 1.30 AZL 92.62 HCA 238.94 SMA 125.98 ECC .20024 INC 2.6162 V1 29.497
RP 108.13 LAP 2.24 LOP 215.13 VP 37.434 GAP 8.22 AZP 88.65 TAL 174.81 TAP 53.75 RCA 100.75 APO 151.21 V2 35.047
RC 137.063 GL -20.94 GP 24.77 ZAL 72.80 ZAP 148.23 ETS 44.64 ZAE 125.22 ETE 162.47 ZAC 124.85 ETC 257.20 CLP-159.44

PLANETOCENTRIC CONIC

C3 11.471 VHL 3.387 DLA -44.26 RAL 263.05 RAD 6567.4 VEL 11.526 PTH 2.01 VHP 6.015 DPA 5.78 RAP 240.64 ECC 1.1888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.44	8 36 5	1461.16	34.15	15.66	128.91	120.07	9 0 26	861.2	37.85	7.30
125.56	16 6 26	5362.75	34.17	246.47	128.92	120.05	17 35 48	4762.8	37.86	238.11
54.44	8 36 5	1461.16	34.15	15.66	128.91	120.07	9 0 26	861.2	37.85	7.30
125.56	16 6 26	5362.75	34.17	246.47	128.92	120.05	17 35 48	4762.8	37.86	238.11
54.44	8 36 5	1461.16	34.15	15.66	128.91	120.07	9 0 26	861.2	37.85	7.30
125.56	16 6 26	5362.75	34.17	246.47	128.92	120.05	17 35 48	4762.8	37.86	238.11

DIFFERENTIAL CORRECTIONS
TDE-1.1772 TRA 1.1836 TC3-6.1209 BAU .9421
RDE .3191 RRA -.2342 RC3 .5281 FAU .04691
FDE -.5435 FRA 1.1332 FC3-3.5403 BSP 17244
BDE 1.2197 BRA 1.2065 BC3 6.1436 FSP -1075

MID-COURSE EXECUTION ACCURACY
SGT 5382.6 SGR 851.7 SG3 320.5
RRT -.8954 RRF -.8973 RTF .9644
SGB 5449.5 R23 .0664 R13 -.9651
SG1 5436.6 SG2 375.5 THA 171.90

ORBIT DETERMINATION ACCURACY
ST 2164.4 SR 564.8 SS 635.5
CRT -.9942 CRS .9126 CST -.9496
LSA 2316.4 MSA 203.7 SSA 19.0
EL1 2236.2 EL2 58.6 ALF 165.45

LAUNCH DATE AUG 30 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 510.085

RL 151.05 LAL -.00 LOL 336.22 VL 26.493 GAL 1.65 AZL 92.37 HCA 242.14 SMA 125.75 ECC .20313 INC 2.3696 V1 29.497
RP 108.17 LAP 2.09 LOP 218.34 VP 37.397 GAP 8.56 AZP 88.89 TAL 173.51 TAP 55.66 RCA 100.21 APO 151.30 V2 35.034
RC 139.266 GL -18.62 GP 23.35 ZAL 70.18 ZAP 150.05 ETS 45.00 ZAE 125.23 ETE 163.60 ZAC 123.72 ETC 257.75 CLP-160.69

PLANETOCENTRIC CONIC

C3 11.765 VHL 3.430 DLA -44.02 RAL 266.41 RAD 6567.4 VEL 11.539 PTH 2.01 VHP 6.148 DPA 3.93 RAP 241.98 ECC 1.1936

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.55	9 2 3	1432.66	32.41	11.96	131.60	118.36	9 25 55	832.7	35.92	3.68
122.45	16 7 14	5401.83	32.42	248.79	131.60	118.35	17 37 16	4801.8	35.93	240.51
57.55	9 2 3	1432.66	32.41	11.96	131.60	118.36	9 25 55	832.7	35.92	3.68
122.45	16 7 14	5401.83	32.42	248.79	131.60	118.35	17 37 16	4801.8	35.93	240.51
57.55	9 2 3	1432.66	32.41	11.96	131.60	118.36	9 25 55	832.7	35.92	3.68
122.45	16 7 14	5401.83	32.42	248.79	131.60	118.35	17 37 16	4801.8	35.93	240.51

DIFFERENTIAL CORRECTIONS
TDE-1.0289 TRA 1.3707 TC3-6.0757 BAU .9585
RDE .2997 RRA -.2439 RC3 .4694 FAU .04427
FDE -.4053 FRA 1.2040 FC3-3.2573 BSP 17497
BDE 1.0716 BRA 1.3922 BC3 6.0938 FSP -1042

MID-COURSE EXECUTION ACCURACY
SGT 5461.2 SGR 809.3 SG3 308.9
RRT -.8807 RRF -.8789 RTF .9640
SGB 5520.8 R23 .0545 R13 -.9645
SG1 5507.7 SG2 380.1 THA 172.53

ORBIT DETERMINATION ACCURACY
ST 1955.6 SR 527.0 SS 562.8
CRT -.9835 CRS .8474 CST -.9281
LSA 2089.7 MSA 227.4 SSA 19.5
EL1 2023.3 EL2 92.0 ALF 165.12

LAUNCH DATE AUG 30 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 515.917

RL 151.05 LAL -.00 LOL 336.22 VL 26.457 GAL 2.02 AZL 92.14 HCA 245.34 SMA 125.53 ECC .20624 INC 2.1372 V1 29.497
RP 108.21 LAP 1.94 LOP 221.54 VP 37.359 GAP 8.90 AZP 89.11 TAL 172.20 TAP 57.54 RCA 99.64 APO 151.42 V2 35.021
RC 141.459 GL -16.41 GP 22.08 ZAL 67.57 ZAP 151.74 ETS 45.46 ZAE 125.21 ETE 164.61 ZAC 122.74 ETC 258.30 CLP-161.90

PLANETOCENTRIC CONIC

C3 12.187 VHL 3.491 DLA -39.83 RAL 269.57 RAD 6567.5 VEL 11.557 PTH 2.02 VHP 6.295 DPA 2.22 RAP 243.43 ECC 1.2006

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.70	9 28 35	1401.38	30.64	8.18	134.34	116.84	9 51 56	801.4	33.97	359.99
119.30	16 5 57	5447.97	30.65	251.67	134.35	116.82	17 36 45	4848.0	33.98	243.47
60.70	9 28 35	1401.38	30.64	8.18	134.34	116.84	9 51 56	801.4	33.97	359.99
119.30	16 5 57	5447.97	30.65	251.67	134.35	116.82	17 36 45	4848.0	33.98	243.47
60.70	9 28 35	1401.38	30.64	8.18	134.34	116.84	9 51 56	801.4	33.97	359.99
119.30	16 5 57	5447.97	30.65	251.67	134.35	116.82	17 36 45	4848.0	33.98	243.47

DIFFERENTIAL CORRECTIONS
TDE -.8815 TRA 1.5667 TC3-5.9620 BAU .9738
RDE .2859 RRA -.2537 RC3 .4154 FAU .04160
FDE -.2828 FRA 1.2693 FC3-2.9551 BSP 17731
BDE .9267 BRA 1.5871 BC3 5.9765 FSP -1006

MID-COURSE EXECUTION ACCURACY
SGT 5535.2 SGR 773.6 SG3 297.2
RRT -.8647 RRF -.8597 RTF .9635
SGB 5589.0 R23 .0446 R13 -.9639
SG1 5575.6 SG2 385.7 THA 173.08

ORBIT DETERMINATION ACCURACY
ST 1765.8 SR 496.7 SS 510.8
CRT -.9616 CRS .7520 CST -.9028
LSA 1886.6 MSA 257.0 SSA 19.6
EL1 1829.6 EL2 131.6 ALF 164.78

LAUNCH DATE AUG 30 1970 FLIGHT TIME 182.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 521.721

```
RL  151.05 LAL   -.00 LOL 336.22 VL  26.420 GAL   2.40 AZL  91.92 HCA 248.54 SMA 125.30 ECC .20957 INC 1.9167 V1  29.497
RP  108.25 LAP   1.78 LOP 224.74 VP  37.321 GAP   9.26 AZP  89.30 TAL 170.87 TAP  59.41 RCA  99.04 APO 151.56 V2  35.008
RC 143.643 GL  -14.32 GP   20.93 ZAL  64.99 ZAP 153.32 ETS  46.04 ZAE 125.17 ETE 165.50 ZAC 121.86 ETC 258.83 CLP-163.07
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PLANETOCENTRIC CONIC

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C3  12.740 VHL  3.569 DLA -37.75 RAL 272.55 RAD 6567.5 VEL 11.581 PTH   2.03 VHP  6.455 DPA    .64 RAP 244.98 ECC 1.2097
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.93	9 56 1	1366.20	28.86	4.25	137.15	115.46	10 18 48	766.2	32.03	356.14
116.07	16 2 18	5502.05	28.87	255.16	137.15	115.45	17 34 0	4902.0	32.04	247.05
63.93	9 56 1	1366.20	28.86	4.25	137.15	115.46	10 18 48	766.2	32.03	356.14
116.07	16 2 18	5502.05	28.87	255.16	137.15	115.45	17 34 0	4902.0	32.04	247.05
63.93	9 56 1	1366.20	28.86	4.25	137.15	115.46	10 18 48	766.2	32.03	356.14
116.07	16 2 18	5502.05	28.87	255.16	137.15	115.45	17 34 0	4902.0	32.04	247.05

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.7343 TRA 1.7713 TC3-5.7907 BAU  .9883   SGT 5604.2 SGR  743.1 SG3  285.7          ST  1602.6 SR   472.1 SS   478.4
RDE  .2765 RRA -.2637 RC3  .3672 FAU .03899   RRT -.8479 RRF -.8398 RTF  .9632          CRT -.9218 CRS  .6274 CST -.8791
FDE -.1736 FRA 1.3288 FC3-2.6497 BSP  17966   SGB 5653.3 R23  .0359 R13 -.9635          LSA 1713.1 MSA  291.5 SSA   19.5
BDE  .7846 BRA 1.7908 BC3 5.8024 FSP   -972   SG1 5639.7 SG2  391.4 THA 173.55          EL1 1661.4 EL2  176.6 ALF 164.63
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 527.495

```
RL  151.05 LAL   -.00 LOL 336.22 VL  26.384 GAL   2.81 AZL  91.71 HCA 251.73 SMA 125.07 ECC .21316 INC 1.7057 V1  29.497
RP  108.29 LAP   1.62 LOP 227.94 VP  37.283 GAP   9.62 AZP  89.47 TAL 169.53 TAP  61.26 RCA  98.41 APO 151.73 V2  34.995
RC 145.816 GL  -12.36 GP   19.90 ZAL  62.47 ZAP 154.80 ETS  46.75 ZAE 125.11 ETE 166.29 ZAC 121.09 ETC 259.36 CLP-164.21
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PLANETOCENTRIC CONIC

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C3  13.429 VHL  3.665 DLA -35.72 RAL 275.36 RAD 6567.5 VEL 11.611 PTH   2.03 VHP  6.626 DPA   -.81 RAP 246.61 ECC 1.2210
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.26	10 24 53	1325.47	27.09	.04	140.00	114.22	10 46 59	725.5	30.12	352.02
112.74	15 55 52	5565.51	27.10	259.36	140.00	114.21	17 28 37	4965.5	30.13	251.34
67.26	10 24 53	1325.47	27.09	.04	140.00	114.22	10 46 59	725.5	30.12	352.02
112.74	15 55 52	5565.51	27.10	259.36	140.00	114.21	17 28 37	4965.5	30.13	251.34
67.26	10 24 53	1325.47	27.09	.04	140.00	114.22	10 46 59	725.5	30.12	352.02
112.74	15 55 52	5565.51	27.10	259.36	140.00	114.21	17 28 37	4965.5	30.13	251.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.5873 TRA 1.9854 TC3-5.5694 BAU 1.0016   SGT 5667.8 SGR  716.9 SG3  274.3          ST  1474.4 SR   452.1 SS   463.8
RDE  .2708 RRA -.2740 RC3  .3237 FAU .03643   RRT -.8305 RRF -.8196 RTF  .9628          CRT -.8570 CRS  .4852 CST -.8652
FDE -.0766 FRA 1.3839 FC3-2.3482 BSP  18182   SGB 5713.0 R23  .0286 R13 -.9631          LSA 1576.4 MSA  328.5 SSA   19.1
BDE  .6467 BRA 2.0043 BC3 5.5788 FSP   -936   SG1 5699.2 SG2  397.1 THA 173.97          EL1 1525.6 EL2  225.1 ALF 164.94
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 533.236

```
RL  151.05 LAL   -.00 LOL 336.22 VL  26.348 GAL   3.23 AZL  91.50 HCA 254.92 SMA 124.85 ECC .21701 INC 1.5025 V1  29.497
RP  108.33 LAP   1.45 LOP 231.13 VP  37.245 GAP   9.99 AZP  89.61 TAL 168.17 TAP  63.10 RCA  97.76 APO 151.94 V2  34.982
RC 147.979 GL  -10.52 GP   18.97 ZAL  60.02 ZAP 156.18 ETS  47.60 ZAE 125.03 ETE 166.99 ZAC 120.39 ETC 259.89 CLP-165.32
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PLANETOCENTRIC CONIC

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C3  14.262 VHL  3.777 DLA -33.78 RAL 278.01 RAD 6567.6 VEL 11.647 PTH   2.04 VHP  6.810 DPA  -2.16 RAP 248.33 ECC 1.2347
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.76	10 55 54	1276.77	25.35	355.36	142.89	113.11	11 17 11	676.8	28.26	347.42
109.24	15 45 58	5640.60	25.37	264.41	142.89	113.09	17 19 59	5040.6	28.27	256.47
70.76	10 55 54	1276.77	25.35	355.36	142.89	113.11	11 17 11	676.8	28.26	347.42
109.24	15 45 58	5640.60	25.37	264.41	142.89	113.09	17 19 59	5040.6	28.27	256.47
110.00	15 10 46	5748.20	22.13	271.15	141.25	116.74	16 46 34	5148.2	25.54	263.65
110.00	16 30 17	5505.21	28.68	255.32	144.34	109.46	18 2 2	4905.2	31.05	246.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.4514 TRA 2.1975 TC3-5.3404 BAU 1.0198   SGT 5729.5 SGR  694.5 SG3  262.8          ST  1389.8 SR   437.6 SS   460.2
RDE  .2697 RRA -.2830 RC3  .2899 FAU .03434   RRT -.8132 RRF -.7995 RTF  .9633          CRT -.7687 CRS  .3531 CST -.8688
FDE  .0008 FRA 1.4258 FC3-2.0843 BSP  18670   SGB 5771.5 R23  .0211 R13 -.9635          LSA 1484.8 MSA  360.4 SSA   18.6
BDE  .5258 BRA 2.2156 BC3 5.3483 FSP   -920   SG1 5757.4 SG2  402.2 THA 174.34          EL1 1431.5 EL2  271.7 ALF 165.88
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 538.945

```
RL  151.05 LAL   -.00 LOL 336.22 VL  26.311 GAL   3.68 AZL  91.31 HCA 258.11 SMA 124.62 ECC .22115 INC 1.3055 V1  29.497
RP  108.37 LAP   1.28 LOP 234.33 VP  37.207 GAP  10.38 AZP  89.73 TAL 166.81 TAP  64.92 RCA  97.06 APO 152.18 V2  34.969
RC 150.132 GL   -8.81 GP   18.12 ZAL  57.64 ZAP 157.48 ETS  48.59 ZAE 124.95 ETE 167.62 ZAC 119.77 ETC 260.43 CLP-166.40
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PLANETOCENTRIC CONIC

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C3  15.251 VHL  3.905 DLA -31.93 RAL 280.51 RAD 6567.6 VEL 11.689 PTH   2.06 VHP  7.005 DPA  -3.41 RAP 250.11 ECC 1.2510
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.60	11 30 34	1215.25	23.66	349.85	145.82	112.09	11 50 49	615.3	26.44	341.99
105.40	15 31 13	5731.99	23.67	270.66	145.82	112.08	17 6 45	5132.0	26.45	262.79
74.60	11 30 34	1215.25	23.66	349.85	145.82	112.09	11 50 49	615.3	26.44	341.99
105.40	15 31 13	5731.99	23.67	270.66	145.82	112.08	17 6 45	5132.0	26.45	262.79
110.00	14 26 58	643.49	16.13	304.07	141.86	120.55	14 37 41	43.5	20.06	297.16
110.00	17 34 0	5351.75	31.66	244.37	148.73	103.62	19 3 12	4751.7	33.21	235.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.2941 TRA 2.4412 TC3-5.0223 BAU 1.0253   SGT 5777.7 SGR  673.9 SG3  252.2          ST  1342.7 SR   422.0 SS   471.4
RDE  .2679 RRA -.2956 RC3  .2511 FAU .03153   RRT -.7950 RRF -.7795 RTF  .9624          CRT -.6432 CRS  .2103 CST -.8829
FDE  .0847 FRA 1.4804 FC3-1.7898 BSP  18632   SGB 5816.9 R23  .0173 R13 -.9625          LSA 1431.7 MSA  391.2 SSA   18.1
BDE  .3978 BRA 2.4590 BC3 5.0285 FSP   -870   SG1 5802.6 SG2  407.0 THA 174.68          EL1 1371.4 EL2  316.3 ALF 167.92
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LAUNCH DATE AUG 30 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 544.615

RL	151.05	LAL	-.00	LOL	336.22	VL	26.275	GAL	4.15	AZL	91.11	HCA	261.30	SMA	124.40	ECC	.22560	INC	1.1132	V1	29.497		
RP	108.41	LAP	1.10	LOP	237.52	VP	37.169	GAP	10.78	AZP	89.83	TAL	165.44	TAP	66.74	RCA	96.34	APO	152.47	V2	34.956		
RC	152.275	GL	-7.22	GP	17.36	ZAL	55.35	ZAP	158.70	ETS	49.75	ZAE	124.86	ETE	168.18	ZAC	119.22	ETC	260.97	CLP	-167.46		

PLANETOCENTRIC CONIC

C3	16.409	VHL	4.051	DLA	-30.17	RAL	282.86	RAD	6567.7	VEL	11.739	PTH	2.07	VHP	7.214	DPA	-4.56	RAP	251.96	ECC	1.2701		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.14	12 12 22	1129.52	22.01	342.70	148.78	111.17	12 31 11	529.5	24.69	334.90
100.86	15 8 11	5850.89	22.02	278.90	148.78	111.15	16 45 42	5250.9	24.70	271.10
79.14	12 12 22	1129.52	22.01	342.70	148.78	111.17	12 31 11	529.5	24.69	334.90
100.86	15 8 11	5850.89	22.02	278.90	148.78	111.15	16 45 42	5250.9	24.70	271.10
110.00	14 5 35	760.45	11.97	310.58	143.51	122.26	14 18 16	160.4	16.15	303.96
110.00	18 14 8	5267.96	32.83	238.12	152.18	100.09	19 41 56	4668.0	33.88	229.04

DIFFERENTIAL CORRECTIONS

TDE	-.1428	TRA	2.6891	TC3	-4.7049	BAU	1.0333
RDE	.2693	RRA	-.3076	RC3	.2194	FAU	.02907
FDE	.1548	FRA	1.5270	FC3	-1.5338	BSP	18759
BDE	.3048	BRA	2.7067	BC3	4.7100	FSP	-834

MID-COURSE EXECUTION ACCURACY

SGT	5824.5	SGR	655.7	SG3	241.8		
RRT	-.7773	RRF	-.7601	RTF	.9621		
SGB	5861.3	R23	.0135	R13	-.9622		
SG1	5846.8	SG2	410.9	THA	174.97		

ORBIT DETERMINATION ACCURACY

ST	1340.1	SR	409.7	SS	487.2		
CRT	-.5041	CRS	.0936	CST	-.9061		
LSA	1426.0	MSA	408.8	SSA	17.6		
EL1	1357.0	EL2	349.4	ALF	170.61		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 550.244

RL	151.05	LAL	-.00	LOL	336.22	VL	26.239	GAL	4.65	AZL	90.92	HCA	264.49	SMA	124.18	ECC	.23040	INC	.9243	V1	29.497		
RP	108.45	LAP	.92	LOP	240.70	VP	37.131	GAP	11.19	AZP	89.91	TAL	164.07	TAP	68.55	RCA	95.57	APO	152.79	V2	34.943		
RC	154.408	GL	-5.75	GP	16.66	ZAL	53.15	ZAP	159.84	ETS	51.10	ZAE	124.76	ETE	168.68	ZAC	118.71	ETC	261.51	CLP	-168.50		

PLANETOCENTRIC CONIC

C3	17.753	VHL	4.213	DLA	-28.50	RAL	285.07	RAD	6567.7	VEL	11.796	PTH	2.09	VHP	7.436	DPA	-5.62	RAP	253.87	ECC	1.2922		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.65	13 20 59	955.46	20.42	329.21	151.77	110.32	13 36 55	355.5	23.00	321.47
93.35	14 17 14	773.22	20.43	315.87	151.77	110.31	14 30 7	173.2	23.01	308.14
100.00	13 53 54	848.60	14.52	318.73	149.10	116.42	14 8 3	248.6	17.96	311.62
100.00	16 27 0	5643.35	26.56	265.07	153.85	104.24	18 1 4	5043.3	28.26	256.68
110.00	13 51 23	856.53	8.43	315.77	145.54	123.25	14 5 39	256.5	12.75	309.33
110.00	18 46 1	5208.19	33.46	233.57	155.37	97.46	20 12 49	4608.2	34.13	224.39

DIFFERENTIAL CORRECTIONS

TDE	.0081	TRA	2.9467	TC3	-4.3799	BAU	1.0405
RDE	.2725	RRA	-.3198	RC3	.1919	FAU	.02676
FDE	.2163	FRA	1.5701	FC3	-1.3049	BSP	18913
BDE	.2727	BRA	2.9640	BC3	4.3841	FSP	-801

MID-COURSE EXECUTION ACCURACY

SGT	5866.1	SGR	639.1	SG3	231.8		
RRT	-.7600	RRF	-.7414	RTF	.9619		
SGB	5900.8	R23	.0102	R13	-.9620		
SG1	5886.3	SG2	413.9	THA	175.24		

ORBIT DETERMINATION ACCURACY

ST	1372.4	SR	399.3	SS	505.4		
CRT	-.3642	CRS	-.0021	CST	-.9298		
LSA	1458.1	MSA	414.7	SSA	17.1		
EL1	1380.6	EL2	369.6	ALF	173.48		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 555.828

RL	151.05	LAL	-.00	LOL	336.22	VL	26.202	GAL	5.17	AZL	90.74	HCA	267.67	SMA	123.96	ECC	.23559	INC	.7376	V1	29.497		
RP	108.49	LAP	.74	LOP	243.89	VP	37.094	GAP	11.62	AZP	89.97	TAL	162.69	TAP	70.36	RCA	94.76	APO	153.16	V2	34.931		
RC	156.530	GL	-4.39	GP	16.03	ZAL	51.05	ZAP	160.92	ETS	52.64	ZAE	124.66	ETE	169.13	ZAC	118.25	ETC	262.06	CLP	-169.51		

PLANETOCENTRIC CONIC

C3	19.305	VHL	4.394	DLA	-26.92	RAL	287.16	RAD	6567.8	VEL	11.861	PTH	2.10	VHP	7.673	DPA	-6.60	RAP	255.82	ECC	1.3177		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 39 30	1138.82	13.00	339.32	152.24	115.38	12 58 29	538.8	16.32	332.21
90.00	15 15 22	629.15	25.01	306.87	156.74	103.74	15 25 51	29.2	26.65	298.59
100.00	13 27 17	984.44	10.27	326.58	150.84	118.23	13 43 42	384.4	13.97	319.74
100.00	17 10 16	5546.80	28.00	258.26	157.47	100.93	18 42 43	4946.8	29.22	249.67
110.00	13 41 2	941.28	5.24	320.26	147.79	123.83	13 56 43	341.3	9.65	313.94
110.00	19 13 0	5162.73	33.80	230.06	158.45	95.42	20 39 3	4562.7	34.18	220.84

DIFFERENTIAL CORRECTIONS

TDE	.1603	TRA	3.2167	TC3	-4.0505	BAU	1.0463
RDE	.2774	RRA	-.3324	RC3	.1676	FAU	.02454
FDE	.2710	FRA	1.6112	FC3	-1.1005	BSP	19057
BDE	.3204	BRA	3.2338	BC3	4.0540	FSP	-769

MID-COURSE EXECUTION ACCURACY

SGT	5903.0	SGR	623.5	SG3	222.2		
RRT	-.7432	RRF	-.7235	RTF	.9619		
SGB	5935.8	R23	.0075	R13	-.9620		
SG1	5921.3	SG2	415.9	THA	175.49		

ORBIT DETERMINATION ACCURACY

ST	1430.8	SR	390.0	SS	524.3		
CRT	-.2342	CRS	-.0798	CST	-.9498		
LSA	1518.0	MSA	411.5	SSA	16.5		
EL1	1433.9	EL2	378.3	ALF	176.07		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 561.361

RL	151.05	LAL	-.00	LOL	336.22	VL	26.166	GAL	5.72	AZL	90.55	HCA	270.85	SMA	123.74	ECC	.24118	INC	.5517	V1	29.497		
RP	108.53	LAP	.55	LOP	247.07	VP	37.057	GAP	12.07	AZP	90.01	TAL	161.31	TAP	72.17	RCA	93.90	APO	153.58	V2	34.919		
RC	158.641	GL	-3.13	GP	15.45	ZAL	49.05	ZAP	161.93	ETS	54.39	ZAE	124.55	ETE	169.53	ZAC	117.83	ETC	262.62	CLP	-170.52		

PLANETOCENTRIC CONIC

C3	21.087	VHL	4.592	DLA	-25.44	RAL	289.13	RAD	6567.9	VEL	11.936	PTH	2.12	VHP	7.925	DPA	-7.49	RAP	257.83	ECC	1.3470		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 13 27	1273.94	8.94	347.16	154.12	116.98	12 34 41	673.9	12.49	340.28
90.00	15 57 6	5824.19	26.35	278.30	160.34	100.76	17 34 10	5224.2	27.57	269.85
100.00	13 10 18	1090.36	6.81	332.53	152.97	119.18	13 28 28	490.4	10.64	325.84
100.00	17 42 55	5483.00	28.73	253.66	160.80	98.62	19 14 18	4883.0	29.63	244.97
110.00	13 33 9	1018.66	2.30	324.31	150.19	124.12	13 50 8	418.7	6.76	318.07
110.00	19 36 34	5127.46	34.00	227.33	161.47	93.81	21 2 1	4527.5	34.15	218.08

DIFFERENTIAL CORRECTIONS

TDE	.3149	TRA	3.4997	TC3	-3.7215	BAU	1.0500
RDE	.2834	RRA	-.3452	RC3	.1458	FAU	.02240
FDE	.3205	FRA	1.6512	FC3	-.9195	BSP	19190
BDE	.4236	BRA	3.5167	BC3	3.7243	FSP	-738

MID-COURSE EXECUTION ACCURACY

SGT	5934.3	SGR	608.6	SG3	213.0		
RRT	-.7268	RRF	-.7063	RTF	.9620		
SGB	5965.5	R23	.0054	R13	-.9621		
SG1	5950.9	SG2	416.9	THA	175.72		

ORBIT DETERMINATION ACCURACY

ST	1506.3	SR	381.4	SS	543.0		
CRT	-.1202	CRS	-.1433	CST	-.9647		
LSA	1595.9	MSA	402.7	SSA	16.0		
EL1	1507.1	EL2	378.5	ALF	178.14		

LAUNCH DATE AUG 30 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 566.838

RL 151.05 LAL -.00 LOL 336.22 VL 26.130 GAL 6.30 AZL 90.37 HCA 274.03 SMA 123.52 ECC .24723 INC .3657 V1 29.497
RP 108.56 LAP .37 LOP 250.25 VP 37.021 GAP 12.54 AZP 90.03 TAL 159.94 TAP 73.97 RCA 92.98 APO 154.06 V2 34.907
RC 160.740 GL -1.98 GP 14.93 ZAL 47.15 ZAP 162.87 ETS 56.39 ZAE 124.44 ETE 169.90 ZAC 117.44 ETC 263.18 CLP-171.51

PLANETOCENTRIC CONIC

C3 23.131 VHL 4.810 DLA -24.04 RAL 290.97 RAD 6567.9 VEL 12.021 PTH 2.15 VHP 8.194 DPA -8.31 RAP 259.87 ECC 1.3807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 56 32	1380.12	5.61	353.19	156.35	117.80	12 19 32	780.1	9.29	346.44
90.00	16 28 46	5762.79	27.06	273.95	163.66	98.69	18 4 49	5162.8	27.98	265.40
100.00	12 57 59	1181.73	3.75	337.59	155.33	119.68	13 17 41	581.7	7.67	331.00
100.00	18 9 59	5436.42	29.16	250.26	163.99	96.88	19 40 36	4836.4	29.81	241.52
110.00	13 26 59	1090.78	-.46	328.08	152.70	124.18	13 45 10	490.8	4.03	321.87
110.00	19 57 29	5100.13	34.10	225.20	164.47	92.55	21 22 29	4500.1	34.08	215.95

DIFFERENTIAL CORRECTIONS
TDE .4716 TRA 3.7964 TC3-3.3994 BAU 1.0520
RDE .2905 RRA -.3581 RC3 .1265 FAU .02036
FDE .3649 FRA 1.6901 FC3 -.7619 BSP 19330
BDE .5539 BRA 3.8132 BC3 3.4018 FSP -709

MID-COURSE EXECUTION ACCURACY
SGT 5960.9 SGR 594.0 SG3 204.2
RRT -.7109 RRF -.6900 RTF .9623
SGB 5990.4 R23 .0036 R13 -.9624
SG1 5975.9 SG2 416.7 THA 175.93

ORBIT DETERMINATION ACCURACY
ST 1591.4 SR 373.4 SS 560.6
CRT -.0238 CRS -.1951 CST -.9754
LSA 1683.2 MSA 390.9 SSA 15.5
EL1 1591.4 EL2 373.3 ALF 179.66

LAUNCH DATE AUG 30 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 572.251

RL 151.05 LAL -.00 LOL 336.22 VL 26.095 GAL 6.92 AZL 90.18 HCA 277.21 SMA 123.31 ECC .25379 INC .1779 V1 29.497
RP 108.60 LAP .18 LOP 253.42 VP 36.985 GAP 13.04 AZP 90.02 TAL 158.57 TAP 75.78 RCA 92.01 APO 154.60 V2 34.896
RC 162.826 GL -.92 GP 14.45 ZAL 45.36 ZAP 163.75 ETS 58.65 ZAE 124.33 ETE 170.23 ZAC 117.07 ETC 263.75 CLP-172.49

PLANETOCENTRIC CONIC

C3 25.472 VHL 5.047 DLA -22.73 RAL 292.71 RAD 6568.0 VEL 12.118 PTH 2.17 VHP 8.482 DPA -9.06 RAP 261.95 ECC 1.4192

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 44 7	1471.92	2.67	358.34	158.77	118.20	12 8 39	871.9	6.42	351.67
90.00	16 55 3	5718.28	27.47	270.76	166.88	97.14	18 30 21	5118.3	28.18	262.16
100.00	12 48 31	1264.06	.96	342.11	157.82	119.88	13 9 35	664.1	4.93	335.57
100.00	18 33 20	5401.38	29.42	247.69	167.12	95.55	20 3 22	4801.4	29.88	238.91
110.00	13 22 4	1158.88	-3.06	331.63	155.31	124.06	13 41 23	558.9	1.43	325.43
110.00	20 16 17	5079.33	34.15	223.58	167.47	91.59	21 40 56	4479.3	33.99	214.33

DIFFERENTIAL CORRECTIONS
TDE .6309 TRA 4.1077 TC3-3.0871 BAU 1.0519
RDE .2986 RRA -.3711 RC3 .1092 FAU .01841
FDE .4050 FRA 1.7285 FC3 -.6256 BSP 19470
BDE .6980 BRA 4.1244 BC3 3.0890 FSP -682

MID-COURSE EXECUTION ACCURACY
SGT 5982.0 SGR 579.4 SG3 195.8
RRT -.6953 RRF -.6743 RTF .9628
SGB 6010.0 R23 .0022 R13 -.9628
SG1 5995.6 SG2 415.5 THA 176.13

ORBIT DETERMINATION ACCURACY
ST 1680.0 SR 365.7 SS 576.6
CRT .0564 CRS -.2375 CST -.9828
LSA 1773.5 MSA 378.0 SSA 15.0
EL1 1680.1 EL2 365.0 ALF .74

LAUNCH DATE AUG 30 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 577.593

RL 151.05 LAL -.00 LOL 336.22 VL 26.059 GAL 7.58 AZL 89.99 HCA 280.38 SMA 123.10 ECC .26090 INC .0000 V1 29.497
RP 108.63 LAP -.01 LOP 256.60 VP 36.950 GAP 13.57 AZP 90.00 TAL 157.21 TAP 77.60 RCA 90.98 APO 155.21 V2 34.885
RC 164.900 GL .05 GP 14.01 ZAL 43.66 ZAP 164.57 ETS 61.19 ZAE 124.21 ETE 170.53 ZAC 116.72 ETC 264.32 CLP-173.46

PLANETOCENTRIC CONIC

C3 28.151 VHL 5.306 DLA -21.50 RAL 294.35 RAD 6568.1 VEL 12.228 PTH 2.20 VHP 8.790 DPA -9.73 RAP 264.05 ECC 1.4633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 34 30	1554.70	.00	2.96	161.33	118.32	12 0 25	954.7	3.79	356.32
90.00	17 17 44	5685.14	27.73	268.37	170.03	95.97	18 52 29	5085.1	28.27	259.74
100.00	12 41 0	1340.08	-1.62	346.28	160.42	119.85	13 3 20	740.1	2.37	339.76
100.00	18 53 55	5375.00	29.58	245.74	170.23	94.54	20 23 30	4775.0	29.89	236.95
110.00	13 18 7	1223.77	-5.53	335.04	157.99	123.79	13 38 30	623.8	-1.05	328.81
110.00	20 33 18	5064.07	34.17	222.38	170.48	90.89	21 57 42	4464.1	33.92	213.15

DIFFERENTIAL CORRECTIONS
TDE .7923 TRA 4.4337 TC3-2.7886 BAU 1.0501
RDE .3077 RRA -.3838 RC3 .0939 FAU .01656
FDE .4411 FRA 1.7662 FC3 -.5094 BSP 19639
BDE .8499 BRA 4.4502 BC3 2.7902 FSP -658

MID-COURSE EXECUTION ACCURACY
SGT 5997.5 SGR 564.6 SG3 187.7
RRT -.6801 RRF -.6593 RTF .9635
SGB 6024.0 R23 .0012 R13 -.9635
SG1 6009.8 SG2 413.1 THA 176.32

ORBIT DETERMINATION ACCURACY
ST 1767.2 SR 358.1 SS 590.9
CRT .1228 CRS -.2728 CST -.9879
LSA 1862.1 MSA 364.8 SSA 14.5
EL1 1767.8 EL2 355.3 ALF 1.49

LAUNCH DATE AUG 30 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 582.853

RL 151.05 LAL -.00 LOL 336.22 VL 26.024 GAL 8.28 AZL 89.80 HCA 283.56 SMA 122.82 ECC .26863 INC .2045 V1 29.497
RP 108.66 LAP -.20 LOP 259.77 VP 36.915 GAP 14.13 AZP 89.95 TAL 155.87 TAP 79.43 RCA 89.88 APO 155.90 V2 34.874
RC 166.961 GL .94 GP 13.61 ZAL 42.06 ZAP 165.32 ETS 64.04 ZAE 124.07 ETE 170.81 ZAC 116.39 ETC 264.90 CLP-174.43

PLANETOCENTRIC CONIC

C3 31.218 VHL 5.587 DLA -20.35 RAL 295.89 RAD 6568.2 VEL 12.353 PTH 2.23 VHP 9.122 DPA -10.34 RAP 266.18 ECC 1.5138

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 26 47	1631.12	-2.46	7.22	163.97	118.22	11 53 58	1031.1	1.33	.59
90.00	17 37 42	5660.53	27.89	266.58	173.16	95.09	19 12 3	5060.5	28.31	257.94
100.00	12 34 54	1411.34	-4.03	350.20	163.11	119.65	12 58 25	811.3	-.05	343.67
100.00	19 12 17	5355.55	29.67	244.30	173.31	93.79	20 41 33	4755.5	29.88	235.51
110.00	13 14 53	1286.01	-7.87	338.33	160.74	123.37	13 36 19	686.0	-3.43	332.06
110.00	20 48 47	5053.64	34.18	221.57	173.51	90.41	22 13 1	4453.6	33.86	212.34

DIFFERENTIAL CORRECTIONS
TDE .9577 TRA 4.7771 TC3-2.5038 BAU 1.0455
RDE .3175 RRA -.3962 RC3 .0801 FAU .01479
FDE .4742 FRA 1.8044 FC3 -.4103 BSP 19812
BDE 1.0089 BRA 4.7935 BC3 2.5050 FSP -635

MID-COURSE EXECUTION ACCURACY
SGT 6007.7 SGR 549.4 SG3 180.0
RRT -.6650 RRF -.6446 RTF .9644
SGB 6032.7 R23 .0004 R13 -.9644
SG1 6018.8 SG2 409.5 THA 176.50

ORBIT DETERMINATION ACCURACY
ST 1851.6 SR 350.6 SS 603.9
CRT .1783 CRS -.3027 CST -.9915
LSA 1947.3 MSA 351.8 SSA 14.1
EL1 1852.7 EL2 344.8 ALF 2.00

LAUNCH DATE AUG 30 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 588.018

RL 151.05 LAL -.00 LOL 336.22 VL 25.989 GAL 9.02 AZL 89.60 HCA 286.73 SMA 122.68 ECC .27706 INC .4033 V1 29.497
RP 108.69 LAP -.39 LOP 262.94 VP 36.881 GAP 14.72 AZP 89.88 TAL 154.54 TAP 81.27 RCA 88.69 APO 156.67 V2 34.864
RC 169.007 GL 1.76 GP 13.24 ZAL 40.55 ZAP 166.00 ETS 67.23 ZAE 123.93 ETE 171.07 ZAC 116.08 ETC 265.48 CLP-175.40

PLANETOCENTRIC CONIC

C3 34.736 VHL 5.894 DLA -19.28 RAL 297.33 RAD 6568.4 VEL 12.494 PTH 2.26 VHP 9.478 DPA -10.87 RAP 268.33 ECC 1.5717

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 20 28	1702.72	-4.76	11.23	166.70	117.95	11 48 51	1102.7	-.98	4.58
90.00	17 55 32	5642.74	27.99	265.29	176.26	94.45	19 29 35	5042.7	28.32	256.64
100.00	12 29 51	1478.83	-6.29	353.94	165.86	119.28	12 54 30	878.8	-2.34	347.37
100.00	19 28 50	5341.86	29.73	243.29	176.39	93.26	20 57 52	4741.9	29.87	234.49
110.00	13 12 14	1346.01	-10.10	341.54	163.54	122.83	13 34 40	746.0	-5.71	335.21
110.00	21 2 56	5047.45	34.18	221.09	176.55	90.12	22 27 4	4447.5	33.82	211.86

DIFFERENTIAL CORRECTIONS
TDE 1.1276 TRA 5.1391 TC3-2.2337 BAU 1.0378
RDE .3281 RRA -.4081 RC3 .0677 FAU .01309
FDE .5052 FRA 1.8436 FC3 -.3263 BSP 19990
BDE 1.1743 BRA 5.1553 BC3 2.2347 FSP -613

MID-COURSE EXECUTION ACCURACY
SGT 6012.4 SGR 533.6 SG3 172.7
RRT -.6499 RRF -.6302 RTF .9654
SGB 6036.0 R23 -.0001 R13 -.9654
SG1 6022.4 SG2 404.9 THA 176.68

ORBIT DETERMINATION ACCURACY
ST 1931.1 SR 343.0 SS 616.0
CRT .2253 CRS -.3286 CST -.9939
LSA 2027.6 MSA 339.0 SSA 13.6
EL1 1932.7 EL2 333.9 ALF 2.36

LAUNCH DATE AUG 30 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 593.075

RL 151.05 LAL -.00 LOL 336.22 VL 25.955 GAL 9.82 AZL 89.39 HCA 289.90 SMA 122.48 ECC .28625 INC .6087 V1 29.497
RP 108.72 LAP -.57 LOP 266.11 VP 36.848 GAP 15.37 AZP 89.79 TAL 153.24 TAP 83.14 RCA 87.42 APO 157.54 V2 34.855
RC 171.039 GL 2.50 GP 12.90 ZAL 39.14 ZAP 166.61 ETS 70.78 ZAE 123.78 ETE 171.31 ZAC 115.77 ETC 266.06 CLP-176.38

PLANETOCENTRIC CONIC

C3 38.776 VHL 6.227 DLA -18.28 RAL 298.68 RAD 6568.5 VEL 12.655 PTH 2.30 VHP 9.864 DPA -11.35 RAP 270.48 ECC 1.6382

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 15 12	1770.47	-6.91	15.05	169.48	117.53	11 44 43	1170.5	-3.16	8.37
90.00	18 11 34	5630.60	28.06	264.41	179.35	94.01	19 45 25	5030.6	28.32	255.75
100.00	12 25 38	1543.21	-8.41	357.53	168.67	118.79	12 51 21	943.2	-4.51	350.92
100.00	19 43 50	5333.09	29.76	242.64	179.46	92.92	21 12 43	4733.1	29.85	233.84
110.00	13 10 3	1404.02	-12.23	344.70	166.39	122.17	13 33 27	804.0	-7.89	338.28
110.00	21 15 54	5045.04	34.18	220.90	179.60	90.01	22 39 59	4445.0	33.81	211.67

DIFFERENTIAL CORRECTIONS
TDE 1.3033 TRA 5.5226 TC3-1.9784 BAU 1.0260
RDE .3393 RRA -.4193 RC3 .0565 FAU .01144
FDE .5344 FRA 1.8844 FC3 -.2554 BSP 20158
BDE 1.3468 BRA 5.5385 BC3 1.9792 FSP -592

MID-COURSE EXECUTION ACCURACY
SGT 6012.2 SGR 517.2 SG3 165.7
RRT -.6346 RRF -.6159 RTF .9667
SGB 6034.4 R23 -.0004 R13 -.9667
SG1 6021.2 SG2 399.1 THA 176.86

ORBIT DETERMINATION ACCURACY
ST 2005.2 SR 335.1 SS 627.4
CRT .2656 CRS -.3514 CST -.9957
LSA 2102.4 MSA 326.6 SSA 13.2
EL1 2007.3 EL2 322.8 ALF 2.61

LAUNCH DATE AUG 30 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 598.005

RL 151.05 LAL -.00 LOL 336.22 VL 25.921 GAL 10.68 AZL 89.18 HCA 293.06 SMA 122.28 ECC .29632 INC .8223 V1 29.497
RP 108.75 LAP -.76 LOP 269.28 VP 36.815 GAP 16.06 AZP 89.68 TAL 151.97 TAP 85.03 RCA 86.05 APO 158.51 V2 34.846
RC 173.056 GL 3.18 GP 12.59 ZAL 37.83 ZAP 167.14 ETS 74.71 ZAE 123.61 ETE 171.53 ZAC 115.47 ETC 266.64 CLP-177.36

PLANETOCENTRIC CONIC

C3 43.430 VHL 6.590 DLA -17.35 RAL 299.94 RAD 6568.6 VEL 12.837 PTH 2.34 VHP 10.282 DPA -11.76 RAP 272.65 ECC 1.7147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 10 45	1835.00	-8.92	18.72	172.31	116.99	11 41 20	1235.0	-5.23	11.99
90.00	18 26 5	5623.27	28.09	263.87	182.42	93.74	19 59 48	5023.3	28.31	255.22
100.00	12 22 3	1604.91	-10.42	1.01	171.51	118.18	12 48 48	1004.9	-6.57	354.34
100.00	19 57 28	5328.58	29.78	242.31	182.53	92.74	21 26 16	4728.6	29.84	233.50
110.00	13 8 14	1460.26	-14.24	347.80	169.27	121.41	13 32 34	860.3	-9.98	341.29
110.00	21 27 47	5046.00	34.18	220.97	182.65	90.06	22 51 53	4446.0	33.81	211.75

DIFFERENTIAL CORRECTIONS
TDE 1.4867 TRA 5.9303 TC3-1.7378 BAU 1.0093
RDE .7511 RRA -.4296 RC3 .0464 FAU .00981
FDE .5628 FRA 1.9277 FC3 -.1955 BSP 20300
BDE 1.5275 BRA 5.9458 BC3 1.7384 FSP -571

MID-COURSE EXECUTION ACCURACY
SGT 6007.8 SGR 500.0 SG3 159.1
RRT -.6189 RRF -.6013 RTF .9681
SGB 6028.6 R23 -.0006 R13 -.9681
SG1 6015.8 SG2 392.2 THA 177.04

ORBIT DETERMINATION ACCURACY
ST 2074.0 SR 327.0 SS 638.8
CRT .3010 CRS -.3721 CST -.9969
LSA 2171.9 MSA 314.3 SSA 12.7
EL1 2076.3 EL2 311.5 ALF 2.78

LAUNCH DATE AUG 30 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 602.787

RL 151.05 LAL -.00 LOL 336.22 VL 25.887 GAL 11.60 AZL 88.95 HCA 296.23 SMA 122.08 ECC .30735 INC 1.0462 V1 29.497
RP 108.78 LAP -.94 LOP 272.45 VP 36.783 GAP 16.80 AZP 89.54 TAL 150.73 TAP 86.96 RCA 84.56 APO 159.61 V2 34.837
RC 175.059 GL 3.80 GP 12.30 ZAL 36.61 ZAP 167.59 ETS 79.02 ZAE 123.42 ETE 171.74 ZAC 115.17 ETC 267.22 CLP-178.35

PLANETOCENTRIC CONIC

C3 48.806 VHL 6.986 DLA -16.48 RAL 301.12 RAD 6568.8 VEL 13.045 PTH 2.38 VHP 10.737 DPA -12.11 RAP 274.81 ECC 1.8032

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 6 57	1896.74	-10.81	22.28	175.17	116.33	11 38 34	1296.7	-7.18	15.47
90.00	18 39 14	5620.10	28.10	263.64	185.47	93.63	20 12 54	5020.1	28.31	254.98
100.00	12 19 1	1664.25	-12.30	4.41	174.39	117.46	12 46 45	1064.3	-8.53	357.65
100.00	20 9 52	5327.82	29.78	242.25	185.58	92.71	21 38 40	4727.8	29.84	233.45
110.00	13 6 42	1514.84	-16.16	350.88	172.19	120.54	13 31 57	914.8	-11.98	344.26
110.00	21 38 40	5049.99	34.18	221.28	185.71	90.24	23 2 50	4450.0	33.84	212.06

DIFFERENTIAL CORRECTIONS
TDE 1.6790 TRA 6.3655 TC3-1.5113 BAU .9864
RDE .3634 RRA -.4387 RC3 .0372 FAU .00818
FDE .5911 FRA 1.9745 FC3 -.1452 BSP 20405
BDE 1.7179 BRA 6.3806 BC3 1.5117 FSP -550

MID-COURSE EXECUTION ACCURACY
SGT 5999.6 SGR 482.0 SG3 152.8
RRT -.6024 RRF -.5862 RTF .9697
SGB 6019.0 R23 -.0006 R13 -.9697
SG1 6006.7 SG2 384.3 THA 177.22

ORBIT DETERMINATION ACCURACY
ST 2137.3 SR 318.6 SS 650.5
CRT .3326 CRS -.3915 CST -.9978
LSA 2236.3 MSA 302.1 SSA 12.3
EL1 2139.9 EL2 300.1 ALF 2.90

LAUNCH DATE AUG 30 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 607.392

RL	151.05	LAL	-.00	LOL	336.22	VL	25.854	GAL	12.60	AZL	88.72	HCA	299.39	SMA	121.89	ECC	.31950	INC	1.2824
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.753	GAP	17.62	AZP	89.37	TAL	149.54	TAP	88.93	RCA	82.95	APO	160.84
RC	177.047	GL	4.37	GP	12.04	ZAL	35.48	ZAP	167.94	ETS	83.72	ZAE	123.20	ETE	171.94	ZAC	114.88	ETC	267.79

V1	29.497	V2	34.829	CLP	-179.37														

PLANETOCENTRIC CONIC

C3	55.040	VHL	7.419	DLA	-15.68	RAL	302.20	RAD	6569.0	VEL	13.282	PTH	2.43	VHP	11.233	DPA	-12.41	RAP	276.96
ECC	1.9058																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 3 41	1955.97	-12.57	25.73	178.05	115.58	11 36 17	1356.0	-9.03	18.85
90.00	18 51 11	5620.56	28.10	263.68	188.50	93.65	20 24 51	5020.6	28.31	255.02
100.00	12 16 23	1721.41	-14.07	7.73	177.29	116.65	12 45 4	1121.4	-10.39	.88
100.00	20 21 10	5330.36	29.77	242.44	188.61	92.81	21 50 0	4730.4	29.84	233.63
110.00	13 5 24	1567.84	-17.96	353.92	175.13	119.58	13 31 32	967.8	-13.89	347.18
110.00	21 48 38	5056.69	34.18	221.81	188.76	90.55	23 12 55	4456.7	33.88	212.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8829	TRA	6.8324	TC3	-1.2985	BAU	.9557	SGT	5988.6	SGR	463.1	SG3	146.9	ST	2195.7	SR	309.8	SS	663.2
RDE	.3763	RRA	-.4463	RC3	.0290	FAU	.00654	RRT	-.5849	RRF	-.5701	RTF	.9715	CRT	.3616	CRS	-.4101	CST	-.9984
FDE	.6201	FRA	2.0255	FC3	-.1028	BSP	20429	SGB	6006.5	R23	-.0005	R13	-.9715	LSA	2296.3	MSA	290.0	SSA	11.9
BDE	1.9201	BRA	6.8469	BC3	1.2988	FSP	-528	SG1	5994.8	SG2	375.2	THA	177.40	EL1	2198.6	EL2	288.5	ALF	2.97

LAUNCH DATE AUG 30 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 611.787

RL	151.05	LAL	-.00	LOL	336.22	VL	25.822	GAL	13.68	AZL	88.47	HCA	302.55	SMA	121.71	ECC	.33290	INC	1.5337
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.723	GAP	18.51	AZP	89.17	TAL	148.41	TAP	90.96	RCA	81.19	APO	162.22
RC	179.021	GL	4.88	GP	11.80	ZAL	34.45	ZAP	168.20	ETS	88.77	ZAE	122.96	ETE	172.13	ZAC	114.59	ETC	268.36

V1	29.497	V2	34.822	CLP	179.60														

PLANETOCENTRIC CONIC

C3	62.300	VHL	7.893	DLA	-14.94	RAL	303.20	RAD	6569.2	VEL	13.552	PTH	2.48	VHP	11.778	DPA	-12.65	RAP	279.10
ECC	2.0253																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 0 49	2012.86	-14.22	29.10	180.94	114.75	11 34 22	1412.9	-10.76	22.12
90.00	19 2 0	5624.22	28.08	263.94	191.50	93.78	20 35 44	5024.2	28.31	255.29
100.00	12 14 5	1776.50	-15.73	10.98	180.20	115.75	12 43 41	1176.5	-12.14	4.03
100.00	20 31 26	5335.82	29.75	242.84	191.61	93.02	22 0 22	4735.8	29.86	234.04
110.00	13 4 17	1619.26	-19.66	356.94	178.08	118.54	13 31 16	1019.3	-15.70	350.06
110.00	21 57 43	5065.82	34.17	222.52	191.79	90.97	23 22 9	4465.8	33.93	213.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.1007	TRA	7.3454	TC3	-1.0988	BAU	.9154	SGT	5982.5	SGR	443.2	SG3	141.4	ST	2251.4	SR	300.8	SS	677.2
RDE	.3899	RRA	-.4517	RC3	.0216	FAU	.00484	RRT	-.5659	RRF	-.5525	RTF	.9736	CRT	.3883	CRS	-.4286	CST	-.9989
FDE	.6501	FRA	2.0818	FC3	-.0673	BSP	20364	SGB	5998.8	R23	-.0007	R13	-.9736	LSA	2353.9	MSA	277.9	SSA	11.4
BDE	2.1365	BRA	7.3593	BC3	1.0990	FSP	-505	SG1	5987.7	SG2	365.1	THA	177.59	EL1	2254.5	EL2	276.8	ALF	3.02

LAUNCH DATE AUG 30 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 615.929

RL	151.05	LAL	-.00	LOL	336.22	VL	25.790	GAL	14.86	AZL	88.20	HCA	305.71	SMA	121.53	ECC	.34772	INC	1.8033
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.694	GAP	19.48	AZP	88.95	TAL	147.34	TAP	93.05	RCA	79.27	APO	163.78
RC	180.980	GL	5.35	GP	11.57	ZAL	33.51	ZAP	168.34	ETS	94.14	ZAE	122.68	ETE	172.32	ZAC	114.30	ETC	268.92

V1	29.497	V2	34.815	CLP	178.53														

PLANETOCENTRIC CONIC

C3	70.797	VHL	8.414	DLA	-14.26	RAL	304.11	RAD	6569.4	VEL	13.862	PTH	2.53	VHP	12.378	DPA	-12.84	RAP	281.21
ECC	2.1651																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 18	2067.49	-15.75	32.38	183.82	113.84	11 32 46	1467.5	-12.39	25.31
90.00	19 11 46	5630.70	28.05	264.42	194.45	94.01	20 45 37	5030.7	28.32	255.76
100.00	12 12 3	1829.55	-17.27	14.17	183.10	114.78	12 42 33	1229.5	-13.79	7.11
100.00	20 40 43	5343.88	29.72	243.44	194.57	93.33	22 9 47	4743.9	29.87	234.64
110.00	13 3 17	1669.07	-21.26	359.93	181.03	117.42	13 31 6	1069.1	-17.41	352.91
110.00	22 5 58	5077.12	34.15	223.40	194.79	91.49	23 30 35	4477.1	33.98	214.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.3335	TRA	7.8786	TC3	-.9126	BAU	.8639	SGT	5960.4	SGR	422.7	SG3	136.3	ST	2298.9	SR	291.5	SS	692.9
RDE	.4043	RRA	-.4550	RC3	.0152	FAU	.00307	RRT	-.5444	RRF	-.5330	RTF	.9756	CRT	.4150	CRS	-.4471	CST	-.9992
FDE	.6818	FRA	2.1442	FC3	-.0376	BSP	20199	SGB	5975.3	R23	.0000	R13	-.9756	LSA	2404.0	MSA	265.6	SSA	11.0
BDE	2.3682	BRA	7.8917	BC3	.9127	FSP	-480	SG1	5964.8	SG2	354.3	THA	177.78	EL1	2302.1	EL2	264.9	ALF	3.05

LAUNCH DATE AUG 30 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 619.764

RL	151.05	LAL	-.00	LOL	336.22	VL	25.760	GAL	16.15	AZL	87.90	HCA	308.87	SMA	121.35	ECC	.36419	INC	2.0950
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.667	GAP	20.56	AZP	88.68	TAL	146.36	TAP	95.23	RCA	77.16	APO	165.54
RC	182.925	GL	5.78	GP	11.36	ZAL	32.67	ZAP	168.35	ETS	99.75	ZAE	122.36	ETE	172.51	ZAC	114.01	ETC	269.47

V1	29.497	V2	34.809	CLP	177.43														

PLANETOCENTRIC CONIC

C3	80.797	VHL	8.989	DLA	-13.64	RAL	304.92	RAD	6569.6	VEL	14.218	PTH	2.59	VHP	13.043	DPA	-12.99	RAP	283.29
ECC	2.3297																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 56 3	2119.85	-17.16	35.57	186.66	112.87	11 31 23	1519.9	-13.92	28.40
90.00	19 20 32	5639.69	28.01	265.07	197.33	94.34	20 54 32	5039.7	28.32	256.42
100.00	12 10 14	1880.54	-18.70	17.28	185.97	113.75	12 41 34	1280.5	-15.33	10.11
100.00	20 49 3	5354.24	29.68	244.21	197.47	93.74	22 18 17	4754.2	29.88	235.41
110.00	13 2 22	1717.21	-22.74	2.88	183.96	116.24	13 31 0	1117.2	-19.02	355.71
110.00	22 13 23	5090.33	34.13	224.43	197.73	92.10	23 38 14	4490.3	34.04	215.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.5842	TRA	8.4679	TC3	-.7395	BAU	.7989	SGT	5944.0	SGR	401.1	SG3	131.5	ST	2343.4	SR	282.1	SS	710.8
RDE	.4196	RRA	-.4550	RC3	.0097	FAU	.00121	RRT	-.5202	RRF	-.5106	RTF	.9778	CRT	.4408	CRS	-.4665	CST	-.9995
FDE	.7157	FRA	2.2140	FC3	-.0130	BSP	19902	SGB	5957.5	R23	.0003	R13	-.9779	LSA	2451.9	MSA	253.3	SSA	10.6
BDE	2.6181	BRA	8.4801	BC3	.7396	FSP	-454	SG1	5947.6	SG2	342.4	THA	177.98	EL1	2346.7	EL2	252.8	ALF	3.07

LAUNCH DATE AUG 31 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 9 1970

HELIOCENTRIC CONIC DISTANCE 164.758

RL	151.02	LAL	-.00	LOL	337.18	VL	23.460	GAL	-1.29	AZL	91.89	HCA	68.19	SMA	109.93	ECC	.37430	INC	1.8878	V1	29.504
RP	108.15	LAP	-1.75	LOP	45.36	VP	35.313	GAP	-21.96	AZP	90.70	TAL	182.15	TAP	250.34	RCA	68.78	APO	151.08	V2	35.040
RC	40.252	GL	-7.27	GP	-8.89	ZAL	91.13	ZAP	13.56	ETS	136.39	ZAE	172.66	ETE	336.66	ZAC	91.52	ETC	259.19	CLP	10.29

PLANETOCENTRIC CONIC

C3 37.330 VHL 6.110 DLA -28.47 RAL 242.73 RAD 6568.5 VEL 12.598 PTH 2.28 VHP 13.342 DPA -26.48 RAP 230.73 ECC 1.6144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.94	10 30 30	1130.40	15.69	339.98	121.52	114.06	10 49 21	530.4	18.81	332.68
93.06	11 22 3	963.41	15.70	327.76	121.53	114.05	11 38 6	363.4	18.82	320.47
100.00	11 0 16	1033.78	8.67	329.36	117.96	118.72	11 17 30	433.8	12.44	322.60
100.00	13 34 58	5823.31	22.97	277.23	124.61	109.67	15 12 1	5223.3	25.44	269.30
110.00	10 58 10	1040.36	1.47	325.45	113.55	124.16	11 15 31	440.4	5.94	319.22
110.00	15 53 33	5389.49	31.02	247.13	127.44	105.13	17 23 22	4789.5	32.79	238.35

DIFFERENTIAL CORRECTIONS

TDE	.1714	TRA	-.7093	TC3	.0858	BAU	.0459
RDE	-.4684	RRA	-.0116	RC3	-.0330	FAU	.02011
FDE	-.1058	FRA	.3461	FC3	-.4665	BSP	2056
BDE	.4988	BRA	.7094	BC3	.0919	FSP	-132

MID-COURSE EXECUTION ACCURACY

SGT	780.6	SGR	441.3	SG3	59.3		
RRT	-.1900	RRF	.2048	RTF	-.6627		
SGB	896.7	R23	-.0245	R13	.6671		
SG1	787.0	SG2	429.7	THA	171.24		

ORBIT DETERMINATION ACCURACY

ST	278.2	SR	439.3	SS	172.6
CRT	-.5710	CRS	-.6570	CST	.9882
LSA	495.7	MSA	232.7	SSA	15.5
EL1	475.2	EL2	211.1	ALF	115.18

LAUNCH DATE AUG 31 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 171.414

RL	151.02	LAL	-.00	LOL	337.18	VL	23.824	GAL	-1.39	AZL	91.67	HCA	71.39	SMA	111.52	ECC	.35488	INC	1.6747	V1	29.504
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.569	GAP	-20.72	AZP	90.53	TAL	182.52	TAP	253.91	RCA	71.95	APO	151.10	V2	35.053
RC	40.156	GL	-6.97	GP	-9.33	ZAL	91.69	ZAP	12.60	ETS	129.45	ZAE	169.89	ETE	337.78	ZAC	91.27	ETC	259.42	CLP	8.51

PLANETOCENTRIC CONIC

C3 32.939 VHL 5.739 DLA -28.07 RAL 242.17 RAD 6568.3 VEL 12.422 PTH 2.24 VHP 12.651 DPA -27.34 RAP 232.09 ECC 1.5421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 21 15	1121.72	13.50	338.31	117.49	115.13	10 39 57	521.7	16.78	331.17
90.00	11 26 48	908.90	19.23	325.32	120.05	111.20	11 41 57	308.9	21.94	317.70
100.00	10 47 56	1035.42	8.62	329.46	114.97	118.73	11 5 11	435.4	12.39	322.70
100.00	13 42 48	5758.48	24.39	272.93	122.02	107.84	15 18 47	5158.5	26.60	264.83
110.00	10 51 0	1025.79	2.03	324.69	110.92	124.13	11 8 6	425.8	6.09	318.45
110.00	15 56 14	5340.87	31.83	243.57	124.35	103.17	17 25 15	4740.9	33.32	234.65

DIFFERENTIAL CORRECTIONS

TDE	.1730	TRA	-.6912	TC3	.1253	BAU	.0590
RDE	-.4438	RRA	-.0080	RC3	-.0476	FAU	.02116
FDE	-.1057	FRA	.3525	FC3	-.5562	BSP	2198
BDE	.4764	BRA	.6912	BC3	.1340	FSP	-149

MID-COURSE EXECUTION ACCURACY

SGT	813.7	SGR	446.5	SG3	65.7		
RRT	-.2127	RRF	.2298	RTF	-.6822		
SGB	928.1	R23	-.0281	R13	.6871		
SG1	821.4	SG2	432.2	THA	170.76		

ORBIT DETERMINATION ACCURACY

ST	291.4	SR	443.1	SS	175.6
CRT	-.5880	CRS	-.6524	CST	.9907
LSA	505.6	MSA	236.9	SSA	16.1
EL1	484.5	EL2	215.5	ALF	116.86

LAUNCH DATE AUG 31 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 178.101

RL	151.02	LAL	-.00	LOL	337.18	VL	24.158	GAL	-1.50	AZL	91.47	HCA	74.59	SMA	113.05	ECC	.33679	INC	1.4694	V1	29.504
RP	108.07	LAP	-1.42	LOP	51.77	VP	35.807	GAP	-19.53	AZP	90.39	TAL	182.96	TAP	257.55	RCA	74.97	APO	151.12	V2	35.066
RC	40.238	GL	-6.59	GP	-9.82	ZAL	92.40	ZAP	11.88	ETS	121.31	ZAE	167.12	ETE	338.13	ZAC	90.95	ETC	259.65	CLP	6.71

PLANETOCENTRIC CONIC

C3 29.152 VHL 5.399 DLA -27.56 RAL 241.47 RAD 6568.2 VEL 12.269 PTH 2.21 VHP 11.991 DPA -28.22 RAP 233.43 ECC 1.4798

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 53 58	1171.12	12.05	341.22	113.77	115.82	10 13 29	571.1	15.43	334.17
90.00	11 48 30	798.14	21.79	318.21	117.91	108.54	12 1 48	198.1	24.13	310.32
100.00	10 33 48	1042.38	8.39	329.85	111.85	118.80	10 51 11	442.4	12.17	323.10
100.00	13 51 21	5690.15	25.74	268.30	119.24	105.75	15 26 11	5090.2	27.65	260.02
110.00	10 42 10	1016.13	2.39	324.18	108.17	124.11	10 59 6	416.1	6.85	317.93
110.00	15 59 28	5289.17	32.57	239.72	121.10	101.00	17 27 38	4689.2	33.74	230.68

DIFFERENTIAL CORRECTIONS

TDE	.1738	TRA	-.6732	TC3	.1733	BAU	.0723
RDE	-.4202	RRA	-.0048	RC3	-.0661	FAU	.02232
FDE	-.1045	FRA	.3592	FC3	-.6628	BSP	2325
BDE	.4548	BRA	.6732	BC3	.1854	FSP	-168

MID-COURSE EXECUTION ACCURACY

SGT	847.6	SGR	451.7	SG3	72.8		
RRT	-.2377	RRF	.2577	RTF	-.7016		
SGB	960.4	R23	-.0325	R13	.7071		
SG1	856.8	SG2	434.0	THA	170.26		

ORBIT DETERMINATION ACCURACY

ST	304.1	SR	446.0	SS	177.6
CRT	-.6035	CRS	-.6443	CST	.9926
LSA	514.6	MSA	240.5	SSA	16.7
EL1	493.3	EL2	219.3	ALF	118.49

LAUNCH DATE AUG 31 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 184.812

RL	151.02	LAL	-.00	LOL	337.18	VL	24.466	GAL	-1.63	AZL	91.27	HCA	77.80	SMA	114.50	ECC	.32001	INC	1.2702	V1	29.504
RP	108.03	LAP	-1.24	LOP	54.98	VP	36.027	GAP	-18.39	AZP	90.27	TAL	183.46	TAP	261.26	RCA	77.86	APO	151.15	V2	35.079
RC	40.497	GL	-6.12	GP	-10.37	ZAL	93.24	ZAP	11.45	ETS	112.12	ZAE	164.38	ETE	338.08	ZAC	90.58	ETC	259.88	CLP	4.89

PLANETOCENTRIC CONIC

C3 25.890 VHL 5.088 DLA -26.94 RAL 240.64 RAD 6568.0 VEL 12.135 PTH 2.18 VHP 11.361 DPA -29.14 RAP 234.74 ECC 1.4261

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 30 30	1208.21	10.94	343.38	110.20	116.28	9 50 39	608.2	14.39	336.39
90.00	12 5 21	702.00	23.74	311.83	115.36	105.91	12 17 3	102.0	25.69	303.71
100.00	10 18 7	1054.39	7.99	330.52	108.64	118.90	10 35 42	454.4	11.79	323.79
100.00	14 0 25	5619.09	26.96	263.38	116.29	103.43	15 34 4	5019.1	28.54	254.93
110.00	10 31 44	1011.66	2.57	323.95	105.30	124.10	10 48 36	411.7	7.02	317.70
110.00	16 3 17	5234.58	33.20	235.59	117.70	98.63	17 30 32	4634.6	34.04	226.44

DIFFERENTIAL CORRECTIONS

TDE	.1742	TRA	-.6547	TC3	.2307	BAU	.0856
RDE	-.3977	RRA	-.0020	RC3	-.0895	FAU	.02363
FDE	-.1019	FRA	.3650	FC3	-.7902	BSP	2459
BDE	.4342	BRA	.6547	BC3	.2474	FSP	-190

MID-COURSE EXECUTION ACCURACY

SGT	881.8	SGR	457.0	SG3	80.7		
RRT	-.2660	RRF	.2892	RTF	-.7195		
SGB	993.1	R23	-.0375	R13	.7257		
SG1	892.8	SG2	435.1	THA	169.67		

ORBIT DETERMINATION ACCURACY

ST	316.4	SR	447.8	SS	178.0
CRT	-.6190	CRS	-.6322	CST	.9936
LSA	522.4	MSA	243.2	SSA	17.3
EL1	501.4	EL2	221.9	ALF	120.10

LAUNCH DATE AUG 31 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 191.543

RL	151.02	LAL	-.00	LOL	337.18	VL	24.748	GAL	-1.76	AZL	91.08	HCA	81.01	SMA	115.89	ECC	.30448	INC	1.0756	V1	29.504
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.232	GAP	-17.30	AZP	90.17	TAL	184.03	TAP	265.04	RCA	80.61	APO	151.18	V2	35.092
RC	40.930	GL	-5.55	GP	-10.97	ZAL	94.23	ZAP	11.37	ETS	102.25	ZAE	161.71	ETE	337.78	ZAC	90.14	ETC	260.11	CLP	3.04

PLANETOCENTRIC CONIC

C3	23.084	VHL	4.805	DLA	-26.19	RAL	239.69	RAD	6567.9	VEL	12.019	PTH	2.15	VHP	10.761	DPA	-30.10	RAP	236.03	ECC	1.3799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 55	1242.96	9.89	345.39	106.69	116.67	9 28 38	643.0	13.39	338.46
90.00	12 20 23	610.90	25.29	305.61	112.53	103.17	12 30 34	10.9	26.86	297.30
100.00	10 1 5	1071.28	7.44	331.46	105.38	119.04	10 18 56	471.3	11.25	324.76
100.00	14 9 54	5545.85	28.01	258.19	113.17	100.90	15 42 20	4945.8	29.23	249.60
110.00	10 19 47	1012.60	2.53	324.00	102.36	124.10	10 36 40	412.6	6.99	317.75
110.00	16 7 42	5177.30	33.70	231.19	114.16	96.08	17 33 59	4577.3	34.18	221.98

DIFFERENTIAL CORRECTIONS

TDE	.1735	TRA	-.6360	TC3	.2980	BAU	.0990
RDE	-.3760	RRA	.0006	RC3	-.1186	FAU	.02509
FDE	-.0972	FRA	.3708	FC3	-.9409	BSP	2602
BDE	.4141	BRA	.6360	BC3	.3207	FSP	-215

MID-COURSE EXECUTION ACCURACY

SGT	916.1	SGR	462.6	SG3	89.5		
RRT	-.2974	RRF	.3242	RTF	-.7367		
SGB	1026.3	R23	-.0429	R13	.7437		
SG1	929.4	SG2	435.4	THA	169.02		

ORBIT DETERMINATION ACCURACY

ST	327.4	SR	448.4	SS	176.4
CRT	-.6325	CRS	-.6120	CST	.9930
LSA	528.1	MSA	245.3	SSA	18.1
EL1	508.1	EL2	223.8	ALF	121.59

LAUNCH DATE AUG 31 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 198.290

RL	151.02	LAL	-.00	LOL	337.18	VL	25.007	GAL	-1.90	AZL	90.88	HCA	84.22	SMA	117.21	ECC	.29016	INC	.8843	V1	29.504
RP	107.95	LAP	-.88	LOP	61.41	VP	36.422	GAP	-16.26	AZP	90.09	TAL	184.66	TAP	268.89	RCA	83.20	APO	151.22	V2	35.105
RC	41.530	GL	-4.87	GP	-11.63	ZAL	95.34	ZAP	11.68	ETS	92.33	ZAE	159.14	ETE	337.28	ZAC	89.63	ETC	260.34	CLP	1.15

PLANETOCENTRIC CONIC

C3	20.675	VHL	4.547	DLA	-25.29	RAL	238.65	RAD	6567.8	VEL	11.919	PTH	2.12	VHP	10.189	DPA	-31.10	RAP	237.27	ECC	1.3403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 45 27	1278.42	8.80	347.42	103.24	117.02	9 6 45	678.4	12.36	340.55
90.00	12 34 30	5810.23	26.52	277.32	109.49	100.30	14 11 20	5210.2	27.68	268.84
100.00	9 42 53	1093.00	6.72	332.68	102.12	119.20	10 1 6	493.0	10.56	325.99
100.00	14 19 45	5470.88	28.85	252.78	109.92	98.17	15 50 56	4870.9	29.68	244.07
110.00	10 6 26	1019.09	2.28	324.34	99.38	124.12	10 23 25	419.1	6.74	318.09
110.00	16 12 41	5117.55	34.04	226.56	110.53	93.36	17 37 59	4517.6	34.13	217.31

DIFFERENTIAL CORRECTIONS

TDE	.1717	TRA	-.6178	TC3	.3741	BAU	.1119
RDE	-.3552	RRA	.0029	RC3	-.1545	FAU	.02670
FDE	-.0904	FRA	.3764	FC3	-1.1181	BSP	2721
BDE	.3945	BRA	.6178	BC3	.4047	FSP	-243

MID-COURSE EXECUTION ACCURACY

SGT	950.7	SGR	469.1	SG3	99.3		
RRT	-.3322	RRF	.3634	RTF	-.7521		
SGB	1060.2	R23	-.0499	R13	.7601		
SG1	966.8	SG2	435.2	THA	168.28		

ORBIT DETERMINATION ACCURACY

ST	337.1	SR	447.6	SS	173.1
CRT	-.6443	CRS	-.5831	CST	.9897
LSA	531.7	MSA	246.9	SSA	18.9
EL1	513.3	EL2	224.9	ALF	122.98

LAUNCH DATE AUG 31 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 205.049

RL	151.02	LAL	-.00	LOL	337.18	VL	25.244	GAL	-2.04	AZL	90.70	HCA	87.44	SMA	118.46	ECC	.27699	INC	.6949	V1	29.504
RP	107.91	LAP	-.69	LOP	64.62	VP	36.597	GAP	-15.27	AZP	90.03	TAL	185.35	TAP	272.79	RCA	85.65	APO	151.27	V2	35.117
RC	42.291	GL	-4.07	GP	-12.37	ZAL	96.57	ZAP	12.39	ETS	82.99	ZAE	156.69	ETE	336.61	ZAC	89.03	ETC	260.57	CLP	-.78

PLANETOCENTRIC CONIC

C3	18.613	VHL	4.314	DLA	-24.26	RAL	237.51	RAD	6567.8	VEL	11.832	PTH	2.10	VHP	9.644	DPA	-32.15	RAP	238.46	ECC	1.3063

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 48	1316.00	7.63	349.56	99.86	117.35	8 44 44	716.0	11.24	342.74
90.00	12 48 7	5722.80	27.44	271.08	106.30	97.30	14 23 30	5122.8	28.16	262.49
100.00	9 23 41	1119.50	5.84	334.15	98.89	119.37	9 42 20	519.5	9.71	327.50
100.00	14 29 56	5394.54	29.46	247.18	106.56	95.29	15 59 50	4794.5	29.88	238.40
110.00	9 51 50	1031.20	1.82	324.97	96.40	124.14	10 9 1	431.2	6.29	318.73
110.00	16 18 16	5055.59	34.18	221.72	106.84	90.50	17 42 31	4455.6	33.87	212.49

DIFFERENTIAL CORRECTIONS

TDE	.1686	TRA	-.5981	TC3	.4630	BAU	.1253
RDE	-.3351	RRA	.0051	RC3	-.1984	FAU	.02851
FDE	-.0802	FRA	.3816	FC3	-1.3262	BSP	2897
BDE	.3751	BRA	.5982	BC3	.5037	FSP	-275

MID-COURSE EXECUTION ACCURACY

SGT	984.3	SGR	476.9	SG3	110.3		
RRT	-.3718	RRF	.4065	RTF	-.7682		
SGB	1093.7	R23	-.0557	R13	.7771		
SG1	1004.0	SG2	434.0	THA	167.40		

ORBIT DETERMINATION ACCURACY

ST	344.4	SR	445.0	SS	167.3
CRT	-.6544	CRS	-.5365	CST	.9810
LSA	531.9	MSA	247.8	SSA	19.8
EL1	516.0	EL2	224.6	ALF	124.20

LAUNCH DATE AUG 31 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 211.814

RL	151.02	LAL	-.00	LOL	337.18	VL	25.461	GAL	-2.19	AZL	90.51	HCA	90.66	SMA	119.63	ECC	.26493	INC	.5064	V1	29.504
RP	107.88	LAP	-.51	LOP	67.84	VP	36.758	GAP	-14.31	AZP	89.99	TAL	186.09	TAP	276.75	RCA	87.94	APO	151.32	V2	35.129
RC	43.202	GL	-3.14	GP	-13.19	ZAL	97.90	ZAP	13.46	ETS	74.67	ZAE	154.39	ETE	335.79	ZAC	88.34	ETC	260.79	CLP	-2.76

PLANETOCENTRIC CONIC

C3	16.852	VHL	4.105	DLA	-23.06	RAL	236.32	RAD	6567.7	VEL	11.757	PTH	2.08	VHP	9.126	DPA	-33.27	RAP	239.59	ECC	1.2773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 56	1356.48	6.36	351.86	96.59	117.65	8 22 32	756.5	10.01	345.08
90.00	13 1 29	5636.15	28.03	264.81	103.02	94.21	14 35 25	5036.1	28.32	256.16
100.00	9 3 40	1150.76	4.79	335.88	95.73	119.54	9 22 51	550.8	8.69	329.26
100.00	14 40 26	5317.09	29.81	241.45	103.14	92.29	16 9 3	4717.1	29.81	232.65
110.00	9 36 8	1048.94	1.14	325.89	93.46	124.17	9 53 37	448.9	5.62	319.67
110.00	16 24 26	4991.68	34.11	216.73	105.13	87.55	17 47 38	4391.7	33.39	207.56

DIFFERENTIAL CORRECTIONS

TDE	.1631	TRA	-.5795	TC3	.5592	BAU	.1381
RDE	-.3154	RRA	.0073	RC3	-.2515	FAU	.03053
FDE	-.0658	FRA	.3872	FC3	-1.5683	BSP	3041
BDE	.3551	BRA	.5795	BC3	.6132	FSP	-310

MID-COURSE EXECUTION ACCURACY

SGT	1017.5	SGR	486.4	SG3	122.5		
RRT	-.4138	RRF	.4535	RTF	-.7819		
SGB	1127.8	R23	-.0641	R13	.7923		
SG1	1041.5	SG2	432.6	THA	166.43		

ORBIT DETERMINATION ACCURACY

ST	348.6	SR	440.3	SS	159.6
CRT	-.6591	CRS	-.4629	CST	.9622
LSA	527.6	MSA	249.2	SSA	20.9
EL1	514.9	EL2	224.2	ALF	125.16

LAUNCH DATE AUG 31 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 218.583

RL	151.02	LAL	-.00	LOL	337.18	VL	25.658	GAL	-2.33	AZL	90.32	HCA	93.88	SMA	120.73	ECC	.25392	INC	.3174	V1	29.504
RP	107.84	LAP	-.32	LOP	71.06	VP	36.906	GAP	-13.40	AZP	89.98	TAL	186.87	TAP	280.75	RCA	90.07	APO	151.39	V2	35.141
RC	44.254	GL	-2.08	GP	-14.10	ZAL	99.32	ZAP	14.87	ETS	67.56	ZAE	152.25	ETE	334.81	ZAC	87.55	ETC	261.00	CLP	-4.79

PLANETOCENTRIC CONIC

C3	15.356	VHL	3.919	DLA	-21.71	RAL	235.09	RAD	6567.6	VEL	11.694	PTH	2.06	VHP	8.635	DPA	-34.45	RAP	240.65	ECC	1.2527

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 51	1400.32	4.97	354.33	93.46	117.91	8 0 11	800.3	8.66	347.60
90.00	13 14 45	5549.99	28.30	258.52	99.70	91.07	14 47 15	4950.0	28.15	249.86
100.00	8 43 1	1186.75	3.58	337.86	92.69	119.70	9 2 48	586.8	7.50	331.28
100.00	14 51 16	5238.79	29.88	235.64	99.71	89.23	16 18 35	4638.8	29.46	226.86
110.00	9 19 33	1072.23	.25	327.11	90.62	124.18	9 37 26	472.2	4.73	320.89
110.00	16 31 13	4926.08	33.80	211.63	99.46	84.54	17 53 19	4326.1	32.67	202.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1555	TRA	-.5610	TC3	.6641	BAU	.1509	SGT	1049.8	SGR	498.6	SG3	136.2	ST	349.4	SR	433.0	SS	150.8
RDE	-.2961	RRA	.0096	RC3	-.3151	FAU	.03277	RRT	-.4590	RRF	.5044	RTF	-.7947	CRT	-.6593	CRS	-.3494	CST	.9234
FDE	-.0465	FRA	.3926	FC3	-1.8477	BSP	3184	SGB	1162.2	R23	-.0737	R13	.8067	LSA	518.5	MSA	251.0	SSA	22.2
BDE	.3344	BRA	.5611	BC3	.7351	FSP	-350	SG1	1079.4	SG2	430.9	THA	165.31	EL1	509.7	EL2	223.2	ALF	125.93

LAUNCH DATE AUG 31 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 225.351

RL	151.02	LAL	-.00	LOL	337.18	VL	25.838	GAL	-2.46	AZL	90.13	HCA	97.10	SMA	121.76	ECC	.24391	INC	.1269	V1	29.504
RP	107.81	LAP	-.13	LOP	74.28	VP	37.042	GAP	-12.52	AZP	89.98	TAL	187.68	TAP	284.78	RCA	92.06	APO	151.45	V2	35.152
RC	45.436	GL	-.88	GP	-15.11	ZAL	100.80	ZAP	16.58	ETS	61.64	ZAE	150.27	ETE	333.66	ZAC	86.64	ETC	261.19	CLP	-6.90

PLANETOCENTRIC CONIC

C3	14.090	VHL	3.754	DLA	-20.20	RAL	233.85	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	8.169	DPA	-35.71	RAP	241.61	ECC	1.2319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 13 38	1447.81	3.45	356.99	90.50	118.12	7 37 45	847.8	7.18	350.30
90.00	13 28 5	5464.18	28.25	252.25	96.41	87.93	14 59 9	4864.2	27.66	243.63
100.00	8 21 55	1227.41	2.20	340.10	89.81	119.82	8 42 23	627.4	6.16	333.54
100.00	15 2 28	5159.82	29.67	229.78	96.33	86.16	16 28 28	4559.8	28.82	221.07
110.00	9 2 16	1100.96	-.85	328.61	87.90	124.17	9 20 37	501.0	3.64	322.40
110.00	16 38 37	4859.03	33.24	206.48	95.88	81.54	17 59 36	4259.0	31.72	197.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1455	TRA	-.5426	TC3	.7747	BAU	.1634	SGT	1080.0	SGR	514.4	SG3	151.3	ST	346.0	SR	422.4	SS	143.3
RDE	-.2766	RRA	.0120	RC3	-.3905	FAU	.03527	RRT	-.5067	RRF	.5582	RTF	-.8063	CRT	-.6534	CRS	-.1735	CST	.8449
FDE	-.0206	FRA	.3986	FC3	-2.1669	BSP	3327	SGB	1196.2	R23	-.0843	R13	.8204	LSA	503.8	MSA	253.6	SSA	23.6
BDE	.3126	BRA	.5427	BC3	.8675	FSP	-395	SG1	1116.7	SG2	428.9	THA	164.01	EL1	498.9	EL2	221.7	ALF	126.46

LAUNCH DATE AUG 31 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 232.116

RL	151.02	LAL	-.00	LOL	337.18	VL	26.002	GAL	-2.59	AZL	89.93	HCA	100.32	SMA	122.71	ECC	.23484	INC	.0637	V1	29.504
RP	107.77	LAP	.06	LOP	77.50	VP	37.167	GAP	-11.67	AZP	90.01	TAL	188.52	TAP	288.84	RCA	93.89	APO	151.53	V2	35.163
RC	46.738	GL	.47	GP	-16.24	ZAL	102.32	ZAP	18.55	ETS	56.76	ZAE	148.45	ETE	332.33	ZAC	85.61	ETC	261.37	CLP	-9.08

PLANETOCENTRIC CONIC

C3	13.026	VHL	3.609	DLA	-18.53	RAL	232.63	RAD	6567.5	VEL	11.594	PTH	2.03	VHP	7.730	DPA	-37.06	RAP	242.46	ECC	1.2144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 50 22	1499.10	1.80	359.86	87.75	118.26	7 15 21	899.1	5.56	353.20
90.00	13 41 35	5378.67	27.88	246.02	93.21	84.82	15 11 13	4778.7	26.87	237.50
100.00	8 0 33	1272.64	.67	342.58	87.12	119.89	8 21 46	672.6	4.64	336.05
100.00	15 14 5	5080.37	29.16	223.92	93.06	83.12	16 38 45	4480.4	27.90	215.35
110.00	8 44 29	1134.97	-2.15	330.38	85.36	124.12	9 3 24	535.0	2.34	324.18
110.00	16 46 38	4790.80	32.44	201.32	92.44	78.59	18 6 29	4190.8	30.53	192.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1329	TRA	-.5249	TC3	.8877	BAU	.1757	SGT	1107.8	SGR	535.0	SG3	168.2	ST	338.2	SR	407.7	SS	141.4
RDE	-.2567	RRA	.0148	RC3	-.4790	FAU	.03802	RRT	-.5555	RRF	.6137	RTF	-.8166	CRT	-.6391	CRS	.0732	CST	.7032
FDE	.0130	FRA	.4052	FC3	-2.5270	BSP	3460	SGB	1230.3	R23	-.0966	R13	.8334	LSA	483.2	MSA	257.8	SSA	25.2
BDE	.2890	BRA	.5251	BC3	1.0087	FSP	-445	SG1	1153.7	SG2	427.2	THA	162.51	EL1	481.8	EL2	220.1	ALF	126.80

LAUNCH DATE AUG 31 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 238.873

RL	151.02	LAL	-.00	LOL	337.18	VL	26.150	GAL	-2.72	AZL	89.74	HCA	103.55	SMA	123.59	ECC	.22665	INC	.2627	V1	29.504
RP	107.74	LAP	.26	LOP	80.73	VP	37.281	GAP	-10.86	AZP	90.06	TAL	189.36	TAP	292.91	RCA	95.58	APO	151.61	V2	35.174
RC	48.150	GL	1.97	GP	-17.51	ZAL	103.85	ZAP	20.77	ETS	52.75	ZAE	146.79	ETE	330.79	ZAC	84.43	ETC	261.53	CLP	-11.36

PLANETOCENTRIC CONIC

C3	12.139	VHL	3.484	DLA	-16.70	RAL	231.45	RAD	6567.5	VEL	11.555	PTH	2.02	VHP	7.316	DPA	-38.51	RAP	243.19	ECC	1.1998

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 27 11	1554.26	.02	2.93	85.24	118.32	6 53 5	954.3	3.80	356.30
90.00	13 55 21	5293.42	27.20	239.88	90.16	81.82	15 23 35	4693.4	25.79	231.49
100.00	7 39 4	1322.34	-1.02	345.31	84.67	119.88	8 1 6	722.3	2.97	338.79
100.00	15 26 10	5000.57	28.37	218.13	89.95	80.16	16 49 30	4400.6	26.72	209.71
110.00	8 26 23	1174.08	-3.64	332.43	83.03	124.01	8 45 57	574.1	.85	326.22
110.00	16 55 19	4721.60	31.39	196.20	89.21	75.72	18 14 1	4121.6	29.11	187.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1176	TRA	-.5079	TC3	.9988	BAU	.1876	SGT	1132.3	SGR	561.7	SG3	186.7	ST	326.0	SR	388.1	SS	151.6
RDE	-.2358	RRA	.0181	RC3	-.5814	FAU	.04103	RRT	-.6039	RRF	.6695	RTF	-.8256	CRT	-.6140	CRS	.3538	CST	.5013
FDE	.0559	FRA	.4133	FC3	-2.9262	BSP	3591	SGB	1264.0	R23	-.1104	R13	.8458	LSA	457.4	MSA	264.4	SSA	26.9
BDE	.2635	BRA	.5082	BC3	1.1557	FSP	-501	SG1	1190.0	SG2	426.0	THA	160.76	EL1	457.4	EL2	218.3	ALF	127.03

LAUNCH DATE AUG 31 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 245.622

RL	151.02	LAL	-.00	LOL	337.18	VL	26.284	GAL	-2.84	AZL	89.53	HCA	106.77	SMA	124.41	ECC	.21929	INC	.4657	V1	29.504
RP	107.71	LAP	.45	LOP	83.96	VP	37.384	GAP	-10.08	AZP	90.13	TAL	190.21	TAP	296.99	RCA	97.13	APO	151.69	V2	35.184
RE	49.661	GL	3.62	GP	-18.92	ZAL	105.36	ZAP	23.23	ETS	49.44	ZAE	145.27	ETE	329.03	ZAC	83.09	ETC	261.66	CLP	-13.73

PLANETOCENTRIC CONIC

C3	11.410	VHL	3.378	DLA	-14.71	RAL	230.34	RAD	6567.4	VEL	11.524	PTH	2.01	VHP	6.929	DPA	-40.08	RAP	243.76	ECC	1.1878		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 4 11	1613.30	-1.89	6.22	83.02	118.26	6 31 4	1013.3	1.90	359.60
90.00	14 9 31	5208.41	26.23	233.84	87.32	78.94	15 36 19	4608.4	24.44	225.63
100.00	7 17 36	1376.40	-2.85	348.28	82.49	119.77	7 40 32	776.4	1.14	341.75
100.00	15 38 47	4920.55	27.31	212.42	87.07	77.34	17 0 47	4320.5	25.29	204.20
110.00	8 8 9	1218.06	-5.31	334.73	80.95	123.82	8 28 27	618.1	-.83	328.51
110.00	17 4 43	4651.65	30.11	191.15	86.22	72.99	18 22 14	4051.6	27.49	182.94

DIFFERENTIAL CORRECTIONS

TDE	.0993	TRA	-.4922	TC3	1.1011	BAU	.1989
RDE	-.2132	RRA	.0222	RC3	-.6985	FAU	.04428
FDE	.1106	FRA	.4233	FC3	-3.3601	BSP	3699
BDE	.2352	BRA	.4927	BC3	1.3040	FSP	-561

MID-COURSE EXECUTION ACCURACY

SGT	1151.9	SGR	595.8	SG3	207.0		
RRT	-.6493	RRF	.7233	RTF	-.8327		
SGB	1296.9	R23	-.1262	R13	.8573		
SG1	1224.9	SG2	426.2	THA	158.74		

ORBIT DETERMINATION ACCURACY

ST	309.8	SR	362.1	SS	179.0
CRT	-.5730	CRS	.5934	CST	.2980
LSA	428.0	MSA	274.1	SSA	28.7
EL1	424.5	EL2	216.6	ALF	127.35

LAUNCH DATE AUG 31 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 252.358

RL	151.02	LAL	-.00	LOL	337.18	VL	26.405	GAL	-2.95	AZL	89.32	HCA	110.00	SMA	125.15	ECC	.21269	INC	.6759	V1	29.504		
RP	107.68	LAP	.64	LOP	87.19	VP	37.478	GAP	-9.32	AZP	90.23	TAL	191.05	TAP	301.05	RCA	98.53	APO	151.77	V2	35.193		
RC	51.263	GL	5.43	GP	-20.50	ZAL	106.82	ZAP	25.92	ETS	46.69	ZAE	143.87	ETE	327.01	ZAC	81.58	ETC	261.76	CLP	-16.22		

PLANETOCENTRIC CONIC

C3	10.820	VHL	3.289	DLA	-12.59	RAL	229.33	RAD	6567.4	VEL	11.498	PTH	2.00	VHP	6.569	DPA	-41.78	RAP	244.15	ECC	1.1781		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 41 26	1676.23	-3.91	9.74	81.10	118.07	6 9 22	1076.2	-.13	3.11
90.00	14 24 11	5123.60	24.99	227.94	84.75	76.24	15 49 35	4523.6	22.85	219.93
100.00	6 56 18	1434.70	-4.81	351.49	80.60	119.54	7 20 13	834.7	-.84	344.95
100.00	15 52 0	4840.36	25.99	206.83	84.46	74.68	17 12 41	4240.4	23.63	198.82
110.00	7 49 56	1266.72	-7.15	337.30	79.16	123.52	8 11 3	666.7	-2.69	331.05
110.00	17 14 52	4581.11	28.60	186.21	83.54	70.43	18 31 13	3981.1	25.66	178.27

DIFFERENTIAL CORRECTIONS

TDE	.0768	TRA	-.4796	TC3	1.1864	BAU	.2095
RDE	-.1879	RRA	.0277	RC3	-.8305	FAU	.04774
FDE	.1802	FRA	.4373	FC3	-3.8201	BSP	3764
BDE	.2029	BRA	.4804	BC3	1.4482	FSP	-624

MID-COURSE EXECUTION ACCURACY

SGT	1166.1	SGR	638.8	SG3	229.0		
RRT	-.6881	RRF	.7732	RTF	-.8373		
SGB	1329.6	R23	-.1453	R13	.8682		
SG1	1258.3	SG2	429.6	THA	156.44		

ORBIT DETERMINATION ACCURACY

ST	290.5	SR	328.0	SS	226.3
CRT	-.5033	CRS	.7493	CST	.1720
LSA	399.9	MSA	286.9	SSA	30.3
EL1	381.2	EL2	216.0	ALF	128.20

LAUNCH DATE AUG 31 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 259.080

RL	151.02	LAL	-.00	LOL	337.18	VL	26.513	GAL	-3.05	AZL	89.10	HCA	113.23	SMA	125.83	ECC	.20681	INC	.8949	V1	29.504		
RP	107.65	LAP	.82	LOP	90.42	VP	37.563	GAP	-8.60	AZP	90.35	TAL	191.86	TAP	305.09	RCA	99.81	APO	151.86	V2	35.202		
RC	52.948	GL	7.38	GP	-22.26	ZAL	108.18	ZAP	28.85	ETS	44.35	ZAE	142.57	ETE	324.70	ZAC	79.87	ETC	261.82	CLP	-18.84		

PLANETOCENTRIC CONIC

C3	10.354	VHL	3.218	DLA	-10.32	RAL	228.44	RAD	6567.4	VEL	11.478	PTH	2.00	VHP	6.236	DPA	-43.63	RAP	244.31	ECC	1.1704		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 19 1	1743.08	-6.04	13.50	79.52	117.72	5 48 4	1143.1	-2.28	6.84
90.00	14 39 29	5038.91	23.50	222.19	82.48	73.73	16 3 28	4438.9	21.04	214.38
100.00	6 35 14	1497.18	-6.90	354.96	79.05	119.16	7 0 11	897.2	-2.96	348.38
100.00	16 5 57	4760.05	24.43	201.37	82.16	72.21	17 25 17	4160.0	21.76	193.58
110.00	7 31 51	1319.89	-9.14	340.14	77.68	123.08	7 53 51	719.9	-4.72	333.84
110.00	17 25 50	4510.10	26.89	181.40	81.18	68.05	18 41 0	3910.1	23.67	173.72

DIFFERENTIAL CORRECTIONS

TDE	.0484	TRA	-.4717	TC3	1.2365	BAU	.2179
RDE	-.1582	RRA	.0353	RC3	-.9745	FAU	.05120
FDE	.2695	FRA	.4582	FC3	-4.2810	BSP	3728
BDE	.1654	BRA	.4730	BC3	1.5744	FSP	-684

MID-COURSE EXECUTION ACCURACY

SGT	1170.3	SGR	690.5	SG3	252.0		
RRT	-.7152	RRF	.8171	RTF	-.8376		
SGB	1358.8	R23	-.1691	R13	.8777		
SG1	1285.8	SG2	439.2	THA	153.84		

ORBIT DETERMINATION ACCURACY

ST	271.3	SR	283.0	SS	294.6
CRT	-.3858	CRS	.8327	CST	.1644
LSA	393.1	MSA	291.4	SSA	31.3
EL1	326.5	EL2	216.9	ALF	131.87

LAUNCH DATE AUG 31 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 265.784

RL	151.02	LAL	-.00	LOL	337.18	VL	26.610	GAL	-3.14	AZL	88.88	HCA	116.47	SMA	126.45	ECC	.20159	INC	1.1248	V1	29.504		
RP	107.63	LAP	1.01	LOP	93.65	VP	37.639	GAP	-7.90	AZP	90.50	TAL	192.64	TAP	309.11	RCA	100.96	APO	151.94	V2	35.210		
RC	54.707	GL	9.49	GP	-24.23	ZAL	109.44	ZAP	32.02	ETS	42.31	ZAE	141.32	ETE	322.07	ZAC	77.94	ETC	261.83	CLP	-21.61		

PLANETOCENTRIC CONIC

C3	10.004	VHL	3.163	DLA	-7.92	RAL	227.68	RAD	6567.4	VEL	11.463	PTH	1.99	VHP	5.932	DPA	-45.64	RAP	244.21	ECC	1.1646		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 56 54	1814.03	-8.27	17.52	78.29	117.18	5 27 8	1214.0	-4.56	10.81
90.00	14 55 33	4954.16	21.77	216.58	80.54	71.43	16 18 7	4354.2	19.03	208.98
100.00	6 14 25	1563.93	-9.09	358.70	77.85	118.60	6 40 29	963.9	-5.20	352.06
100.00	16 20 43	4679.48	22.65	196.05	80.21	69.95	17 38 42	4079.5	19.71	188.48
110.00	7 13 57	1377.55	-11.26	343.25	76.55	122.49	7 36 54	777.5	-6.90	336.88
110.00	17 37 41	4438.64	24.98	176.72	79.17	65.87	18 51 39	3838.6	21.51	169.30

DIFFERENTIAL CORRECTIONS

TDE	.0388	TRA	-.4452	TC3	1.3427	BAU	.2365
RDE	-.1282	RRA	.0405	RC3	-1.1503	FAU	.05574
FDE	.3559	FRA	.4630	FC3	-4.8238	BSP	4165
BDE	.1339	BRA	.4470	BC3	1.7681	FSP	-789

MID-COURSE EXECUTION ACCURACY

SGT	1178.7	SGR	767.4	SG3	279.2		
RRT	-.7680	RRF	.8603	RTF	-.8495		
SGB	1406.5	R23	-.1629	R13	.8947		
SG1	1338.3	SG2	432.9	THA	149.97		

ORBIT DETERMINATION ACCURACY

ST	255.5	SR	234.3	SS	358.2
CRT	-.3730	CRS	.8675	CST	.1066
LSA	416.2	MSA	272.4	SSA	31.7
EL1	288.1	EL2	192.8	ALF	141.55

LAUNCH DATE AUG 31 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 272.471

RL	151.02	LAL	-.00	LOL	337.18	VL	26.696	GAL	-3.23	AZL	88.63	HCA	119.70	SMA	127.01	ECC	.19697	INC	1.3682	V1	29.504
RP	107.60	LAP	1.19	LOP	96.89	VP	37.707	GAP	-7.23	AZP	90.68	TAL	193.38	TAP	313.08	RCA	101.99	APO	152.02	V2	35.218
RC	56.533	GL	11.76	GP	-26.41	ZAL	110.55	ZAP	35.44	ETS	40.48	ZAE	140.08	ETE	319.11	ZAC	75.78	ETC	261.79	CLP	-24.54

PLANETOCENTRIC CONIC

C3	9.759	VHL	3.124	DLA	-5.40	RAL	227.08	RAD	6567.4	VEL	11.452	PTH	1.99	VHP	5.658	DPA	-47.83	RAP	243.78	ECC	1.1606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 35 7	1889.13	-10.58	21.84	77.46	116.42	5 6 37	1289.1	-6.94	15.04
90.00	15 12 34	4869.24	19.83	211.11	78.98	69.36	16 33 43	4269.2	16.84	203.71
100.00	5 53 55	1634.95	-11.38	2.73	77.04	117.83	6 21 10	1034.9	-7.57	356.01
100.00	16 36 28	4598.66	20.67	190.86	78.63	67.91	17 53 6	3998.7	17.49	183.51
110.00	6 56 19	1439.57	-13.51	346.65	75.79	121.70	7 20 19	839.6	-9.22	340.18
110.00	17 50 33	4366.80	22.90	172.18	77.55	63.90	19 3 19	3766.8	19.21	164.99

DIFFERENTIAL CORRECTIONS

TDE	.0165	TRA	-.4325	TC3	1.3717	BAU	.2494	SGT	1170.6	SGR	853.3	SG3	305.9	ST	242.3	SR	168.9	SS	446.0
RDE	-.0898	RRA	.0504	RC3	-1.3318	FAU	.05982	RRT	-.7929	RRF	.8932	RTF	-.8506	CRT	-.2998	CRS	.8618	CST	.1825
FDE	.4725	FRA	.4842	FC3	-5.3063	BSP	4313	SGB	1448.6	R23	-.1717	R13	.9071	LSA	471.4	MSA	251.1	SSA	30.8
BDE	.0913	BRA	.4354	BC3	1.9119	FSP	-875	SG1	1379.8	SG2	441.1	THA	146.03	EL1	251.1	EL2	155.5	ALF	160.44

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 31 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 279.139

RL	151.02	LAL	-.00	LOL	337.18	VL	26.772	GAL	-3.30	AZL	88.37	HCA	122.93	SMA	127.50	ECC	.19291	INC	1.6280	V1	29.504
RP	107.58	LAP	1.37	LOP	100.12	VP	37.768	GAP	-6.58	AZP	90.89	TAL	194.07	TAP	317.00	RCA	102.91	APO	152.10	V2	35.225
RC	58.419	GL	14.17	GP	-28.83	ZAL	111.47	ZAP	39.11	ETS	38.77	ZAE	138.80	ETE	315.78	ZAC	73.38	ETC	261.68	CLP	-27.66

PLANETOCENTRIC CONIC

C3	9.617	VHL	3.101	DLA	-2.76	RAL	226.66	RAD	6567.3	VEL	11.446	PTH	1.99	VHP	5.418	DPA	-50.19	RAP	242.96	ECC	1.1583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 13 37	1968.74	-12.95	26.48	77.04	115.41	4 46 26	1368.7	-9.42	19.58
90.00	15 30 43	4783.85	17.69	205.76	77.82	67.52	16 50 27	4183.8	14.49	198.54
100.00	5 33 40	1710.49	-13.74	7.09	76.64	116.81	6 2 11	1110.5	-10.03	.26
100.00	16 53 21	4517.33	18.50	185.79	77.45	66.09	18 8 38	3917.3	15.11	178.63
110.00	6 38 58	1506.09	-15.85	350.38	75.44	120.69	7 4 4	906.1	-11.66	343.78
110.00	18 4 32	4294.49	20.67	167.76	76.33	62.15	19 16 7	3694.5	16.78	160.79

DIFFERENTIAL CORRECTIONS

TDE	-.0054	TRA	-.4209	TC3	1.3659	BAU	.2633	SGT	1150.6	SGR	956.6	SG3	332.9	ST	235.2	SR	92.4	SS	545.4
RDE	-.0437	RRA	.0629	RC3	-1.5254	FAU	.06381	RRT	-.8097	RRF	.9195	RTF	-.8489	CRT	-.3713	CRS	.7235	CST	.2922
FDE	.6090	FRA	.5099	FC3	-5.7441	BSP	4477	SGB	1496.4	R23	-.1754	R13	.9200	LSA	554.2	MSA	230.8	SSA	28.7
BDE	.0440	BRA	.4256	BC3	2.0475	FSP	-963	SG1	1426.2	SG2	452.9	THA	141.46	EL1	238.0	EL2	84.8	ALF	170.48

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 31 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 285.785

RL	151.02	LAL	-.00	LOL	337.18	VL	26.839	GAL	-3.36	AZL	88.09	HCA	126.17	SMA	127.94	ECC	.18936	INC	1.9075	V1	29.504
RP	107.56	LAP	1.54	LOP	103.36	VP	37.821	GAP	-5.95	AZP	91.13	TAL	194.69	TAP	320.86	RCA	103.72	APO	152.17	V2	35.232
RC	60.358	GL	16.75	GP	-31.50	ZAL	112.18	ZAP	43.03	ETS	37.08	ZAE	137.42	ETE	312.09	ZAC	70.71	ETC	261.49	CLP	-30.98

PLANETOCENTRIC CONIC

C3	9.577	VHL	3.095	DLA	-.00	RAL	226.43	RAD	6567.3	VEL	11.444	PTH	1.99	VHP	5.212	DPA	-52.73	RAP	241.67	ECC	1.1576

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 52 15	2053.35	-15.36	31.52	77.08	114.09	4 26 28	1453.3	-11.98	24.48
90.00	15 50 14	4697.59	15.36	200.49	77.08	65.92	17 8 31	4097.6	11.98	193.44
100.00	5 13 35	1790.97	-16.16	11.85	76.70	115.50	5 43 26	1191.0	-12.59	4.87
100.00	17 11 34	4435.20	16.16	180.81	76.70	64.51	18 25 30	3835.2	12.60	173.83
110.00	6 21 50	1577.36	-18.28	354.48	75.54	119.40	6 48 7	977.4	-14.23	347.71
110.00	18 19 49	4221.57	18.29	163.44	75.54	60.61	19 30 11	3621.6	14.23	156.67

DIFFERENTIAL CORRECTIONS

TDE	-.0258	TRA	-.4109	TC3	1.3192	BAU	.2781	SGT	1117.1	SGR	1078.5	SG3	359.1	ST	234.5	SR	59.2	SS	655.0
RDE	.0126	RRA	.0793	RC3	-1.7259	FAU	.06749	RRT	-.8176	RRF	.9400	RTF	-.8430	CRT	-.8603	CRS	-.5792	CST	.4082
FDE	.7661	FRA	.5419	FC3	-6.1006	BSP	4642	SGB	1552.7	R23	-.1721	R13	.9331	LSA	663.7	MSA	215.1	SSA	25.8
BDE	.0287	BRA	.4185	BC3	2.1724	FSP	-1047	SG1	1480.3	SG2	468.6	THA	136.23	EL1	240.0	EL2	29.5	ALF	167.55

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 31 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 292.410

RL	151.02	LAL	-.00	LOL	337.18	VL	26.897	GAL	-3.42	AZL	87.79	HCA	129.40	SMA	128.33	ECC	.18626	INC	2.2112	V1	29.504
RP	107.54	LAP	1.71	LOP	106.60	VP	37.868	GAP	-5.35	AZP	91.40	TAL	195.24	TAP	324.65	RCA	104.43	APO	152.23	V2	35.238
RC	62.346	GL	19.49	GP	-34.42	ZAL	112.66	ZAP	47.18	ETS	35.33	ZAE	135.88	ETE	308.06	ZAC	67.78	ETC	261.21	CLP	-34.51

PLANETOCENTRIC CONIC

C3	9.643	VHL	3.105	DLA	2.87	RAL	226.40	RAD	6567.3	VEL	11.447	PTH	1.99	VHP	5.045	DPA	-55.45	RAP	239.78	ECC	1.1587

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 30 50	2143.68	-17.79	37.04	77.61	112.40	4 6 34	1543.7	-14.60	29.82
90.00	16 11 24	4609.95	12.86	195.27	76.80	64.55	17 28 14	4010.0	9.33	188.37
100.00	4 53 31	1876.99	-18.60	17.06	77.24	113.83	5 24 48	1277.0	-15.22	9.90
100.00	17 31 25	4351.87	13.66	175.89	76.40	63.15	18 43 56	3751.9	9.95	169.07
110.00	6 4 50	1653.79	-20.77	359.00	76.13	117.78	6 32 24	1053.8	-16.89	352.03
110.00	18 36 35	4147.83	15.77	159.20	75.20	59.27	19 45 43	3547.8	11.58	152.61

DIFFERENTIAL CORRECTIONS

TDE	-.0455	TRA	-.4052	TC3	1.2162	BAU	.2930	SGT	1066.8	SGR	1217.1	SG3	382.5	ST	240.9	SR	166.7	SS	776.1
RDE	.0828	RRA	.1021	RC3	-1.9203	FAU	.07033	RRT	-.8124	RRF	.9553	RTF	-.8299	CRT	-.6561	CRS	-.9745	CST	.5186
FDE	.9466	FRA	.5863	FC3	-6.3142	BSP	4758	SGB	1618.4	R23	-.1607	R13	.9462	LSA	803.7	MSA	204.3	SSA	22.5
BDE	.0945	BRA	.4179	BC3	2.2730	FSP	-1113	SG1	1542.2	SG2	490.9	THA	130.38	EL1	270.7	EL2	111.9	ALF	149.92

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE AUG 31 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 299.011

RL 151.02 LAL -.00 LOL 337.18 VL 26.947 GAL -3.46 AZL 87.46 HCA 132.64 SMA 128.67 ECC .18358 INC 2.5445 V1 29.504
RP 107.53 LAP 1.87 LOP 109.85 VP 37.909 GAP -4.76 AZP 91.72 TAL 195.73 TAP 328.36 RCA 105.05 APO 152.29 V2 35.243
RC 64.375 GL 22.40 GP -37.59 ZAL 112.89 ZAP 51.54 ETS 33.44 ZAE 134.11 ETE 303.70 ZAC 64.59 ETC 260.81 CLP -38.29

PLANETOCENTRIC CONIC

C3 9.825 VHL 3.134 DLA 5.85 RAL 226.58 RAD 6567.4 VEL 11.455 PTH 1.99 VHP 4.920 DPA -58.30 RAP 237.14 ECC 1.1617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 9 5	2240.82	-20.20	43.15	78.67	110.28	3 46 26	1640.8	-17.25	35.71
90.00	16 34 36	4520.21	10.18	190.04	77.02	63.43	17 49 56	3920.2	6.53	183.26
100.00	4 33 12	1969.51	-21.04	22.85	78.32	111.73	5 6 1	1369.5	-17.91	15.46
100.00	17 53 10	4266.75	10.99	170.98	76.59	62.03	19 4 17	3666.8	7.16	164.28
110.00	5 47 47	1736.07	-23.30	4.06	77.25	115.75	6 16 43	1136.1	-19.64	356.82
110.00	18 55 4	4072.95	13.12	155.02	75.34	58.15	20 2 57	3473.0	8.82	148.57

DIFFERENTIAL CORRECTIONS
TDE -.0496 TRA -.3910 TC3 1.1074 BAU .3145
RDE .1636 RRA .1265 RC3-2.1227 FAU .07302
FDE 1.1243 FRA .6204 FC3-6.4342 BSP 5131
BDE .1709 BRA .4109 BC3 2.3942 FSP -1199

MID-COURSE EXECUTION ACCURACY
SGT 1003.1 SGR 1383.6 SG3 403.3
RRT -.8055 RRF .9672 RTF -.8126
SGB 1709.0 R23 -.1412 R13 .9585
SG1 1633.1 SG2 503.7 THA 123.95

ORBIT DETERMINATION ACCURACY
ST 234.7 SR 309.7 SS 887.1
CRT -.5909 CRS -.9954 CST .5357
LSA 948.2 MSA 196.4 SSA 19.5
EL1 350.8 EL2 167.2 ALF 122.30

LAUNCH DATE AUG 31 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 305.589

RL 151.02 LAL -.00 LOL 337.18 VL 26.990 GAL -3.49 AZL 87.09 HCA 135.87 SMA 128.96 ECC .18127 INC 2.9147 V1 29.504
RP 107.51 LAP 2.03 LOP 113.09 VP 37.943 GAP -4.20 AZP 92.09 TAL 196.13 TAP 332.00 RCA 105.58 APO 152.33 V2 35.247
RC 66.441 GL 25.48 GP -40.99 ZAL 112.84 ZAP 56.08 ETS 31.32 ZAE 132.05 ETE 299.08 ZAC 61.14 ETC 260.27 CLP -42.32

PLANETOCENTRIC CONIC

C3 10.142 VHL 3.185 DLA 8.95 RAL 226.99 RAD 6567.4 VEL 11.469 PTH 1.99 VHP 4.843 DPA -61.25 RAP 233.56 ECC 1.1669

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 46 37	2346.20	-22.53	50.00	80.33	107.62	3 25 44	1746.2	-19.91	42.30
90.00	17 0 19	4427.46	7.31	184.74	77.77	62.57	18 14 7	3827.5	3.58	178.05
100.00	4 12 20	2069.77	-23.43	29.34	80.00	109.12	4 46 50	1469.8	-20.60	21.68
100.00	18 17 18	4179.13	8.15	166.03	77.32	61.14	19 26 57	3579.1	4.24	159.43
110.00	5 30 31	1825.07	-25.81	9.75	78.99	113.23	6 0 57	1225.1	-22.44	2.21
110.00	19 15 35	3996.58	10.34	150.85	75.99	57.24	20 22 12	3396.6	5.95	144.51

DIFFERENTIAL CORRECTIONS
TDE -.0518 TRA -.3844 TC3 .9226 BAU .3340
RDE .2672 RRA .1630 RC3-2.2844 FAU .07379
FDE 1.3236 FRA .6747 FC3-6.2994 BSP 5352
BDE .2721 BRA .4175 BC3 2.4637 FSP -1235

MID-COURSE EXECUTION ACCURACY
SGT 918.7 SGR 1560.8 SG3 416.9
RRT -.7724 RRF .9756 RTF -.7760
SGB 1811.1 R23 -.1150 R13 .9695
SG1 1733.2 SG2 525.5 THA 117.15

ORBIT DETERMINATION ACCURACY
ST 230.4 SR 490.8 SS 1009.5
CRT -.5682 CRS -.9988 CST .5422
LSA 1129.5 MSA 192.1 SSA 16.5
EL1 510.7 EL2 182.2 ALF 107.19

LAUNCH DATE AUG 31 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 312.142

RL 151.02 LAL -.00 LOL 337.18 VL 27.026 GAL -3.51 AZL 86.67 HCA 139.10 SMA 129.20 ECC .17930 INC 3.3306 V1 29.504
RP 107.50 LAP 2.18 LOP 116.33 VP 37.972 GAP -3.65 AZP 92.52 TAL 196.45 TAP 335.56 RCA 106.04 APO 152.37 V2 35.251
RC 68.539 GL 28.74 GP -44.60 ZAL 112.51 ZAP 60.72 ETS 28.87 ZAE 129.66 ETE 294.25 ZAC 57.48 ETC 259.55 CLP -46.61

PLANETOCENTRIC CONIC

C3 10.622 VHL 3.259 DLA 12.18 RAL 227.63 RAD 6567.4 VEL 11.490 PTH 2.00 VHP 4.818 DPA -64.23 RAP 228.79 ECC 1.1748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 22 49	2462.07	-24.70	57.79	82.64	104.30	3 3 51	1862.1	-22.50	49.81
90.00	17 29 15	4330.26	4.23	179.26	79.14	61.98	18 41 25	3730.3	.45	172.62
100.00	3 50 23	2179.66	-25.68	36.73	82.35	105.85	4 26 43	1579.7	-23.26	28.77
100.00	18 44 22	4087.91	5.12	160.95	78.65	60.51	19 52 30	3487.9	1.15	154.41
110.00	5 12 41	1922.13	-28.25	16.23	81.41	110.09	5 44 43	1322.1	-25.26	8.34
110.00	19 38 33	3918.20	7.43	146.65	77.23	56.54	20 43 51	3318.2	2.98	140.40

DIFFERENTIAL CORRECTIONS
TDE -.0329 TRA -.3695 TC3 .7275 BAU .3594
RDE .3872 RRA .2042 RC3-2.4238 FAU .07366
FDE 1.5047 FRA .7172 FC3-6.0038 BSP 5812
BDE .3886 BRA .4222 BC3 2.5306 FSP -1275

MID-COURSE EXECUTION ACCURACY
SGT 818.4 SGR 1759.1 SG3 423.1
RRT -.7172 RRF .9819 RTF -.7152
SGB 1940.2 R23 -.0882 R13 .9780
SG1 1864.0 SG2 538.2 THA 110.21

ORBIT DETERMINATION ACCURACY
ST 208.1 SR 691.3 SS 1114.0
CRT -.4312 CRS -.9996 CST .4164
LSA 1313.9 MSA 188.6 SSA 14.0
EL1 697.5 EL2 186.0 ALF 97.97

LAUNCH DATE AUG 31 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 318.670

RL 151.02 LAL -.00 LOL 337.18 VL 27.056 GAL -3.52 AZL 86.20 HCA 142.34 SMA 129.40 ECC .17764 INC 3.8048 V1 29.504
RP 107.49 LAP 2.32 LOP 119.58 VP 37.996 GAP -3.12 AZP 93.01 TAL 196.69 TAP 339.03 RCA 106.42 APO 152.39 V2 35.254
RC 70.666 GL 32.19 GP -48.38 ZAL 111.88 ZAP 65.39 ETS 26.02 ZAE 126.94 ETE 289.27 ZAC 53.63 ETC 258.63 CLP -51.17

PLANETOCENTRIC CONIC

C3 11.312 VHL 3.363 DLA 15.53 RAL 228.53 RAD 6567.4 VEL 11.520 PTH 2.01 VHP 4.855 DPA -67.12 RAP 222.48 ECC 1.1862

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 56 46	2591.72	-26.58	66.82	85.68	100.15	2 39 58	1991.7	-24.90	58.55
90.00	18 2 26	4226.43	.89	173.45	81.22	61.70	19 12 52	3626.4	-2.90	166.82
100.00	3 26 38	2301.91	-27.67	45.26	85.44	101.78	4 5 0	1701.9	-25.77	36.98
100.00	19 15 15	3991.48	1.87	155.64	80.68	60.16	20 21 46	3391.5	-2.12	149.12
110.00	4 53 51	2029.03	-30.52	23.73	84.82	106.19	5 27 40	1429.0	-28.00	15.44
110.00	20 4 32	3837.12	4.36	142.38	79.12	56.06	21 8 29	3237.1	-.12	136.16

DIFFERENTIAL CORRECTIONS
TDE .0040 TRA -.3537 TC3 .4945 BAU .3854
RDE .5328 RRA .2582 RC3-2.4998 FAU .07155
FDE 1.6741 FRA .7643 FC3-5.4755 BSP 6265
BDE .5328 BRA .4379 BC3 2.5482 FSP -1275

MID-COURSE EXECUTION ACCURACY
SGT 708.3 SGR 1964.7 SG3 419.1
RRT -.6026 RRF .9863 RTF -.5969
SGB 2088.4 R23 -.0604 R13 .9845
SG1 2014.4 SG2 551.3 THA 103.27

ORBIT DETERMINATION ACCURACY
ST 188.0 SR 919.3 SS 1209.2
CRT -.1157 CRS -.9998 CST .1064
LSA 1519.0 MSA 187.0 SSA 11.8
EL1 919.6 EL2 186.7 ALF 91.41

LAUNCH DATE AUG 31 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 325.171

RL	151.02	LAL	-.00	LOL	337.18	VL	27.080	GAL	-3.51	AZL	85.65	HCA	145.57	SMA	129.57	ECC	.17625	INC	4.3538	V1	29.504
RP	107.48	LAP	2.46	LOP	122.83	VP	38.015	GAP	-2.61	AZP	93.59	TAL	196.84	TAP	342.41	RCA	106.73	APO	152.40	V2	35.256
RC	72.818	GL	35.83	GP	-52.29	ZAL	110.95	ZAP	69.99	ETS	22.70	ZAE	123.86	ETE	284.20	ZAC	49.63	ETC	257.46	CLP	-55.99

PLANETOCENTRIC CONIC

C3	12.284	VHL	3.505	DLA	19.00	RAL	229.68	RAD	6567.5	VEL	11.562	PTH	2.02	VHP	4.962	DPA	-69.80	RAP	214.24	ECC	1.2022

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 26 48	2740.80	-27.92	77.52	89.49	94.95	2 12 29	2140.8	-26.94	68.99
90.00	18 41 38	4111.90	-2.80	167.06	84.18	61.81	19 50 10	3511.9	-6.55	160.39
100.00	2 59 48	2440.92	-29.20	55.31	89.34	96.71	3 40 29	1840.9	-27.96	46.72
100.00	19 51 19	3887.02	-1.68	149.91	83.55	60.15	20 56 6	3287.0	-5.64	143.36
110.00	4 33 18	2148.38	-32.46	32.49	88.73	101.35	5 9 7	1548.4	-30.56	23.79
110.00	20 34 18	3752.32	1.13	137.94	81.80	55.83	21 36 51	3152.3	-3.36	131.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0694	TRA	-.3318	TC3	.2475	BAU	-.4125	SGT	610.0	SGR	2171.7	SG3	404.2	ST	206.2	SR	1165.9	SS	1285.1
RDE	.7049	RRA	.3260	RC3	-2.4998	FAU	.06755	RRT	-.3748	RRF	.9895	RTF	-.3655	CRT	.4218	CRS	-.9999	CST	-.4272
FDE	1.8145	FRA	.8074	FC3	-4.7608	BSP	6781	SGB	2255.7	R23	-.0345	R13	.9889	LSA	1737.4	MSA	186.5	SSA	9.9
BDE	.7083	BRA	.4652	BC3	2.5120	FSP	-1241	SG1	2184.5	SG2	562.2	THA	96.44	EL1	1169.2	EL2	186.5	ALF	85.62

LAUNCH DATE AUG 31 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 331.646

RL	151.02	LAL	-.00	LOL	337.18	VL	27.098	GAL	-3.50	AZL	85.00	HCA	148.80	SMA	129.69	ECC	.17510	INC	5.0014	V1	29.504
RP	107.48	LAP	2.59	LOP	126.08	VP	38.030	GAP	-2.12	AZP	94.28	TAL	196.91	TAP	345.70	RCA	106.98	APO	152.40	V2	35.258
RC	74.992	GL	39.66	GP	-56.29	ZAL	109.74	ZAP	74.42	ETS	18.82	ZAE	120.46	ETE	279.05	ZAC	45.52	ETC	255.97	CLP	-61.06

PLANETOCENTRIC CONIC

C3	13.652	VHL	3.695	DLA	22.58	RAL	231.12	RAD	6567.5	VEL	11.621	PTH	2.04	VHP	5.154	DPA	-72.09	RAP	203.65	ECC	1.2247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 49 30	2920.75	-28.27	90.65	94.02	88.39	1 38 10	2320.8	-28.20	81.99
90.00	19 30 26	3977.39	-7.09	159.50	88.29	62.51	20 36 43	3377.4	-10.71	152.70
100.00	2 27 29	2604.78	-29.89	67.43	94.04	90.38	3 10 54	2004.8	-29.52	58.64
100.00	20 35 7	3768.60	-5.67	143.38	87.51	60.60	21 37 56	3168.6	-9.54	136.74
110.00	4 9 57	2284.21	-33.81	42.85	93.81	95.36	4 48 1	1684.2	-32.70	33.79
110.00	21 9 9	3661.93	-2.33	133.23	85.44	55.89	22 10 11	3061.9	-6.79	126.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1741	TRA	-.3005	TC3	.0040	BAU	.4391	SGT	572.3	SGR	2369.2	SG3	378.4	ST	309.5	SR	1421.5	SS	1336.8
RDE	.9062	RRA	.4111	RC3	-2.4061	FAU	.06167	RRT	.0190	RRF	.9918	RTF	.0311	CRT	.7910	CRS	-1.0000	CST	-.7938
FDE	1.9154	FRA	.8441	FC3	-3.9110	BSP	7326	SGB	2437.3	R23	-.0111	R13	.9918	LSA	1966.8	MSA	187.4	SSA	8.2
BDE	.9228	BRA	.5092	BC3	2.4061	FSP	-1170	SG1	2369.2	SG2	572.2	THA	89.72	EL1	1442.8	EL2	186.6	ALF	80.06

LAUNCH DATE AUG 31 1970 FLIGHT TIME 122.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 338.092

RL	151.02	LAL	-.00	LOL	337.18	VL	27.112	GAL	-3.47	AZL	84.22	HCA	152.02	SMA	129.79	ECC	.17417	INC	5.7820	V1	29.504
RP	107.48	LAP	2.71	LOP	129.33	VP	38.040	GAP	-1.64	AZP	95.11	TAL	196.88	TAP	348.91	RCA	107.18	APO	152.39	V2	35.259
RC	77.186	GL	43.65	GP	-60.36	ZAL	108.24	ZAP	78.56	ETS	14.33	ZAE	116.76	ETE	273.82	ZAC	41.34	ETC	254.08	CLP	-66.36

PLANETOCENTRIC CONIC

C3	15.601	VHL	3.950	DLA	26.25	RAL	232.86	RAD	6567.6	VEL	11.704	PTH	2.06	VHP	5.451	DPA	-73.80	RAP	190.50	ECC	1.2568

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 43	3167.61	-26.51	108.46	98.86	79.66	24 42 30	2567.6	-27.67	99.99
90.00	20 40 10	3789.85	-12.80	148.69	94.17	64.52	21 43 20	3189.9	-16.13	141.59
100.00	1 43 33	2813.29	-28.98	82.83	99.30	82.34	2 30 26	2213.3	-29.74	74.11
100.00	21 32 57	3619.41	-10.56	135.01	93.02	61.87	22 33 17	3019.4	-14.24	128.16
110.00	3 41 44	2443.50	-34.13	55.26	99.81	88.03	4 22 27	1843.5	-34.03	46.02
110.00	21 51 15	3561.96	-6.13	127.98	90.33	56.30	22 50 37	2962.0	-10.51	121.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3337	TRA	-.2535	TC3	-.2122	BAU	.4644	SGT	656.2	SGR	2545.0	SG3	343.1	ST	499.5	SR	1667.8	SS	1357.4
RDE	1.1362	RRA	.5152	RC3	-2.2166	FAU	.05433	RRT	.4489	RRF	.9933	RTF	.4621	CRT	.9211	CRS	-1.0000	CST	-.9228
FDE	1.9651	FRA	.8674	FC3	-3.0150	BSP	7925	SGB	2628.2	R23	.0095	R13	.9934	LSA	2199.5	MSA	189.4	SSA	6.9
BDE	1.1842	BRA	.5742	BC3	2.2268	FSP	-1072	SG1	2562.9	SG2	582.2	THA	83.04	EL1	1730.9	EL2	187.4	ALF	74.39

LAUNCH DATE AUG 31 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 344.509

RL	151.02	LAL	-.00	LOL	337.18	VL	27.120	GAL	-3.44	AZL	83.25	HCA	155.24	SMA	129.85	ECC	.17345	INC	6.7478	V1	29.504
RP	107.48	LAP	2.82	LOP	132.58	VP	38.046	GAP	-1.18	AZP	96.13	TAL	196.78	TAP	352.02	RCA	107.32	APO	152.37	V2	35.259
RC	79.396	GL	47.78	GP	-64.49	ZAL	106.48	ZAP	82.30	ETS	9.15	ZAE	112.79	ETE	268.44	ZAC	37.08	ETC	251.62	CLP	-71.88

PLANETOCENTRIC CONIC

C3	18.451	VHL	4.295	DLA	29.98	RAL	234.93	RAD	6567.7	VEL	11.825	PTH	2.09	VHP	5.882	DPA	-74.74	RAP	175.11	ECC	1.3037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.71	20 59 42	3786.56	-21.22	152.29	102.65	68.31	22 2 48	3186.6	-23.98	144.57
100.29	23 46 39	3248.16	-21.21	112.68	102.64	68.29	24 40 47	2648.2	-23.97	104.96
79.71	20 59 42	3786.56	-21.22	152.29	102.65	68.31	22 2 48	3186.6	-23.98	144.57
100.29	23 46 39	3248.16	-21.21	112.68	102.64	68.29	24 40 47	2648.2	-23.97	104.96
110.00	3 3 43	2641.93	-32.61	70.52	106.37	79.13	3 47 45	2041.9	-33.77	61.48
110.00	22 45 44	3440.79	-10.65	121.51	97.02	57.32	23 43 5	2840.8	-14.88	114.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5703	TRA	-.1831	TC3	-.3808	BAU	.4858	SGT	874.7	SGR	2683.5	SG3	300.5	ST	765.5	SR	1885.0	SS	1346.4
RDE	1.3950	RRA	.6440	RC3	-1.9321	FAU	.04588	RRT	.7152	RRF	.9943	RTF	.7282	CRT	.9639	CRS	-1.0000	CST	-.9653
FDE	1.9624	FRA	.8770	FC3	-2.1525	BSP	8532	SGB	2822.4	R23	.0280	R13	.9942	LSA	2432.0	MSA	193.0	SSA	5.8
BDE	1.5070	BRA	.6695	BC3	1.9693	FSP	-949	SG1	2759.1	SG2	594.6	THA	76.22	EL1	2025.6	EL2	189.7	ALF	68.43

LAUNCH DATE AUG 31 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 350.893

RL 151.02 LAL -.00 LOL 337.18 VL 27.125 GAL -3.38 AZL 82.02 HCA 158.45 SMA 129.88 ECC .17289 INC 7.9814 V1 29.504
RP 107.48 LAP 2.92 LOP 135.83 VP 38.049 GAP -.73 AZP 97.43 TAL 196.58 TAP 355.03 RCA 107.42 APO 152.33 V2 35.258
RC 81.621 GL 51.98 GP -68.72 ZAL 104.49 ZAP 85.54 ETS 3.12 ZAE 108.54 ETE 262.74 ZAC 32.74 ETC 248.31 CLP -77.63

PLANETOCENTRIC CONIC

C3 22.777 VHL 4.773 DLA 33.71 RAL 237.34 RAD 6567.9 VEL 12.006 PTH 2.14 VHP 6.498 DPA -74.77 RAP 158.52 ECC 1.3748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.90	20 8 42	4026.87	-22.23	170.99	109.57	63.98	21 15 49	3426.9	-25.54	163.44
109.10	1 0 48	3108.51	-22.22	102.58	109.57	63.97	1 52 36	2508.5	-25.53	95.03
70.90	20 8 42	4026.87	-22.23	170.99	109.57	63.98	21 15 49	3426.9	-25.54	163.44
109.10	1 0 48	3108.51	-22.22	102.58	109.57	63.97	1 52 36	2508.5	-25.53	95.03
110.00	1 49 17	2960.25	-26.24	93.04	111.57	67.27	2 38 38	2360.3	-29.09	85.01
110.00	0 23 19	3223.13	-18.32	109.32	107.38	60.62	1 17 2	2623.1	-22.09	102.21

DIFFERENTIAL CORRECTIONS
TDE .9203 TRA -.0744 TC3 -.4830 BAU .4997
RDE 1.6765 RRA .8033 RC3-1.5683 FAU .03680
FDE 1.9092 FRA .8719 FC3-1.3987 BSP 9129
BDE 1.9125 BRA .8068 BC3 1.6410 FSP -809

MID-COURSE EXECUTION ACCURACY
SGT 1202.0 SGR 2763.4 SG3 253.7
RRT .8398 RRF .9948 RTF .8538
SGB 3013.5 R23 .0453 R13 .9943
SG1 2950.9 SG2 611.1 THA 68.99

ORBIT DETERMINATION ACCURACY
ST 1105.4 SR 2043.1 SS 1304.3
CRT .9800 CRS-1.0000 CST -.9815
LSA 2656.7 MSA 198.7 SSA 4.9
EL1 2314.8 EL2 194.3 ALF 61.85

LAUNCH DATE AUG 31 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 357.241

RL 151.02 LAL -.00 LOL 337.18 VL 27.125 GAL -3.32 AZL 80.38 HCA 161.65 SMA 129.88 ECC .17250 INC 9.6226 V1 29.504
RP 107.48 LAP 3.02 LOP 139.08 VP 38.048 GAP -.30 AZP 99.14 TAL 196.30 TAP 357.95 RCA 107.47 APO 152.28 V2 35.256
RC 83.861 GL 56.16 GP -73.13 ZAL 102.33 ZAP 88.19 ETS 355.88 ZAE 103.99 ETE 256.28 ZAC 28.24 ETC 243.55 CLP -83.75

PLANETOCENTRIC CONIC

C3 29.699 VHL 5.450 DLA 37.33 RAL 240.10 RAD 6568.2 VEL 12.291 PTH 2.21 VHP 7.382 DPA -73.84 RAP 142.16 ECC 1.4888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.58	19 44 11	4199.19	-22.19	184.64	117.80	59.17	20 54 10	3599.2	-26.10	177.41
115.42	1 47 24	3067.42	-22.17	99.29	117.79	59.16	2 38 31	2467.4	-26.09	92.06
64.58	19 44 11	4199.19	-22.19	184.64	117.80	59.17	20 54 10	3599.2	-26.10	177.41
115.42	1 47 24	3067.42	-22.17	99.29	117.79	59.16	2 38 31	2467.4	-26.09	92.06
64.58	19 44 11	4199.19	-22.19	184.64	117.80	59.17	20 54 10	3599.2	-26.10	177.41
115.42	1 47 24	3067.42	-22.17	99.29	117.79	59.16	2 38 31	2467.4	-26.09	92.06

DIFFERENTIAL CORRECTIONS
TDE 1.4502 TRA .1015 TC3 -.5089 BAU .5011
RDE 1.9571 RRA 1.0000 RC3-1.1549 FAU .02767
FDE 1.8144 FRA .8540 FC3 -.8065 BSP 9717
BDE 2.4358 BRA 1.0051 BC3 1.2620 FSP -665

MID-COURSE EXECUTION ACCURACY
SGT 1628.0 SGR 2750.7 SG3 206.0
RRT .8961 RRF .9947 RTF .9138
SGB 3196.4 R23 .0618 R13 .9940
SG1 3132.8 SG2 634.5 THA 60.74

ORBIT DETERMINATION ACCURACY
ST 1525.4 SR 2095.8 SS 1235.9
CRT .9866 CRS -.9999 CST -.9889
LSA 2864.2 MSA 207.5 SSA 4.1
EL1 2584.3 EL2 202.2 ALF 54.07

LAUNCH DATE AUG 31 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 363.545

RL 151.02 LAL -.00 LOL 337.18 VL 27.122 GAL -3.24 AZL 73.07 HCA 164.83 SMA 129.86 ECC .17224 INC11.9263 V1 29.504
RP 107.49 LAP 3.10 LOP 142.33 VP 38.043 GAP .11 AZP 101.52 TAL 195.92 TAP .75 RCA 107.49 APO 152.22 V2 35.254
RC 86.111 GL 60.15 GP -77.86 ZAL 100.05 ZAP 90.18 ETS 346.26 ZAE 99.03 ETE 247.84 ZAC 23.45 ETC 235.75 CLP -90.85

PLANETOCENTRIC CONIC

C3 41.625 VHL 6.452 DLA 40.68 RAL 243.22 RAD 6568.6 VEL 12.767 PTH 2.32 VHP 8.692 DPA -71.93 RAP 127.07 ECC 1.6850

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.49	19 32 12	4354.27	-20.63	196.46	127.27	54.13	20 44 46	3754.3	-25.16	189.72
120.51	2 24 16	3082.60	-20.61	99.45	127.25	54.12	3 15 38	2482.6	-25.15	92.71
59.49	19 32 12	4354.27	-20.63	196.46	127.27	54.13	20 44 46	3754.3	-25.16	189.72
120.51	2 24 16	3082.60	-20.61	99.45	127.25	54.12	3 15 38	2482.6	-25.15	92.71
59.49	19 32 12	4354.27	-20.63	196.46	127.27	54.13	20 44 46	3754.3	-25.16	189.72
120.51	2 24 16	3082.60	-20.61	99.45	127.25	54.12	3 15 38	2482.6	-25.15	92.71

DIFFERENTIAL CORRECTIONS
TDE 2.3014 TRA .4164 TC3 -.4589 BAU .4780
RDE 2.1388 RRA 1.2335 RC3 -.7262 FAU .01885
FDE 1.6960 FRA .8302 FC3 -.3921 BSP 10237
BDE 3.1418 BRA 1.3019 BC3 .8590 FSP -523

MID-COURSE EXECUTION ACCURACY
SGT 2183.0 SGR 2563.5 SG3 160.9
RRT .9187 RRF .9924 RTF .9473
SGB 3367.1 R23 .0780 R13 .9935
SG1 3299.8 SG2 670.0 THA 49.98

ORBIT DETERMINATION ACCURACY
ST 2049.1 SR 1948.4 SS 1152.3
CRT .9883 CRS -.9994 CST -.9928
LSA 3045.3 MSA 221.5 SSA 3.4
EL1 2819.3 EL2 215.7 ALF 43.54

LAUNCH DATE AUG 31 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 369.787

RL 151.02 LAL -.00 LOL 337.18 VL 27.115 GAL -3.14 AZL 74.59 HCA 167.98 SMA 129.81 ECC .17208 INC15.4078 V1 29.504
RP 107.50 LAP 3.17 LOP 145.58 VP 38.036 GAP .50 AZP 105.09 TAL 195.44 TAP 3.41 RCA 107.47 APO 152.15 V2 35.251
RC 88.372 GL 63.63 GP -83.13 ZAL 97.73 ZAP 91.46 ETS 329.68 ZAE 93.44 ETE 232.70 ZAC 18.15 ETC 219.35 CLP-102.27

PLANETOCENTRIC CONIC

C3 64.468 VHL 8.029 DLA 43.43 RAL 246.62 RAD 6569.2 VEL 13.632 PTH 2.49 VHP 10.748 DPA -68.89 RAP 113.57 ECC 2.0610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.58	19 29 16	4507.75	-17.11	206.95	137.66	49.45	20 44 24	3907.8	-22.20	200.81
124.42	2 54 18	3145.84	-17.09	102.05	137.65	49.45	3 46 44	2545.8	-22.18	95.91
55.58	19 29 16	4507.75	-17.11	206.95	137.66	49.45	20 44 24	3907.8	-22.20	200.81
124.42	2 54 18	3145.84	-17.09	102.05	137.65	49.45	3 46 44	2545.8	-22.18	95.91
55.58	19 29 16	4507.75	-17.11	206.95	137.66	49.45	20 44 24	3907.8	-22.20	200.81
124.42	2 54 18	3145.84	-17.09	102.05	137.65	49.45	3 46 44	2545.8	-22.18	95.91

DIFFERENTIAL CORRECTIONS
TDE 3.7819 TRA 1.0910 TC3 -.3451 BAU .4067
RDE 1.7112 RRA 1.3927 RC3 -.3218 FAU .01066
FDE 1.5829 FRA .8133 FC3 -.1431 BSP 10762
BDE 4.1510 BRA 1.7691 BC3 .4719 FSP -399

MID-COURSE EXECUTION ACCURACY
SGT 2956.2 SGR 1905.5 SG3 121.2
RRT .8963 RRF .9697 RTF .9725
SGB 3517.1 R23 .0943 R13 .9928
SG1 3441.4 SG2 725.9 THA 31.58

ORBIT DETERMINATION ACCURACY
ST 2717.9 SR 1288.4 SS 1072.2
CRT .9789 CRS -.9934 CST -.9959
LSA 3183.8 MSA 244.6 SSA 2.8
EL1 2998.3 EL2 238.6 ALF 25.06

LAUNCH DATE AUG 31 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 375.929

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RL  151.02 LAL   -.00 LOL 337.18 VL  27.106 GAL  -3.02 AZL  68.73 HCA 171.05 SMA 129.74 ECC .17199 INC21.2659 V1  29.504
RP  107.51 LAP   3.24 LOP 148.83 VP  38.026 GAP    .86 AZP 111.03 TAL 194.81 TAP   5.86 RCA 107.43 APO 152.06 V2  35.247
RC  90.641 GL   65.88 GP  -88.00 ZAL  95.45 ZAP  92.00 ETS 280.74 ZAE  86.64 ETE 185.34 ZAC  11.87 ETC 165.44 CLP 179.05
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PLANETOCENTRIC CONIC

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C3 115.712 VHL 10.757 DLA  44.93 RAL 250.04 RAD 6570.2 VEL 15.396 PTH   2.75 VHP 14.286 DPA -64.24 RAP 101.55 ECC 2.9043
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.54	19 34 57	4659.32	-11.54	215.48	148.25	46.27	20 52 36	4059.3	-17.00	209.87
126.46	3 15 55	3255.32	-11.52	106.76	148.23	46.27	4 10 11	2655.3	-16.98	101.14
53.54	19 34 57	4659.32	-11.54	215.48	148.25	46.27	20 52 36	4059.3	-17.00	209.87
126.46	3 15 55	3255.32	-11.52	106.76	148.23	46.27	4 10 11	2655.3	-16.98	101.14
53.54	19 34 57	4659.32	-11.54	215.48	148.25	46.27	20 52 36	4059.3	-17.00	209.87
126.46	3 15 55	3255.32	-11.52	106.76	148.23	46.27	4 10 11	2655.3	-16.98	101.14

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.3380 TRA 2.5871 TC3 -.1363 BAU  .2109   SGT 3458.0 SGR 1128.6 SG3   89.4      ST  2902.6 SR  1124.3 SS  1037.5
 RDE-2.1100 RRA  .1369 RC3  .0004 FAU .00244   RRT -.7675 RRF -.7323 RTF  .9973      CRT -.9737 CRS  .9677 CST -.9997
 FDE 1.5374 FRA  .8396 FC3 -.0182 BSP  11151   SGB 3637.5 R23 -.1027 R13 -.9933      LSA 3271.8 MSA  245.6 SSA    1.9
 BDE 5.7398 BRA 2.5907 BC3  .1363 FSP   -295   SG1 3569.4 SG2  700.9 THA 165.36      EL1 3103.4 EL2  239.8 ALF 159.21
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 381.850

```
RL  151.02 LAL   -.00 LOL 337.18 VL  27.093 GAL  -2.85 AZL  57.13 HCA 173.93 SMA 129.66 ECC .17185 INC32.8655 V1  29.504
RP  107.53 LAP   3.29 LOP 152.08 VP  38.013 GAP   1.15 AZP 122.72 TAL 193.95 TAP   7.88 RCA 107.38 APO 151.94 V2  35.243
RC  92.917 GL   65.03 GP  -80.18 ZAL  93.32 ZAP  91.83 ETS 210.15 ZAE  77.03 ETE 116.29 ZAC   4.82 ETC  48.94 CLP 100.78
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PLANETOCENTRIC CONIC

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C3 262.381 VHL 16.198 DLA  43.42 RAL 252.74 RAD 6571.5 VEL 19.588 PTH   3.11 VHP 21.322 DPA -56.38 RAP  90.68 ECC 5.3181
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.59	19 53 42	4774.80	-4.91	219.60	157.55	46.80	21 13 17	4174.8	-10.35	214.09
124.41	3 18 40	3413.10	-4.89	114.71	157.53	46.80	4 15 33	2813.1	-10.33	109.21
55.59	19 53 42	4774.80	-4.91	219.60	157.55	46.80	21 13 17	4174.8	-10.35	214.09
124.41	3 18 40	3413.10	-4.89	114.71	157.53	46.80	4 15 33	2813.1	-10.33	109.21
55.59	19 53 42	4774.80	-4.91	219.60	157.55	46.80	21 13 17	4174.8	-10.35	214.09
124.41	3 18 40	3413.10	-4.89	114.71	157.53	46.80	4 15 33	2813.1	-10.33	109.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.4150 TRA 1.9061 TC3  .0012 BAU  .4119   SGT 1054.6 SGR 3543.7 SG3   67.7      ST   572.8 SR  3036.3 SS  1139.8
 RDE-8.4356 RRA-3.8469 RC3 -.1174 FAU-.00938   RRT -.8653 RRF -.9918 RTF  .9184      CRT -.9487 CRS  .9985 CST -.9648
 FDE 1.6984 FRA 1.0140 FC3  .0309 BSP  10943   SGB 3697.3 R23 -.0836 R13 -.9955      LSA 3288.2 MSA  184.6 SSA    1.8
 BDE 8.5535 BRA 4.2933 BC3  .1174 FSP   -213   SG1 3661.7 SG2  511.5 THA 104.74      EL1 3084.7 EL2  178.2 ALF 100.18
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 387.068

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RL  151.02 LAL   -.00 LOL 337.18 VL  27.078 GAL  -2.53 AZL  29.06 HCA 176.19 SMA 129.56 ECC .17129 INC60.9420 V1  29.504
RP  107.54 LAP   3.33 LOP 155.33 VP  37.997 GAP   1.26 AZP 150.89 TAL 192.42 TAP   8.61 RCA 107.36 APO 151.75 V2  35.238
RC  95.197 GL   55.29 GP  -62.82 ZAL  91.57 ZAP  91.12 ETS 189.63 ZAE  59.53 ETE  96.96 ZAC  16.25 ETC 296.52 CLP  92.46
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PLANETOCENTRIC CONIC

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C3 827.519 VHL 28.767 DLA  33.36 RAL 252.88 RAD 6572.8 VEL 30.803 PTH   3.46 VHP 37.544 DPA -40.18 RAP  80.87 ECC14.6189
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.59	21 15 1	4641.48	-.13	204.92	162.70	56.64	22 32 23	4041.5	-4.52	198.64
108.41	1 58 29	3749.60	-.11	138.56	162.69	56.64	3 0 59	3149.6	-4.50	132.28
71.59	21 15 1	4641.48	-.13	204.92	162.70	56.64	22 32 23	4041.5	-4.52	198.64
108.41	1 58 29	3749.60	-.11	138.56	162.69	56.64	3 0 59	3149.6	-4.50	132.28
110.00	3 5 10	3545.21	-6.76	127.10	167.09	56.41	4 4 15	2945.2	-11.13	120.73
110.00	1 11 27	3893.87	6.51	145.36	158.30	56.37	2 16 21	3293.9	2.05	139.12

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.4001 TRA  .6271 TC3 -.0626 BAU 2.5908   SGT  781.4 SGR 3382.2 SG3   56.8      ST   678.8 SR  2539.2 SS  1529.0
 RD-12.4197 RRA-7.9947 RC3 -.2257 FAU-.04292   RRT  .7029 RRF -.9984 RTF -.6663      CRT  .9573 CRS  .9996 CST  .9487
 FDE 2.2893 FRA 1.6660 FC3  .0449 BSP   9887   SGB 3471.2 R23 -.0765 R13 -.9967      LSA 3034.2 MSA  200.0 SSA    1.6
 BDE12.8767 BRA 8.0192 BC3  .2342 FSP   -170   SG1 3427.6 SG2  548.4 THA  80.53      EL1 2621.5 EL2  190.1 ALF  75.57
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 397.865

```
RL  151.02 LAL   -.00 LOL 337.18 VL  27.061 GAL  -3.29 AZL 157.49 HCA 183.64 SMA 129.44 ECC .17606 INC67.4864 V1  29.504
RP  107.56 LAP   3.36 LOP 158.58 VP  37.979 GAP   2.87 AZP  22.55 TAL 195.73 TAP  19.37 RCA 106.65 APO 152.23 V2  35.232
RC  97.481 GL  -52.44 GP   59.61 ZAL  92.09 ZAP  92.54 ETS 182.32 ZAE  63.01 ETE 272.83 ZAC 137.21 ETC 282.60 CLP  95.02
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PLANETOCENTRIC CONIC

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C3 991.154 VHL 31.483 DLA -70.88 RAL 214.64 RAD 6573.0 VEL 33.353 PTH   3.50 VHP 40.475 DPA  77.68 RAP  25.64 ECC17.3119
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.85	3 48 7	2439.89	-.37	78.62	124.76	160.88	4 28 47	1839.9	7.19	76.41
158.15	14 20 20	681.09	-.36	287.51	124.78	160.88	14 31 41	81.1	7.19	285.29
21.85	3 48 7	2439.89	-.37	78.62	124.76	160.88	4 28 47	1839.9	7.19	76.41
158.15	14 20 20	681.09	-.36	287.51	124.78	160.88	14 31 41	81.1	7.19	285.29
21.85	3 48 7	2439.89	-.37	78.62	124.76	160.88	4 28 47	1839.9	7.19	76.41
158.15	14 20 20	681.09	-.36	287.51	124.78	160.88	14 31 41	81.1	7.19	285.29

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.1370 TRA 1.2147 TC3 -.1074 BAU 3.2957   SGT 1469.7 SGR 3125.7 SG3   58.7      ST  1135.3 SR  2777.6 SS  2148.7
 RD-15.2544 RRA -.4687 RC3  .2243 FAU-.05194   RRT -.9211 RRF  .9994 RTF -.9182      CRT -.9886 CRS-1.0000 CST  .9885
 FDE-3.3746 FRA -.1018 FC3  .0454 BSP  10543   SGB 3454.0 R23 -.0741 R13  .9966      LSA 3687.0 MSA  163.1 SSA    2.2
 BDE16.4426 BRA 1.3020 BC3  .2487 FSP   -183   SG1 3414.1 SG2  523.8 THA 114.02      EL1 2996.5 EL2  158.5 ALF 112.07
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 402.885

RL	151.02	LAL	-.00	LOL	337.18	VL	27.041	GAL	-2.92	AZL	126.14	HCA	185.74	SMA	129.30	ECC	.17529	INC	36.1407	V1	29.504		
RP	107.58	LAP	3.38	LOP	161.83	VP	37.959	GAP	2.91	AZP	54.00	TAL	193.99	TAP	19.73	RCA	106.64	APO	151.97	V2	35.226		
RC	99.767	GL	-64.04	GP	77.76	ZAL	93.15	ZAP	94.57	ETS	174.60	ZAE	82.03	ETE	264.34	ZAC	154.88	ETC	285.23	CLP	112.07		

PLANETOCENTRIC CONIC

C3	313.792	VHL	17.714	DLA	-77.34	RAL	177.38	RAD	6571.8	VEL	20.859	PTH	3.18	VHP	22.654	DPA	77.75	RAP	281.39	ECC	6.1642		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.42	1 4 14	2366.75	5.50	81.38	86.13	167.28	1 43 41	1766.7	13.30	79.99
165.58	12 6 53	5865.28	5.50	260.66	86.15	167.28	13 44 39	5265.3	13.30	259.28
14.42	1 4 14	2366.75	5.50	81.38	86.13	167.28	1 43 41	1766.7	13.30	79.99
165.58	12 6 53	5865.28	5.50	260.66	86.15	167.28	13 44 39	5265.3	13.30	259.28
14.42	1 4 14	2366.75	5.50	81.38	86.13	167.28	1 43 41	1766.7	13.30	79.99
165.58	12 6 53	5865.28	5.50	260.66	86.15	167.28	13 44 39	5265.3	13.30	259.28

DIFFERENTIAL CORRECTIONS

TDE	1.1121	TRA	.6976	TC3	-.0491	BAU	.7056
RDE	-7.9243	RRA	-1.8687	RC3	.1609	FAU	-.00969
FDE	-1.8179	FRA	-.3947	FC3	.0267	BSP	12294
BDE	8.0019	BRA	1.9947	BC3	.1682	FSP	-229

MID-COURSE EXECUTION ACCURACY

SGT	1104.2	SGR	3807.6	SG3	72.0		
RRT	-.9180	RRF	.9985	RTF	-.8997		
SGB	3964.5	R23	-.0716	R13	.9969		
SG1	3941.9	SG2	423.0	THA	105.09		

ORBIT DETERMINATION ACCURACY

ST	474.1	SR	2693.3	SS	1209.7
CRT	-.9221	CRS	-.9997	CST	.9129
LSA	2981.0	MSA	184.9	SSA	1.6
EL1	2728.7	EL2	181.0	ALF	99.26

LAUNCH DATE AUG 31 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 408.678

RL	151.02	LAL	-.00	LOL	337.18	VL	27.020	GAL	-2.70	AZL	113.36	HCA	188.59	SMA	129.16	ECC	.17551	INC	23.3617	V1	29.504		
RP	107.60	LAP	3.39	LOP	165.07	VP	37.937	GAP	3.16	AZP	66.87	TAL	192.86	TAP	21.45	RCA	106.49	APO	151.82	V2	35.218		
RC	102.053	GL	-65.83	GP	82.36	ZAL	94.23	ZAP	97.52	ETS	109.72	ZAE	92.15	ETE	199.17	ZAC	162.27	ETC	238.62	CLP	169.52		

PLANETOCENTRIC CONIC

C3	137.606	VHL	11.731	DLA	-76.74	RAL	167.75	RAD	6570.5	VEL	16.092	PTH	2.83	VHP	14.963	DPA	68.75	RAP	260.01	ECC	3.2646		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.10	0 27 12	2240.75	13.75	79.49	74.43	166.34	1 4 33	1640.8	21.51	77.89
164.90	11 27 8	5741.54	13.76	259.46	74.46	166.34	13 2 50	5141.5	21.52	257.85
15.10	0 27 12	2240.75	13.75	79.49	74.43	166.34	1 4 33	1640.8	21.51	77.89
164.90	11 27 8	5741.54	13.76	259.46	74.46	166.34	13 2 50	5141.5	21.52	257.85
15.10	0 27 12	2240.75	13.75	79.49	74.43	166.34	1 4 33	1640.8	21.51	77.89
164.90	11 27 8	5741.54	13.76	259.46	74.46	166.34	13 2 50	5141.5	21.52	257.85

DIFFERENTIAL CORRECTIONS

TDE	-3.8606	TRA	-1.2475	TC3	-.0469	BAU	.0963
RDE	-2.0284	RRA	-1.1108	RC3	-.0232	FAU	.00584
FDE	-1.3175	FRA	-.4238	FC3	-.0368	BSP	12915
BDE	4.3610	BRA	1.6704	BC3	.0523	FSP	-308

MID-COURSE EXECUTION ACCURACY

SGT	3259.4	SGR	2565.0	SG3	96.0		
RRT	.9757	RRF	.9738	RTF	.9990		
SGB	4147.6	R23	-.0884	R13	.9951		
SG1	4123.7	SG2	444.3	THA	38.04		

ORBIT DETERMINATION ACCURACY

ST	2047.1	SR	1218.6	SS	902.6
CRT	.9755	CRS	-.9752	CST	-1.0000
LSA	2536.6	MSA	236.6	SSA	1.8
EL1	2371.1	EL2	231.3	ALF	30.47

LAUNCH DATE AUG 31 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 414.677

RL	151.02	LAL	-.00	LOL	337.18	VL	26.996	GAL	-2.51	AZL	107.06	HCA	191.64	SMA	129.00	ECC	.17605	INC	17.0631	V1	29.504		
RP	107.63	LAP	3.39	LOP	168.32	VP	37.914	GAP	3.46	AZP	73.27	TAL	191.88	TAP	23.51	RCA	106.29	APO	151.71	V2	35.211		
RC	104.339	GL	-64.37	GP	77.80	ZAL	95.06	ZAP	101.02	ETS	54.67	ZAE	98.98	ETE	144.37	ZAC	164.20	ETC	207.05	CLP	-154.78		

PLANETOCENTRIC CONIC

C3	77.050	VHL	8.778	DLA	-75.66	RAL	172.60	RAD	6569.5	VEL	14.085	PTH	2.57	VHP	11.220	DPA	61.67	RAP	251.71	ECC	2.2680		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.34	0 49 2	2116.30	21.72	76.85	76.75	164.54	1 24 19	1516.3	29.42	74.83
163.66	11 44 0	5621.43	21.73	258.04	76.77	164.54	13 17 41	5021.4	29.42	256.02
16.34	0 49 2	2116.30	21.72	76.85	76.75	164.54	1 24 19	1516.3	29.42	74.83
163.66	11 44 0	5621.43	21.73	258.04	76.77	164.54	13 17 41	5021.4	29.42	256.02
16.34	0 49 2	2116.30	21.72	76.85	76.75	164.54	1 24 19	1516.3	29.42	74.83
163.66	11 44 0	5621.43	21.73	258.04	76.77	164.54	13 17 41	5021.4	29.42	256.02

DIFFERENTIAL CORRECTIONS

TDE	-3.0244	TRA	-1.2547	TC3	-.3488	BAU	.3773
RDE	1.9987	RRA	.3212	RC3	.1118	FAU	.01573
FDE	-1.4553	FRA	-.4094	FC3	-.1767	BSP	12805
BDE	3.6252	BRA	1.2952	BC3	.3663	FSP	-398

MID-COURSE EXECUTION ACCURACY

SGT	3900.4	SGR	1567.6	SG3	127.1		
RRT	-.8989	RRF	-.9602	RTF	.9823		
SGB	4203.6	R23	.1195	R13	-.9908		
SG1	4153.9	SG2	644.9	THA	159.62		

ORBIT DETERMINATION ACCURACY

ST	2209.6	SR	1329.1	SS	972.9
CRT	-.9628	CRS	.9907	CST	-.9906
LSA	2737.8	MSA	315.6	SSA	2.5
EL1	2559.8	EL2	309.9	ALF	149.43

LAUNCH DATE AUG 31 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 420.736

RL	151.02	LAL	-.00	LOL	337.18	VL	26.971	GAL	-2.32	AZL	103.38	HCA	194.76	SMA	128.83	ECC	.17680	INC	13.3801	V1	29.504		
RP	107.65	LAP	3.38	LOP	171.56	VP	37.888	GAP	3.78	AZP	77.05	TAL	190.93	TAP	25.69	RCA	106.05	APO	151.61	V2	35.202		
RC	106.624	GL	-61.72	GP	71.88	ZAL	95.56	ZAP	104.90	ETS	46.39	ZAE	104.31	ETE	136.92	ZAC	162.63	ETC	218.87	CLP	-145.73		

PLANETOCENTRIC CONIC

C3	50.144	VHL	7.081	DLA	-74.38	RAL	181.55	RAD	6568.8	VEL	13.096	PTH	2.39	VHP	9.122	DPA	55.52	RAP	246.59	ECC	1.8252		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.81	1 27 41	2009.77	28.33	73.73	82.87	162.19	2 1 11	1409.8	35.91	71.13
162.19	12 16 43	5520.56	28.33	256.39	82.89	162.19	13 48 43	4920.6	35.92	253.79
17.81	1 27 41	2009.77	28.33	73.73	82.87	162.19	2 1 11	1409.8	35.91	71.13
162.19	12 16 43	5520.56	28.33	256.39	82.89	162.19	13 48 43	4920.6	35.92	253.79
17.81	1 27 41	2009.77	28.33	73.73	82.87	162.19	2 1 11	1409.8	35.91	71.13
162.19	12 16 43	5520.56	28.33	256.39	82.89	162.19	13 48 43	4920.6	35.92	253.79

DIFFERENTIAL CORRECTIONS

TDE	-2.7778	TRA	-.9844	TC3	-.7232	BAU	.5341
RDE	2.1101	RRA	.3598	RC3	.3343	FAU	.02558
FDE	-1.7705	FRA	-.3964	FC3	-.4417	BSP	13903
BDE	3.4883	BRA	1.0481	BC3	.7968	FSP	-560

MID-COURSE EXECUTION ACCURACY

SGT	3653.8	SGR	2075.6	SG3	169.8		
RRT	-.9402	RRF	-.9879	RTF	.9750		
SGB	4377.2	R23	.1351	R13	-.9880		
SG1	4331.8	SG2	628.9	THA	152.51		

ORBIT DETERMINATION ACCURACY

ST	2416.6	SR	1737.9	SS	1163.8
CRT	-.9823	CRS	.9984	CST	-.9914
LSA	3184.2	MSA	275.2	SSA	3.3
EL1	2964.8	EL2	265.2	ALF	144.43

LAUNCH DATE AUG 31 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 426.820
RL 151.02 LAL -.00 LOL 337.18 VL 26.945 GAL -2.13 AZL 100.97 HCA 197.93 SMA 128.65 ECC .17769 INC10.9693 V1 29.504
RP 107.68 LAP 3.36 LOP 174.80 VP 37.861 GAP 4.11 AZP 79.55 TAL 189.96 TAP 27.89 RCA 105.79 APO 151.51 V2 35.193
RC 108.906 GL -58.62 GP 66.15 ZAL 95.71 ZAP 108.98 ETS 44.54 ZAE 108.69 ETE 136.43 ZAC 159.32 ETC 230.04 CLP-143.53
PLANETOCENTRIC CONIC
C3 36.014 VHL 6.001 DLA -72.82 RAL 191.16 RAD 6568.4 VEL 12.545 PTH 2.27 VHP 7.838 DPA 49.87 RAP 243.00 ECC 1.5927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.61	2 9 43	1922.62	33.41	70.07	89.38	159.28	2 41 46	1322.6	40.83	66.75
160.39	12 51 20	5441.09	33.41	254.54	89.40	159.27	14 22 2	4841.1	40.84	251.23
19.61	2 9 43	1922.62	33.41	70.07	89.38	159.28	2 41 46	1322.6	40.83	66.75
160.39	12 51 20	5441.09	33.41	254.54	89.40	159.27	14 22 2	4841.1	40.84	251.23
19.61	2 9 43	1922.62	33.41	70.07	89.38	159.28	2 41 46	1322.6	40.83	66.75
160.39	12 51 20	5441.09	33.41	254.54	89.40	159.27	14 22 2	4841.1	40.84	251.23

DIFFERENTIAL CORRECTIONS
TDE-2.7465 TRA -.7737 TC3-1.1459 BAU .6057
RDE 1.9182 RRA .2482 RC3 .5192 FAU .03355
FDE-2.0360 FRA -.3287 FC3 -.8066 BSP 13785
BDE 3.3501 BRA .8126 BC3 1.2581 FSP -675

MID-COURSE EXECUTION ACCURACY
SGT 3875.8 SGR 2094.2 SG3 208.9
RRT -.9444 RRF -.9906 RTF .9697
SGB 4405.4 R23 .1562 R13 -.9837
SG1 4362.7 SG2 611.7 THA 152.38

ORBIT DETERMINATION ACCURACY
ST 2727.8 SR 1847.2 SS 1334.2
CRT -.9891 CRS .9995 CST -.9933
LSA 3546.0 MSA 242.0 SSA 4.1
EL1 3286.6 EL2 226.2 ALF 146.00

LAUNCH DATE AUG 31 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 432.905
RL 151.02 LAL -.00 LOL 337.18 VL 26.917 GAL -1.94 AZL 99.27 HCA 201.11 SMA 128.46 ECC .17870 INC 9.2651 V1 29.504
RP 107.71 LAP 3.32 LOP 178.05 VP 37.832 GAP 4.44 AZP 81.35 TAL 188.98 TAP 30.09 RCA 105.51 APO 151.42 V2 35.184
RC 111.186 GL -55.35 GP 60.77 ZAL 95.49 ZAP 113.12 ETS 44.17 ZAE 112.33 ETE 137.91 ZAC 155.39 ETC 237.60 CLP-143.52
PLANETOCENTRIC CONIC
C3 27.719 VHL 5.265 DLA -71.00 RAL 200.23 RAD 6568.1 VEL 12.210 PTH 2.19 VHP 7.012 DPA 44.59 RAP 240.41 ECC 1.4562

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.71	2 50 18	1851.81	37.12	65.91	95.10	155.90	3 21 10	1251.8	44.34	61.77
158.29	13 23 7	5380.33	37.13	252.56	95.12	155.89	14 52 48	4780.3	44.35	248.41
21.71	2 50 18	1851.81	37.12	65.91	95.10	155.90	3 21 10	1251.8	44.34	61.77
158.29	13 23 7	5380.33	37.13	252.56	95.12	155.89	14 52 48	4780.3	44.35	248.41
21.71	2 50 18	1851.81	37.12	65.91	95.10	155.90	3 21 10	1251.8	44.34	61.77
158.29	13 23 7	5380.33	37.13	252.56	95.12	155.89	14 52 48	4780.3	44.35	248.41

DIFFERENTIAL CORRECTIONS
TDE-2.7197 TRA -.6134 TC3-1.6424 BAU .6592
RDE 1.6773 RRA .1487 RC3 .6833 FAU .04103
FDE-2.2161 FRA -.2419 FC3-1.2814 BSP 14061
BDE 3.1953 BRA .6311 BC3 1.7788 FSP -805

MID-COURSE EXECUTION ACCURACY
SGT 3994.1 SGR 2024.0 SG3 248.8
RRT -.9482 RRF -.9909 RTF .9677
SGB 4477.6 R23 .1687 R13 -.9804
SG1 4440.1 SG2 578.2 THA 153.86

ORBIT DETERMINATION ACCURACY
ST 3023.4 SR 1831.6 SS 1468.7
CRT -.9924 CRS .9998 CST -.9945
LSA 3821.7 MSA 216.2 SSA 5.0
EL1 3529.6 EL2 193.2 ALF 148.88

LAUNCH DATE AUG 31 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 438.984
RL 151.02 LAL -.00 LOL 337.18 VL 26.888 GAL -1.74 AZL 97.99 HCA 204.31 SMA 128.27 ECC .17984 INC 7.9915 V1 29.504
RP 107.74 LAP 3.28 LOP 181.28 VP 37.802 GAP 4.76 AZP 82.71 TAL 187.96 TAP 32.27 RCA 105.20 APO 151.34 V2 35.174
RC 113.462 GL -52.04 GP 55.78 ZAL 94.93 ZAP 117.21 ETS 44.20 ZAE 115.35 ETE 140.14 ZAC 151.36 ETC 242.63 CLP-144.41
PLANETOCENTRIC CONIC
C3 22.459 VHL 4.739 DLA -68.98 RAL 208.44 RAD 6567.9 VEL 11.993 PTH 2.14 VHP 6.467 DPA 39.64 RAP 238.55 ECC 1.3696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.05	3 28 5	1793.70	39.71	61.40	99.81	152.20	3 57 58	1193.7	46.67	56.39
155.95	13 50 51	5334.86	39.72	250.50	99.83	152.20	15 19 46	4734.9	46.68	245.49
24.05	3 28 5	1793.70	39.71	61.40	99.81	152.20	3 57 58	1193.7	46.67	56.39
155.95	13 50 51	5334.86	39.72	250.50	99.83	152.20	15 19 46	4734.9	46.68	245.49
24.05	3 28 5	1793.70	39.71	61.40	99.81	152.20	3 57 58	1193.7	46.67	56.39
155.95	13 50 51	5334.86	39.72	250.50	99.83	152.20	15 19 46	4734.9	46.68	245.49

DIFFERENTIAL CORRECTIONS
TDE-2.6516 TRA -.4677 TC3-2.1802 BAU .6979
RDE 1.4303 RRA .0647 RC3 .8060 FAU .04716
FDE-2.2829 FRA -.1298 FC3-1.8177 BSP 14258
BDE 3.0127 BRA .4721 BC3 2.3244 FSP -915

MID-COURSE EXECUTION ACCURACY
SGT 4126.9 SGR 1903.0 SG3 283.6
RRT -.9506 RRF -.9899 RTF .9667
SGB 4544.5 R23 .1766 R13 -.9775
SG1 4512.3 SG2 540.1 THA 155.96

ORBIT DETERMINATION ACCURACY
ST 3241.1 SR 1730.6 SS 1544.2
CRT -.9941 CRS .9999 CST -.9951
LSA 3980.6 MSA 197.1 SSA 5.9
EL1 3670.4 EL2 165.9 ALF 151.98

LAUNCH DATE AUG 31 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 445.051
RL 151.02 LAL -.00 LOL 337.18 VL 26.858 GAL -1.52 AZL 97.00 HCA 207.51 SMA 128.07 ECC .18109 INC 6.9989 V1 29.504
RP 107.77 LAP 3.23 LOP 184.52 VP 37.771 GAP 5.09 AZP 83.79 TAL 186.91 TAP 34.42 RCA 104.88 APO 151.26 V2 35.164
RC 115.736 GL -48.75 GP 51.20 ZAL 94.04 ZAP 121.17 ETS 44.30 ZAE 117.81 ETE 142.69 ZAC 147.50 ETC 246.10 CLP-145.69
PLANETOCENTRIC CONIC
C3 18.936 VHL 4.352 DLA -66.82 RAL 215.81 RAD 6567.8 VEL 11.846 PTH 2.10 VHP 6.107 DPA 35.03 RAP 237.27 ECC 1.3116

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.56	4 3 0	1745.22	41.37	56.67	103.64	148.37	4 32 5	1145.2	48.03	50.82
153.44	14 14 44	5301.69	41.38	248.48	103.66	148.36	15 43 5	4701.7	48.03	242.63
26.56	4 3 0	1745.22	41.37	56.67	103.64	148.37	4 32 5	1145.2	48.03	50.82
153.44	14 14 44	5301.69	41.38	248.48	103.66	148.36	15 43 5	4701.7	48.03	242.63
26.56	4 3 0	1745.22	41.37	56.67	103.64	148.37	4 32 5	1145.2	48.03	50.82
153.44	14 14 44	5301.69	41.38	248.48	103.66	148.36	15 43 5	4701.7	48.03	242.63

DIFFERENTIAL CORRECTIONS
TDE-2.5530 TRA -.3311 TC3-2.7456 BAU .7306
RDE 1.2055 RRA -.0011 RC3 .8892 FAU .05193
FDE-2.2517 FRA -.0035 FC3-2.3742 BSP 14530
BDE 2.8233 BRA .3311 BC3 2.8860 FSP -1010

MID-COURSE EXECUTION ACCURACY
SGT 4270.4 SGR 1765.9 SG3 312.2
RRT -.9522 RRF -.9880 RTF .9666
SGB 4621.1 R23 .1791 R13 -.9753
SG1 4593.8 SG2 501.4 THA 158.23

ORBIT DETERMINATION ACCURACY
ST 3378.6 SR 1587.5 SS 1564.6
CRT -.9951 CRS 1.0000 CST -.9953
LSA 4043.4 MSA 182.9 SSA 6.9
EL1 3730.2 EL2 142.7 ALF 154.90

LAUNCH DATE AUG 31 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 451.103

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RL  151.02 LAL   -.00 LOL 337.18 VL  26.826 GAL  -1.30 AZL  96.20 HCA 210.72 SMA 127.86 ECC .18247 INC 6.1994 V1  29.504
RP  107.80 LAP   3.16 LOP 187.75 VP  37.739 GAP   5.41 AZP  84.66 TAL 185.84 TAP  36.55 RCA 104.53 APO 151.19 V2  35.153
RC 118.005 GL  -45.51 GP   47.04 ZAL  92.84 ZAP 124.93 ETS  44.38 ZAE 119.78 ETE 145.34 ZAC 143.90 ETC 248.59 CLP-147.15
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PLANETOCENTRIC CONIC

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C3  16.485 VHL  4.060 DLA -64.58 RAL 222.45 RAD 6567.7 VEL 11.742 PTH   2.07 VHP  5.873 DPA  30.76 RAP 236.45 ECC 1.2713
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.19	4 35 30	1703.94	42.29	51.88	106.82	144.53	5 3 54	1103.9	48.61	45.28
150.81	14 35 14	5278.58	42.30	246.62	106.84	144.52	16 3 13	4678.6	48.61	240.02
29.19	4 35 30	1703.94	42.29	51.88	106.82	144.53	5 3 54	1103.9	48.61	45.28
150.81	14 35 14	5278.58	42.30	246.62	106.84	144.52	16 3 13	4678.6	48.61	240.02
29.19	4 35 30	1703.94	42.29	51.88	106.82	144.53	5 3 54	1103.9	48.61	45.28
150.81	14 35 14	5278.58	42.30	246.62	106.84	144.52	16 3 13	4678.6	48.61	240.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4335 TRA -.1955 TC3-3.3159 BAU  .7591   SGT 4410.9 SGR 1625.8 SG3  333.4      ST  3440.5 SR  1429.0 SS  1537.3
RDE 1.0118 RRA -.0533 RC3  .9327 FAU .05522   RRT -.9524 RRF -.9851 RTF  .9664      CRT -.9957 CRS 1.0000 CST -.9951
FDE-2.1441 FRA  .1332 FC3-2.9002 BSP  14799   SGB 4701.0 R23  .1779 R13 -.9733     LSA 4026.4 MSA  172.9 SSA    8.0
BDE 2.6355 BRA  .2027 BC3 3.4445 FSP  -1081   SG1 4677.7 SG2  467.2 THA 160.45     EL1 3723.4 EL2  122.9 ALF 157.51
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 457.140

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RL  151.02 LAL   -.00 LOL 337.18 VL  26.794 GAL  -1.06 AZL  95.54 HCA 213.93 SMA 127.65 ECC .18396 INC 5.5382 V1  29.504
RP  107.84 LAP   3.09 LOP 190.98 VP  37.705 GAP   5.74 AZP  85.40 TAL 184.73 TAP  38.65 RCA 104.17 APO 151.13 V2  35.141
RC 120.271 GL  -42.34 GP   43.27 ZAL  91.35 ZAP 128.46 ETS  44.41 ZAE 121.32 ETE 147.94 ZAC 140.63 ETC 250.46 CLP-148.67
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PLANETOCENTRIC CONIC

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C3  14.738 VHL  3.839 DLA -62.27 RAL 228.50 RAD 6567.6 VEL 11.667 PTH   2.05 VHP  5.731 DPA  26.82 RAP 236.03 ECC 1.2425
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.90	5 6 4	1668.05	42.61	47.13	109.58	140.79	5 33 52	1068.1	48.57	39.91
148.10	14 52 56	5263.86	42.61	245.00	109.59	140.79	16 20 40	4663.9	48.58	237.77
31.90	5 6 4	1668.05	42.61	47.13	109.58	140.79	5 33 52	1068.1	48.57	39.91
148.10	14 52 56	5263.86	42.61	245.00	109.59	140.79	16 20 40	4663.9	48.58	237.77
31.90	5 6 4	1668.05	42.61	47.13	109.58	140.79	5 33 52	1068.1	48.57	39.91
148.10	14 52 56	5263.86	42.61	245.00	109.59	140.79	16 20 40	4663.9	48.58	237.77

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3013 TRA -.0613 TC3-3.8744 BAU  .7857   SGT 4548.0 SGR 1490.9 SG3  347.4      ST  3436.3 SR  1272.0 SS  1471.7
RDE  .8500 RRA -.0929 RC3  .9434 FAU .05721   RRT -.9517 RRF -.9812 RTF  .9665      CRT -.9961 CRS  .9998 CST -.9946
FDE-1.9833 FRA  .2691 FC3-3.3607 BSP  15106   SGB 4786.1 R23  .1718 R13 -.9718     LSA 3945.2 MSA  165.3 SSA    9.2
BDE 2.4532 BRA  .1113 BC3 3.9876 FSP  -1134   SG1 4766.2 SG2  436.7 THA 162.52     EL1 3662.6 EL2  104.8 ALF 159.74
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 463.160

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RL  151.02 LAL   -.00 LOL 337.18 VL  26.762 GAL  -.82 AZL  94.98 HCA 217.13 SMA 127.43 ECC .18559 INC 4.9791 V1  29.504
RP  107.87 LAP   3.00 LOP 194.21 VP  37.671 GAP  6.06 AZP  86.03 TAL 183.59 TAP  40.73 RCA 103.78 APO 151.08 V2  35.130
RC 122.531 GL  -39.24 GP   39.89 ZAL  89.61 ZAP 131.75 ETS  44.41 ZAE 122.51 ETE 150.43 ZAC 137.69 ETC 251.90 CLP-150.21
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PLANETOCENTRIC CONIC

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C3  13.478 VHL  3.671 DLA -59.93 RAL 234.06 RAD 6567.5 VEL 11.613 PTH   2.03 VHP  5.654 DPA  23.21 RAP 235.95 ECC 1.2218
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.69	5 35 6	1636.17	42.43	42.49	112.09	137.25	6 2 22	1036.2	48.03	34.79
145.31	15 8 15	5256.40	42.44	243.71	112.11	137.24	16 35 51	4656.4	48.04	236.00
34.69	5 35 6	1636.17	42.43	42.49	112.09	137.25	6 2 22	1036.2	48.03	34.79
145.31	15 8 15	5256.40	42.44	243.71	112.11	137.24	16 35 51	4656.4	48.04	236.00
34.69	5 35 6	1636.17	42.43	42.49	112.09	137.25	6 2 22	1036.2	48.03	34.79
145.31	15 8 15	5256.40	42.44	243.71	112.11	137.24	16 35 51	4656.4	48.04	236.00

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1616 TRA  .0769 TC3-4.4014 BAU  .8105   SGT 4677.9 SGR 1367.1 SG3  355.1      ST  3375.7 SR  1126.8 SS  1379.1
RDE  .7180 RRA -.1245 RC3  .9268 FAU .05801   RRT -.9495 RRF -.9759 RTF  .9663      CRT -.9966 CRS  .9995 CST -.9936
FDE-1.7917 FRA  .4044 FC3-3.7261 BSP  15407   SGB 4873.5 R23  .1633 R13 -.9704     LSA 3813.3 MSA  160.7 SSA   10.5
BDE 2.2777 BRA  .1463 BC3 4.4979 FSP  -1165   SG1 4856.0 SG2  413.1 THA 164.37     EL1 3557.7 EL2   88.4 ALF 161.59
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 469.161

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RL  151.02 LAL   -.00 LOL 337.18 VL  26.728 GAL  -.56 AZL  94.50 HCA 220.34 SMA 127.22 ECC .18734 INC 4.4973 V1  29.504
RP  107.91 LAP   2.91 LOP 197.44 VP  37.636 GAP  6.38 AZP  86.57 TAL 182.43 TAP  42.77 RCA 103.38 APO 151.05 V2  35.118
RC 124.786 GL  -36.23 GP   36.86 ZAL  87.64 ZAP 134.80 ETS  44.39 ZAE 123.40 ETE 152.75 ZAC 135.06 ETC 253.07 CLP-151.72
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PLANETOCENTRIC CONIC

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C3  12.573 VHL  3.546 DLA -57.57 RAL 239.21 RAD 6567.5 VEL 11.574 PTH   2.02 VHP  5.628 DPA  19.91 RAP 236.14 ECC 1.2069
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.53	6 3 1	1607.11	41.86	38.02	114.49	133.94	6 29 48	1007.1	47.11	29.97
142.47	15 21 26	5255.48	41.87	242.80	114.51	133.93	16 49 2	4655.5	47.12	234.75
37.53	6 3 1	1607.11	41.86	38.02	114.49	133.94	6 29 48	1007.1	47.11	29.97
142.47	15 21 26	5255.48	41.87	242.80	114.51	133.93	16 49 2	4655.5	47.12	234.75
37.53	6 3 1	1607.11	41.86	38.02	114.49	133.94	6 29 48	1007.1	47.11	29.97
142.47	15 21 26	5255.48	41.87	242.80	114.51	133.93	16 49 2	4655.5	47.12	234.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0173 TRA  .2190 TC3-4.8795 BAU  .8337   SGT 4799.5 SGR 1255.3 SG3  357.3      ST  3267.2 SR   997.4 SS  1267.9
RDE  .6115 RRA -.1491 RC3  .8891 FAU .05781   RRT -.9460 RRF -.9692 RTF  .9660      CRT -.9971 CRS  .9986 CST -.9922
FDE-1.5849 FRA  .5331 FC3-3.9804 BSP  15662   SGB 4960.9 R23  .1516 R13 -.9692     LSA 3640.3 MSA  158.1 SSA   11.9
BDE 2.1079 BRA  .2650 BC3 4.9599 FSP  -1174   SG1 4945.1 SG2  395.0 THA 166.01     EL1 3415.3 EL2   72.4 ALF 163.06
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 475.143

RL 151.02 LAL -.00 LOL 337.18 VL 26.694 GAL -.29 AZL 94.08 HCA 223.55 SMA 126.99 ECC .18923 INC 4.0755 V1 29.504
RP 107.95 LAP 2.81 LOP 200.66 VP 37.601 GAP 6.70 AZP 87.04 TAL 181.24 TAP 44.79 RCA 102.96 APO 151.03 V2 35.105
RC 127.036 GL -33.30 GP 34.16 ZAL 85.48 ZAP 137.62 ETS 44.37 ZAE 124.05 ETE 154.88 ZAC 132.74 ETC 254.03 CLP-153.21

PLANETOCENTRIC CONIC

C3 11.939 VHL 3.455 DLA -55.19 RAL 244.02 RAD 6567.5 VEL 11.547 PTH 2.02 VHP 5.641 DPA 16.89 RAP 236.58 ECC 1.1965

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.43	6 30 7	1580.03	40.96	33.71	116.87	130.88	6 56 27	980.0	45.89	25.44
139.57	15 32 43	5260.61	40.98	242.33	116.88	130.87	17 0 24	4660.6	45.90	234.05
40.43	6 30 7	1580.03	40.96	33.71	116.87	130.88	6 56 27	980.0	45.89	25.44
139.57	15 32 43	5260.61	40.98	242.33	116.88	130.87	17 0 24	4660.6	45.90	234.05
40.43	6 30 7	1580.03	40.96	33.71	116.87	130.88	6 56 27	980.0	45.89	25.44
139.57	15 32 43	5260.61	40.98	242.33	116.88	130.87	17 0 24	4660.6	45.90	234.05

DIFFERENTIAL CORRECTIONS
TDE-1.8693 TRA .3690 TC3-5.2863 BAU .8542
RDE .5264 RRA -.1697 RC3 .8333 FAU .05665
FDE-1.3754 FRA .6565 FC3-4.1081 BSP 15913
BDE 1.9420 BRA .4061 BC3 5.3516 FSP -1172

MID-COURSE EXECUTION ACCURACY
SGT 4909.3 SGR 1156.0 SG3 355.2
RRT -.9405 RRF -.9607 RTF .9655
SGB 5043.6 R23 .1387 R13 -.9680
SG1 5029.0 SG2 383.5 THA 167.44

ORBIT DETERMINATION ACCURACY
ST 3118.2 SR 885.5 SS 1146.8
CRT -.9978 CRS .9968 CST -.9899
LSA 3434.7 MSA 158.1 SSA 13.4
EL1 3241.0 EL2 56.4 ALF 164.18

LAUNCH DATE AUG 31 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 481.109

RL 151.02 LAL -.00 LOL 337.18 VL 26.659 GAL -.01 AZL 93.70 HCA 226.76 SMA 126.77 ECC .19127 INC 3.7010 V1 29.504
RP 107.99 LAP 2.70 LOP 203.88 VP 37.564 GAP 7.03 AZP 87.46 TAL 180.02 TAP 46.78 RCA 102.52 APO 151.02 V2 35.093
RC 129.278 GL -30.47 GP 31.74 ZAL 83.16 ZAP 140.22 ETS 44.38 ZAE 124.52 ETE 156.81 ZAC 130.68 ETC 254.86 CLP-154.65

PLANETOCENTRIC CONIC

C3 11.520 VHL 3.394 DLA -52.81 RAL 248.53 RAD 6567.4 VEL 11.529 PTH 2.01 VHP 5.684 DPA 14.12 RAP 237.23 ECC 1.1896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.37	6 56 36	1554.14	39.82	29.58	119.27	128.09	7 22 30	954.1	44.43	21.18
136.63	15 42 11	5271.54	39.83	242.30	119.28	128.08	17 10 3	4671.5	44.44	233.90
43.37	6 56 36	1554.14	39.82	29.58	119.27	128.09	7 22 30	954.1	44.43	21.18
136.63	15 42 11	5271.54	39.83	242.30	119.28	128.08	17 10 3	4671.5	44.44	233.90
43.37	6 56 36	1554.14	39.82	29.58	119.27	128.09	7 22 30	954.1	44.43	21.18
136.63	15 42 11	5271.54	39.83	242.30	119.28	128.08	17 10 3	4671.5	44.44	233.90

DIFFERENTIAL CORRECTIONS
TDE-1.7691 TRA .5305 TC3-6.0766 BAU .9484
RDE .4818 RRA -.1939 RC3 1.0013 FAU .06627
FDE-1.2559 FRA .7977 FC3-4.9806 BSP 18033
BDE 1.8335 BRA .5648 BC3 6.1585 FSP -1459

MID-COURSE EXECUTION ACCURACY
SGT 5303.5 SGR 1190.1 SG3 394.9
RRT -.9560 RRF -.9612 RTF .9727
SGB 5435.4 R23 .0933 R13 -.9741
SG1 5424.7 SG2 341.3 THA 167.84

ORBIT DETERMINATION ACCURACY
ST 3021.9 SR 829.6 SS 1092.9
CRT -.9986 CRS .9939 CST -.9876
LSA 3314.8 MSA 163.3 SSA 14.2
EL1 3133.4 EL2 41.6 ALF 164.67

LAUNCH DATE AUG 31 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 487.047

RL 151.02 LAL -.00 LOL 337.18 VL 26.624 GAL .29 AZL 93.36 HCA 229.97 SMA 126.54 ECC .19347 INC 3.3641 V1 29.504
RP 108.03 LAP 2.58 LOP 207.10 VP 37.527 GAP 7.35 AZP 87.83 TAL 178.79 TAP 48.75 RCA 102.06 APO 151.03 V2 35.080
RC 131.513 GL -27.72 GP 29.59 ZAL 80.71 ZAP 142.62 ETS 44.44 ZAE 124.84 ETE 158.55 ZAC 128.88 ETC 255.59 CLP-156.04

PLANETOCENTRIC CONIC

C3 11.280 VHL 3.359 DLA -50.43 RAL 252.76 RAD 6567.4 VEL 11.518 PTH 2.01 VHP 5.752 DPA 11.59 RAP 238.07 ECC 1.1856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.35	7 22 41	1528.77	38.46	25.60	121.72	125.56	7 48 10	928.8	42.79	17.14
133.65	15 49 54	5288.18	38.47	242.75	121.73	125.54	17 18 2	4688.2	42.80	234.29
46.35	7 22 41	1528.77	38.46	25.60	121.72	125.56	7 48 10	928.8	42.79	17.14
133.65	15 49 54	5288.18	38.47	242.75	121.73	125.54	17 18 2	4688.2	42.80	234.29
46.35	7 22 41	1528.77	38.46	25.60	121.72	125.56	7 48 10	928.8	42.79	17.14
133.65	15 49 54	5288.18	38.47	242.75	121.73	125.54	17 18 2	4688.2	42.80	234.29

DIFFERENTIAL CORRECTIONS
TDE-1.5693 TRA .6817 TC3-5.8971 BAU .8956
RDE .4047 RRA -.1999 RC3 .7076 FAU .05312
FDE -.9736 FRA .8724 FC3-4.0773 BSP 16431
BDE 1.6207 BRA .7104 BC3 5.9394 FSP -1132

MID-COURSE EXECUTION ACCURACY
SGT 5117.7 SGR 994.5 SG3 342.5
RRT -.9251 RRF -.9382 RTF .9641
SGB 5213.5 R23 .1096 R13 -.9656
SG1 5200.2 SG2 371.7 THA 169.76

ORBIT DETERMINATION ACCURACY
ST 2735.3 SR 708.9 SS 896.9
CRT -.9994 CRS .9852 CST -.9806
LSA 2959.8 MSA 167.5 SSA 16.3
EL1 2825.6 EL2 24.4 ALF 165.48

LAUNCH DATE AUG 31 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 492.964

RL 151.02 LAL -.00 LOL 337.18 VL 26.589 GAL .60 AZL 93.06 HCA 233.17 SMA 126.32 ECC .19583 INC 3.0578 V1 29.504
RP 108.07 LAP 2.45 LOP 210.31 VP 37.490 GAP 7.68 AZP 88.17 TAL 177.53 TAP 50.70 RCA 101.58 APO 151.05 V2 35.067
RC 133.740 GL -25.08 GP 27.67 ZAL 78.17 ZAP 144.84 ETS 44.56 ZAE 125.05 ETE 160.10 ZAC 127.28 ETC 256.25 CLP-157.39

PLANETOCENTRIC CONIC

C3 11.195 VHL 3.346 DLA -48.08 RAL 256.75 RAD 6567.4 VEL 11.514 PTH 2.01 VHP 5.841 DPA 9.26 RAP 239.07 ECC 1.1842

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.37	7 48 34	1503.24	36.95	21.74	124.24	123.27	8 13 37	903.2	41.02	13.29
130.63	15 55 50	5310.60	36.96	243.69	124.25	123.26	17 24 21	4710.6	41.03	235.23
49.37	7 48 34	1503.24	36.95	21.74	124.24	123.27	8 13 37	903.2	41.02	13.29
130.63	15 55 50	5310.60	36.96	243.69	124.25	123.26	17 24 21	4710.6	41.03	235.23
49.37	7 48 34	1503.24	36.95	21.74	124.24	123.27	8 13 37	903.2	41.02	13.29
130.63	15 55 50	5310.60	36.96	243.69	124.25	123.26	17 24 21	4710.6	41.03	235.23

DIFFERENTIAL CORRECTIONS
TDE-1.4392 TRA .8286 TC3-6.1415 BAU .9245
RDE .3693 RRA -.2068 RC3 .6592 FAU .05182
FDE -.8191 FRA .9441 FC3-4.0070 BSP 17137
BDE 1.4858 BRA .8540 BC3 6.1768 FSP -1148

MID-COURSE EXECUTION ACCURACY
SGT 5241.6 SGR 935.6 SG3 334.8
RRT -.9170 RRF -.9247 RTF .9659
SGB 5324.4 R23 .0869 R13 -.9669
SG1 5311.6 SG2 368.3 THA 170.66

ORBIT DETERMINATION ACCURACY
ST 2548.5 SR 652.2 SS 798.1
CRT -.9996 CRS .9729 CST -.9749
LSA 2743.7 MSA 170.6 SSA 17.6
EL1 2630.6 EL2 18.2 ALF 165.65

LAUNCH DATE AUG 31 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 498.863

RL	151.02	LAL	-.00	LOL	337.18	VL	26.553	GAL	.93	AZL	92.78	HCA	236.37	SMA	126.09	ECC	.19836	INC	2.7764	V1	29.504
RP	108.11	LAP	2.31	LOP	213.53	VP	37.452	GAP	8.01	AZP	88.46	TAL	176.25	TAP	52.62	RCA	101.08	APO	151.10	V2	35.054
RC	135.957	GL	-22.54	GP	25.95	ZAL	75.56	ZAP	146.90	ETS	44.76	ZAE	125.18	ETE	161.49	ZAC	125.89	ETC	256.86	CLP	-158.70

PLANETOCENTRIC CONIC

C3	11.252	VHL	3.354	DLA	-45.75	RAL	260.52	RAD	6567.4	VEL	11.517	PTH	2.01	VHP	5.947	DPA	7.13	RAP	240.22	ECC	1.1852

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.43	8 14 26	1476.97	35.33	17.96	126.84	121.21	8 39 3	877.0	39.16	9.55
127.57	16 0 0	5338.95	35.34	245.13	126.85	121.20	17 28 59	4739.0	39.17	236.71
52.43	8 14 26	1476.97	35.33	17.96	126.84	121.21	8 39 3	877.0	39.16	9.55
127.57	16 0 0	5338.95	35.34	245.13	126.85	121.20	17 28 59	4739.0	39.17	236.71
52.43	8 14 26	1476.97	35.33	17.96	126.84	121.21	8 39 3	877.0	39.16	9.55
127.57	16 0 0	5338.95	35.34	245.13	126.85	121.20	17 28 59	4739.0	39.17	236.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2766	TRA	1.0153	TC3	-6.1900	BAU	.9352	SGT	5308.2	SGR	877.6	SG3	323.5	ST	2307.8	SR	593.3	SS	687.6
RDE	.3340	RRA	-.2210	RC3	.5810	FAU	.04862	RRT	-.9032	RRF	-.9082	RTF	.9638	CRT	-.9980	CRS	.9443	CST	-.9608
FDE	-.6407	FRA	1.0435	FC3	-3.7413	BSP	7056	SGB	5380.2	R23	.0779	R13	-.9647	LSA	2472.8	MSA	188.3	SSA	18.7
BDE	1.3195	BRA	1.0391	BC3	6.2172	FSP	-1086	SG1	5367.3	SG2	372.6	THA	171.47	EL1	2382.6	EL2	35.9	ALF	165.61

LAUNCH DATE AUG 31 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 504.737

RL	151.02	LAL	-.00	LOL	337.18	VL	26.517	GAL	1.27	AZL	92.52	HCA	239.58	SMA	125.86	ECC	.20108	INC	2.5153	V1	29.504
RP	108.15	LAP	2.17	LOP	216.73	VP	37.414	GAP	8.34	AZP	88.73	TAL	174.95	TAP	54.52	RCA	100.55	APO	151.17	V2	35.041
RC	138.166	GL	-20.12	GP	24.42	ZAL	72.91	ZAP	148.81	ETS	45.04	ZAE	125.24	ETE	162.72	ZAC	124.65	ETC	257.45	CLP	-159.96

PLANETOCENTRIC CONIC

C3	11.440	VHL	3.382	DLA	-43.47	RAL	264.07	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	6.069	DPA	5.17	RAP	241.49	ECC	1.1883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.53	8 40 30	1449.23	33.62	14.22	129.51	119.36	9 4 39	849.2	37.24	5.87
124.47	16 2 16	5373.58	33.63	247.08	129.52	119.35	17 31 50	4773.6	37.25	238.73
55.53	8 40 30	1449.23	33.62	14.22	129.51	119.36	9 4 39	849.2	37.24	5.87
124.47	16 2 16	5373.58	33.63	247.08	129.52	119.35	17 31 50	4773.6	37.25	238.73
55.53	8 40 30	1449.23	33.62	14.22	129.51	119.36	9 4 39	849.2	37.24	5.87
124.47	16 2 16	5373.58	33.63	247.08	129.52	119.35	17 31 50	4773.6	37.25	238.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.1258	TRA	1.1975	TC3	-6.1977	BAU	.9512	SGT	5387.6	SGR	830.8	SG3	312.5	ST	2087.1	SR	549.3	SS	601.4
RDE	.3098	RRA	-.2316	RC3	.5179	FAU	.04596	RRT	-.8892	RRF	-.8906	RTF	.9632	CRT	-.9926	CRS	.8969	CST	-.9423
FDE	-.4916	FRA	1.1217	FC3	-3.4781	BSP	17259	SGB	5451.3	R23	.0654	R13	-.9638	LSA	2230.6	MSA	208.0	SSA	19.5
+ BDE	1.1677	BRA	1.2197	BC3	6.2193	FSP	-1049	SG1	5438.3	SG2	376.5	THA	172.15	EL1	2157.2	EL2	64.5	ALF	165.34

LAUNCH DATE AUG 31 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 510.585

RL	151.02	LAL	-.00	LOL	337.18	VL	26.480	GAL	1.63	AZL	92.27	HCA	242.78	SMA	125.63	ECC	.20400	INC	2.2710	V1	29.504
RP	108.19	LAP	2.02	LOP	219.94	VP	37.376	GAP	8.68	AZP	88.96	TAL	173.63	TAP	56.41	RCA	100.00	APO	151.26	V2	35.028
RC	140.364	GL	-17.81	GP	23.04	ZAL	70.26	ZAP	150.58	ETS	45.42	ZAE	125.26	ETE	163.81	ZAC	123.57	ETC	258.01	CLP	-161.18

PLANETOCENTRIC CONIC

C3	11.757	VHL	3.429	DLA	-41.24	RAL	267.42	RAD	6567.4	VEL	11.539	PTH	2.01	VHP	6.204	DPA	3.36	RAP	242.89	ECC	1.1935

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.67	9 6 58	1419.24	31.86	10.44	132.25	117.70	9 30 37	819.2	35.29	2.18
121.33	16 2 31	5414.98	31.87	249.59	132.25	117.69	17 32 46	4815.0	35.30	241.32
58.67	9 6 58	1419.24	31.86	10.44	132.25	117.70	9 30 37	819.2	35.29	2.18
121.33	16 2 31	5414.98	31.87	249.59	132.25	117.69	17 32 46	4815.0	35.30	241.32
58.67	9 6 58	1419.24	31.86	10.44	132.25	117.70	9 30 37	819.2	35.29	2.18
121.33	16 2 31	5414.98	31.87	249.59	132.25	117.69	17 32 46	4815.0	35.30	241.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.9776	TRA	1.3869	TC3	-6.1372	BAU	.9674	SGT	5466.2	SGR	792.0	SG3	301.6	ST	1881.2	SR	514.5	SS	535.6
RDE	.2924	RRA	-.2417	RC3	.4612	FAU	.04338	RRT	-.8742	RRF	-.8719	RTF	.9628	CRT	-.9796	CRS	.8223	CST	-.9184
FDE	-.3601	FRA	1.1924	FC3	-3.1942	BSP	17504	SGB	5523.3	R23	.0538	R13	-.9633	LSA	2008.9	MSA	233.3	SSA	19.9
BDE	1.0203	BRA	1.4078	BC3	6.1545	FSP	-1017	SG1	5510.1	SG2	381.5	THA	172.75	EL1	1947.8	EL2	99.8	ALF	164.96

LAUNCH DATE AUG 31 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 516.407

RL	151.02	LAL	-.00	LOL	337.18	VL	26.444	GAL	2.00	AZL	92.04	HCA	245.97	SMA	125.40	ECC	.20713	INC	2.0405	V1	29.504
RP	108.23	LAP	1.86	LOP	223.14	VP	37.338	GAP	9.03	AZP	89.17	TAL	172.30	TAP	58.27	RCA	99.42	APO	151.37	V2	35.014
RC	142.552	GL	-15.63	GP	21.80	ZAL	67.63	ZAP	152.23	ETS	45.90	ZAE	125.24	ETE	164.78	ZAC	122.61	ETC	258.55	CLP	-162.37

PLANETOCENTRIC CONIC

C3	12.202	VHL	3.493	DLA	-39.07	RAL	270.57	RAD	6567.5	VEL	11.558	PTH	2.02	VHP	6.353	DPA	1.69	RAP	244.38	ECC	1.2008

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.87	9 34 8	1386.05	30.08	6.57	135.05	116.21	9 57 14	786.0	33.33	358.39
118.13	16 0 32	5463.82	30.09	252.67	135.05	116.20	17 31 36	4863.8	33.34	244.49
61.87	9 34 8	1386.05	30.08	6.57	135.05	116.21	9 57 14	786.0	33.33	358.39
118.13	16 0 32	5463.82	30.09	252.67	135.05	116.20	17 31 36	4863.8	33.34	244.49
61.87	9 34 8	1386.05	30.08	6.57	135.05	116.21	9 57 14	786.0	33.33	358.39
118.13	16 0 32	5463.82	30.09	252.67	135.05	116.20	17 31 36	4863.8	33.34	244.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.8296	TRA	1.5839	TC3	-6.0086	BAU	.9825	SGT	5538.1	SGR	758.5	SG3	290.2	ST	1695.7	SR	486.3	SS	489.7
RDE	.2800	RRA	-.2517	RC3	.4090	FAU	.04077	RRT	-.8579	RRF	-.8522	RTF	.9624	CRT	-.9535	CRS	.7155	CST	-.8914
FDE	-.2428	FRA	1.2561	FC3	-2.8926	BSP	17735	SGB	5589.8	R23	.0438	R13	-.9628	LSA	1811.4	MSA	264.6	SSA	19.9
BDE	.8756	BRA	1.6038	BC3	6.0225	FSP	-982	SG1	5576.4	SG2	387.1	THA	173.27	EL1	1758.4	EL2	141.3	ALF	164.61

LAUNCH DATE AUG 31 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 522.201

RL 151.02 LAL -.00 LOL 337.18 VL 26.407 GAL 2.39 AZL 91.82 HCA 249.17 SMA 125.17 ECC .21050 INC 1.8215 V1 29.504
RP 108.27 LAP 1.70 LOP 226.34 VP 37.300 GAP 9.38 AZP 89.35 TAL 170.96 TAP 60.12 RCA 98.82 APO 151.52 V2 35.001
RC 144.730 GL -13.57 GP 20.69 ZAL 65.03 ZAP 153.78 ETS 46.51 ZAE 125.20 ETE 165.64 ZAC 121.76 ETC 259.09 CLP-163.52

PLANETOCENTRIC CONIC

C3 12.779 VHL 3.575 DLA -36.98 RAL 273.55 RAD 6567.5 VEL 11.583 PTH 2.03 VHP 6.513 DPA .15 RAP 245.97 ECC 1.2103

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.16	10 2 27	1348.23	28.29	2.48	137.90	114.87	10 24 55	748.2	31.39	354.39
114.84	15 56 0	5521.31	28.30	256.42	137.90	114.86	17 28 1	4921.3	31.40	248.33
65.16	10 2 27	1348.23	28.29	2.48	137.90	114.87	10 24 55	748.2	31.39	354.39
114.84	15 56 0	5521.31	28.30	256.42	137.90	114.86	17 28 1	4921.3	31.40	248.33
65.16	10 2 27	1348.23	28.29	2.48	137.90	114.87	10 24 55	748.2	31.39	354.39
114.84	15 56 0	5521.31	28.30	256.42	137.90	114.86	17 28 1	4921.3	31.40	248.33

DIFFERENTIAL CORRECTIONS
TDE -.6823 TRA 1.7893 TC3-5.8241 BAU .9969
RDE .2718 RRA -.2619 RC3 .3621 FAU .03822
FDE -.1383 FRA 1.3141 FC3-2.5893 BSP 17969
BDE .7344 BRA 1.8084 BC3 5.8353 FSP -948

MID-COURSE EXECUTION ACCURACY
SGT 5605.5 SGR 729.9 SG3 279.0
RRT -.8408 RRF -.8320 RTF .9621
SGB 5652.8 R23 .0350 R13 -.9624
SG1 5639.2 SG2 392.7 THA 173.72

ORBIT DETERMINATION ACCURACY
ST 1539.9 SR 463.3 SS 463.3
CRT -.9070 CRS .5811 CST -.8685
LSA 1646.2 MSA 300.5 SSA 19.7
EL1 1597.1 EL2 188.2 ALF 164.52

LAUNCH DATE AUG 31 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 527.965

RL 151.02 LAL -.00 LOL 337.18 VL 26.370 GAL 2.80 AZL 91.61 HCA 252.36 SMA 124.94 ECC .21412 INC 1.6116 V1 29.504
RP 108.31 LAP 1.54 LOP 229.54 VP 37.261 GAP 9.74 AZP 89.51 TAL 169.60 TAP 61.96 RCA 98.19 APO 151.69 V2 34.988
RC 146.899 GL -11.63 GP 19.68 ZAL 62.49 ZAP 155.22 ETS 47.25 ZAE 125.15 ETE 166.41 ZAC 121.00 ETC 259.63 CLP-164.64

PLANETOCENTRIC CONIC

C3 13.493 VHL 3.673 DLA -34.96 RAL 276.36 RAD 6567.5 VEL 11.614 PTH 2.03 VHP 6.686 DPA -1.28 RAP 247.64 ECC 1.2221

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.58	10 32 26	1303.98	26.52	358.05	140.80	113.66	10 54 10	704.0	29.48	350.05
111.42	15 48 24	5589.06	26.54	260.94	140.80	113.65	17 21 33	4989.1	29.49	252.94
68.58	10 32 26	1303.98	26.52	358.05	140.80	113.66	10 54 10	704.0	29.48	350.05
111.42	15 48 24	5589.06	26.54	260.94	140.80	113.65	17 21 33	4989.1	29.49	252.94
68.58	10 32 26	1303.98	26.52	358.05	140.80	113.66	10 54 10	704.0	29.48	350.05
111.42	15 48 24	5589.06	26.54	260.94	140.80	113.65	17 21 33	4989.1	29.49	252.94

DIFFERENTIAL CORRECTIONS
TDE -.5341 TRA 2.0049 TC3-5.5882 BAU 1.0097
RDE .2668 RRA -.2725 RC3 .3194 FAU .03567
FDE -.0448 FRA 1.3684 FC3-2.2888 BSP 18178
BDE .5971 BRA 2.0234 BC3 5.5973 FSP -914

MID-COURSE EXECUTION ACCURACY
SGT 5666.5 SGR 705.2 SG3 267.9
RRT -.8231 RRF -.8115 RTF .9618
SGB 5710.2 R23 .0279 R13 -.9620
SG1 5696.3 SG2 398.3 THA 174.12

ORBIT DETERMINATION ACCURACY
ST 1421.2 SR 444.4 SS 454.1
CRT -.8324 CRS .4322 CST -.8583
LSA 1519.4 MSA 338.4 SSA 19.3
EL1 1469.9 EL2 238.1 ALF 165.01

LAUNCH DATE AUG 31 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 533.696

RL 151.02 LAL -.00 LOL 337.18 VL 26.334 GAL 3.24 AZL 91.41 HCA 255.55 SMA 124.71 ECC .21801 INC 1.4092 V1 29.504
RP 108.35 LAP 1.36 LOP 232.73 VP 37.223 GAP 10.12 AZP 89.65 TAL 168.23 TAP 63.78 RCA 97.53 APO 151.90 V2 34.975
RC 149.057 GL -9.83 GP 18.77 ZAL 60.02 ZAP 156.58 ETS 48.13 ZAE 125.08 ETE 167.09 ZAC 120.33 ETC 260.17 CLP-165.73

PLANETOCENTRIC CONIC

C3 14.353 VHL 3.789 DLA -33.03 RAL 279.01 RAD 6567.6 VEL 11.651 PTH 2.05 VHP 6.871 DPA -2.59 RAP 249.39 ECC 1.2362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.24	11 5 8	1249.89	24.79	353.01	143.73	112.56	11 25 58	649.9	27.62	345.09
107.76	15 36 48	5670.28	24.80	266.45	143.74	112.55	17 11 18	5070.3	27.63	258.52
72.24	11 5 8	1249.89	24.79	353.01	143.73	112.56	11 25 58	649.9	27.62	345.09
107.76	15 36 48	5670.28	24.80	266.45	143.74	112.55	17 11 18	5070.3	27.63	258.52
110.00	14 43 33	5834.04	19.41	276.32	140.95	118.70	16 20 47	5234.0	23.09	269.12
110.00	16 57 33	5422.16	30.42	249.48	145.98	106.41	18 27 56	4822.2	32.36	240.81

DIFFERENTIAL CORRECTIONS
TDE -.3962 TRA 2.2202 TC3-5.3440 BAU 1.0269
RDE .2663 RRA -.2821 RC3 .2859 FAU .03358
FDE .0301 FRA 1.4113 FC3-2.0256 BSP 18628
BDE .4773 BRA 2.2380 BC3 5.3516 FSP -897

MID-COURSE EXECUTION ACCURACY
SGT 5726.7 SGR 684.2 SG3 256.9
RRT -.8057 RRF -.7914 RTF .9623
SGB 5767.4 R23 .0207 R13 -.9624
SG1 5753.3 SG2 403.4 THA 174.47

ORBIT DETERMINATION ACCURACY
ST 1348.1 SR 430.7 SS 455.0
CRT -.7328 CRS .2986 CST -.8671
LSA 1439.7 MSA 370.0 SSA 18.7
EL1 1386.2 EL2 285.0 ALF 166.23

LAUNCH DATE AUG 31 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 539.393

RL 151.02 LAL -.00 LOL 337.18 VL 26.297 GAL 3.69 AZL 91.21 HCA 258.74 SMA 124.49 ECC .22219 INC 1.2127 V1 29.504
RP 108.39 LAP 1.19 LOP 235.92 VP 37.185 GAP 10.50 AZP 89.76 TAL 166.86 TAP 65.60 RCA 96.83 APO 152.15 V2 34.962
RC 151.205 GL -8.14 GP 17.95 ZAL 57.63 ZAP 157.84 ETS 49.17 ZAE 125.00 ETE 167.69 ZAC 119.72 ETC 260.71 CLP-166.79

PLANETOCENTRIC CONIC

C3 15.371 VHL 3.921 DLA -31.19 RAL 281.50 RAD 6567.6 VEL 11.694 PTH 2.06 VHP 7.068 DPA -3.81 RAP 251.20 ECC 1.2530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.34	11 42 37	1179.29	23.10	346.89	146.71	111.57	12 2 16	579.3	25.82	339.04
103.66	15 19 14	5771.47	23.11	273.40	146.71	111.56	16 55 25	5171.5	25.83	265.55
76.34	11 42 37	1179.29	23.10	346.89	146.71	111.57	12 2 16	579.3	25.82	339.04
103.66	15 19 14	5771.47	23.11	273.40	146.71	111.56	16 55 25	5171.5	25.83	265.55
110.00	14 13 2	690.34	14.49	306.71	142.19	121.30	14 24 32	90.3	18.53	299.92
110.00	17 47 59	5308.41	32.31	241.16	149.82	101.82	19 16 27	4708.4	33.60	232.16

DIFFERENTIAL CORRECTIONS
TDE -.2386 TRA 2.4648 TC3-5.0189 BAU 1.0326
RDE .2652 RRA -.2948 RC3 .2481 FAU .03085
FDE .1105 FRA 1.4652 FC3-1.7376 BSP 18613
BDE .3568 BRA 2.4824 BC3 5.0250 FSP -850

MID-COURSE EXECUTION ACCURACY
SGT 5774.1 SGR 664.7 SG3 246.6
RRT -.7874 RRF -.7713 RTF .9614
SGB 5812.2 R23 .0170 R13 -.9615
SG1 5797.9 SG2 408.1 THA 174.80

ORBIT DETERMINATION ACCURACY
ST 1315.8 SR 416.0 SS 469.7
CRT -.5969 CRS .1597 CST -.8864
LSA 1402.3 MSA 397.9 SSA 18.2
EL1 1340.6 EL2 327.6 ALF 168.62

LAUNCH DATE AUG 31 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 545.052

RL 151.02 LAL -.00 LOL 337.18 VL 26.260 GAL 4.17 AZL 91.02 HCA 261.93 SMA 124.26 ECC .22670 INC 1.0207 V1 29.504
RP 108.43 LAP 1.01 LOP 239.11 VP 37.147 GAP 10.90 AZP 89.86 TAL 165.47 TAP 67.40 RCA 96.09 APO 152.43 V2 34.949
RC 153.343 GL -6.58 GP 17.21 ZAL 55.33 ZAP 159.04 ETS 50.38 ZAE 124.92 ETE 168.24 ZAC 119.17 ETC 261.26 CLP-167.84

PLANETOCENTRIC CONIC

C3 16.561 VHL 4.070 DLA -29.45 RAL 283.85 RAD 6567.7 VEL 11.745 PTH 2.07 VHP 7.278 DPA -4.93 RAP 253.08 ECC 1.2726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.57	12 30 57	1072.27	21.46	338.22	149.71	110.67	12 48 49	472.3	24.07	330.43
98.43	14 49 38	624.32	21.47	305.33	149.71	110.65	15 0 2	24.3	24.09	297.55
100.00	14 18 17	724.73	18.13	311.31	148.25	114.18	14 30 21	124.7	21.25	303.90
100.00	15 44 59	5735.14	24.87	271.36	150.98	107.14	17 20 34	5135.1	26.98	263.20
110.00	13 55 9	797.62	10.62	312.61	144.05	122.69	14 8 26	197.6	14.85	306.06
110.00	18 24 37	5235.01	33.20	235.62	153.16	98.65	19 51 52	4635.0	34.04	226.48

DIFFERENTIAL CORRECTIONS
TDE -.0870 TRA 2.7138 TC3-4.6945 BAU 1.0405
RDE .2671 RRA -.3070 RC3 .2173 FAU .02846
FDE .1774 FRA 1.5112 FC3-1.4878 BSP 18743
BDE .2810 BRA 2.7311 BC3 4.6995 FSP -815

MID-COURSE EXECUTION ACCURACY
SGT 5819.3 SGR 647.4 SG3 236.6
RRT -.7697 RRF -.7519 RTF .9612
SGB 5855.2 R23 .0132 R13 -.9613
SG1 5840.7 SG2 411.8 THA 175.08

ORBIT DETERMINATION ACCURACY
ST 1326.9 SR 404.6 SS 487.5
CRT -.4521 CRS .0490 CST -.9122
LSA 1411.5 MSA 411.7 SSA 17.7
EL1 1340.4 EL2 357.2 ALF 171.55

LAUNCH DATE AUG 31 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 550.669

RL 151.02 LAL -.00 LOL 337.18 VL 26.223 GAL 4.67 AZL 90.83 HCA 265.11 SMA 124.04 ECC .23156 INC .8319 V1 29.504
RP 108.47 LAP .83 LOP 242.29 VP 37.109 GAP 11.31 AZP 89.93 TAL 164.09 TAP 69.20 RCA 95.32 APO 152.76 V2 34.937
RC 155.470 GL -5.14 GP 16.53 ZAL 53.13 ZAP 160.15 ETS 51.77 ZAE 124.83 ETE 168.72 ZAC 118.68 ETC 261.81 CLP-168.86

PLANETOCENTRIC CONIC

C3 17.942 VHL 4.236 DLA -27.79 RAL 286.06 RAD 6567.7 VEL 11.804 PTH 2.09 VHP 7.502 DPA -5.96 RAP 255.01 ECC 1.2953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 1 19	1022.22	16.29	332.34	151.23	113.49	13 18 22	422.2	19.33	324.98
90.00	14 36 54	711.37	23.56	312.46	154.02	106.18	14 48 46	111.4	25.55	304.36
100.00	13 36 38	908.08	12.69	322.20	149.47	117.29	13 51 46	308.1	16.25	315.22
100.00	16 44 17	5588.79	27.42	261.24	155.11	102.40	18 17 26	4988.8	28.85	252.73
110.00	13 42 45	888.89	7.22	317.49	146.21	123.50	13 57 33	288.9	11.58	311.11
110.00	18 54 40	5180.74	33.68	231.45	156.30	96.23	20 21 1	4580.7	34.17	222.25

DIFFERENTIAL CORRECTIONS
TDE .0651 TRA 2.9732 TC3-4.3628 BAU 1.0475
RDE .2708 RRA -.3194 RC3 .1902 FAU .02619
FDE .2367 FRA 1.5543 FC3-1.2639 BSP 18894
BDE .2786 BRA 2.9903 BC3 4.3670 FSP -783

MID-COURSE EXECUTION ACCURACY
SGT 5859.7 SGR 631.5 SG3 226.9
RRT -.7523 RRF -.7333 RTF .9611
SGB 5893.7 R23 .0100 R13 -.9612
SG1 5879.1 SG2 414.6 THA 175.34

ORBIT DETERMINATION ACCURACY
ST 1371.2 SR 394.6 SS 507.0
CRT -.3107 CRS -.0410 CST -.9362
LSA 1456.5 MSA 413.9 SSA 17.1
EL1 1377.1 EL2 373.5 ALF 174.48

LAUNCH DATE AUG 31 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 556.240

RL 151.02 LAL -.00 LOL 337.18 VL 26.187 GAL 5.20 AZL 90.64 HCA 268.29 SMA 123.82 ECC .23680 INC .6448 V1 29.504
RP 108.51 LAP .64 LOP 245.48 VP 37.072 GAP 11.74 AZP 89.98 TAL 162.70 TAP 70.99 RCA 94.50 APO 153.14 V2 34.925
RC 157.587 GL -3.81 GP 15.91 ZAL 51.03 ZAP 161.20 ETS 53.36 ZAE 124.73 ETE 169.16 ZAC 118.22 ETC 262.36 CLP-169.86

PLANETOCENTRIC CONIC

C3 19.534 VHL 4.420 DLA -26.23 RAL 288.15 RAD 6567.8 VEL 11.871 PTH 2.11 VHP 7.741 DPA -6.91 RAP 256.99 ECC 1.3215

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 22 15	1199.28	11.21	342.86	152.70	116.17	12 42 14	599.3	14.64	335.86
90.00	15 32 36	5862.31	25.84	280.98	158.02	102.01	17 10 19	5262.3	27.24	272.59
100.00	13 15 8	1028.49	8.84	329.07	151.45	118.67	13 32 17	428.5	12.60	322.30
100.00	17 22 24	5508.34	28.46	255.49	158.58	99.55	18 54 13	4908.3	29.49	246.84
110.00	13 33 33	970.69	4.13	321.80	148.56	123.96	13 49 44	370.7	8.56	315.52
110.00	19 20 29	5138.90	33.94	228.22	159.36	94.33	20 46 8	4538.9	34.17	218.98

DIFFERENTIAL CORRECTIONS
TDE .2190 TRA 3.2450 TC3-4.0280 BAU 1.0528
RDE .2759 RRA -.3321 RC3 .1661 FAU .02401
FDE .2899 FRA 1.5956 FC3-1.0643 BSP 19033
BDE .3523 BRA 3.2619 BC3 4.0314 FSP -753

MID-COURSE EXECUTION ACCURACY
SGT 5895.0 SGR 616.4 SG3 217.6
RRT -.7355 RRF -.7154 RTF .9611
SGB 5927.1 R23 .0073 R13 -.9612
SG1 5912.5 SG2 416.4 THA 175.58

ORBIT DETERMINATION ACCURACY
ST 1439.2 SR 385.6 SS 526.9
CRT -.1829 CRS -.1141 CST -.9552
LSA 1526.7 MSA 408.1 SSA 16.5
EL1 1441.1 EL2 378.6 ALF 176.99

LAUNCH DATE AUG 31 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 561.760

RL 151.02 LAL -.00 LOL 337.18 VL 26.151 GAL 5.76 AZL 90.46 HCA 271.47 SMA 123.60 ECC .24246 INC .4585 V1 29.504
RP 108.54 LAP .46 LOP 248.66 VP 37.035 GAP 12.19 AZP 90.01 TAL 161.31 TAP 72.79 RCA 93.63 APO 153.57 V2 34.913
RC 159.692 GL -2.58 GP 15.35 ZAL 49.02 ZAP 162.19 ETS 55.17 ZAE 124.63 ETE 169.55 ZAC 117.80 ETC 262.93 CLP-170.85

PLANETOCENTRIC CONIC

C3 21.363 VHL 4.622 DLA -24.76 RAL 290.11 RAD 6567.9 VEL 11.947 PTH 2.13 VHP 7.995 DPA -7.77 RAP 259.02 ECC 1.3516

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 1 8	1319.24	7.53	349.75	154.79	117.38	12 23 7	719.2	11.14	342.93
90.00	16 9 23	5785.12	26.82	275.54	161.47	99.45	17 45 48	5185.1	27.85	267.02
100.00	13 0 28	1127.68	5.56	334.60	153.72	119.42	13 19 16	527.7	9.44	327.96
100.00	17 52 44	5451.91	29.03	251.39	161.85	97.46	19 23 36	4851.9	29.76	242.66
110.00	13 26 29	1046.06	1.25	325.74	151.05	124.16	13 43 55	446.1	5.73	319.52
110.00	19 43 12	5106.30	34.08	225.68	162.38	92.84	21 8 18	4506.3	34.10	216.43

DIFFERENTIAL CORRECTIONS
TDE .3749 TRA 3.5300 TC3-3.6952 BAU 1.0562
RDE .2822 RRA -.3451 RC3 .1445 FAU .02191
FDE .3377 FRA 1.6358 FC3 -.8880 BSP 19172
BDE .4693 BRA 3.5468 BC3 3.6981 FSP -723

MID-COURSE EXECUTION ACCURACY
SGT 5925.2 SGR 601.8 SG3 208.7
RRT -.7190 RRF -.6983 RTF .9613
SGB 5955.7 R23 .0052 R13 -.9614
SG1 5941.0 SG2 417.1 THA 175.80

ORBIT DETERMINATION ACCURACY
ST 1522.0 SR 377.4 SS 546.0
CRT -.0734 CRS -.1732 CST -.9690
LSA 1612.1 MSA 397.6 SSA 16.0
EL1 1522.3 EL2 376.3 ALF 178.89

LAUNCH DATE AUG 31 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 567.222

RL	151.02	LAL	-.00	LOL	337.18	VL	26.114	GAL	6.35	AZL	90.27	HCA	274.65	SMA	123.38	ECC	.24859	INC	.2719
RP	108.58	LAP	.27	LOP	251.84	VP	36.999	GAP	12.67	AZP	90.02	TAL	159.93	TAP	74.58	RCA	92.71	APO	154.05
RC	161.784	GL	-1.46	GP	14.83	ZAL	47.12	ZAP	163.11	ETS	57.23	ZAE	124.53	ETE	169.91	ZAC	117.41	ETC	263.50

V1 29.504 V2 34.901 CLP-171.83

PLANETOCENTRIC CONIC

C3 23.459 VHL 4.843 DLA -23.38 RAL 291.95 RAD 6568.0 VEL 12.035 PTH 2.15 VHP 8.267 DPA -8.56 RAP 261.08 ECC 1.3861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 46 30	1418.63	4.38	355.35	157.15	118.00	12 10 9	818.6	8.10	348.64
90.00	16 38 45	5731.14	27.36	271.68	164.75	97.59	18 14 16	5131.1	28.13	263.10
100.00	12 49 33	1215.13	2.62	339.42	156.17	119.79	13 9 48	615.1	6.56	332.86
100.00	18 18 23	5409.87	29.36	248.31	165.02	95.87	19 48 33	4809.9	29.87	239.54
110.00	13 20 56	1116.69	-1.45	329.43	153.63	124.16	13 39 33	516.7	3.04	323.22
110.00	20 3 29	5081.07	34.15	223.71	165.39	91.68	21 28 10	4481.1	34.00	214.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5330	TRA	3.8288	TC3	-3.3701	BAU	1.0577	SGT	5950.2	SGR	587.5	SG3	200.2	ST	1612.0	SR	369.6	SS	563.7
RDE	.2896	RRA	-.3581	RC3	.1253	FAU	.01990	RRT	-.7030	RRF	-.6820	RTF	.9617	CRT	.0180	CRS	-.2214	CST	-.9785
FDE	.3808	FRA	1.6751	FC3	-.7344	BSP	19308	SGB	5979.2	R23	.0036	R13	-.9617	LSA	1704.3	MSA	384.9	SSA	15.5
BDE	.6066	BRA	3.8455	BC3	3.3724	FSP	-695	SG1	5964.6	SG2	416.8	THA	176.01	EL1	1612.1	EL2	369.5	ALF	.25

LAUNCH DATE AUG 31 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 572.620

RL	151.02	LAL	-.00	LOL	337.18	VL	26.078	GAL	6.98	AZL	90.08	HCA	277.83	SMA	123.17	ECC	.25523	INC	.0822
RP	108.61	LAP	.08	LOP	255.01	VP	36.963	GAP	13.17	AZP	90.01	TAL	158.55	TAP	76.38	RCA	91.73	APO	154.60
RC	163.865	GL	-.43	GP	14.37	ZAL	45.32	ZAP	163.97	ETS	59.55	ZAE	124.41	ETE	170.24	ZAC	117.04	ETC	264.07

V1 29.504 V2 34.890 CLP-172.80

PLANETOCENTRIC CONIC

C3 25.859 VHL 5.085 DLA -22.09 RAL 293.69 RAD 6568.0 VEL 12.134 PTH 2.17 VHP 8.557 DPA -9.28 RAP 263.18 ECC 1.4256

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 35 29	1506.42	1.56	.26	159.66	118.28	12 0 35	906.4	5.33	353.61
90.00	17 3 37	5691.25	27.69	268.81	167.95	96.19	18 38 29	5091.2	28.26	260.19
100.00	12 41 2	1294.85	-.08	343.80	158.75	119.89	13 2 37	694.8	3.89	337.27
100.00	18 40 45	5378.05	29.56	245.97	168.15	94.66	20 10 23	4778.1	29.89	237.18
110.00	13 16 30	1183.65	-4.00	332.93	156.30	123.98	13 36 14	583.6	.48	326.72
110.00	20 21 46	5062.02	34.18	222.22	168.41	90.80	21 46 8	4462.0	33.91	212.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.6941	TRA	4.1423	TC3	-3.0565	BAU	1.0573	SGT	5970.3	SGR	573.0	SG3	192.1	ST	1704.0	SR	362.0	SS	579.8
RDE	.2980	RRA	-.3710	RC3	.1081	FAU	.01799	RRT	-.6874	RRF	-.6663	RTF	.9622	CRT	.0936	CRS	-.2612	CST	-.9851
FDE	.4199	FRA	1.7138	FC3	-.6023	BSP	19448	SGB	5997.8	R23	.0022	R13	-.9622	LSA	1797.9	MSA	371.6	SSA	15.0
BDE	.7553	BRA	4.1589	BC3	3.0584	FSP	-669	SG1	5983.4	SG2	415.3	THA	176.21	EL1	1704.3	EL2	360.3	ALF	1.19

LAUNCH DATE AUG 31 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 577.944

RL	151.02	LAL	-.00	LOL	337.18	VL	26.043	GAL	7.65	AZL	89.89	HCA	281.00	SMA	122.95	ECC	.26245	INC	.1056
RP	108.65	LAP	-.11	LOP	258.19	VP	36.928	GAP	13.70	AZP	89.98	TAL	157.19	TAP	78.19	RCA	90.68	APO	155.22
RC	165.932	GL	.52	GP	13.94	ZAL	43.63	ZAP	164.76	ETS	62.16	ZAE	124.30	ETE	170.53	ZAC	116.70	ETC	264.65

V1 29.504 V2 34.880 CLP-173.77

PLANETOCENTRIC CONIC

C3 28.607 VHL 5.349 DLA -20.88 RAL 295.33 RAD 6568.1 VEL 12.247 PTH 2.20 VHP 8.869 DPA -9.93 RAP 265.30 ECC 1.4708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 26 49	1586.50	-1.02	4.73	162.29	118.30	11 53 16	986.5	2.77	358.10
90.00	17 25 19	5661.38	27.89	266.64	171.10	95.12	18 59 41	5061.4	28.31	258.00
100.00	12 34 13	1368.96	-2.59	347.87	161.42	119.79	12 57 2	769.0	1.39	341.35
100.00	19 0 36	5354.15	29.68	244.20	171.26	93.73	20 29 50	4754.1	29.88	235.40
110.00	13 12 56	1247.62	-6.43	336.29	159.04	123.65	13 33 44	647.6	-1.96	330.05
110.00	20 38 23	5048.25	34.18	221.15	171.44	90.16	22 2 31	4448.3	33.83	211.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8577	TRA	4.4712	TC3	-2.7565	BAU	1.0548	SGT	5984.8	SGR	558.4	SG3	184.3	ST	1793.6	SR	354.6	SS	594.2
RDE	.3072	RRA	-.3837	RC3	.0928	FAU	.01617	RRT	-.6721	RRF	-.6511	RTF	.9630	CRT	.1559	CRS	-.2943	CST	-.9896
FDE	.4553	FRA	1.7523	FC3	-.4894	BSP	19614	SGB	6010.8	R23	.0012	R13	-.9630	LSA	1888.7	MSA	358.4	SSA	14.5
BDE	.9110	BRA	4.4876	BC3	2.7581	FSP	-646	SG1	5996.6	SG2	412.6	THA	176.40	EL1	1794.5	EL2	350.1	ALF	1.84

LAUNCH DATE AUG 31 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 583.184

RL	151.02	LAL	-.00	LOL	337.18	VL	26.007	GAL	8.36	AZL	89.70	HCA	284.17	SMA	122.74	ECC	.27029	INC	.3019
RP	108.68	LAP	-.29	LOP	261.36	VP	36.893	GAP	14.27	AZP	89.93	TAL	155.83	TAP	80.01	RCA	89.57	APO	155.92
RC	167.985	GL	1.38	GP	13.54	ZAL	42.03	ZAP	165.49	ETS	65.08	ZAE	124.17	ETE	170.81	ZAC	116.36	ETC	265.23

V1 29.504 V2 34.869 CLP-174.73

PLANETOCENTRIC CONIC

C3 31.755 VHL 5.635 DLA -19.75 RAL 296.86 RAD 6568.3 VEL 12.374 PTH 2.23 VHP 9.204 DPA -10.50 RAP 267.44 ECC 1.5226

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 19 49	1660.94	-3.42	8.89	165.00	118.13	11 47 30	1060.9	.37	2.25
90.00	17 44 34	5639.29	28.01	265.04	174.23	94.32	19 18 33	5039.3	28.32	256.39
100.00	12 28 40	1438.77	-4.95	351.71	164.16	119.52	12 52 39	838.8	-.98	345.18
100.00	19 18 24	5336.69	29.75	242.91	174.36	93.06	20 47 21	4736.7	29.86	234.11
110.00	13 10 2	1309.10	-8.73	339.56	161.84	123.18	13 31 52	709.1	-4.31	333.27
110.00	20 53 31	5039.12	34.18	220.44	174.48	89.74	22 17 30	4439.1	33.77	211.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0250	TRA	4.8169	TC3	-2.4714	BAU	1.0498	SGT	5993.5	SGR	543.2	SG3	176.8	ST	1878.8	SR	347.2	SS	607.2
RDE	.3173	RRA	-.3960	RC3	.0791	FAU	.01444	RRT	-.6567	RRF	-.6364	RTF	.9639	CRT	.2080	CRS	-.3224	CST	-.9926
FDE	.4877	FRA	1.7910	FC3	-.3936	BSP	19788	SGB	6018.1	R23	.0005	R13	-.9639	LSA	1974.8	MSA	345.4	SSA	14.0
BDE	1.0730	BRA	4.8332	BC3	2.4727	FSP	-623	SG1	6004.2	SG2	408.9	THA	176.58	EL1	1880.3	EL2	339.4	ALF	2.28

LAUNCH DATE AUG 31 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 588.328

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RL  151.02 LAL   -.00 LOL 337.18 VL  25.972 GAL   9.11 AZL  89.50 HCA 287.34 SMA 122.54 ECC .27884 INC  .5024 V1  29.504
RP  108.71 LAP   -.48 LOP 264.53 VP  36.859 GAP  14.87 AZP  89.85 TAL 154.50 TAP  81.85 RCA  88.37 APO 156.70 V2  34.859
RC 170.025 GL    2.17 GP   13.18 ZAL  40.53 ZAP 166.14 ETS  68.35 ZAE 124.03 ETE 171.06 ZAC 116.04 ETC 265.81 CLP-175.70
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PLANETOCENTRIC CONIC

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C3  35.366 VHL  5.947 DLA -18.69 RAL 298.30 RAO 6568.4 VEL 12.519 PTH   2.27 VHP  9.565 DPA -11.01 RAP 269.60 ECC 1.5820
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 3	1731.02	-5.66	12.82	167.79	117.79	11 42 54	1131.0	-1.90	6.16
90.00	18 1 49	5623.52	28.09	263.89	177.34	93.75	19 35 32	5023.5	28.31	255.23
100.00	12 24 4	1505.09	-7.16	355.40	166.97	119.10	12 49 9	905.1	-3.22	348.82
100.00	19 34 29	5324.68	29.79	242.02	177.45	92.59	21 3 14	4724.7	29.83	233.21
110.00	13 7 40	1368.45	-10.93	342.76	164.69	122.59	13 30 29	768.4	-6.55	336.40
110.00	21 7 22	5034.09	34.18	220.04	177.54	89.50	22 31 16	4434.1	33.73	210.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE 1.1972 TRA 5.1820 TC3-2.2014 BAU 1.0413   SGT 5997.1 SGR  527.4 SG3  169.6     ST  1958.7 SR   339.7 SS   619.2
ROE  .3281 RRA -.4077 RC3  .0667 FAU .01276   RRT -.6414 RRF -.6218 RTF  .9651     CRT  .2521 CRS -.3468 CST -.9948
FOE  .5181 FRA 1.8309 FC3 -.3123 BSP  19962   SGB 6020.2 R23 -.0000 R13 -.9651    LSA 2055.3 MSA  332.9 SSA   13.6
BOE 1.2413 BRA 5.1980 BC3 2.2024 FSP   -602   SG1 6006.6 SG2  404.0 THA 176.76   EL1 1960.7 EL2  328.4 ALF   2.58
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 593.361

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RL  151.02 LAL   -.00 LOL 337.18 VL  25.937 GAL   9.92 AZL  89.29 HCA 290.51 SMA 122.33 ECC .28818 INC  .7098 V1  29.504
RP  108.74 LAP   -.66 LOP 267.70 VP  36.826 GAP  15.52 AZP  89.75 TAL 153.19 TAP  83.71 RCA  87.08 APO 157.59 V2  34.850
RC 172.049 GL    2.89 GP   12.85 ZAL  39.12 ZAP 166.73 ETS  71.97 ZAE 123.88 ETE 171.29 ZAC 115.73 ETC 266.40 CLP-176.67
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PLANETOCENTRIC CONIC

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C3  39.516 VHL  6.286 DLA -17.71 RAL 299.65 RAO 6568.5 VEL 12.684 PTH   2.30 VHP  9.955 DPA -11.46 RAP 271.77 ECC 1.6503
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 9 14	1797.53	-7.75	16.59	170.62	117.32	11 39 11	1197.5	-4.03	9.88
90.00	18 17 23	5613.08	28.13	263.13	180.44	93.37	19 50 56	5013.1	28.30	254.47
100.00	12 20 12	1568.50	-9.24	358.95	169.82	118.55	12 46 21	968.5	-5.36	352.32
100.00	19 49 5	5317.34	29.81	241.47	180.53	92.30	21 17 43	4717.3	29.81	232.67
110.00	13 5 43	1425.89	-13.02	345.90	167.58	121.89	13 29 29	825.9	-8.71	339.45
110.00	21 20 4	5032.71	34.18	219.94	180.61	89.44	22 43 56	4432.7	33.72	210.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE 1.3757 TRA 5.5688 TC3-1.9468 BAU 1.0289   SGT 5996.0 SGR  511.0 SG3  162.8     ST  2032.9 SR   332.0 SS   630.7
ROE  .3395 RRA -.4186 RC3  .0555 FAU .01113   RRT -.6257 RRF -.6071 RTF  .9664     CRT  .2902 CRS -.3687 CST -.9963
FOE  .5472 FRA 1.8725 FC3 -.2439 BSP  20132   SGB 6017.7 R23 -.0004 R13 -.9664    LSA 2130.2 MSA  320.6 SSA   13.1
BOE 1.4170 BRA 5.5845 BC3 1.9475 FSP   -582   SG1 6004.5 SG2  398.0 THA 176.93   EL1 2035.2 EL2  317.3 ALF   2.78
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 598.263

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RL  151.02 LAL   -.00 LOL 337.18 VL  25.903 GAL  10.79 AZL  89.07 HCA 293.68 SMA 122.13 ECC .29840 INC  .9258 V1  29.504
RP  108.77 LAP   -.85 LOP 270.86 VP  36.793 GAP  16.22 AZP  89.63 TAL 151.92 TAP  85.60 RCA  85.69 APO 158.58 V2  34.841
RC 174.060 GL    3.54 GP   12.55 ZAL  37.81 ZAP 167.24 ETS  75.97 ZAE 123.71 ETE 171.51 ZAC 115.43 ETC 266.98 CLP-177.65
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PLANETOCENTRIC CONIC

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C3  44.298 VHL  6.656 DLA -16.79 RAL 300.90 RAO 6568.7 VEL 12.871 PTH   2.34 VHP 10.379 DPA -11.84 RAP 273.94 ECC 1.7290
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 5 9	1861.03	-9.72	20.22	173.49	116.73	11 36 10	1261.0	-6.06	13.45
90.00	18 31 29	5607.20	28.15	262.70	183.52	93.16	20 4 57	5007.2	28.30	254.04
100.00	12 16 57	1629.38	-11.20	2.41	172.71	117.90	12 44 6	1029.4	-7.38	355.70
100.00	20 2 23	5314.09	29.82	241.23	183.61	92.18	21 30 57	4714.1	29.80	232.43
110.00	13 4 6	1481.62	-15.00	349.00	170.51	121.08	13 28 48	881.6	-10.77	342.45
110.00	21 31 42	5034.61	34.18	220.08	183.69	89.53	22 55 37	4434.6	33.74	210.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE 1.5621 TRA 5.9803 TC3-1.7066 BAU 1.0110   SGT 5990.4 SGR  493.7 SG3  156.4     ST  2101.3 SR   324.0 SS   642.3
ROE  .3516 RRA -.4285 RC3  .0454 FAU .00951   RRT -.6095 RRF -.5920 RTF  .9679     CRT  .3237 CRS -.3887 CST -.9974
FOE  .5757 FRA 1.9169 FC3 -.1859 BSP  20265   SGB 6010.7 R23 -.0005 R13 -.9679    LSA 2199.5 MSA  308.5 SSA   12.7
BOE 1.6012 BRA 5.9956 BC3 1.7072 FSP   -562   SG1 5998.0 SG2  390.9 THA 177.11   EL1 2104.0 EL2  306.1 ALF   2.92
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 603.012

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RL  151.02 LAL   -.00 LOL 337.18 VL  25.870 GAL  11.73 AZL  88.85 HCA 296.84 SMA 121.94 ECC .30963 INC 1.1525 V1  29.504
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.762 GAP  16.97 AZP  89.48 TAL 150.68 TAP  87.52 RCA  84.18 APO 159.69 V2  34.833
RC 176.055 GL    4.14 GP   12.27 ZAL  36.59 ZAP 167.66 ETS  80.34 ZAE 123.52 ETE 171.72 ZAC 115.12 ETC 267.56 CLP-178.64
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PLANETOCENTRIC CONIC

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C3  49.827 VHL  7.059 DLA -15.94 RAL 302.07 RAO 6568.8 VEL 13.084 PTH   2.39 VHP 10.840 DPA -12.17 RAP 276.11 ECC 1.8200
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 1 40	1921.88	-11.56	23.74	176.39	116.03	11 33 42	1321.9	-7.97	16.90
90.00	18 44 18	5605.29	28.16	262.56	186.59	93.09	20 17 43	5005.3	28.29	253.90
100.00	12 14 9	1687.97	-13.04	5.78	175.63	117.14	12 42 17	1088.0	-9.30	358.99
100.00	20 14 30	5314.44	29.82	241.26	186.67	92.19	21 43 4	4714.4	29.80	232.45
110.00	13 2 46	1535.71	-16.87	352.07	173.47	120.18	13 28 21	935.7	-12.74	345.40
110.00	21 42 23	5039.45	34.18	220.46	186.76	89.75	23 6 22	4439.5	33.77	211.24

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TOE 1.7581 TRA 6.4199 TC3-1.4809 BAU  .9868   SGT 5981.4 SGR  475.6 SG3  150.4     ST  2164.2 SR   315.7 SS   654.3
ROE  .3642 RRA -.4372 RC3  .0363 FAU .00790   RRT -.5924 RRF -.5763 RTF  .9696     CRT  .3539 CRS -.4075 CST -.9981
FOE  .6041 FRA 1.9647 FC3 -.1373 BSP  20362   SGB 6000.3 R23 -.0005 R13 -.9696    LSA 2263.5 MSA  296.5 SSA   12.3
BOE 1.7954 BRA 6.4348 BC3 1.4814 FSP   -541   SG1 5988.1 SG2  382.7 THA 177.29   EL1 2167.1 EL2  294.8 ALF   3.01
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LAUNCH DATE AUG 31 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 607.579

RL	151.02	LAL	-.00	LOL	337.18	VL	25.836	GAL	12.75	AZL	88.61	HCA	300.00	SMA	121.75	ECC	.32199	INC	1.3921	V1	29.504
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.731	GAP	17.80	AZP	89.30	TAL	149.49	TAP	89.49	RCA	82.55	APO	160.95	V2	34.825
RC	178.036	GL	4.68	GP	12.01	ZAL	35.47	ZAP	167.99	ETS	85.09	ZAE	123.30	ETE	171.92	ZAC	114.83	ETC	268.14	CLP	-179.65

PLANETOCENTRIC CONIC

C3	56.243	VHL	7.500	DLA	-15.16	RAL	303.15	RAD	6569.0	VEL	13.327	PTH	2.44	VHP	11.344	DPA	-12.44	RAP	278.26	ECC	1.9256

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 39	1980.31	-13.28	27.17	179.31	115.24	11 31 40	1380.3	-9.77	20.24
90.00	18 55 56	5606.87	28.16	262.68	189.63	93.15	20 29 23	5006.9	28.30	254.02
100.00	12 11 45	1744.45	-14.77	9.08	178.57	116.28	12 40 50	1144.4	-11.12	2.20
100.00	20 25 31	5317.97	29.81	241.52	189.72	92.33	21 54 9	4718.0	29.81	232.71
110.00	13 1 37	1588.24	-18.65	355.11	176.45	119.18	13 28 6	988.2	-14.61	348.32
110.00	21 52 9	5046.93	34.18	221.05	189.82	90.10	23 16 16	4446.9	33.82	211.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.9659	TRA	6.8922	TC3	-1.2692	BAU	.9546	SGT	5970.0	SGR	456.6	SG3	144.7	ST	2222.1	SR	307.0	SS	667.3
RDE	.3774	RRA	-.4441	RC3	.0281	FAU	.00626	RRT	-.5741	RRF	-.5596	RTF	.9715	CRT	.3817	CRS	-.4257	CST	-.9987
FDE	.6332	FRA	2.0170	FC3	-.0964	BSP	20397	SGB	5987.4	R23	-.0004	R13	-.9715	LSA	2322.9	MSA	284.6	SSA	11.8
BDE	2.0018	BRA	6.9065	BC3	1.2695	FSP	-519	SG1	5975.8	SG2	373.5	THA	177.48	EL1	2225.2	EL2	283.4	ALF	3.07

LAUNCH DATE AUG 31 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 611.930

RL	151.02	LAL	-.00	LOL	337.18	VL	25.804	GAL	13.85	AZL	88.35	HCA	303.16	SMA	121.56	ECC	.33563	INC	1.6474	V1	29.504
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.702	GAP	18.70	AZP	89.10	TAL	148.36	TAP	91.52	RCA	80.76	APO	162.36	V2	34.818
RC	180.002	GL	5.18	GP	11.77	ZAL	34.45	ZAP	168.21	ETS	90.18	ZAE	123.06	ETE	172.11	ZAC	114.53	ETC	268.71	CLP	179.32

PLANETOCENTRIC CONIC

C3	63.722	VHL	7.983	DLA	-14.43	RAL	304.15	RAD	6569.2	VEL	13.604	PTH	2.49	VHP	11.898	DPA	-12.66	RAP	280.40	ECC	2.0487

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 56 2	2036.45	-14.89	30.51	182.23	114.37	11 29 58	1436.5	-11.47	23.49
90.00	19 6 29	5611.53	28.14	263.02	192.63	93.32	20 40 0	5011.5	28.30	254.36
100.00	12 9 40	1798.89	-16.39	12.32	181.51	115.35	12 39 38	1198.9	-12.84	5.33
100.00	20 35 32	5324.32	29.79	241.99	192.72	92.57	22 4 17	4724.3	29.83	233.19
110.00	13 0 38	1639.21	-20.31	358.13	179.43	118.11	13 27 58	1039.2	-16.39	351.19
110.00	22 1 3	5056.77	34.18	221.81	192.87	90.55	23 25 20	4456.8	33.88	212.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.1880	TRA	7.4000	TC3	-1.0712	BAU	.9127	SGT	5955.6	SGR	436.7	SG3	139.3	ST	2275.1	SR	298.1	SS	681.7
RDE	.3913	RRA	-.4490	RC3	.0208	FAU	.00457	RRT	-.5539	RRF	-.5412	RTF	.9735	CRT	.4081	CRS	-.4439	CST	-.9991
FDE	.6637	FRA	2.0746	FC3	-.0621	BSP	20294	SGB	5971.6	R23	-.0001	R13	-.9735	LSA	2378.1	MSA	272.6	SSA	11.4
BDE	2.2227	BRA	7.4136	BC3	1.0714	FSP	-496	SG1	5960.6	SG2	363.3	THA	177.67	EL1	2278.4	EL2	271.7	ALF	3.11

LAUNCH DATE AUG 31 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 616.018

RL	151.02	LAL	-.00	LOL	337.18	VL	25.773	GAL	15.05	AZL	88.08	HCA	306.32	SMA	121.38	ECC	.35073	INC	1.9217	V1	29.504
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.674	GAP	19.70	AZP	88.86	TAL	147.29	TAP	93.62	RCA	78.81	APO	163.95	V2	34.812
RC	181.954	GL	5.63	GP	11.55	ZAL	33.52	ZAP	168.32	ETS	95.57	ZAE	122.78	ETE	172.30	ZAC	114.23	ETC	269.27	CLP	178.25

PLANETOCENTRIC CONIC

C3	72.485	VHL	8.514	DLA	-13.77	RAL	305.05	RAD	6569.4	VEL	13.923	PTH	2.54	VHP	12.509	DPA	-12.83	RAP	282.52	ECC	2.1929

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 53 43	2090.37	-16.37	33.77	185.14	113.43	11 28 33	1490.4	-13.07	26.65
90.00	19 16 0	5618.91	28.11	263.56	195.58	93.59	20 49 38	5018.9	28.31	254.90
100.00	12 7 48	1851.32	-17.89	15.49	184.43	114.36	12 38 40	1251.3	-14.45	8.38
100.00	20 44 35	5333.19	29.76	242.65	195.69	92.92	22 13 28	4733.2	29.85	233.84
110.00	12 59 46	1688.56	-21.86	1.11	182.40	116.96	13 27 55	1088.6	-18.07	354.03
110.00	22 9 7	5068.71	34.17	222.75	195.87	91.10	23 33 35	4468.7	33.94	213.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.4264	TRA	7.9505	TC3	-.8863	BAU	.8590	SGT	5940.5	SGR	416.0	SG3	134.4	ST	2323.7	SR	289.0	SS	697.9
RDE	.4061	RRA	-.4512	RC3	.0145	FAU	.00280	RRT	-.5314	RRF	-.5204	RTF	.9757	CRT	.4338	CRS	-.4626	CST	-.9993
FDE	.6960	FRA	2.1387	FC3	-.0335	BSP	20110	SGB	5955.1	R23	.0002	R13	-.9757	LSA	2429.4	MSA	260.6	SSA	11.0
BDE	2.4602	BRA	7.9633	BC3	.8864	FSP	-472	SG1	5944.7	SG2	352.2	THA	177.86	EL1	2327.1	EL2	260.0	ALF	3.13

LAUNCH DATE AUG 31 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 619.788

RL	151.02	LAL	-.00	LOL	337.18	VL	25.742	GAL	16.36	AZL	87.78	HCA	309.48	SMA	121.20	ECC	.36752	INC	2.2190	V1	29.504
RP	108.87	LAP	-1.71	LOP	286.68	VP	36.647	GAP	20.79	AZP	88.59	TAL	146.32	TAP	95.80	RCA	76.66	APO	165.75	V2	34.806
RC	183.891	GL	6.03	GP	11.35	ZAL	32.69	ZAP	168.30	ETS	101.19	ZAE	122.45	ETE	172.49	ZAC	113.94	ETC	269.81	CLP	177.14

PLANETOCENTRIC CONIC

C3	82.811	VHL	9.100	DLA	-13.16	RAL	305.86	RAD	6569.6	VEL	14.288	PTH	2.60	VHP	13.185	DPA	-12.95	RAP	284.59	ECC	2.3629

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 51 39	2142.03	-17.74	36.94	188.01	112.44	11 27 21	1542.0	-14.55	29.72
90.00	19 24 30	5628.71	28.06	264.27	198.47	93.94	20 58 19	5028.7	28.31	255.61
100.00	12 6 8	1901.69	-19.27	18.59	187.32	113.30	12 37 50	1301.7	-15.96	11.37
100.00	20 52 42	5344.29	29.72	243.47	198.59	93.35	22 21 46	4744.3	29.87	234.67
110.00	12 58 58	1736.22	-23.30	4.06	185.35	115.75	13 27 55	1136.2	-19.65	356.83
110.00	22 16 21	5082.53	34.14	223.83	198.82	91.74	23 41 4	4482.5	34.01	214.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.6828	TRA	8.5473	TC3	-.7147	BAU	.7913	SGT	5923.6	SGR	394.4	SG3	129.7	ST	2367.2	SR	279.7	SS	716.3
RDE	.4220	RRA	-.4501	RC3	.0091	FAU	.00093	RRT	-.5055	RRF	-.4965	RTF	.9780	CRT	.4592	CRS	-.4821	CST	-.9995
FDE	.7306	FRA	2.2102	FC3	-.0097	BSP	19794	SGB	5936.7	R23	.0005	R13	-.9780	LSA	2476.5	MSA	248.5	SSA	10.5
BDE	2.7158	BRA	8.5591	BC3	.7147	FSP	-446	SG1	5927.0	SG2	340.1	THA	178.07	EL1	2370.7	EL2	248.1	ALF	3.14

LAUNCH DATE SEP 1 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 10 1970

HELIOCENTRIC CONIC DISTANCE 165.624

RL	150.98	LAL	.00	LOL	338.15	VL	23.612	GAL	-1.67	AZL	91.79	HCA	68.82	SMA	110.55	ECC	.36673	INC	1.7916	V1	29.511
RP	108.13	LAP	-1.67	LOP	46.96	VP	35.415	GAP	-21.48	AZP	90.65	TAL	182.89	TAP	251.70	RCA	70.01	APO	151.09	V2	35.046
RC	40.182	GL	-7.10	GP	-9.11	ZAL	92.65	ZAP	13.21	ETS	133.69	ZAE	171.08	ETE	337.79	ZAC	91.42	ETC	259.34	CLP	9.61

PLANETOCENTRIC CONIC

C3 35.636 VHL 5.970 DLA -28.20 RAL 242.14 RAD 6568.4 VEL 12.530 PTH 2.27 VHP 13.078 DPA -26.98 RAP 231.63 ECC 1.5865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 27 40	1107.56	13.91	337.47	119.19	114.92	10 46 8	507.6	17.15	330.30
90.00	11 12 18	962.79	17.87	328.69	120.99	112.34	11 28 21	362.8	20.74	321.19
100.00	10 47 6	1044.66	8.31	329.97	116.30	118.82	11 4 31	444.7	12.10	323.23
100.00	13 35 33	5788.96	23.74	274.96	123.34	108.72	15 12 2	5189.0	26.08	266.94
110.00	10 48 34	1040.05	1.48	325.43	112.11	124.15	11 5 54	440.1	5.95	319.20
110.00	15 50 34	5366.33	31.42	245.44	125.90	104.21	17 20 1	4766.3	33.05	236.60

DIFFERENTIAL CORRECTIONS

TDE	.1710	TRA	-.6885	TC3	.1048	BAU	.0533
RDE	-.4569	RRA	-.0132	RC3	-.0393	FAU	.02050
FDE	-.1023	FRA	.3337	FC3	-.4980	BSP	2053
BDE	.4878	BRA	.6887	BC3	.1119	FSP	-136

MID-COURSE EXECUTION ACCURACY

SGT	777.7	SGR	441.2	SG3	60.8		
RRT	-.1953	RRF	.2117	RTF	-.6633		
SGB	894.2	R23	-.0259	R13	.6681		
SG1	784.6	SG2	429.0	THA	170.95		

ORBIT DETERMINATION ACCURACY

ST	278.5	SR	438.5	SS	167.0
CRT	-.5814	CRS	-.6573	CST	.9890
LSA	494.8	MSA	229.5	SSA	15.8
EL1	475.6	EL2	208.9	ALF	115.53

LAUNCH DATE SEP 1 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 172.294

RL	150.98	LAL	.00	LOL	338.15	VL	23.967	GAL	-1.76	AZL	91.58	HCA	72.02	SMA	112.13	ECC	.34772	INC	1.5797	V1	29.511
RP	108.09	LAP	-1.50	LOP	50.17	VP	35.666	GAP	-20.25	AZP	90.49	TAL	183.30	TAP	255.33	RCA	73.14	APO	151.12	V2	35.060
RC	40.174	GL	-6.76	GP	-9.57	ZAL	93.31	ZAP	12.33	ETS	126.26	ZAE	168.31	ETE	338.35	ZAC	91.14	ETC	259.56	CLP	7.81

PLANETOCENTRIC CONIC

C3 31.470 VHL 5.610 DLA -27.74 RAL 241.48 RAD 6568.3 VEL 12.363 PTH 2.23 VHP 12.394 DPA -27.83 RAP 232.97 ECC 1.5179

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 57 22	1166.42	12.19	340.94	115.31	115.76	10 16 49	566.4	15.56	333.88
90.00	11 37 20	841.24	20.84	321.01	119.08	109.62	11 51 21	241.2	23.32	313.22
100.00	10 33 47	1048.72	8.18	330.20	113.21	118.85	10 51 16	448.7	11.97	323.46
100.00	13 43 36	5722.21	25.13	270.49	120.61	106.75	15 18 58	5122.2	27.18	262.29
110.00	10 40 24	1027.95	1.94	324.80	109.38	124.13	10 57 32	428.0	6.41	318.56
110.00	15 53 29	5315.74	32.21	241.71	122.68	102.13	17 22 5	4715.7	33.54	232.73

DIFFERENTIAL CORRECTIONS

TDE	.1723	TRA	-.6705	TC3	.1483	BAU	.0666
RDE	-.4328	RRA	-.0101	RC3	-.0555	FAU	.02160
FDE	-.1014	FRA	.3395	FC3	-.5942	BSP	2183
BDE	.4659	BRA	.6706	BC3	.1584	FSP	-153

MID-COURSE EXECUTION ACCURACY

SGT	810.8	SGR	446.6	SG3	67.4		
RRT	-.2187	RRF	.2375	RTF	-.6834		
SGB	925.6	R23	-.0296	R13	.6887		
SG1	818.9	SG2	431.4	THA	170.46		

ORBIT DETERMINATION ACCURACY

ST	291.4	SR	442.1	SS	169.1
CRT	-.5979	CRS	-.6506	CST	.9913
LSA	504.2	MSA	233.4	SSA	16.4
EL1	484.7	EL2	213.0	ALF	117.17

LAUNCH DATE SEP 1 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 178.992

RL	150.98	LAL	.00	LOL	338.15	VL	24.293	GAL	-1.86	AZL	91.38	HCA	75.23	SMA	113.64	ECC	.33005	INC	1.3751	V1	29.511
RP	108.05	LAP	-1.33	LOP	53.38	VP	35.898	GAP	-19.07	AZP	90.35	TAL	183.79	TAP	259.02	RCA	76.13	APO	151.15	V2	35.073
RC	40.345	GL	-6.34	GP	-10.08	ZAL	94.12	ZAP	11.71	ETS	117.65	ZAE	165.57	ETE	338.42	ZAC	90.80	ETC	259.80	CLP	5.99

PLANETOCENTRIC CONIC

C3 27.886 VHL 5.281 DLA -27.17 RAL 240.69 RAD 6568.1 VEL 12.217 PTH 2.20 VHP 11.743 DPA -28.73 RAP 234.29 ECC 1.4589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 33 33	1204.15	11.07	343.14	111.70	116.23	9 53 37	604.2	14.50	336.15
90.00	11 54 49	742.93	22.94	314.57	116.61	107.07	12 7 12	142.9	25.07	306.54
100.00	10 18 47	1057.98	7.88	330.72	110.01	118.93	10 36 25	458.0	11.68	323.99
100.00	13 52 16	5652.38	26.41	265.70	117.69	104.54	15 26 28	5052.4	28.15	257.33
110.00	10 30 35	1020.93	2.21	324.43	106.52	124.12	10 47 36	420.9	6.67	318.19
110.00	15 56 57	5262.19	32.90	237.68	119.31	99.84	17 24 39	4662.2	33.91	228.59

DIFFERENTIAL CORRECTIONS

TDE	.1732	TRA	-.6520	TC3	.2002	BAU	.0798
RDE	-.4098	RRA	-.0073	RC3	-.0760	FAU	.02283
FDE	-.0994	FRA	.3445	FC3	-.7088	BSP	2320
BDE	.4449	BRA	.6520	BC3	.2141	FSP	-173

MID-COURSE EXECUTION ACCURACY

SGT	844.0	SGR	451.9	SG3	74.8		
RRT	-.2450	RRF	.2666	RTF	-.7021		
SGB	957.3	R23	-.0341	R13	.7081		
SG1	853.8	SG2	433.1	THA	169.90		

ORBIT DETERMINATION ACCURACY

ST	303.7	SR	444.7	SS	169.8
CRT	-.6141	CRS	-.6403	CST	.9927
LSA	512.5	MSA	236.4	SSA	17.0
EL1	493.2	EL2	216.1	ALF	118.78

LAUNCH DATE SEP 1 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 185.713

RL	150.98	LAL	.00	LOL	338.15	VL	24.593	GAL	-1.98	AZL	91.18	HCA	78.44	SMA	115.08	ECC	.31369	INC	1.1763	V1	29.511
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.114	GAP	-17.95	AZP	90.24	TAL	184.35	TAP	262.79	RCA	78.98	APO	151.18	V2	35.086
RC	40.692	GL	-5.81	GP	-10.65	ZAL	95.06	ZAP	11.42	ETS	108.11	ZAE	162.87	ETE	338.20	ZAC	90.40	ETC	260.03	CLP	4.15

PLANETOCENTRIC CONIC

C3 24.805 VHL 4.980 DLA -26.47 RAL 239.77 RAD 6568.0 VEL 12.091 PTH 2.16 VHP 11.121 DPA -29.65 RAP 235.59 ECC 1.4082

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 11 0	1238.04	10.04	345.10	108.14	116.62	9 31 38	638.0	13.53	338.17
90.00	12 10 2	651.05	24.64	308.37	113.85	104.41	12 20 53	51.0	26.38	300.14
100.00	10 2 20	1072.23	7.41	331.52	106.74	119.04	10 20 12	472.2	11.22	324.81
100.00	14 1 23	5580.13	27.54	260.63	114.61	102.10	15 34 23	4980.1	28.93	252.10
110.00	10 19 13	1019.23	2.28	324.34	103.57	124.12	10 36 12	419.2	6.74	318.10
110.00	16 0 59	5205.89	33.48	233.39	115.79	97.36	17 27 45	4605.9	34.13	224.21

DIFFERENTIAL CORRECTIONS

TDE	.1730	TRA	-.6332	TC3	.2616	BAU	.0931
RDE	-.3877	RRA	-.0049	RC3	-.1016	FAU	.02420
FDE	-.0955	FRA	.3492	FC3	-.8448	BSP	2458
BDE	.4246	BRA	.6332	BC3	.2807	FSP	-196

MID-COURSE EXECUTION ACCURACY

SGT	877.3	SGR	457.4	SG3	82.9		
RRT	-.2740	RRF	.2991	RTF	-.7200		
SGB	989.4	R23	-.0391	R13	.7267		
SG1	889.1	SG2	434.1	THA	169.29		

ORBIT DETERMINATION ACCURACY

ST	315.1	SR	446.1	SS	168.7
CRT	-.6285	CRS	-.6233	CST	.9929
LSA	519.1	MSA	238.7	SSA	17.7
EL1	500.6	EL2	218.4	ALF	120.28

LAUNCH DATE SEP 1 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 192.453

RL	150.98	LAL	.00	LOL	338.15	VL	24.867	GAL	-2.11	AZL	90.98	HCA	81.65	SMA	116.45	ECC	.29858	INC	.9819	V1	29.511
RP	107.97	LAP	-.97	LOP	59.80	VP	36.314	GAP	-16.88	AZP	90.14	TAL	184.97	TAP	266.62	RCA	81.68	APO	151.22	V2	35.098
RC	41.209	GL	-5.19	GP	-11.27	ZAL	96.14	ZAP	11.49	ETS	98.11	ZAE	160.26	ETE	337.78	ZAC	89.93	ETC	260.26	CLP	2.27

PLANETOCENTRIC CONIC

C3	22.162	VHL	4.708	DLA	-25.64	RAL	238.74	RAD	6567.9	VEL	11.981	PTH	2.14	VHP	10.529	DPA	-30.62	RAP	236.84	ECC	1.3647		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 40	1272.04	9.00	347.05	104.64	116.96	9 9 52	672.0	12.54	340.17
90.00	12 24 9	5850.06	26.01	280.12	110.85	101.61	14 1 39	5250.1	27.35	271.71
100.00	9 44 37	1091.36	6.77	332.58	103.44	119.18	10 2 49	491.4	10.61	325.90
100.00	14 10 53	5505.97	28.49	255.32	111.37	99.46	15 42 39	4906.0	29.50	246.66
110.00	10 6 24	1023.03	2.13	324.54	100.57	124.12	10 23 27	423.0	6.60	318.30
110.00	16 5 36	5147.07	33.90	228.85	112.16	94.71	17 31 23	4547.1	34.18	219.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.1714	TRA	-.6146	TC3	.3327	BAU	.1062	SGT	911.1	SGR	463.5	SG3	92.1	ST	324.9	SR	446.2	SS	165.9
RDE	-.3666	RRA	-.0028	RC3	-.1333	FAU	.02572	RRT	-.3062	RRF	.3354	RTF	-.7372	CRT	-.6403	CRS	-.5976	CST	.9908
FDE	-.0897	FRA	.3540	FC3	-1.0049	BSP	2598	SGB	1022.2	R23	-.0453	R13	.7448	LSA	523.4	MSA	240.6	SSA	18.5
BDE	.4047	BRA	.6146	BC3	.3585	FSP	-222	SG1	925.3	SG2	434.5	THA	168.60	EL1	506.2	EL2	220.0	ALF	121.63

LAUNCH DATE SEP 1 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 199.206

RL	150.98	LAL	.00	LOL	338.15	VL	25.119	GAL	-2.24	AZL	90.79	HCA	84.86	SMA	117.75	ECC	.28468	INC	.7905	V1	29.511
RP	107.93	LAP	-.79	LOP	63.01	VP	36.499	GAP	-15.85	AZP	90.07	TAL	185.65	TAP	270.52	RCA	84.23	APO	151.27	V2	35.111
RC	41.891	GL	-4.45	GP	-11.96	ZAL	97.35	ZAP	11.97	ETS	88.33	ZAE	157.76	ETE	337.18	ZAC	89.38	ETC	260.49	CLP	.35

PLANETOCENTRIC CONIC

C3	19.899	VHL	4.461	DLA	-24.67	RAL	237.62	RAD	6567.8	VEL	11.886	PTH	2.11	VHP	9.965	DPA	-31.64	RAP	238.06	ECC	1.3275		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 11	1307.84	7.89	349.10	101.20	117.28	8 47 59	707.8	11.48	342.26
90.00	12 37 40	5762.56	27.06	273.93	107.69	98.68	14 13 43	5162.6	27.98	265.39
100.00	9 25 50	1115.31	5.98	333.92	100.16	119.34	9 44 25	515.3	9.84	327.26
100.00	14 20 43	5430.32	29.21	249.81	108.02	96.65	15 51 14	4830.3	29.82	241.06
110.00	9 52 15	1032.41	1.77	325.03	97.56	124.14	10 9 28	432.4	6.24	318.80
110.00	16 10 47	5085.99	34.14	224.10	108.45	91.90	17 35 33	4486.0	34.02	214.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.1700	TRA	-.5956	TC3	.4172	BAU	.1201	SGT	945.9	SGR	470.5	SG3	102.3	ST	334.0	SR	444.7	SS	160.7
RDE	-.3462	RRA	-.0009	RC3	-.1723	FAU	.02743	RRT	-.3443	RRF	.3757	RTF	-.7547	CRT	-.6533	CRS	-.5570	CST	.9841
FDE	-.0808	FRA	.3580	FC3	-1.1935	BSP	2782	SGB	1056.5	R23	-.0495	R13	.7632	LSA	525.7	MSA	241.6	SSA	19.4
BDE	.3857	BRA	.5956	BC3	.4514	FSP	-251	SG1	963.3	SG2	433.7	THA	167.76	EL1	510.7	EL2	220.2	ALF	123.02

LAUNCH DATE SEP 1 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 205.969

RL	150.98	LAL	.00	LOL	338.15	VL	25.349	GAL	-2.37	AZL	90.60	HCA	88.08	SMA	118.98	ECC	.27193	INC	.6010	V1	29.511
RP	107.89	LAP	-.60	LOP	66.23	VP	36.669	GAP	-14.87	AZP	90.02	TAL	186.39	TAP	274.47	RCA	86.63	APO	151.33	V2	35.123
RC	42.728	GL	-3.59	GP	-12.73	ZAL	98.67	ZAP	12.83	ETS	79.34	ZAE	155.40	ETE	336.44	ZAC	88.75	ETC	260.71	CLP	-1.61

PLANETOCENTRIC CONIC

C3	17.968	VHL	4.239	DLA	-23.55	RAL	236.42	RAD	6567.7	VEL	11.805	PTH	2.09	VHP	9.429	DPA	-32.71	RAP	239.21	ECC	1.2957		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 28	1346.35	6.68	351.28	97.85	117.58	8 25 55	746.3	10.32	344.50
90.00	12 50 52	5675.97	27.80	267.70	104.40	95.64	14 25 28	5076.0	28.29	259.07
100.00	9 6 9	1144.05	5.01	335.51	96.94	119.51	9 25 13	544.0	8.91	328.88
100.00	14 30 52	5353.50	29.68	244.15	104.58	93.71	16 0 6	4753.5	29.88	235.35
110.00	9 36 58	1047.40	1.20	325.81	94.57	124.16	9 54 25	447.4	5.67	319.59
110.00	16 16 32	5022.91	34.17	219.17	104.70	88.99	17 40 15	4422.9	33.65	209.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.1649	TRA	-.5765	TC3	.5052	BAU	.1323	SGT	977.6	SGR	478.9	SG3	113.6	ST	338.9	SR	441.3	SS	153.5
RDE	-.3264	RRA	.0010	RC3	-.2197	FAU	.02934	RRT	-.3830	RRF	.4204	RTF	-.7682	CRT	-.6588	CRS	-.4944	CST	.9697
FDE	-.0685	FRA	.3621	FC3	-1.4138	BSP	2887	SGB	1088.6	R23	-.0585	R13	.7780	LSA	523.2	MSA	242.9	SSA	20.5
BDE	.3657	BRA	.5765	BC3	.5509	FSP	-284	SG1	998.8	SG2	433.1	THA	166.86	EL1	511.0	EL2	220.2	ALF	123.97

LAUNCH DATE SEP 1 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 212.738

RL	150.98	LAL	.00	LOL	338.15	VL	25.559	GAL	-2.51	AZL	90.41	HCA	91.30	SMA	120.13	ECC	.26027	INC	.4118	V1	29.511
RP	107.86	LAP	-.41	LOP	69.45	VP	36.826	GAP	-13.92	AZP	89.99	TAL	187.17	TAP	278.47	RCA	88.86	APO	151.40	V2	35.135
RC	43.711	GL	-2.61	GP	-13.58	ZAL	100.08	ZAP	14.05	ETS	71.48	ZAE	153.19	ETE	335.54	ZAC	88.02	ETC	260.92	CLP	-3.63

PLANETOCENTRIC CONIC

C3	16.326	VHL	4.040	DLA	-22.27	RAL	235.18	RAD	6567.7	VEL	11.735	PTH	2.07	VHP	8.920	DPA	-33.84	RAP	240.30	ECC	1.2687		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 31	1388.08	5.36	353.64	94.63	117.85	8 3 39	788.1	9.04	346.90
90.00	13 3 54	5589.99	28.21	261.45	101.06	92.53	14 37 4	4990.0	28.27	252.78
100.00	8 45 46	1177.51	3.89	337.35	93.82	119.66	9 5 23	577.5	7.81	330.76
100.00	14 41 20	5275.80	29.89	238.39	101.11	90.68	16 9 16	4675.8	29.66	229.59
110.00	9 20 42	1067.95	.41	326.89	91.65	124.18	9 38 30	468.0	4.90	320.67
110.00	16 22 53	4958.12	33.98	214.12	100.97	86.01	17 45 31	4358.1	33.05	205.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	.1581	TRA	-.5579	TC3	.6043	BAU	.1451	SGT	1009.8	SGR	489.4	SG3	126.3	ST	340.9	SR	435.4	SS	144.6
RDE	-.3070	RRA	.0027	RC3	-.2766	FAU	.03147	RRT	-.4255	RRF	.4686	RTF	-.7817	CRT	-.6602	CRS	-.3927	CST	.9381
FDE	-.0512	FRA	.3659	FC3	-1.6687	BSP	3025	SGB	1122.1	R23	-.0676	R13	.7931	LSA	516.2	MSA	244.4	SSA	21.8
BDE	.3453	BRA	.5579	BC3	.6646	FSP	-321	SG1	1035.7	SG2	431.8	THA	165.84	EL1	507.5	EL2	219.7	ALF	124.74

LAUNCH DATE SEP 1 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 219.508

RL	150.98	LAL	.00	LOL	338.15	VL	25.751	GAL	-2.64	AZL	90.22	HCA	94.52	SMA	121.21	ECC	.24966	INC	.2222	V1	29.511
RP	107.82	LAP	-.22	LOP	72.67	VP	36.970	GAP	-13.02	AZP	89.98	TAL	187.99	TAP	282.51	RCA	90.95	APO	151.47	V2	35.146
RC	44.829	GL	-1.48	GP	-14.53	ZAL	101.56	ZAP	15.59	ETS	64.84	ZAE	151.14	ETE	334.48	ZAC	87.18	ETC	261.12	CLP	-5.70

PLANETOCENTRIC CONIC

C3	14.935	VHL	3.865	DLA	-20.84	RAL	233.91	RAD	6567.6	VEL	11.676	PTH	2.05	VHP	8.437	DPA	-35.04	RAP	241.31	ECC	1.2458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 17 24	1433.35	3.91	356.18	91.56	118.07	7 41 17	833.4	7.64	349.48
90.00	13 16 55	5504.49	28.31	255.20	97.71	89.40	14 48 40	4904.5	27.93	246.55
100.00	8 24 51	1215.63	2.60	339.45	90.84	119.79	8 45 7	615.6	6.55	332.89
100.00	14 52 9	5197.44	29.81	232.56	97.67	87.62	16 18 46	4597.4	29.16	223.82
110.00	9 3 41	1093.95	-.58	328.24	88.85	124.18	9 21 55	494.0	3.91	322.03
110.00	16 29 49	4891.88	33.54	209.00	97.31	83.00	17 51 21	4291.9	32.21	200.02

DIFFERENTIAL CORRECTIONS

TDE	.1494	TRA	-.5395	TC3	.7103	BAU	.1576
RDE	-.2877	RRA	.0046	RC3	-.3442	FAU	.03382
FDE	-.0285	FRA	.3701	FC3	-1.9606	BSP	3163
BDE	.3242	BRA	.5395	BC3	.7893	FSP	-362

MID-COURSE EXECUTION ACCURACY

SGT	1040.6	SGR	502.8	SG3	140.5		
RRT	-.4717	RRF	.5205	RTF	-.7943		
SGB	1155.7	R23	-.0773	R13	.8076		
SG1	1072.7	SG2	430.1	THA	164.63		

ORBIT DETERMINATION ACCURACY

ST	339.5	SR	426.7	SS	136.1		
CRT	-.6572	CRS	-.2354	CST	.8726		
LSA	504.6	MSA	246.3	SSA	23.1		
EL1	499.5	EL2	218.6	ALF	125.34		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 226.276

RL	150.98	LAL	.00	LOL	338.15	VL	25.925	GAL	-2.77	AZL	90.03	HCA	97.74	SMA	122.21	ECC	.24004	INC	.0280	V1	29.511
RP	107.79	LAP	-.03	LOP	75.89	VP	37.102	GAP	-12.15	AZP	90.00	TAL	188.84	TAP	286.58	RCA	92.88	APO	151.55	V2	35.158
RC	46.073	GL	-.22	GP	-15.59	ZAL	103.09	ZAP	17.42	ETS	59.35	ZAE	149.26	ETE	333.24	ZAC	86.22	ETC	261.31	CLP	-7.86

PLANETOCENTRIC CONIC

C3	13.763	VHL	3.710	DLA	-19.24	RAL	232.65	RAD	6567.5	VEL	11.625	PTH	2.04	VHP	7.980	DPA	-36.33	RAP	242.22	ECC	1.2265

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 12	1482.32	2.34	358.92	88.69	118.23	7 18 54	882.3	6.09	352.25
90.00	13 30 3	5419.39	28.09	248.98	94.44	86.29	15 0 23	4819.4	27.28	240.41
100.00	8 3 37	1258.30	1.16	341.80	88.03	119.87	8 24 36	658.3	5.12	335.25
100.00	15 3 19	5118.64	29.44	226.74	94.31	84.57	16 28 38	4518.6	28.38	218.09
110.00	8 46 5	1125.23	-1.78	329.87	86.20	124.14	9 4 50	525.2	2.72	323.67
110.00	16 37 21	4824.47	32.87	203.85	93.77	80.03	17 57 45	4224.5	31.14	195.06

DIFFERENTIAL CORRECTIONS

TDE	.1384	TRA	-.5211	TC3	.8208	BAU	.1700
RDE	-.2682	RRA	.0066	RC3	-.4238	FAU	.03644
FDE	.0011	FRA	.3742	FC3	-2.2922	BSP	3310
BDE	.3018	BRA	.5211	BC3	.9237	FSP	-410

MID-COURSE EXECUTION ACCURACY

SGT	1069.2	SGR	520.2	SG3	156.2		
RRT	-.5201	RRF	.5751	RTF	-.8057		
SGB	1189.0	R23	-.0883	R13	.8214		
SG1	1109.2	SG2	428.3	THA	163.23		

ORBIT DETERMINATION ACCURACY

ST	333.8	SR	414.4	SS	131.4		
CRT	-.6474	CRS	-.0048	CST	.7472		
LSA	487.6	MSA	249.0	SSA	24.7		
EL1	485.8	EL2	217.0	ALF	125.69		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 90.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 233.040

RL	150.98	LAL	.00	LOL	338.15	VL	26.083	GAL	-2.89	AZL	89.84	HCA	100.97	SMA	123.14	ECC	.23134	INC	.1630	V1	29.511
RP	107.76	LAP	.16	LOP	79.12	VP	37.223	GAP	-11.32	AZP	90.03	TAL	189.70	TAP	290.67	RCA	94.66	APO	151.63	V2	35.168
RC	47.431	GL	1.19	GP	-16.77	ZAL	104.65	ZAP	19.50	ETS	54.83	ZAE	147.54	ETE	331.82	ZAC	85.13	ETC	261.48	CLP	-10.09

PLANETOCENTRIC CONIC

C3	12.785	VHL	3.576	DLA	-17.50	RAL	231.42	RAD	6567.5	VEL	11.583	PTH	2.03	VHP	7.549	DPA	-37.71	RAP	243.01	ECC	1.2104

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 31 4	1535.04	.64	1.86	86.05	118.31	6 56 39	935.0	4.42	355.22
90.00	13 43 24	5334.69	27.57	242.84	91.29	83.26	15 12 18	4734.7	26.35	234.39
100.00	7 42 14	1305.39	-.44	344.38	85.45	119.89	8 3 59	705.4	3.54	337.85
100.00	15 14 55	5039.57	28.79	220.95	91.10	81.59	16 38 54	4439.6	27.33	212.45
110.00	8 28 8	1161.59	-3.16	331.77	83.75	124.05	8 47 29	561.6	1.33	325.57
110.00	16 45 30	4756.14	31.95	198.74	90.42	77.13	18 4 46	4156.1	29.85	190.16

DIFFERENTIAL CORRECTIONS

TDE	.1248	TRA	-.5032	TC3	.9317	BAU	.1821
RDE	-.2480	RRA	.0090	RC3	-.5166	FAU	.03934
FDE	.0393	FRA	.3788	FC3	-2.6637	BSP	3446
BDE	.2777	BRA	.5033	BC3	1.0654	FSP	-462

MID-COURSE EXECUTION ACCURACY

SGT	1094.9	SGR	542.8	SG3	173.6		
RRT	-.5693	RRF	.6310	RTF	-.8158		
SGB	1222.0	R23	-.1007	R13	.8345		
SG1	1145.1	SG2	426.7	THA	161.59		

ORBIT DETERMINATION ACCURACY

ST	323.6	SR	397.6	SS	136.3		
CRT	-.6283	CRS	.2830	CST	.5468		
LSA	465.4	MSA	253.3	SSA	26.5		
EL1	465.4	EL2	215.1	ALF	125.86		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 239.795

RL	150.98	LAL	.00	LOL	338.15	VL	26.226	GAL	-3.01	AZL	89.64	HCA	104.19	SMA	124.00	ECC	.22350	INC	.3620	V1	29.511
RP	107.72	LAP	.35	LOP	82.34	VP	37.333	GAP	-10.51	AZP	90.09	TAL	190.57	TAP	294.77	RCA	96.29	APO	151.72	V2	35.179
RC	48.893	GL	2.74	GP	-18.09	ZAL	106.19	ZAP	21.83	ETS	51.11	ZAE	145.97	ETE	330.18	ZAC	83.89	ETC	261.62	CLP	-12.42

PLANETOCENTRIC CONIC

C3	11.974	VHL	3.460	DLA	-15.60	RAL	230.25	RAD	6567.5	VEL	11.548	PTH	2.02	VHP	7.145	DPA	-39.20	RAP	243.66	ECC	1.1971

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 8 5	1591.52	-1.19	5.01	83.67	118.29	6 34 36	991.5	2.61	358.38
90.00	13 57 3	5250.39	26.75	236.81	88.32	80.34	15 24 33	4650.4	25.14	228.51
100.00	7 20 50	1356.76	-2.18	347.20	83.12	119.82	7 43 27	756.8	1.80	340.68
100.00	15 26 59	4960.38	27.87	215.24	88.09	78.73	16 49 39	4360.4	26.03	206.93
110.00	8 9 59	1202.79	-4.73	333.93	81.53	123.89	8 30 2	602.8	-.25	327.72
110.00	16 54 19	4687.12	30.79	193.69	87.29	74.36	18 12 26	4087.1	28.34	185.35

DIFFERENTIAL CORRECTIONS

TDE	.1086	TRA	-.4865	TC3	1.0382	BAU	.1939
RDE	-.2266	RRA	.0119	RC3	-.6233	FAU	.04249
FDE	.0875	FRA	.3851	FC3	-3.0720	BSP	3574
BDE	.2513	BRA	.4866	BC3	1.2109	FSP	-520

MID-COURSE EXECUTION ACCURACY

SGT	1117.1	SGR	572.1	SG3	192.8		
RRT	-.6173	RRF	.6864	RTF	-.8244		
SGB	1255.1	R23	-.1146	R13	.8470		
SG1	1180.6	SG2	425.9	THA	159.70		

ORBIT DETERMINATION ACCURACY

ST	309.4	SR	375.5	SS	156.8		
CRT	-.5963	CRS	.5487	CST	.3200		
LSA	439.3	MSA	259.7	SSA	28.4		
EL1	437.3	EL2	213.3	ALF	125.95		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 246.539

RL	150.98	LAL	.00	LOL	338.15	VL	26.355	GAL	-3.12	AZL	89.43	HCA	107.42	SMA	124.79	ECC	.21648	INC	.5668	V1	29.511
RP	107.69	LAP	.54	LOP	85.57	VP	37.433	GAP	-9.74	AZP	90.17	TAL	191.44	TAP	298.86	RCA	97.78	APO	151.81	V2	35.188
RC	50.451	GL	4.44	GP	-19.56	ZAL	107.70	ZAP	24.39	ETS	48.02	ZAE	144.54	ETE	328.30	ZAC	82.49	ETC	261.74	CLP	-14.86

PLANETOCENTRIC CONIC

C3	11.313	VHL	3.364	DLA	-13.57	RAL	229.17	RAD	6567.4	VEL	11.520	PTH	2.01	VHP	6.767	DPA	-40.81	RAP	244.14	ECC	1.1862

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 45 21	1651.73	-3.13	8.37	81.59	118.16	6 12 53	1051.7	.66	1.74
90.00	14 11 8	5166.46	25.65	230.91	85.60	77.58	15 37 14	4566.5	23.69	222.79
100.00	6 59 35	1412.26	-4.06	350.25	81.08	119.64	7 23 7	812.3	-.08	343.72
100.00	15 39 36	4881.17	26.69	209.65	85.33	76.01	17 0 57	4281.2	24.50	201.54
110.00	7 51 50	1248.60	-6.46	336.35	79.59	123.64	8 12 39	648.6	-2.00	330.11
110.00	17 3 50	4617.59	29.41	188.75	84.44	71.73	18 20 47	4017.6	26.63	180.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0895	TRA	-.4709	TC3	1.1355	BAU	.2054	SGT	1134.8	SGR	609.5	SG3	213.9	ST	291.7	SR	346.4	SS	195.4
RDE	-.2031	RRA	.0156	RC3	-.7448	FAU	.04592	RRT	-.6622	RRF	.7395	RTF	-.8315	CRT	-.5458	CRS	.7321	CST	.1455
FDE	.1485	FRA	.3930	FC3	-3.5141	BSP	3690	SGB	1288.1	R23	-.1300	R13	.8591	LSA	412.9	MSA	268.1	SSA	30.2
BDE	.2220	BRA	.4712	BC3	1.3580	FSP	-583	SG1	1215.5	SG2	426.4	THA	157.50	EL1	400.5	EL2	211.4	ALF	126.21

LAUNCH DATE SEP 1 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 253.271

RL	150.98	LAL	.00	LOL	338.15	VL	26.470	GAL	-3.22	AZL	89.22	HCA	110.65	SMA	125.52	ECC	.21021	INC	.7791	V1	29.511
RP	107.67	LAP	.73	LOP	88.80	VP	37.523	GAP	-9.00	AZP	90.27	TAL	192.29	TAP	302.94	RCA	99.13	APO	151.90	V2	35.198
RC	52.096	GL	6.28	GP	-21.20	ZAL	109.13	ZAP	27.19	ETS	45.43	ZAE	143.22	ETE	326.15	ZAC	80.90	ETC	261.82	CLP	-17.43

PLANETOCENTRIC CONIC

C3	10.785	VHL	3.284	DLA	-11.40	RAL	228.20	RAD	6567.4	VEL	11.497	PTH	2.00	VHP	6.417	DPA	-42.56	RAP	244.42	ECC	1.1775

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 22 58	1715.66	-5.17	11.96	79.83	117.88	5 51 34	1115.7	-1.40	5.31
90.00	14 25 45	5082.87	24.30	225.16	83.17	75.00	15 50 28	4482.9	22.01	217.24
100.00	6 38 34	1471.78	-6.05	353.54	79.35	119.33	7 3 6	871.8	-2.10	346.99
100.00	15 52 50	4801.99	25.27	204.20	82.87	73.47	17 12 52	4202.0	22.76	196.30
110.00	7 33 48	1298.81	-8.35	339.01	77.94	123.27	7 55 27	698.8	-3.91	332.73
110.00	17 14 6	4547.72	27.82	183.93	81.91	69.28	18 29 53	3947.7	24.74	176.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0675	TRA	-.4575	TC3	1.2136	BAU	.2162	SGT	1145.5	SGR	656.6	SG3	236.5	ST	272.2	SR	309.0	SS	251.3
RDE	-.1767	RRA	.0204	RC3	-.8808	FAU	.04955	RRT	-.7007	RRF	.7883	RTF	-.8360	CRT	-.4681	CRS	.8340	CST	.0691
FDE	.2241	FRA	.4040	FC3	-3.9776	BSP	3774	SGB	1320.3	R23	-.1474	R13	.8705	LSA	395.4	MSA	274.5	SSA	31.7
BDE	.1892	BRA	.4580	BC3	1.4995	FSP	-650	SG1	1248.4	SG2	429.8	THA	154.95	EL1	354.4	EL2	209.7	ALF	127.41

LAUNCH DATE SEP 1 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 259.987

RL	150.98	LAL	.00	LOL	338.15	VL	26.574	GAL	-3.32	AZL	89.00	HCA	113.88	SMA	126.17	ECC	.20464	INC	1.0007	V1	29.511
RP	107.64	LAP	.92	LOP	92.04	VP	37.605	GAP	-8.28	AZP	90.41	TAL	193.10	TAP	306.99	RCA	100.35	APO	151.99	V2	35.206
RC	53.818	GL	8.27	GP	-23.04	ZAL	110.45	ZAP	30.22	ETS	43.21	ZAE	141.98	ETE	323.71	ZAC	79.12	ETC	261.86	CLP	-20.13

PLANETOCENTRIC CONIC

C3	10.376	VHL	3.221	DLA	-9.10	RAL	227.36	RAD	6567.4	VEL	11.479	PTH	2.00	VHP	6.095	DPA	-44.46	RAP	244.46	ECC	1.1708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 0 58	1783.32	-7.31	15.78	78.42	117.43	5 30 42	1183.3	-3.58	9.09
90.00	14 41 2	4999.53	22.72	219.56	81.06	72.63	16 4 22	4399.5	20.13	211.85
100.00	6 17 52	1535.24	-8.15	357.08	77.97	118.86	6 43 27	935.2	-4.24	350.48
100.00	16 6 49	4722.84	23.63	198.89	80.74	71.14	17 25 32	4122.8	20.84	191.21
110.00	7 15 59	1353.25	-10.37	341.93	76.63	122.76	7 38 33	753.2	-5.98	335.59
110.00	17 25 12	4477.60	26.04	179.26	79.72	67.03	18 39 49	3877.6	22.70	171.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0412	TRA	-.4481	TC3	1.2607	BAU	.2258	SGT	1147.5	SGR	713.8	SG3	260.4	ST	254.2	SR	260.5	SS	325.0
RDE	-.1458	RRA	.0272	RC3	-1.0294	FAU	.05324	RRT	-.7292	RRF	.8310	RTF	-.8371	CRT	-.3481	CRS	.8834	CST	.0999
FDE	.3188	FRA	.4213	FC3	-4.4418	BSP	3793	SGB	1351.4	R23	-.1671	R13	.8813	LSA	405.6	MSA	269.4	SSA	32.4
BDE	.1515	BRA	.4489	BC3	1.6276	FSP	-717	SG1	1278.2	SG2	438.5	THA	152.02	EL1	298.9	EL2	207.7	ALF	132.97

LAUNCH DATE SEP 1 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 266.685

RL	150.98	LAL	.00	LOL	338.15	VL	26.667	GAL	-3.40	AZL	88.77	HCA	117.11	SMA	126.77	ECC	.19970	INC	1.2338	V1	29.511
RP	107.61	LAP	1.10	LOP	95.27	VP	37.678	GAP	-7.59	AZP	90.56	TAL	193.88	TAP	311.00	RCA	101.45	APO	152.08	V2	35.214
RC	55.612	GL	10.40	GP	-25.07	ZAL	111.64	ZAP	33.51	ETS	41.24	ZAE	140.78	ETE	320.93	ZAC	77.11	ETC	261.84	CLP	-22.99

PLANETOCENTRIC CONIC

C3	10.077	VHL	3.174	DLA	-6.69	RAL	226.65	RAD	6567.4	VEL	11.466	PTH	1.99	VHP	5.802	DPA	-46.52	RAP	244.20	ECC	1.1658

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 39 20	1854.86	-9.53	19.86	77.38	116.79	5 10 15	1254.9	-5.86	13.11
90.00	14 57 8	4916.25	20.92	214.12	79.30	70.47	16 19 4	4316.2	18.07	206.61
100.00	5 57 29	1602.73	-10.35	.89	76.95	118.20	6 24 12	1002.7	-6.50	354.22
100.00	16 21 39	4643.61	21.79	193.73	78.96	69.01	17 39 3	4043.6	18.74	186.26
110.00	6 58 26	1411.89	-12.51	345.13	75.67	122.07	7 21 58	811.9	-8.18	338.70
110.00	17 37 11	4407.22	24.09	174.72	77.90	64.98	18 50 39	3807.2	20.52	167.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0276	TRA	-.4264	TC3	1.3357	BAU	.2423	SGT	1149.8	SGR	793.7	SG3	287.7	ST	239.1	SR	205.7	SS	398.0
RDE	-.1128	RRA	.0327	RC3	-1.2046	FAU	.05773	RRT	-.7723	RRF	.8707	RTF	-.8450	CRT	-.3027	CRS	.9002	CST	.1003
FDE	.4172	FRA	.4278	FC3	-4.9593	BSP	4136	SGB	1397.1	R23	-.1666	R13	.8968	LSA	440.7	MSA	250.3	SSA	32.4
BDE	.1162	BRA	.4276	BC3	1.7987	FSP	-817	SG1	1327.1	SG2	436.8	THA	148.07	EL1	257.6	EL2	182.0	ALF	148.26

LAUNCH DATE SEP 1 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 273.364

RL	150.98	LAL	.00	LOL	338.15	VL	26.749	GAL	-3.48	AZL	88.52	HCA	120.35	SMA	127.30	ECC	.19535	INC	1.4809	V1	29.511
RP	107.59	LAP	1.28	LOP	98.51	VP	37.743	GAP	-6.93	AZP	90.75	TAL	194.61	TAP	314.96	RCA	102.43	APO	152.17	V2	35.222
RC	57.469	GL	12.68	GP	-27.34	ZAL	112.66	ZAP	37.03	ETS	39.45	ZAE	139.57	ETE	317.79	ZAC	74.87	ETC	261.77	CLP	-26.02

PLANETOCENTRIC CONIC

C3	9.881	VHL	3.143	DLA	-4.16	RAL	226.13	RAD	6567.4	VEL	11.457	PTH	1.99	VHP	5.540	DPA	-48.75	RAP	243.60	ECC	1.1626

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 18 4	1930.42	-11.82	24.24	76.74	115.92	4 50 14	1330.4	-8.23	17.39
90.00	15 14 12	4832.86	18.94	208.81	77.92	68.54	16 34 45	4232.9	15.85	201.49
100.00	5 37 27	1674.31	-12.62	4.99	76.32	117.32	6 5 21	1074.3	-8.86	358.22
100.00	16 37 30	4564.20	19.77	188.69	77.56	67.11	17 53 34	3964.2	16.50	181.43
110.00	6 41 13	1474.66	-14.75	348.61	75.09	121.19	7 5 48	874.7	-10.51	342.07
110.00	17 50 13	4336.61	21.99	170.31	76.46	63.14	19 2 29	3736.6	18.21	163.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	.0056	TRA	-.4145	TC3	1.3477	BAU	.2554	SGT	1136.6	SGR	884.8	SG3	314.6	ST	228.9
RDE	-.0715	RRA	.0421	RC3	-1.3867	FAU	.06186	RRT	-.7938	RRF	.9015	RTF	-.8447	CRT	-.2348
FDE	.5432	FRA	.4471	FC3	-5.4199	BSP	4281	SGB	1440.4	R23	-.1735	R13	.9098	LSA	506.9
BDE	.0717	BRA	.4166	BC3	1.9337	FSP	-903	SG1	1369.4	SG2	446.6	THA	143.84	EL1	232.1

SR	134.8	SS	490.7		
CRS	.8727	CST	.2053		
MSA	231.2	SSA	30.9		
EL2	129.3	ALF	168.52		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 280.024

RL	150.98	LAL	.00	LOL	338.15	VL	26.821	GAL	-3.54	AZL	88.25	HCA	123.58	SMA	127.77	ECC	.19153	INC	1.7450	V1	29.511
RP	107.57	LAP	1.45	LOP	101.74	VP	37.800	GAP	-6.28	AZP	90.97	TAL	195.28	TAP	318.86	RCA	103.30	APO	152.25	V2	35.229
RC	59.382	GL	15.11	GP	-29.84	ZAL	113.48	ZAP	40.81	ETS	37.73	ZAE	138.30	ETE	314.29	ZAC	72.38	ETC	261.63	CLP	-29.25

PLANETOCENTRIC CONIC

C3	9.784	VHL	3.128	DLA	-1.53	RAL	225.79	RAD	6567.4	VEL	11.453	PTH	1.99	VHP	5.312	DPA	-51.16	RAP	242.57	ECC	1.1610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 57 3	2010.36	-14.15	28.95	76.52	114.79	4 30 34	1410.4	-10.69	21.98
90.00	15 32 28	4749.01	16.77	203.61	76.95	66.84	16 51 37	4149.0	13.49	196.47
100.00	5 17 41	1750.26	-14.95	9.43	76.12	116.19	5 46 51	1150.3	-11.31	2.53
100.00	16 54 31	4484.35	17.58	183.77	76.58	65.43	18 9 15	3884.3	14.12	176.69
110.00	6 24 18	1541.74	-17.08	352.41	74.94	120.07	6 50 0	941.7	-12.95	345.73
110.00	18 4 23	4265.64	19.74	166.03	75.44	61.51	19 15 29	3665.6	15.78	159.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.0148	TRA	-.4039	TC3	1.3236	BAU	.2695	SGT	1110.9	SGR	993.5	SG3	341.4	ST	225.1
RDE	-.0217	RRA	.0545	RC3	-1.5788	FAU	.06583	RRT	-.8070	RRF	.9259	RTF	-.8409	CRT	-.4838
FDE	.6883	FRA	.4721	FC3	-5.8246	BSP	4445	SGB	1490.4	R23	-.1744	R13	.9231	LSA	598.8
BDE	.0263	BRA	.4076	BC3	2.0602	FSP	-991	SG1	1417.7	SG2	459.8	THA	138.95	EL1	226.9

SR	58.0	SS	593.0		
CRS	.5231	CST	.3249		
MSA	215.1	SSA	28.3		
EL2	50.3	ALF	172.53		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 286.661

RL	150.98	LAL	.00	LOL	338.15	VL	26.884	GAL	-3.60	AZL	87.97	HCA	126.82	SMA	128.19	ECC	.18820	INC	2.0297	V1	29.511
RP	107.55	LAP	1.62	LOP	104.98	VP	37.851	GAP	-5.66	AZP	91.22	TAL	195.88	TAP	322.70	RCA	104.07	APO	152.32	V2	35.235
RC	61.346	GL	17.68	GP	-32.58	ZAL	114.07	ZAP	44.83	ETS	36.00	ZAE	136.91	ETE	310.43	ZAC	69.63	ETC	261.40	CLP	-32.69

PLANETOCENTRIC CONIC

C3	9.788	VHL	3.129	DLA	1.21	RAL	225.64	RAD	6567.4	VEL	11.453	PTH	1.99	VHP	5.121	DPA	-53.74	RAP	241.02	ECC	1.1611

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 36 10	2095.26	-16.51	34.07	76.75	113.34	4 11 6	1495.3	-13.21	26.94
90.00	15 52 8	4664.27	14.43	198.49	76.41	65.37	17 9 53	4064.3	10.99	191.50
100.00	4 58 5	1831.07	-17.32	14.26	76.38	114.75	5 28 36	1231.1	-13.83	7.20
100.00	17 12 55	4403.70	15.23	178.94	76.02	63.96	18 26 19	3803.7	11.61	172.02
110.00	6 7 37	1613.42	-19.47	356.59	75.23	118.66	6 34 30	1013.4	-15.50	349.73
110.00	18 19 52	4194.11	17.36	161.85	74.84	60.08	19 29 47	3594.1	13.26	155.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.0322	TRA	-.3945	TC3	1.2607	BAU	.2851	SGT	1071.4	SGR	1121.5	SG3	367.1	ST	225.9
RDE	.0386	RRA	.0706	RC3	-1.7769	FAU	.06944	RRT	-.8111	RRF	.9448	RTF	-.8324	CRT	-.6783
FDE	.8521	FRA	.5028	FC3	-6.1422	BSP	4628	SGB	1551.0	R23	-.1675	R13	.9367	LSA	714.8
BDE	.0503	BRA	.4007	BC3	2.1787	FSP	-1074	SG1	1476.2	SG2	476.1	THA	133.39	EL1	234.1

SR	87.3	SS	703.0		
CRS	-.9006	CST	.4310		
MSA	203.3	SSA	25.2		
EL2	61.9	ALF	164.18		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 293.276

RL	150.98	LAL	.00	LOL	338.15	VL	26.939	GAL	-3.64	AZL	87.66	HCA	130.05	SMA	128.56	ECC	.18531	INC	2.3398	V1	29.511
RP	107.53	LAP	1.79	LOP	108.23	VP	37.895	GAP	-5.07	AZP	91.51	TAL	196.41	TAP	326.47	RCA	104.74	APO	152.38	V2	35.240
RC	63.355	GL	20.42	GP	-35.57	ZAL	114.42	ZAP	49.07	ETS	34.17	ZAE	135.33	ETE	306.22	ZAC	66.63	ETC	261.06	CLP	-36.35

PLANETOCENTRIC CONIC

C3	9.898	VHL	3.146	DLA	4.05	RAL	225.70	RAD	6567.4	VEL	11.458	PTH	1.99	VHP	4.968	DPA	-56.48	RAP	238.83	ECC	1.1629

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 15 12	2185.90	-18.86	39.67	77.49	111.52	3 51 38	1585.9	-15.77	32.36
90.00	16 13 33	4578.06	11.92	193.40	76.33	64.12	17 29 51	3978.1	8.35	186.55
100.00	4 38 27	1917.41	-19.69	19.57	77.13	112.95	5 10 24	1317.4	-16.42	12.31
100.00	17 33 0	4321.79	12.73	174.14	75.91	62.72	18 45 2	3721.8	8.97	167.37
110.00	5 51 3	1690.18	-21.91	1.21	76.02	116.92	6 19 13	1090.2	-18.13	354.13
110.00	18 36 53	4121.78	14.86	157.74	74.69	58.86	19 45 35	3521.8	10.63	151.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY					
TDE	-.0466	TRA	-.3881	TC3	1.1465	BAU	.3014	SGT	1014.7	SGR	1266.5	SG3	389.5	ST	229.9
RDE	.1132	RRA	.0927	RC3	-1.9677	FAU	.07219	RRT	-.8019	RRF	.9589	RTF	-.8152	CRT	-.5871
FDE	1.0357	FRA	.5439	FC3	-6.3140	BSP	4801	SGB	1622.9	R23	-.1523	R13	.9499	LSA	857.4
BDE	.1224	BRA	.3990	BC3	2.2774	FSP	-1144	SG1	1544.9	SG2	497.0	THA	127.21	EL1	280.9

SR	215.5	SS	821.3		
CRS	-.9903	CST	.5137		
MSA	195.5	SSA	21.8		
EL2	142.7	ALF	138.15		

LAUNCH DATE SEP 1 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 299.868

RL	150.98	LAL	.00	LOL	338.15	VL	26.986	GAL	-3.68	AZL	87.32	HCA	133.29	SMA	128.87	ECC	.18281	INC	2.6809	V1	29.511
RP	107.52	LAP	1.95	LOP	111.47	VP	37.933	GAP	-4.49	AZP	91.84	TAL	196.87	TAP	330.15	RCA	105.31	APO	152.44	V2	35.245
RC	65.403	GL	23.32	GP	-38.79	ZAL	114.50	ZAP	53.51	ETS	32.16	ZAE	133.50	ETE	301.71	ZAC	63.37	ETC	260.61	CLP	-40.27

PLANETOCENTRIC CONIC

C3	10.127	VHL	3.182	DLA	7.01	RAL	225.97	RAD	6567.4	VEL	11.468	PTH	1.99	VHP	4.860	DPA	-59.33	RAP	235.82	ECC	1.1667		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 53 50	2283.48	-21.18	45.89	78.75	109.25	3 31 53	1683.5	-18.36	38.35
90.00	16 37 5	4489.59	9.24	188.28	76.74	63.12	17 51 55	3889.6	5.56	181.53
100.00	4 18 32	2010.31	-22.05	25.46	78.41	110.71	4 52 2	1410.3	-19.03	17.97
100.00	17 55 5	4237.98	10.07	169.35	76.30	61.70	19 5 43	3638.0	6.21	162.68
110.00	5 34 26	1772.77	-24.36	6.37	77.36	114.75	6 3 59	1172.8	-20.82	359.02
110.00	18 55 40	4048.29	12.23	153.66	75.01	57.83	20 3 8	3448.3	7.90	147.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0477	TRA	-.3765	TC3	1.0128	BAU	.3226	SGT	943.0	SGR	1435.8	SG3	408.2	ST	223.0	SR	369.3	SS	932.8				
RDE	.2007	RRA	.1180	RC3	-2.1573	FAU	.07442	RRT	-.7845	RRF	.9696	RTF	-.7895	CRT	-.5462	CRS	-.9978	CST	.5159				
FDE	1.2195	FRA	.5805	FC3	-6.3620	BSP	5143	SGB	1717.8	R23	-.1302	R13	.9620	LSA	1009.9	MSA	189.6	SSA	18.8				
BDE	.2062	BRA	.3945	BC3	2.3832	FSP	-1217	SG1	1639.7	SG2	512.0	THA	120.56	EL1	394.3	EL2	174.9	ALF	113.04				

LAUNCH DATE SEP 1 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 306.435

RL	150.98	LAL	.00	LOL	338.15	VL	27.025	GAL	-3.70	AZL	86.94	HCA	136.52	SMA	129.14	ECC	.18068	INC	3.0604	V1	29.511		
RP	107.51	LAP	2.11	LOP	114.71	VP	37.965	GAP	-3.93	AZP	92.22	TAL	197.24	TAP	333.76	RCA	105.81	APO	152.48	V2	35.249		
RC	67.486	GL	26.39	GP	-42.23	ZAL	114.31	ZAP	58.09	ETS	29.89	ZAE	131.37	ETE	296.95	ZAC	59.88	ETC	260.00	CLP	-44.45		

PLANETOCENTRIC CONIC

C3	10.494	VHL	3.239	DLA	10.08	RAL	226.47	RAD	6567.4	VEL	11.484	PTH	2.00	VHP	4.799	DPA	-62.24	RAP	231.80	ECC	1.1727		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 31 38	2389.60	-23.39	52.88	80.62	106.42	3 11 27	1789.6	-20.92	45.08
90.00	17 3 17	4397.81	6.38	183.06	77.70	62.35	18 16 34	3797.8	2.63	176.39
100.00	3 57 57	2111.18	-24.32	32.09	80.31	107.93	4 33 8	1511.2	-21.64	24.32
100.00	18 19 38	4151.46	7.24	164.48	77.23	60.92	19 28 50	3551.5	3.30	157.90
110.00	5 17 31	1862.19	-26.79	12.19	79.31	112.08	5 48 34	1262.2	-23.55	4.52
110.00	19 16 33	3973.21	9.48	149.59	75.87	57.00	20 22 47	3373.2	5.07	143.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0404	TRA	-.3679	TC3	.8255	BAU	.3445	SGT	853.2	SGR	1618.2	SG3	419.6	ST	211.3	SR	554.1	SS	1046.3				
RDE	.3088	RRA	.1531	RC3	-2.3125	FAU	.07501	RRT	-.7403	RRF	.9774	RTF	-.7407	CRT	-.4788	CRS	-.9993	CST	.4641				
FDE	1.4121	FRA	.6289	FC3	-6.1879	BSP	5457	SGB	1829.3	R23	-.1030	R13	.9723	LSA	1188.1	MSA	186.4	SSA	16.0				
BDE	.3114	BRA	.3985	BC3	2.4554	FSP	-1258	SG1	1750.8	SG2	530.1	THA	113.62	EL1	564.4	EL2	182.2	ALF	101.57				

LAUNCH DATE SEP 1 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 312.977

RL	150.98	LAL	.00	LOL	338.15	VL	27.059	GAL	-3.71	AZL	86.51	HCA	139.75	SMA	129.37	ECC	.17886	INC	3.4881	V1	29.511		
RP	107.50	LAP	2.25	LOP	117.96	VP	37.991	GAP	-3.39	AZP	92.66	TAL	197.52	TAP	337.28	RCA	106.23	APO	152.51	V2	35.253		
RC	69.600	GL	29.64	GP	-45.86	ZAL	113.82	ZAP	62.75	ETS	27.26	ZAE	128.91	ETE	292.01	ZAC	56.18	ETC	259.21	CLP	-48.90		

PLANETOCENTRIC CONIC

C3	11.033	VHL	3.322	DLA	13.26	RAL	227.20	RAD	6567.4	VEL	11.507	PTH	2.00	VHP	4.794	DPA	-65.14	RAP	226.49	ECC	1.1816		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 7 55	2506.69	-25.42	60.86	83.15	102.92	2 49 42	1906.7	-23.39	52.78
90.00	17 32 52	4301.15	3.30	177.63	79.28	61.86	18 44 34	3701.1	-.49	171.00
100.00	3 36 11	2222.06	-26.44	39.65	82.87	104.49	4 13 13	1622.1	-24.18	31.57
100.00	18 47 18	4061.02	4.22	159.47	78.77	60.38	19 54 59	3461.0	.24	152.93
110.00	4 59 59	1959.85	-29.11	18.84	81.97	108.77	5 32 38	1359.9	-26.27	10.80
110.00	19 40 0	3895.99	6.59	145.48	77.30	56.38	20 44 56	3296.0	2.13	139.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0149	TRA	-.3558	TC3	.6098	BAU	.3692	SGT	749.9	SGR	1814.0	SG3	422.4	ST	191.3	SR	762.9	SS	1148.6				
RDE	.4372	RRA	.1967	RC3	-2.4273	FAU	.07408	RRT	-.6560	RRF	.9830	RTF	-.6522	CRT	-.2720	CRS	-.9997	CST	.2637				
FDE	1.5926	FRA	.6768	FC3	-5.8131	BSP	5867	SGB	1962.8	R23	-.0745	R13	.9802	LSA	1379.7	MSA	184.3	SSA	13.5				
BDE	.4374	BRA	.4066	BC3	2.5027	FSP	-1278	SG1	1885.8	SG2	544.4	THA	106.60	EL1	764.8	EL2	183.6	ALF	94.14				

LAUNCH DATE SEP 1 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 319.493

RL	150.98	LAL	.00	LOL	338.15	VL	27.085	GAL	-3.72	AZL	86.02	HCA	142.99	SMA	129.55	ECC	.17733	INC	3.9771	V1	29.511		
RP	107.49	LAP	2.39	LOP	121.20	VP	38.013	GAP	-2.87	AZP	93.18	TAL	197.72	TAP	340.71	RCA	106.58	APO	152.53	V2	35.255		
RC	71.740	GL	33.08	GP	-49.63	ZAL	113.03	ZAP	67.40	ETS	24.20	ZAE	126.10	ETE	286.94	ZAC	52.33	ETC	258.21	CLP	-53.61		

PLANETOCENTRIC CONIC

C3	11.795	VHL	3.434	DLA	16.57	RAL	228.19	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	4.851	DPA	-67.90	RAP	219.58	ECC	1.1941		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 41 40	2638.50	-27.09	70.14	86.40	98.56	2 25 38	2038.5	-25.63	61.78
90.00	18 7 2	4197.07	-.06	171.82	81.60	61.68	19 16 59	3597.1	-3.84	165.18
100.00	3 12 22	2346.00	-28.24	48.41	86.18	100.22	3 51 28	1746.0	-26.54	40.02
100.00	19 19 1	3964.80	.96	154.18	81.03	60.12	20 25 6	3364.8	-3.02	147.65
110.00	4 41 18	2067.73	-31.23	26.52	85.42	104.67	5 15 46	1467.7	-28.90	18.10
110.00	20 6 34	3815.83	3.55	141.26	79.42	55.98	21 10 10	3215.8	-.94	135.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0338	TRA	-.3398	TC3	.3714	BAU	.3954	SGT	646.6	SGR	2015.7	SG3	415.0	ST	186.4	SR	994.2	SS	1236.9				
RDE	.5899	RRA	.2521	RC3	-2.4800	FAU	.07131	RRT	-.4900	RRF	.9870	RTF	-.4825	CRT	.1712	CRS	-.9999	CST	-.1761				
FDE	1.7530	FRA	.7249	FC3	-5.2341	BSP	6335	SGB	2116.9	R23	-.0470	R13	.9859	LSA	1587.2	MSA	183.5	SSA	11.3				
BDE	.5909	BRA	.4232	BC3	2.5076	FSP	-1265	SG1	2042.5	SG2	556.3	THA	99.66	EL1	994.8	EL2	183.5	ALF	88.10				

LAUNCH DATE SEP 1 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 325.983

RL	150.98	LAL	.00	LOL	338.15	VL	27.106	GAL	-3.71	AZL	85.45	HCA	146.22	SMA	129.70	ECC	.17606	INC	4.5453	V1	29.511
RP	107.48	LAP	2.53	LOP	124.45	VP	38.030	GAP	-2.37	AZP	93.78	TAL	197.83	TAP	344.05	RCA	106.86	APO	152.53	V2	35.257
RC	73.903	GL	36.71	GP	-53.50	ZAL	111.95	ZAP	71.94	ETS	20.63	ZAE	122.96	ETE	281.78	ZAC	48.35	ETC	256.93	CLP	-58.58

PLANETOCENTRIC CONIC

C3	12.860	VHL	3.586	DLA	19.99	RAL	229.45	RAD	6567.5	VEL	11.586	PTH	2.03	VHP	4.982	DPA	-70.38	RAP	210.68	ECC	1.2116

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 10 56	2791.53	-28.16	81.21	90.40	93.12	1 57 28	2191.5	-27.43	72.62
90.00	18 47 48	4080.74	-3.80	165.32	84.84	61.92	19 55 49	3480.7	-7.53	158.62
100.00	2 45 4	2487.99	-29.52	58.77	90.29	94.92	3 26 32	1888.0	-28.53	50.11
100.00	19 56 21	3859.51	-2.61	148.40	84.17	60.21	21 0 41	3259.5	-6.55	141.83
110.00	4 20 44	2188.70	-32.96	35.52	89.77	99.61	4 57 13	1588.7	-31.29	26.70
110.00	20 37 11	3731.56	.34	136.86	82.34	55.82	21 39 22	3131.6	-4.15	130.65

DIFFERENTIAL CORRECTIONS

TDE	.1149	TRA	-.3168	TC3	.1263	BAU	.4229
RDE	.7675	RRA	.3211	RC3	-2.4567	FAU	.06676
FDE	1.8777	FRA	.7677	FC3	-4.4939	BSP	6868
BDE	.7761	BRA	.4511	BC3	2.4600	FSP	-1222

MID-COURSE EXECUTION ACCURACY

SGT	576.3	SGR	2215.0	SG3	396.8		
RRT	-.1790	RRF	.9899	RTF	-.1679		
SGB	2288.8	R23	-.0221	R13	.9897		
SG1	2217.6	SG2	566.3	THA	92.85		

ORBIT DETERMINATION ACCURACY

ST	244.6	SR	1238.3	SS	1302.8
CRT	.6555	CRS	-.9999	CST	-.6581
LSA	1804.6	MSA	183.7	SSA	9.5
EL1	1248.8	EL2	183.2	ALF	82.46

LAUNCH DATE SEP 1 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 332.445

RL	150.98	LAL	.00	LOL	338.15	VL	27.122	GAL	-3.68	AZL	84.78	HCA	149.45	SMA	129.81	ECC	.17502	INC	5.2183	V1	29.511
RP	107.48	LAP	2.65	LOP	127.70	VP	38.042	GAP	-1.88	AZP	94.50	TAL	197.86	TAP	347.30	RCA	107.09	APO	152.53	V2	35.258
RC	76.087	GL	40.52	GP	-57.45	ZAL	110.57	ZAP	76.26	ETS	16.51	ZAE	119.50	ETE	276.57	ZAC	44.28	ETC	255.33	CLP	-63.80

PLANETOCENTRIC CONIC

C3	14.355	VHL	3.789	DLA	23.53	RAL	231.00	RAD	6567.6	VEL	11.651	PTH	2.05	VHP	5.200	DPA	-72.43	RAP	199.49	ECC	1.2362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 31 28	2979.94	-28.09	94.97	95.05	86.23	1 21 8	2379.9	-28.31	86.31
90.00	19 39 36	3940.29	-8.25	157.39	89.30	62.81	20 45 16	3340.3	-11.83	150.54
100.00	2 11 26	2657.61	-29.85	71.35	95.15	88.31	2 55 44	2057.6	-29.76	62.55
100.00	20 42 19	3737.85	-6.69	141.68	88.46	60.80	21 44 36	3137.9	-10.53	134.99
110.00	3 57 2	2327.22	-34.03	46.19	95.08	93.39	4 35 49	1727.2	-33.19	37.05
110.00	21 13 12	3641.01	-3.13	132.13	86.26	55.94	22 13 53	3041.0	-7.57	125.87

DIFFERENTIAL CORRECTIONS

TDE	.2396	TRA	-.2831	TC3	-.1083	BAU	.4496
RDE	.9723	RRA	.4071	RC3	-2.3401	FAU	.06041
FDE	1.9590	FRA	.8031	FC3	-3.6431	BSP	7435
BDE	1.0014	BRA	.4958	BC3	2.3426	FSP	-1144

MID-COURSE EXECUTION ACCURACY

SGT	596.7	SGR	2399.4	SG3	368.1		
RRT	.2548	RRF	.9920	RTF	.2680		
SGB	2472.5	R23	.0001	R13	.9921		
SG1	2404.5	SG2	575.8	THA	86.15		

ORBIT DETERMINATION ACCURACY

ST	388.5	SR	1485.0	SS	1343.3
CRT	.8748	CRS	-1.0000	CST	-.8763
LSA	2031.3	MSA	185.1	SSA	8.0
EL1	1524.0	EL2	183.4	ALF	76.92

LAUNCH DATE SEP 1 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 338.879

RL	150.98	LAL	.00	LOL	338.15	VL	27.133	GAL	-3.65	AZL	83.97	HCA	152.67	SMA	129.88	ECC	.17419	INC	6.0333	V1	29.511
RP	107.48	LAP	2.77	LOP	130.95	VP	38.050	GAP	-1.41	AZP	95.36	TAL	197.79	TAP	350.46	RCA	107.26	APO	152.51	V2	35.259
RC	78.289	GL	44.50	GP	-61.46	ZAL	108.92	ZAP	80.25	ETS	11.76	ZAE	115.76	ETE	271.27	ZAC	40.15	ETC	253.30	CLP	-69.23

PLANETOCENTRIC CONIC

C3	16.489	VHL	4.061	DLA	27.16	RAL	232.85	RAD	6567.7	VEL	11.742	PTH	2.07	VHP	5.527	DPA	-73.87	RAP	185.98	ECC	1.2714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 22 0	3259.33	-25.23	114.87	99.69	76.69	24 16 19	2659.3	-26.81	106.56
90.00	20 59 54	3723.30	-14.71	144.74	95.87	65.53	22 1 57	3123.3	-17.89	137.50
100.00	1 23 13	2881.22	-28.26	87.76	100.40	79.84	2 11 14	2281.2	-29.38	79.13
100.00	21 45 17	3576.63	-11.92	132.57	94.47	62.39	22 44 54	2976.6	-15.53	125.63
110.00	3 27 48	2491.38	-33.96	58.99	101.23	85.83	4 9 19	1891.4	-34.16	49.75
110.00	21 57 12	3539.24	-6.98	126.78	91.51	56.45	22 56 11	2939.2	-11.35	120.40

DIFFERENTIAL CORRECTIONS

TDE	.4245	TRA	-.2324	TC3	-.3095	BAU	.4742
RDE	1.2043	RRA	.5134	RC3	-2.1287	FAU	.05268
FDE	1.9904	FRA	.8272	FC3	-2.7661	BSP	8031
BDE	1.2770	BRA	.5636	BC3	2.1511	FSP	-1038

MID-COURSE EXECUTION ACCURACY

SGT	746.9	SGR	2557.2	SG3	330.8		
RRT	.6033	RRF	.9933	RTF	.6167		
SGB	2664.0	R23	.0198	R13	.9934		
SG1	2598.8	SG2	586.1	THA	79.46		

ORBIT DETERMINATION ACCURACY

ST	609.2	SR	1717.6	SS	1354.6
CRT	.9474	CRS	-1.0000	CST	-.9486
LSA	2262.9	MSA	187.6	SSA	6.7
EL1	1813.0	EL2	184.7	ALF	71.22

LAUNCH DATE SEP 1 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 345.283

RL	150.98	LAL	.00	LOL	338.15	VL	27.140	GAL	-3.61	AZL	82.95	HCA	155.89	SMA	129.93	ECC	.17355	INC	7.0476	V1	29.511
RP	107.48	LAP	2.87	LOP	134.20	VP	38.054	GAP	-.96	AZP	96.44	TAL	197.64	TAP	353.53	RCA	107.38	APO	152.47	V2	35.258
RC	80.507	GL	48.61	GP	-65.54	ZAL	107.00	ZAP	83.80	ETS	6.29	ZAE	111.75	ETE	265.79	ZAC	35.94	ETC	250.65	CLP	-74.89

PLANETOCENTRIC CONIC

C3	19.622	VHL	4.430	DLA	30.84	RAL	235.03	RAD	6567.8	VEL	11.874	PTH	2.11	VHP	5.996	DPA	-74.53	RAP	170.66	ECC	1.3229

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.24	20 37 57	3858.93	-21.42	157.78	103.98	67.26	21 42 16	3258.9	-24.31	150.10
102.76	0 5 16	3204.80	-21.40	109.52	103.98	67.25	0 58 41	2604.8	-24.30	101.84
77.24	20 37 57	3858.93	-21.42	157.78	103.98	67.26	21 42 16	3258.9	-24.31	150.10
102.76	0 5 16	3204.80	-21.40	109.52	103.98	67.25	0 58 41	2604.8	-24.30	101.84
110.00	2 46 43	2701.00	-31.77	74.92	107.75	76.66	3 31 44	2101.0	-33.27	66.02
110.00	22 55 40	3410.74	-11.75	119.88	98.73	57.67	23 52 31	2810.7	-15.93	113.27

DIFFERENTIAL CORRECTIONS

TDE	.6945	TRA	-.1553	TC3	-.4564	BAU	.4941
RDE	1.4605	RRA	.6443	RC3	-1.8273	FAU	.04399
FDE	1.9695	FRA	.8375	FC3	-1.9410	BSP	8638
BDE	1.6172	BRA	.6628	BC3	1.8835	FSP	-911

MID-COURSE EXECUTION ACCURACY

SGT	1012.5	SGR	2670.5	SG3	287.1		
RRT	.7857	RRF	.9942	RTF	.7992		
SGB	2856.0	R23	.0375	R13	.9939		
SG1	2792.5	SG2	599.0	THA	72.58		

ORBIT DETERMINATION ACCURACY

ST	901.1	SR	1912.0	SS	1334.6
CRT	.9734	CRS	-1.0000	CST	-.9747
LSA	2492.4	MSA	191.7	SSA	5.6
EL1	2105.4	EL2	187.5	ALF	65.14

LAUNCH DATE SEP 1 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 351.654

RL	150.98	LAL	.00	LOL	338.15	VL	27.142	GAL	-3.55	AZL	81.65	HCA	159.10	SMA	129.94	ECC	.17306	INC	8.3528	VI	29.511
RP	107.48	LAP	2.97	LOP	137.45	VP	38.055	GAP	-.52	AZP	97.81	TAL	197.40	TAP	356.50	RCA	107.45	APO	152.43	V2	35.257
RC	82.739	GL	52.79	GP	-69.72	ZAL	104.87	ZAP	86.83	ETS	359.94	ZAE	107.48	ETE	259.93	ZAC	31.63	ETC	247.08	CLP	-80.81

PLANETOCENTRIC CONIC

C3	24.415	VHL	4.941	DLA	34.51	RAL	237.56	RAD	6568.0	VEL	12.074	PTH	2.16	VHP	6.663	DPA	-74.32	RAP	154.58	ECC	1.4018

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.40	19 56 41	4071.24	-22.20	174.43	111.17	62.87	21 4 32	3471.2	-25.65	166.95
110.60	1 6 45	3098.09	-22.18	101.75	111.17	62.86	1 58 23	2498.1	-25.64	94.27
69.40	19 56 41	4071.24	-22.20	174.43	111.17	62.87	21 4 32	3471.2	-25.65	166.95
110.60	1 6 45	3098.09	-22.18	101.75	111.17	62.86	1 58 23	2498.1	-25.64	94.27
69.40	19 56 41	4071.24	-22.20	174.43	111.17	62.87	21 4 32	3471.2	-25.65	166.95
110.60	1 6 45	3098.09	-22.18	101.75	111.17	62.86	1 58 23	2498.1	-25.64	94.27

DIFFERENTIAL CORRECTIONS

TDE	1.0904	TRA	-.0353	TC3	-.5334	BAU	.5056
RDE	1.7323	RRA	.8065	RC3	-1.4544	FAU	.03485
FDE	1.9022	FRA	.8343	FC3	-1.2357	BSP	9231
BDE	2.0469	BRA	.8072	BC3	1.5491	FSP	-771

MID-COURSE EXECUTION ACCURACY

SGT	1370.7	SGR	2718.2	SG3	240.3		
RRT	.8699	RRF	.9945	RTF	.8851		
SGB	3044.2	R23	.0543	R13	.9939		
SG1	2981.2	SG2	616.5	THA	65.18		

ORBIT DETERMINATION ACCURACY

ST	1264.6	SR	2037.9	SS	1286.1
CRT	.9839	CRS	-.9999	CST	-.9856
LSA	2714.2	MSA	198.0	SSA	4.8
EL1	2390.6	EL2	192.8	ALF	58.37

LAUNCH DATE SEP 1 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 357.987

RL	150.98	LAL	.00	LOL	338.15	VL	27.140	GAL	-3.48	AZL	79.89	HCA	162.29	SMA	129.93	ECC	.17273	INC	10.1058	VI	29.511
RP	107.49	LAP	3.06	LOP	140.70	VP	38.052	GAP	-.09	AZP	99.64	TAL	197.08	TAP	359.37	RCA	107.49	APO	152.37	V2	35.255
RC	84.985	GL	56.93	GP	-74.12	ZAL	102.57	ZAP	89.24	ETS	352.21	ZAE	102.89	ETE	253.14	ZAC	27.14	ETC	241.82	CLP	-87.22

PLANETOCENTRIC CONIC

C3	32.173	VHL	5.672	DLA	38.05	RAL	240.47	RAD	6568.3	VEL	12.391	PTH	2.24	VHP	7.623	DPA	-73.20	RAP	138.94	ECC	1.5295

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.45	19 35 57	4236.03	-21.85	187.43	119.67	58.04	20 46 33	3636.0	-25.91	180.31
116.55	1 50 39	3070.79	-21.83	99.35	119.66	58.03	2 41 50	2470.8	-25.89	92.22
63.45	19 35 57	4236.03	-21.85	187.43	119.67	58.04	20 46 33	3636.0	-25.91	180.31
116.55	1 50 39	3070.79	-21.83	99.35	119.66	58.03	2 41 50	2470.8	-25.89	92.22
63.45	19 35 57	4236.03	-21.85	187.43	119.67	58.04	20 46 33	3636.0	-25.91	180.31
116.55	1 50 39	3070.79	-21.83	99.35	119.66	58.03	2 41 50	2470.8	-25.89	92.22

DIFFERENTIAL CORRECTIONS

TDE	1.6886	TRA	.1621	TC3	-.5330	BAU	.5027
RDE	1.9835	RRA	1.0052	RC3	-1.0400	FAU	.02576
FDE	1.7976	FRA	.8196	FC3	-.6932	BSP	9792
BDE	2.6050	BRA	1.0182	BC3	1.1687	FSP	-627

MID-COURSE EXECUTION ACCURACY

SGT	1821.6	SGR	2658.7	SG3	193.6		
RRT	.9083	RRF	.9940	RTF	.9289		
SGB	3222.9	R23	.0705	R13	.9934		
SG1	3158.4	SG2	641.5	THA	56.54		

ORBIT DETERMINATION ACCURACY

ST	1707.0	SR	2040.9	SS	1213.9
CRT	.9881	CRS	-.9998	CST	-.9908
LSA	2917.1	MSA	207.7	SSA	4.0
EL1	2653.0	EL2	201.8	ALF	50.15

LAUNCH DATE SEP 1 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 364.272

RL	150.98	LAL	.00	LOL	338.15	VL	27.135	GAL	-3.39	AZL	77.40	HCA	165.47	SMA	129.89	ECC	.17252	INC	12.5984	VI	29.511
RP	107.50	LAP	3.14	LOP	143.95	VP	38.046	GAP	.31	AZP	102.21	TAL	196.65	TAP	2.12	RCA	107.49	APO	152.30	V2	35.253
RC	87.241	GL	60.84	GP	-78.87	ZAL	100.16	ZAP	90.98	ETS	341.57	ZAE	97.85	ETE	243.78	ZAC	22.32	ETC	232.89	CLP	-95.07

PLANETOCENTRIC CONIC

C3	45.771	VHL	6.765	DLA	41.27	RAL	243.73	RAD	6568.7	VEL	12.928	PTH	2.36	VHP	9.055	DPA	-71.13	RAP	124.49	ECC	1.7533

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.62	19 26 30	4388.71	-19.91	198.86	129.37	53.07	20 39 38	3788.7	-24.58	192.25
121.38	2 26 8	3095.97	-19.90	100.04	129.35	53.07	3 17 44	2496.0	-24.56	93.43
58.62	19 26 30	4388.71	-19.91	198.86	129.37	53.07	20 39 38	3788.7	-24.58	192.25
121.38	2 26 8	3095.97	-19.90	100.04	129.35	53.07	3 17 44	2496.0	-24.56	93.43
58.62	19 26 30	4388.71	-19.91	198.86	129.37	53.07	20 39 38	3788.7	-24.58	192.25
121.38	2 26 8	3095.97	-19.90	100.04	129.35	53.07	3 17 44	2496.0	-24.56	93.43

DIFFERENTIAL CORRECTIONS

TDE	2.6509	TRA	.5229	TC3	-.4601	BAU	.4733
RDE	2.0686	RRA	1.2281	RC3	-.6219	FAU	.01717
FDE	1.6745	FRA	.7993	FC3	-.3248	BSP	10356
BDE	3.3625	BRA	1.3348	BC3	.7735	FSP	-493

MID-COURSE EXECUTION ACCURACY

SGT	2403.1	SGR	2385.8	SG3	150.0		
RRT	.9196	RRF	.9898	RTF	.9557		
SGB	3386.3	R23	.0865	R13	.9928		
SG1	3317.5	SG2	679.0	THA	44.77		

ORBIT DETERMINATION ACCURACY

ST	2252.1	SR	1800.6	SS	1129.5
CRT	.9881	CRS	-.9990	CST	-.9940
LSA	3088.7	MSA	222.8	SSA	3.4
EL1	2875.2	EL2	216.6	ALF	38.57

LAUNCH DATE SEP 1 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 370.491

RL	150.98	LAL	.00	LOL	338.15	VL	27.127	GAL	-3.28	AZL	73.57	HCA	168.60	SMA	129.84	ECC	.17240	INC	16.4344	VI	29.511
RP	107.51	LAP	3.21	LOP	147.20	VP	38.037	GAP	.69	AZP	106.13	TAL	196.12	TAP	4.72	RCA	107.45	APO	152.22	V2	35.249
RC	89.506	GL	64.15	GP	-84.20	ZAL	97.71	ZAP	92.00	ETS	321.60	ZAE	92.10	ETE	225.34	ZAC	16.88	ETC	212.73	CLP	-110.17

PLANETOCENTRIC CONIC

C3	72.489	VHL	8.514	DLA	43.81	RAL	247.26	RAD	6569.4	VEL	13.923	PTH	2.54	VHP	11.333	DPA	-67.88	RAP	111.47	ECC	2.1930

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.05	19 25 46	4541.23	-15.98	208.94	139.90	48.64	20 41 28	3941.2	-21.17	202.93
124.95	2 55 1	3168.08	-15.97	103.03	139.89	48.64	3 47 50	2568.1	-21.16	97.02
55.05	19 25 46	4541.23	-15.98	208.94	139.90	48.64	20 41 28	3941.2	-21.17	202.93
124.95	2 55 1	3168.08	-15.97	103.03	139.89	48.64	3 47 50	2568.1	-21.16	97.02
55.05	19 25 46	4541.23	-15.98	208.94	139.90	48.64	20 41 28	3941.2	-21.17	202.93
124.95	2 55 1	3168.08	-15.97	103.03	139.89	48.64	3 47 50	2568.1	-21.16	97.02

DIFFERENTIAL CORRECTIONS

TDE	4.2918	TRA	1.3272	TC3	-.3213	BAU	.3836
RDE	1.2459	RRA	1.2881	RC3	-.2312	FAU	.00904
FDE	1.5701	FRA	.7927	FC3	-.1080	BSP	10794
BDE	4.4690	BRA	1.8495	BC3	.3958	FSP	-371

MID-COURSE EXECUTION ACCURACY

SGT	3189.5	SGR	1516.9	SG3	112.5		
RRT	.8523	RRF	.9344	RTF	.9790		
SGB	3531.9	R23	.1020	R13	.9923		
SG1	3455.1	SG2	732.4	THA	23.17		

ORBIT DETERMINATION ACCURACY

ST	2912.0	SR	912.7	SS	1057.1
CRT	.9616	CRS	-.9802	CST	-.9969
LSA	3220.2	MSA	246.1	SSA	2.6
EL1	3042.3	EL2	239.9	ALF	16.88

LAUNCH DATE SEP 1 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 376.595

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RL  150.98 LAL    .00 LOL 338.15 VL  27.115 GAL  -3.15 AZL  66.93 HCA 171.64 SMA 129.76 ECC .17232 INC23.0669 V1  29.511
RP  107.52 LAP   3.26 LOP 150.45 VP  38.025 GAP   1.04 AZP 112.85 TAL 195.44 TAP   7.09 RCA 107.40 APO 152.12 V2  35.245
RC  91.778 GL   66.00 GP  -87.15 ZAL  95.33 ZAP  92.28 ETS 262.15 ZAE  84.94 ETE 167.50 ZAC  10.29 ETC 146.45 CLP 143.38
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PLANETOCENTRIC CONIC

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C3 134.834 VHL 11.612 DLA  44.88 RAL 250.75 RAD 6570.4 VEL 16.005 PTH   2.82 VHP 15.350 DPA -62.81 RAP  99.77 ECC 3.2190
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.60	19 34 5	4688.73	-10.11	216.80	150.45	46.03	20 52 13	4088.7	-15.60	211.24
126.40	3 14 36	3285.88	-10.10	108.18	150.44	46.03	4 9 22	2685.9	-15.59	102.63
53.60	19 34 5	4688.73	-10.11	216.80	150.45	46.03	20 52 13	4088.7	-15.60	211.24
126.40	3 14 36	3285.88	-10.10	108.18	150.44	46.03	4 9 22	2685.9	-15.59	102.63
53.60	19 34 5	4688.73	-10.11	216.80	150.45	46.03	20 52 13	4088.7	-15.60	211.24
126.40	3 14 36	3285.88	-10.10	108.18	150.44	46.03	4 9 22	2685.9	-15.59	102.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.0601 TRA 2.7012 TC3 -.0778 BAU  .1430   SGT 3131.3 SGR 1861.7 SG3   83.3      ST  2559.8 SR  1810.8 SS  1042.3
RDE-3.6595 RRA -.6490 RC3  .0152 FAU .00062   RRT -.9203 RRF -.9184 RTF  .9988     CRT -.9892 CRS  .9888 CST-1.0000
FDE 1.5526 FRA  .8396 FC3 -.0040 BSP  11125   SGB 3642.9 R23 -.1025 R13 -.9935     LSA 3296.6 MSA  223.5 SSA    1.8
BDE 6.2447 BRA 2.7781 BC3  .0793 FSP   -274   SG1 3587.0 SG2  635.8 THA 150.29     EL1 3127.9 EL2  217.6 ALF 144.82
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 382.429

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RL  150.98 LAL    .00 LOL 338.15 VL  27.101 GAL  -2.96 AZL  53.26 HCA 174.46 SMA 129.66 ECC .17213 INC36.7389 V1  29.511
RP  107.53 LAP   3.31 LOP 153.70 VP  38.010 GAP   1.31 AZP 126.61 TAL 194.48 TAP   8.93 RCA 107.34 APO 151.98 V2  35.240
RC  94.056 GL   64.04 GP  -77.54 ZAL  93.14 ZAP  91.89 ETS 204.18 ZAE  74.34 ETE 111.06 ZAC   4.29 ETC  11.66 CLP  98.77
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PLANETOCENTRIC CONIC

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C3 324.207 VHL 18.006 DLA  42.27 RAL 253.32 RAD 6571.8 VEL 21.107 PTH   3.20 VHP 23.614 DPA -53.88 RAP  89.16 ECC 6.3356
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.20	19 58 38	4782.91	-3.62	219.13	159.34	47.85	21 18 21	4182.9	-8.96	213.55
122.80	3 10 29	3456.61	-3.61	117.39	159.32	47.85	4 8 6	2856.6	-8.95	111.81
57.20	19 58 38	4782.91	-3.62	219.13	159.34	47.85	21 18 21	4182.9	-8.96	213.55
122.80	3 10 29	3456.61	-3.61	117.39	159.32	47.85	4 8 6	2856.6	-8.95	111.81
57.20	19 58 38	4782.91	-3.62	219.13	159.34	47.85	21 18 21	4182.9	-8.96	213.55
122.80	3 10 29	3456.61	-3.61	117.39	159.32	47.85	4 8 6	2856.6	-8.95	111.81

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .5228 TRA 1.6550 TC3 -.0083 BAU  .6573   SGT  731.5 SGR 3600.3 SG3   64.2      ST   270.7 SR  3049.4 SS  1193.4
RDE-9.4096 RRA-4.4728 RC3 -.1514 FAU-.01311   RRT -.7027 RRF -.9938 RTF  .7714     CRT -.7528 CRS  .9988 CST -.7838
FDE 1.7859 FRA 1.0727 FC3  .0350 BSP  10786   SGB 3673.9 R23 -.0820 R13 -.9958     LSA 3280.5 MSA  184.6 SSA    1.8
BDE 9.4241 BRA 4.7691 BC3  .1517 FSP   -200   SG1 3637.6 SG2  515.1 THA  98.29     EL1 3056.2 EL2  177.8 ALF  93.84
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 387.344

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RL  150.98 LAL    .00 LOL 338.15 VL  27.084 GAL  -2.58 AZL  19.64 HCA 176.44 SMA 129.55 ECC .17132 INC70.3592 V1  29.511
RP  107.55 LAP   3.35 LOP 156.95 VP  37.994 GAP   1.33 AZP 160.32 TAL 192.65 TAP   9.10 RCA 107.35 APO 151.74 V2  35.235
RC  96.339 GL   51.28 GP  -57.56 ZAL  91.42 ZAP  91.05 ETS 187.98 ZAE  54.25 ETE  95.98 ZAC  21.14 ETC 290.38 CLP  91.95
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PLANETOCENTRIC CONIC

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C31066.737 VHL 32.661 DLA  29.25 RAL 252.97 RAD 6573.0 VEL 34.468 PTH   3.51 VHP 42.523 DPA -34.96 RAP  79.87 ECC18.5558
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.33	22 28 3	4411.91	.29	187.39	163.50	60.75	23 41 35	3811.9	-3.61	180.82
97.67	0 38 17	4003.64	.31	157.42	163.50	60.75	1 45 1	3403.6	-3.59	150.85
100.00	1 48 19	3779.22	-5.31	143.97	166.66	60.54	2 51 18	3179.2	-9.20	137.34
100.00	0 4 39	4111.57	5.91	162.26	160.35	60.64	1 13 10	3511.6	1.95	155.71
110.00	4 22 6	3297.51	-15.78	113.59	172.81	59.28	5 17 3	2697.5	-19.74	106.70
110.00	23 43 25	4166.04	16.40	160.24	154.21	59.58	24 52 51	3566.0	12.24	153.60

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-4.2579 TRA  .4392 TC3 -.0733 BAU 3.3647   SGT  891.6 SGR 3197.2 SG3   55.5      ST   747.5 SR  2288.3 SS  1620.0
RD-12.6870 RRA-8.7890 RC3 -.2243 FAU-.05623   RRT  .7745 RRF -.9988 RTF -.7464     CRT  .9640 CRS  .9997 CST  .9567
FDE 2.4287 FRA 1.8774 FC3  .0456 BSP   9609   SGB 3319.2 R23 -.0803 R13 -.9965     LSA 2894.6 MSA  201.6 SSA    1.5
BDE13.3824 BRA 8.7999 BC3  .2359 FSP   -169   SG1 3273.2 SG2  550.9 THA  77.45     EL1 2399.9 EL2  189.6 ALF  72.41
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 398.184

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RL  150.98 LAL    .00 LOL 338.15 VL  27.065 GAL  -3.34 AZL 148.73 HCA 183.95 SMA 129.42 ECC .17627 INC58.7317 V1  29.511
RP  107.57 LAP   3.37 LOP 160.20 VP  37.974 GAP   2.95 AZP  31.33 TAL 195.97 TAP  19.92 RCA 106.60 APO 152.23 V2  35.229
RC  98.624 GL  -56.09 GP  64.47 ZAL  92.40 ZAP  92.95 ETS 181.66 ZAE  67.99 ETE 271.54 ZAC 141.89 ETC 283.20 CLP  96.85
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PLANETOCENTRIC CONIC

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C3 774.468 VHL 27.829 DLA -73.87 RAL 207.73 RAD 6572.8 VEL 29.929 PTH   3.45 VHP 35.759 DPA  81.42 RAP   5.93 ECC13.7458
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.40	3 9 26	2435.26	.45	80.18	117.59	163.87	3 50 1	1835.3	8.13	78.36
161.60	13 56 2	660.44	.46	285.53	117.62	163.87	14 7 2	60.4	8.14	283.71
18.40	3 9 26	2435.26	.45	80.18	117.59	163.87	3 50 1	1835.3	8.13	78.36
161.60	13 56 2	660.44	.46	285.53	117.62	163.87	14 7 2	60.4	8.14	283.71
18.40	3 9 26	2435.26	.45	80.18	117.59	163.87	3 50 1	1835.3	8.13	78.36
161.60	13 56 2	660.44	.46	285.53	117.62	163.87	14 7 2	60.4	8.14	283.71

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.2199 TRA 1.1348 TC3 -.0996 BAU 2.5207   SGT 1472.7 SGR 3286.2 SG3   60.4      ST  1104.0 SR  2955.1 SS  1974.5
RD-14.3085 RRA-1.0380 RC3  .2222 FAU-.03856   RRT -.9294 RRF  .9993 RTF -.9236     CRT -.9884 CRS-1.0000 CST  .9878
FDE-3.0953 FRA -.2137 FC3  .0431 BSP  11408   SGB 3601.1 R23 -.0736 R13  .9967     LSA 3718.1 MSA  161.5 SSA    2.0
BDE15.2309 BRA 1.5380 BC3  .2435 FSP   -195   SG1 3566.0 SG2  501.0 THA 113.09     EL1 3150.7 EL2  157.2 ALF 110.32
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LAUNCH DATE  SEP  1 1970                          FLIGHT TIME 142.00                          ARRIVAL DATE  JAN 21 1971

 HELIOCENTRIC CONIC                                DISTANCE 403.449
  RL  150.98 LAL     .00 LOL 338.15 VL  27.044 GAL  -3.02 AZL 122.67 HCA 186.29 SMA 129.27 ECC .17577 INC32.6734 V1  29.511
  RP  107.59 LAP    3.39 LOP 163.45 VP  37.953 GAP   3.05 AZP  57.48 TAL 194.41 TAP  20.70 RCA 106.55 APO 152.00 V2  35.222
  RC 100.910 GL   -64.84 GP   79.80 ZAL  93.60 ZAP  95.28 ETS 168.69 ZAE  84.50 ETE 257.95 ZAC 156.85 ETC 282.11 CLP 120.63
 PLANETOCENTRIC CONIC
  C3 259.489 VHL 16.109 DLA -77.52 RAL 173.78 RAD 6571.5 VEL 19.514 PTH   3.11 VHP 20.613 DPA  75.83 RAP 273.00 ECC 5.2705
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     14.21     0 45 33   2343.55       7.06      81.24      82.20      167.42    1 24 37     1743.6      14.87      79.86
    165.79    11 49  1   5841.44       7.07     260.33      82.22      167.42   13 26 22     5241.4      14.87     258.95
     14.21     0 45 33   2343.55       7.06      81.24      82.20      167.42    1 24 37     1743.6      14.87      79.86
    165.79    11 49  1   5841.44       7.07     260.33      82.22      167.42   13 26 22     5241.4      14.87     258.95
     14.21     0 45 33   2343.55       7.06      81.24      82.20      167.42    1 24 37     1743.6      14.87      79.86
    165.79    11 49  1   5841.44       7.07     260.33      82.22      167.42   13 26 22     5241.4      14.87     258.95
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .1368 TRA  .4593 TC3 -.0287 BAU  .4566      SGT  763.1 SGR 3927.2 SG3   75.4            ST   232.0 SR  2553.8 SS  1070.4
  RDE-6.6876 RRA-1.8821 RC3  .1284 FAU-.00539      RRT -.8326 RRF  .9977 RTF -.7991            CRT -.5512 CRS -.9993 CST  .5202
  FDE-1.5955 FRA -.4012 FC3  .0180 BSP  12439      SGB 4000.7 R23 -.0743 R13  .9966            LSA 2771.7 MSA  197.4 SSA    1.5
  BDE 6.6890 BRA 1.9373 BC3  .1316 FSP   -241      SG1 3978.9 SG2  417.1 THA  99.29            EL1 2557.0 EL2  193.3 ALF  92.88

LAUNCH DATE  SEP  1 1970                          FLIGHT TIME 144.00                          ARRIVAL DATE  JAN 23 1971

 HELIOCENTRIC CONIC                                DISTANCE 409.297
  RL  150.98 LAL     .00 LOL 338.15 VL  27.022 GAL  -2.80 AZL 111.76 HCA 189.19 SMA 129.12 ECC .17605 INC21.7596 V1  29.511
  RP  107.61 LAP    3.39 LOP 166.70 VP  37.930 GAP   3.32 AZP  68.49 TAL 193.32 TAP  22.51 RCA 106.39 APO 151.85 V2  35.215
  RC 103.196 GL   -65.62 GP   81.58 ZAL  94.75 ZAP  98.42 ETS  89.27 ZAE  93.70 ETE 178.38 ZAC 162.91 ETC 222.47 CLP-179.67
 PLANETOCENTRIC CONIC
  C3 120.661 VHL 10.985 DLA -76.59 RAL 168.49 RAD 6570.3 VEL 15.556 PTH   2.77 VHP 14.043 DPA  67.15 RAP 257.27 ECC 2.9858
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     15.28     0 26 34   2215.03      15.42      79.05      74.70      166.08    1  3 29     1615.0      23.18      77.38
    164.72    11 25 47   5716.42      15.43     259.18      74.73      166.08   13  1  3     5116.4      23.18     257.51
     15.28     0 26 34   2215.03      15.42      79.05      74.70      166.08    1  3 29     1615.0      23.18      77.38
    164.72    11 25 47   5716.42      15.43     259.18      74.73      166.08   13  1  3     5116.4      23.18     257.51
     15.28     0 26 34   2215.03      15.42      79.05      74.70      166.08    1  3 29     1615.0      23.18      77.38
    164.72    11 25 47   5716.42      15.43     259.18      74.73      166.08   13  1  3     5116.4      23.18     257.51
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-4.0360 TRA-1.5020 TC3 -.1113 BAU  .1838      SGT 3987.1 SGR 1195.9 SG3  101.0            ST  2336.3 SR   366.0 SS   887.5
  RDE -.1487 RRA -.5302 RC3 -.0242 FAU .00828      RRT  .8814 RRF  .8494 RTF  .9969            CRT  .6148 CRS -.5749 CST -.9988
  FDE-1.2923 FRA -.4211 FC3 -.0594 BSP  13005      SGB 4162.6 R23 -.0974 R13  .9940            LSA 2508.9 MSA  291.8 SSA    2.0
  BDE 4.0387 BRA 1.5928 BC3  .1139 FSP   -325      SG1 4126.7 SG2  545.8 THA  15.08            EL1 2347.3 EL2  287.3 ALF   5.59

LAUNCH DATE  SEP  1 1970                          FLIGHT TIME 146.00                          ARRIVAL DATE  JAN 25 1971

 HELIOCENTRIC CONIC                                DISTANCE 415.307
  RL  150.98 LAL     .00 LOL 338.15 VL  26.997 GAL  -2.61 AZL 106.16 HCA 192.26 SMA 128.95 ECC .17664 INC16.1580 V1  29.511
  RP  107.64 LAP    3.39 LOP 169.94 VP  37.905 GAP   3.62 AZP  74.19 TAL 192.32 TAP  24.59 RCA 106.17 APO 151.73 V2  35.207
  RC 105.482 GL   -63.78 GP   76.40 ZAL  95.61 ZAP 102.08 ETS  52.87 ZAE 100.15 ETE 142.38 ZAC 163.98 ETC 209.50 CLP-152.80
 PLANETOCENTRIC CONIC
  C3  69.986 VHL  8.366 DLA -75.40 RAL 174.68 RAD 6569.3 VEL 13.833 PTH   2.53 VHP 10.739 DPA  60.25 RAP 250.15 ECC 2.1518
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     16.64     0 54  0   2093.25      23.17      76.24      78.26      164.08    1 28 53     1493.3      30.84      74.11
    163.36    11 47 44   5599.50      23.17     257.73      78.29      164.08   13 21  4     4999.5      30.85     255.60
     16.64     0 54  0   2093.25      23.17      76.24      78.26      164.08    1 28 53     1493.3      30.84      74.11
    163.36    11 47 44   5599.50      23.17     257.73      78.29      164.08   13 21  4     4999.5      30.85     255.60
     16.64     0 54  0   2093.25      23.17      76.24      78.26      164.08    1 28 53     1493.3      30.84      74.11
    163.36    11 47 44   5599.50      23.17     257.73      78.29      164.08   13 21  4     4999.5      30.85     255.60
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-2.9138 TRA-1.2019 TC3 -.4273 BAU  .4242      SGT 3892.8 SGR 1657.1 SG3  133.5            ST  2223.2 SR  1384.9 SS   990.4
  RDE 1.9818 RRA  .3373 RC3  .1516 FAU .01788      RRT -.9117 RRF -.9699 RTF  .9805            CRT -.9673 CRS  .9933 CST -.9902
  FDE-1.4813 FRA -.4069 FC3 -.2212 BSP  13048      SGB 4230.9 R23  .1255 R13 -.9898            LSA 2783.3 MSA  307.0 SSA    2.7
  BDE 3.5239 BRA 1.2483 BC3  .4534 FSP   -425      SG1 4183.2 SG2  633.4 THA 158.26            EL1 2602.0 EL2  300.2 ALF 148.46

LAUNCH DATE  SEP  1 1970                          FLIGHT TIME 148.00                          ARRIVAL DATE  JAN 27 1971

 HELIOCENTRIC CONIC                                DISTANCE 421.366
  RL  150.98 LAL     .00 LOL 338.15 VL  26.971 GAL  -2.42 AZL 102.79 HCA 195.40 SMA 128.77 ECC .17741 INC12.7937 V1  29.511
  RP  107.66 LAP    3.37 LOP 173.18 VP  37.878 GAP   3.94 AZP  77.65 TAL 191.35 TAP  26.75 RCA 105.93 APO 151.62 V2  35.198
  RC 107.765 GL   -60.97 GP   70.48 ZAL  96.12 ZAP 106.05 ETS  46.67 ZAE 105.26 ETE 137.16 ZAC 161.92 ETC 221.91 CLP-145.85
 PLANETOCENTRIC CONIC
  C3  46.570 VHL  6.824 DLA -73.99 RAL 183.91 RAD 6568.7 VEL 12.959 PTH   2.36 VHP  8.847 DPA  54.16 RAP 245.57 ECC 1.7664
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     18.26     1 34  7   1990.37      29.46      72.92      84.57      161.53    2  7 17     1390.4      37.01      70.17
    161.74    12 21 17   5503.00      29.47     256.03      84.59      161.53   13 53  0     4903.0      37.02     253.28
     18.26     1 34  7   1990.37      29.46      72.92      84.57      161.53    2  7 17     1390.4      37.01      70.17
    161.74    12 21 17   5503.00      29.47     256.03      84.59      161.53   13 53  0     4903.0      37.02     253.28
     18.26     1 34  7   1990.37      29.46      72.92      84.57      161.53    2  7 17     1390.4      37.01      70.17
    161.74    12 21 17   5503.00      29.47     256.03      84.59      161.53   13 53  0     4903.0      37.02     253.28
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-2.7636 TRA -.9577 TC3 -.8223 BAU  .5617      SGT 3891.5 SGR 2031.9 SG3  175.9            ST  2479.9 SR  1713.2 SS  1181.0
  RDE 2.0080 RRA  .3334 RC3  .3709 FAU .02747      RRT -.9408 RRF -.9882 RTF  .9743            CRT -.9835 CRS  .9986 CST -.9917
  FDE-1.7909 FRA -.3885 FC3 -.5106 BSP  14008      SGB 4390.0 R23  .1413 R13 -.9868            LSA 3226.2 MSA  267.2 SSA    3.4
  BDE 3.4160 BRA 1.0140 BC3  .9021 FSP   -584      SG1 4346.5 SG2  616.6 THA 153.26            EL1 3003.2 EL2  255.9 ALF 145.52
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 427.446

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RL  150.98 LAL    .00 LOL 338.15 VL  26.943 GAL  -2.23 AZL 100.55 HCA 198.57 SMA 128.59 ECC .17831 INC10.5517 V1  29.511
RP  107.69 LAP   3.34 LOP 176.43 VP  37.850 GAP   4.27 AZP  79.99 TAL 190.36 TAP  28.93 RCA 105.66 APO 151.52 V2  35.189
RC 110.046 GL  -57.79 GP   64.81 ZAL  96.26 ZAP 110.18 ETS  45.15 ZAE 109.47 ETE 137.14 ZAC 158.42 ETC 232.16 CLP-144.16
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PLANETOCENTRIC CONIC

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C3  33.956 VHL  5.827 DLA -72.32 RAL 193.42 RAD 6568.3 VEL 12.463 PTH   2.25 VHP  7.675 DPA  48.55 RAP 242.34 ECC 1.5588
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.18	2 16 0	1906.44	34.24	69.07	90.87	158.44	2 47 46	1306.4	41.62	65.56
159.82	12 55 14	5427.55	34.25	254.13	90.89	158.44	14 25 41	4827.6	41.63	250.63
20.18	2 16 0	1906.44	34.24	69.07	90.87	158.44	2 47 46	1306.4	41.62	65.56
159.82	12 55 14	5427.55	34.25	254.13	90.89	158.44	14 25 41	4827.6	41.63	250.63
20.18	2 16 0	1906.44	34.24	69.07	90.87	158.44	2 47 46	1306.4	41.62	65.56
159.82	12 55 14	5427.55	34.25	254.13	90.89	158.44	14 25 41	4827.6	41.63	250.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7301 TRA -.7555 TC3-1.2617 BAU  .6242   SGT 3917.8 SGR 2020.1 SG3  213.4     ST  2783.2 SR  1789.3 SS  1338.1
RDE 1.8063 RRA  .2229 RC3  .5465 FAU .03506   RRT -.9437 RRF -.9903 RTF  .9689     CRT -.9894 CRS  .9995 CST -.9934
FDE-2.0285 FRA -.3145 FC3 -.8938 BSP  13795   SGB 4407.9 R23  .1627 R13 -.9823     LSA 3561.2 MSA  236.5 SSA    4.3
BDE 3.2735 BRA  .7877 BC3 1.3749 FSP   -690   SG1 4367.0 SG2  599.4 THA 153.51     EL1 3301.5 EL2  218.8 ALF 147.38
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 152.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 433.523

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RL  150.98 LAL    .00 LOL 338.15 VL  26.914 GAL  -2.03 AZL  98.95 HCA 201.75 SMA 128.39 ECC .17935 INC 8.9467 V1  29.511
RP  107.72 LAP   3.30 LOP 179.66 VP  37.820 GAP   4.59 AZP  81.68 TAL 189.35 TAP  31.11 RCA 105.37 APO 151.42 V2  35.179
RC 112.324 GL  -54.47 GP   59.51 ZAL  96.04 ZAP 114.34 ETS  44.81 ZAE 112.98 ETE 138.75 ZAC 154.44 ETC 239.02 CLP-144.32
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PLANETOCENTRIC CONIC

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C3  26.421 VHL  5.140 DLA -70.41 RAL 202.26 RAD 6568.1 VEL 12.157 PTH   2.18 VHP  6.916 DPA  43.30 RAP 240.01 ECC 1.4348
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.39	2 55 56	1838.12	37.70	64.75	96.28	154.92	3 26 35	1238.1	44.86	60.39
157.61	13 25 51	5370.19	37.71	252.10	96.30	154.92	14 55 21	4770.2	44.87	247.75
22.39	2 55 56	1838.12	37.70	64.75	96.28	154.92	3 26 35	1238.1	44.86	60.39
157.61	13 25 51	5370.19	37.71	252.10	96.30	154.92	14 55 21	4770.2	44.87	247.75
22.39	2 55 56	1838.12	37.70	64.75	96.28	154.92	3 26 35	1238.1	44.86	60.39
157.61	13 25 51	5370.19	37.71	252.10	96.30	154.92	14 55 21	4770.2	44.87	247.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6905 TRA -.5998 TC3-1.7741 BAU  .6738   SGT 4036.6 SGR 1942.5 SG3  251.4     ST  3058.6 SR  1756.6 SS  1457.1
RDE 1.5715 RRA  .1296 RC3  .7010 FAU .04216   RRT -.9471 RRF -.9903 RTF  .9669     CRT -.9924 CRS  .9998 CST -.9945
FDE-2.1781 FRA -.2241 FC3-1.3813 BSP  14051   SGB 4479.7 R23  .1747 R13 -.9789     LSA 3810.3 MSA  212.7 SSA    5.1
BDE 3.1158 BRA -.6136 BC3 1.9076 FSP   -813   SG1 4443.7 SG2  566.3 THA 155.07     EL1 3522.1 EL2  187.6 ALF 150.23
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 439.593

```
RL  150.98 LAL    .00 LOL 338.15 VL  26.884 GAL  -1.82 AZL  97.74 HCA 204.95 SMA 128.19 ECC .18050 INC 7.7358 V1  29.511
RP  107.75 LAP   3.26 LOP 182.90 VP  37.789 GAP   4.92 AZP  82.98 TAL 188.31 TAP  33.26 RCA 105.05 APO 151.33 V2  35.169
RC 114.599 GL  -51.13 GP   54.61 ZAL  95.46 ZAP 118.41 ETS  44.79 ZAE 115.88 ETE 141.02 ZAC 150.44 ETC 243.62 CLP-145.25
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PLANETOCENTRIC CONIC

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C3  21.584 VHL  4.646 DLA -68.32 RAL 210.24 RAD 6567.9 VEL 11.957 PTH   2.13 VHP  6.414 DPA  38.40 RAP 238.36 ECC 1.3552
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.81	3 33 0	1781.83	40.07	60.10	100.69	151.13	4 2 42	1181.8	46.95	54.87
155.19	13 52 26	5327.49	40.08	250.02	100.71	151.13	15 21 14	4727.5	46.96	244.79
24.81	3 33 0	1781.83	40.07	60.10	100.69	151.13	4 2 42	1181.8	46.95	54.87
155.19	13 52 26	5327.49	40.08	250.02	100.71	151.13	15 21 14	4727.5	46.96	244.79
24.81	3 33 0	1781.83	40.07	60.10	100.69	151.13	4 2 42	1181.8	46.95	54.87
155.19	13 52 26	5327.49	40.08	250.02	100.71	151.13	15 21 14	4727.5	46.96	244.79

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6126 TRA -.4573 TC3-2.3263 BAU  .7113   SGT 4169.4 SGR 1823.9 SG3  284.3     ST  3255.1 SR  1650.7 SS  1518.9
RDE 1.3377 RRA  .0521 RC3  .8160 FAU .04795   RRT -.9494 RRF -.9891 RTF  .9660     CRT -.9940 CRS  .9999 CST -.9950
FDE-2.2200 FRA -.1118 FC3-1.9233 BSP  14291   SGB 4550.9 R23  .1813 R13 -.9761     LSA 3948.3 MSA  194.8 SSA    6.1
BDE 2.9351 BRA  .4603 BC3 2.4652 FSP   -919   SG1 4520.1 SG2  528.5 THA 157.12     EL1 3646.1 EL2  161.4 ALF 153.19
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 445.651

```
RL  150.98 LAL    .00 LOL 338.15 VL  26.853 GAL  -1.60 AZL  96.79 HCA 208.15 SMA 127.99 ECC .18177 INC 6.7853 V1  29.511
RP  107.79 LAP   3.20 LOP 186.14 VP  37.757 GAP   5.24 AZP  84.01 TAL 187.24 TAP  35.39 RCA 104.72 APO 151.25 V2  35.158
RC 116.871 GL  -47.82 GP   50.13 ZAL  94.54 ZAP 122.33 ETS  44.83 ZAE 118.23 ETE 143.55 ZAC 146.64 ETC 246.83 CLP-146.53
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PLANETOCENTRIC CONIC

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C3  18.315 VHL  4.280 DLA -66.12 RAL 217.41 RAD 6567.7 VEL 11.819 PTH   2.09 VHP  6.083 DPA  33.85 RAP 237.25 ECC 1.3014
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.38	4 7 19	1734.66	41.55	55.30	104.29	147.25	4 36 14	1134.7	48.11	49.24
152.62	14 15 19	5296.60	41.56	248.01	104.30	147.24	15 43 36	4696.6	48.12	241.96
27.38	4 7 19	1734.66	41.55	55.30	104.29	147.25	4 36 14	1134.7	48.11	49.24
152.62	14 15 19	5296.60	41.56	248.01	104.30	147.24	15 43 36	4696.6	48.12	241.96
27.38	4 7 19	1734.66	41.55	55.30	104.29	147.25	4 36 14	1134.7	48.11	49.24
152.62	14 15 19	5296.60	41.56	248.01	104.30	147.24	15 43 36	4696.6	48.12	241.96

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5071 TRA -.3213 TC3-2.9003 BAU  .7429   SGT 4307.8 SGR 1691.0 SG3  310.7     ST  3372.4 SR  1509.3 SS  1527.7
RDE 1.1272 RRA -.0095 RC3  .8907 FAU .05233   RRT -.9506 RRF -.9869 RTF  .9656     CRT -.9949 CRS 1.0000 CST -.9950
FDE-2.1705 FRA  .0148 FC3-2.4734 BSP  14550   SGB 4627.8 R23  .1831 R13 -.9738     LSA 3994.0 MSA  181.7 SSA    7.2
BDE 2.7488 BRA  .3214 BC3 3.0340 FSP  -1006   SG1 4601.6 SG2  491.6 THA 159.29     EL1 3692.1 EL2  139.2 ALF 155.96
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 451.695

RL	150.98	LAL	.00	LOL	338.15	VL	26.821	GAL	-1.37	AZL	96.02	HCA	211.36	SMA	127.77	ECC	.18315	INC	6.0153
RP	107.82	LAP	3.13	LOP	189.37	VP	37.724	GAP	5.56	AZP	84.86	TAL	186.14	TAP	37.50	RCA	104.37	APO	151.18
RC	119.138	GL	-44.58	GP	46.06	ZAL	93.30	ZAP	126.03	ETS	44.85	ZAE	120.10	ETE	146.14	ZAC	143.13	ETC	249.15

V1	29.511	V2	35.147	CLP	-147.96														

PLANETOCENTRIC CONIC

C3	16.028	VHL	4.004	DLA	-63.84	RAL	223.90	RAD	6567.6	VEL	11.722	PTH	2.07	VHP	5.871	DPA	29.64	RAP	236.59

ECC	1.2638																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.06	4 39 21	1694.30	42.32	50.46	107.31	143.40	5 7 35	1094.3	48.53	43.68
149.94	14 35 3	5275.40	42.33	246.19	107.33	143.39	16 2 58	4675.4	48.54	239.40
30.06	4 39 21	1694.30	42.32	50.46	107.31	143.40	5 7 35	1094.3	48.53	43.68
149.94	14 35 3	5275.40	42.33	246.19	107.33	143.39	16 2 58	4675.4	48.54	239.40
30.06	4 39 21	1694.30	42.32	50.46	107.31	143.40	5 7 35	1094.3	48.53	43.68
149.94	14 35 3	5275.40	42.33	246.19	107.33	143.39	16 2 58	4675.4	48.54	239.40

DIFFERENTIAL CORRECTIONS

TDE	-2.3844	TRA	-.1877	TC3	-3.4784	BAU	.7715
RDE	.9474	RRA	-.0575	RC3	.9287	FAU	.05532
FDE	-2.0526	FRA	.1478	FC3	-2.9881	BSP	14842
BDE	2.5657	BRA	.1963	BC3	3.6002	FSP	-1073

MID-COURSE EXECUTION ACCURACY

SGT	4446.7	SGR	1557.6	SG3	330.0		
RRT	-.9506	RRF	-.9837	RTF	.9655		
SGB	4711.6	R23	.1805	R13	-.9720		
SG1	4689.2	SG2	458.4	THA	161.40		

ORBIT DETERMINATION ACCURACY

ST	3418.3	SR	1357.2	SS	1492.3
CRT	-.9955	CRS	.9999	CST	-.9948
LSA	3965.4	MSA	172.1	SSA	8.3
EL1	3676.0	EL2	119.8	ALF	158.41

LAUNCH DATE SEP 1 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 457.722

RL	150.98	LAL	.00	LOL	338.15	VL	26.788	GAL	-1.13	AZL	95.38	HCA	214.57	SMA	127.56	ECC	.18466	INC	5.3753
RP	107.86	LAP	3.05	LOP	192.60	VP	37.690	GAP	5.88	AZP	85.57	TAL	185.01	TAP	39.58	RCA	104.00	APO	151.11
RC	121.402	GL	-41.40	GP	42.39	ZAL	91.78	ZAP	129.50	ETS	44.84	ZAE	121.56	ETE	148.68	ZAC	139.94	ETC	250.91

V1	29.511	V2	35.136	CLP	-149.45														

PLANETOCENTRIC CONIC

C3	14.392	VHL	3.794	DLA	-61.51	RAL	229.82	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	5.743	DPA	25.77	RAP	236.30

ECC	1.2369																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.81	5 9 37	1658.96	42.51	45.69	109.98	139.68	5 37 16	1059.0	48.36	38.32
147.19	14 52 5	5262.42	42.52	244.63	109.99	139.68	16 19 47	4662.4	48.37	237.26
32.81	5 9 37	1658.96	42.51	45.69	109.98	139.68	5 37 16	1059.0	48.36	38.32
147.19	14 52 5	5262.42	42.52	244.63	109.99	139.68	16 19 47	4662.4	48.37	237.26
32.81	5 9 37	1658.96	42.51	45.69	109.98	139.68	5 37 16	1059.0	48.36	38.32
147.19	14 52 5	5262.42	42.52	244.63	109.99	139.68	16 19 47	4662.4	48.37	237.26

DIFFERENTIAL CORRECTIONS

TDE	-2.2498	TRA	-.0528	TC3	-4.0379	BAU	.7975
RDE	.7976	RRA	-.0949	RC3	.9345	FAU	.05700
FDE	-1.8874	FRA	.2818	FC3	-3.4290	BSP	15134
BDE	2.3870	BRA	.1086	BC3	4.1446	FSP	-1119

MID-COURSE EXECUTION ACCURACY

SGT	4578.2	SGR	1429.7	SG3	342.2		
RRT	-.9495	RRF	-.9794	RTF	.9654		
SGB	4796.2	R23	.1738	R13	-.9704		
SG1	4777.0	SG2	429.8	THA	163.34		

ORBIT DETERMINATION ACCURACY

ST	3399.5	SR	1208.2	SS	1421.2
CRT	-.9960	CRS	.9998	CST	-.9941
LSA	3874.1	MSA	165.0	SSA	9.5
EL1	3606.4	EL2	102.2	ALF	160.49

LAUNCH DATE SEP 1 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 463.732

RL	150.98	LAL	.00	LOL	338.15	VL	26.754	GAL	-.88	AZL	94.83	HCA	217.78	SMA	127.34	ECC	.18630	INC	4.8321
RP	107.89	LAP	2.96	LOP	195.83	VP	37.655	GAP	6.20	AZP	86.18	TAL	183.85	TAP	41.63	RCA	103.61	APO	151.06
RC	123.660	GL	-38.31	GP	39.09	ZAL	90.00	ZAP	132.72	ETS	44.80	ZAE	122.68	ETE	151.10	ZAC	137.08	ETC	252.28

V1	29.511	V2	35.124	CLP	-150.94														

PLANETOCENTRIC CONIC

C3	13.211	VHL	3.635	DLA	-59.15	RAL	235.29	RAD	6567.5	VEL	11.602	PTH	2.03	VHP	5.678	DPA	22.23	RAP	236.32

ECC	1.2174																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.62	5 38 28	1627.39	42.23	41.06	112.45	136.18	6 5 36	1027.4	47.72	33.24
144.38	15 6 51	5256.49	42.24	243.43	112.47	136.17	16 34 28	4656.5	47.73	235.61
35.62	5 38 28	1627.39	42.23	41.06	112.45	136.18	6 5 36	1027.4	47.72	33.24
144.38	15 6 51	5256.49	42.24	243.43	112.47	136.17	16 34 28	4656.5	47.73	235.61
35.62	5 38 28	1627.39	42.23	41.06	112.45	136.18	6 5 36	1027.4	47.72	33.24
144.38	15 6 51	5256.49	42.24	243.43	112.47	136.17	16 34 28	4656.5	47.73	235.61

DIFFERENTIAL CORRECTIONS

TDE	-2.1097	TRA	.0843	TC3	-4.5622	BAU	.8218
RDE	.6761	RRA	-.1239	RC3	.9138	FAU	.05753
FDE	-1.6970	FRA	.4115	FC3	-3.7697	BSP	15428
BDE	2.2154	BRA	.1499	BC3	4.6528	FSP	-1144

MID-COURSE EXECUTION ACCURACY

SGT	4703.8	SGR	1312.3	SG3	348.5		
RRT	-.9470	RRF	-.9736	RTF	.9653		
SGB	4883.5	R23	.1637	R13	-.9692		
SG1	4866.4	SG2	407.3	THA	165.09		

ORBIT DETERMINATION ACCURACY

ST	3328.1	SR	1072.0	SS	1326.0
CRT	-.9965	CRS	.9993	CST	-.9931
LSA	3736.0	MSA	160.3	SSA	10.9
EL1	3495.4	EL2	85.8	ALF	162.19

LAUNCH DATE SEP 1 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 469.724

RL	150.98	LAL	.00	LOL	338.15	VL	26.720	GAL	-.62	AZL	94.36	HCA	220.98	SMA	127.11	ECC	.18807	INC	4.3624
RP	107.93	LAP	2.86	LOP	199.05	VP	37.619	GAP	6.52	AZP	86.70	TAL	182.67	TAP	43.65	RCA	103.21	APO	151.02
RC	125.912	GL	-35.31	GP	36.15	ZAL	87.99	ZAP	135.70	ETS	44.75	ZAE	123.52	ETE	153.34	ZAC	134.54	ETC	253.40

V1	29.511	V2	35.112	CLP	-152.42														

PLANETOCENTRIC CONIC

C3	12.365	VHL	3.516	DLA	-56.77	RAL	240.38	RAD	6567.5	VEL	11.565	PTH	2.02	VHP	5.660	DPA	18.99	RAP	236.61

ECC	1.2035																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.49	6 6 19	1598.43	41.57	36.60	114.85	132.91	6 32 57	998.4	46.71	28.47
141.51	15 19 36	5257.04	41.58	242.63	114.86	132.90	16 47 13	4657.0	46.73	234.49
38.49	6 6 19	1598.43	41.57	36.60	114.85	132.91	6 32 57	998.4	46.71	28.47
141.51	15 19 36	5257.04	41.58	242.63	114.86	132.90	16 47 13	4657.0	46.73	234.49
38.49	6 6 19	1598.43	41.57	36.60	114.85	132.91	6 32 57	998.4	46.71	28.47
141.51	15 19 36	5257.04	41.58	242.63	114.86	132.90	16 47 13	4657.0	46.73	234.49

DIFFERENTIAL CORRECTIONS

TDE	-1.9662	TRA	.2267	TC3	-5.0377	BAU	.8452
RDE	.5784	RRA	-.1474	RC3	.8756	FAU	.05720
FDE	-1.4960	FRA	.5363	FC3	-4.0051	BSP	15733
BDE	2.0495	BRA	.2704	BC3	5.1133	FSP	-1156

MID-COURSE EXECUTION ACCURACY

SGT	4823.9	SGR	1208.1	SG3	350.1		
RRT	-.9431	RRF	-.9664	RTF	.9650		
SGB	4972.9	R23	.1510	R13	-.9680		
SG1	4957.5	SG2	390.7	THA	166.63		

ORBIT DETERMINATION ACCURACY

ST	3211.9	SR	951.8	SS	1215.5
CRT	-.9971	CRS	.9984	CST	-.9915
LSA	3560.1	MSA	158.0	SSA	12.3
EL1	3349.2	EL2	70.0	ALF	163.53

LAUNCH DATE SEP 1 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 475.697
RL 150.98 LAL .00 LOL 338.15 VL 26.685 GAL -.34 AZL 93.95 HCA 224.19 SMA 126.89 ECC .18998 INC 3.9499 V1 29.511
RP 107.97 LAP 2.75 LOP 202.27 VP 37.583 GAP 6.84 AZP 87.17 TAL 181.46 TAP 45.65 RCA 102.78 APO 150.99 V2 35.099
RC 128.158 GL -32.39 GP 33.52 ZAL 85.78 ZAP 138.45 ETS 44.73 ZAE 124.14 ETE 155.40 ZAC 132.28 ETC 254.33 CLP-153.87
PLANETOCENTRIC CONIC
C3 11.775 VHL 3.432 DLA -54.39 RAL 245.14 RAD 6567.4 VEL 11.540 PTH 2.01 VHP 5.679 DPA 16.03 RAP 237.14 ECC 1.1938

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.41	6 33 25	1571.23	40.61	32.31	117.24	129.92	6 59 36	971.2	45.42	23.98
138.59	15 30 28	5263.63	40.62	242.27	117.26	129.90	16 58 11	4663.6	45.43	233.93
41.41	6 33 25	1571.23	40.61	32.31	117.24	129.92	6 59 36	971.2	45.42	23.98
138.59	15 30 28	5263.63	40.62	242.27	117.26	129.90	16 58 11	4663.6	45.43	233.93
41.41	6 33 25	1571.23	40.61	32.31	117.24	129.92	6 59 36	971.2	45.42	23.98
138.59	15 30 28	5263.63	40.62	242.27	117.26	129.90	16 58 11	4663.6	45.43	233.93

DIFFERENTIAL CORRECTIONS
TDE-1.8161 TRA .3778 TC3-5.4373 BAU .8657
RDE .4991 RRA -.1674 RC3 .8207 FAU .05599
FDE-1.2889 FRA .6572 FC3-4.1166 BSP 15906
BDE 1.8835 BRA .4132 BC3 5.4989 FSP -1141

MID-COURSE EXECUTION ACCURACY
SGT 4928.9 SGR 1114.5 SG3 347.4
RRT -.9373 RRF -.9573 RTF .9643
SGB 5053.3 R23 .1376 R13 -.9667
SG1 5039.0 SG2 379.9 THA 167.96

ORBIT DETERMINATION ACCURACY
ST 3051.8 SR 845.8 SS 1092.5
CRT -.9978 CRS .9962 CST -.9888
LSA 3346.2 MSA 158.7 SSA 13.8
EL1 3166.4 EL2 54.1 ALF 164.54

LAUNCH DATE SEP 1 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 481.650
RL 150.98 LAL .00 LOL 338.15 VL 26.650 GAL -.05 AZL 93.58 HCA 227.40 SMA 126.66 ECC .19204 INC 3.5826 V1 29.511
RP 108.01 LAP 2.64 LOP 205.49 VP 37.546 GAP 7.16 AZP 87.57 TAL 180.22 TAP 47.62 RCA 102.34 APO 150.98 V2 35.086
RC 130.397 GL -29.56 GP 31.18 ZAL 83.42 ZAP 140.99 ETS 44.73 ZAE 124.58 ETE 157.27 ZAC 130.30 ETC 255.14 CLP-155.27
PLANETOCENTRIC CONIC
C3 11.392 VHL 3.375 DLA -52.00 RAL 249.61 RAD 6567.4 VEL 11.523 PTH 2.01 VHP 5.727 DPA 13.32 RAP 237.87 ECC 1.1875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.37	7 0 1	1545.00	39.40	28.18	119.68	127.18	7 25 46	945.0	43.91	19.75
135.63	15 39 32	5276.07	39.41	242.37	119.68	127.17	17 7 28	4676.1	43.92	233.93
44.37	7 0 1	1545.00	39.40	28.18	119.68	127.18	7 25 46	945.0	43.91	19.75
135.63	15 39 32	5276.07	39.41	242.37	119.68	127.17	17 7 28	4676.1	43.92	233.93
44.37	7 0 1	1545.00	39.40	28.18	119.68	127.18	7 25 46	945.0	43.91	19.75
135.63	15 39 32	5276.07	39.41	242.37	119.68	127.17	17 7 28	4676.1	43.92	233.93

DIFFERENTIAL CORRECTIONS
TDE-1.6841 TRA .5065 TC3-5.7831 BAU .8885
RDE .4452 RRA -.1720 RC3 .7664 FAU .05466
FDE-1.1222 FRA .7236 FC3-4.1535 BSP 16420
BDE 1.7420 BRA .5349 BC3 5.8337 FSP -1160

MID-COURSE EXECUTION ACCURACY
SGT 5036.2 SGR 1031.4 SG3 339.8
RRT -.9323 RRF -.9457 RTF .9682
SGB 5140.8 R23 .1059 R13 -.9697
SG1 5127.7 SG2 366.4 THA 169.13

ORBIT DETERMINATION ACCURACY
ST 2891.7 SR 769.1 SS 988.9
CRT -.9990 CRS .9928 CST -.9874
LSA 3147.9 MSA 149.2 SSA 15.4
EL1 2992.1 EL2 33.7 ALF 165.12

LAUNCH DATE SEP 1 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 487.582
RL 150.98 LAL .00 LOL 338.15 VL 26.614 GAL .25 AZL 93.25 HCA 230.60 SMA 126.43 ECC .19425 INC 3.2516 V1 29.511
RP 108.05 LAP 2.51 LOP 208.71 VP 37.509 GAP 7.48 AZP 87.93 TAL 178.97 TAP 49.57 RCA 101.87 APO 150.99 V2 35.074
RC 132.627 GL -26.83 GP 29.09 ZAL 80.93 ZAP 143.34 ETS 44.79 ZAE 124.88 ETE 158.94 ZAC 128.55 ETC 255.85 CLP-156.64
PLANETOCENTRIC CONIC
C3 11.183 VHL 3.344 DLA -49.62 RAL 253.82 RAD 6567.4 VEL 11.514 PTH 2.01 VHP 5.799 DPA 10.84 RAP 238.78 ECC 1.1840

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.38	7 26 17	1519.14	38.00	24.21	122.17	124.71	7 51 36	919.1	42.23	15.74
132.62	15 46 52	5294.25	38.01	242.95	122.18	124.70	17 15 6	4694.3	42.24	234.48
47.38	7 26 17	1519.14	38.00	24.21	122.17	124.71	7 51 36	919.1	42.23	15.74
132.62	15 46 52	5294.25	38.01	242.95	122.18	124.70	17 15 6	4694.3	42.24	234.48
47.38	7 26 17	1519.14	38.00	24.21	122.17	124.71	7 51 36	919.1	42.23	15.74
132.62	15 46 52	5294.25	38.01	242.95	122.18	124.70	17 15 6	4694.3	42.24	234.48

DIFFERENTIAL CORRECTIONS
TDE-1.5177 TRA .6929 TC3-6.0179 BAU .9057
RDE .3879 RRA -.1974 RC3 .6937 FAU .05221
FDE -.9043 FRA .8684 FC3-4.0422 BSP 16440
BDE 1.5665 BRA .7205 BC3 6.0578 FSP -1104

MID-COURSE EXECUTION ACCURACY
SGT 5130.3 SGR 964.1 SG3 334.5
RRT -.9204 RRF -.9333 RTF .9627
SGB 5220.1 R23 .1087 R13 -.9642
SG1 5206.9 SG2 371.4 THA 170.14

ORBIT DETERMINATION ACCURACY
ST 2660.6 SR 683.0 SS 850.5
CRT -.9994 CRS .9822 CST -.9781
LSA 2870.5 MSA 169.1 SSA 16.8
EL1 2746.8 EL2 22.5 ALF 165.61

LAUNCH DATE SEP 1 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 493.490
RL 150.98 LAL .00 LOL 338.15 VL 26.578 GAL .57 AZL 92.95 HCA 233.81 SMA 126.20 ECC .19663 INC 2.9499 V1 29.511
RP 108.09 LAP 2.38 LOP 211.92 VP 37.471 GAP 7.81 AZP 88.26 TAL 177.69 TAP 51.50 RCA 101.38 APO 151.01 V2 35.061
RC 134.850 GL -24.21 GP 27.23 ZAL 78.35 ZAP 145.51 ETS 44.92 ZAE 125.08 ETE 160.44 ZAC 127.01 ETC 256.51 CLP-157.96
PLANETOCENTRIC CONIC
C3 11.125 VHL 3.335 DLA -47.27 RAL 257.79 RAD 6567.4 VEL 11.511 PTH 2.01 VHP 5.891 DPA 8.57 RAP 239.84 ECC 1.1831

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.43	7 52 25	1492.89	36.45	20.33	124.74	122.47	8 17 18	892.9	40.43	11.88
129.57	15 52 23	5318.37	36.46	244.04	124.75	122.46	17 21 2	4718.4	40.44	235.58
50.43	7 52 25	1492.89	36.45	20.33	124.74	122.47	8 17 18	892.9	40.43	11.88
129.57	15 52 23	5318.37	36.46	244.04	124.75	122.46	17 21 2	4718.4	40.44	235.58
50.43	7 52 25	1492.89	36.45	20.33	124.74	122.47	8 17 18	892.9	40.43	11.88
129.57	15 52 23	5318.37	36.46	244.04	124.75	122.46	17 21 2	4718.4	40.44	235.58

DIFFERENTIAL CORRECTIONS
TDE-1.3852 TRA .8426 TC3-6.2414 BAU .9332
RDE .3550 RRA -.2047 RC3 .6446 FAU .05078
FDE -.7531 FRA .9399 FC3-3.9516 BSP 17134
BDE 1.4299 BRA .8671 BC3 6.2746 FSP -1120

MID-COURSE EXECUTION ACCURACY
SGT 5248.5 SGR 908.5 SG3 326.5
RRT -.9116 RRF -.9190 RTF .9643
SGB 5326.5 R23 .0865 R13 -.9654
SG1 5313.7 SG2 368.8 THA 170.99

ORBIT DETERMINATION ACCURACY
ST 2467.1 SR 629.4 SS 753.1
CRT -.9995 CRS .9673 CST -.9711
LSA 2649.4 MSA 173.6 SSA 18.2
EL1 2546.1 EL2 20.0 ALF 165.69

LAUNCH DATE SEP 1 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 499.379
RL 150.98 LAL .00 LOL 338.15 VL 26.541 GAL .90 AZL 92.67 HCA 237.01 SMA 125.97 ECC .19918 INC 2.6722 V1 29.511
RP 108.13 LAP 2.24 LOP 215.13 VP 37.433 GAP 8.15 AZP 88.54 TAL 176.39 TAP 53.40 RCA 100.88 APO 151.06 V2 35.047
RC 137.063 GL -21.69 GP 25.56 ZAL 75.70 ZAP 147.51 ETS 45.13 ZAE 125.21 ETE 161.77 ZAC 125.66 ETC 257.12 CLP-159.23
PLANETOCENTRIC CONIC
C3 11.206 VHL 3.348 DLA -44.95 RAL 261.54 RAD 6567.4 VEL 11.515 PTH 2.01 VHP 5.999 DPA 6.48 RAP 241.04 ECC 1.1844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.51	8 18 37	1465.70	34.80	16.53	127.39	120.47	8 43 3	865.7	38.54	8.13
126.49	15 56 7	5348.54	34.81	245.63	127.40	120.45	17 25 16	4748.5	38.55	237.22
53.51	8 18 37	1465.70	34.80	16.53	127.39	120.47	8 43 3	865.7	38.54	8.13
126.49	15 56 7	5348.54	34.81	245.63	127.40	120.45	17 25 16	4748.5	38.55	237.22
53.51	8 18 37	1465.70	34.80	16.53	127.39	120.47	8 43 3	865.7	38.54	8.13
126.49	15 56 7	5348.54	34.81	245.63	127.40	120.45	17 25 16	4748.5	38.55	237.22

DIFFERENTIAL CORRECTIONS
TDE-1.2253 TRA 1.0280 TC3-6.2811 BAU .9448
RDE .3234 RRA -.2184 RC3 .5704 FAU .04773
FDE -.5855 FRA 1.0341 FC3-3.6875 BSP 17077
BDE 1.2672 BRA 1.0510 BC3 6.3069 FSP -1059

MID-COURSE EXECUTION ACCURACY
SGT 5316.2 SGR 855.0 SG3 315.7
RRT -.8975 RRF -.9020 RTF .9626
SGB 5384.5 R23 .0765 R13 -.9635
SG1 5371.6 SG2 373.2 THA 171.75

ORBIT DETERMINATION ACCURACY
ST 2229.4 SR 575.8 SS 650.0
CRT -.9973 CRS .9339 CST -.9552
LSA 2384.8 MSA 191.4 SSA 19.2
EL1 2302.3 EL2 40.6 ALF 165.55

LAUNCH DATE SEP 1 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 505.243
RL 150.98 LAL .00 LOL 338.15 VL 26.505 GAL 1.24 AZL 92.41 HCA 240.21 SMA 125.73 ECC .20192 INC 2.4140 V1 29.511
RP 108.17 LAP 2.09 LOP 218.34 VP 37.394 GAP 8.47 AZP 88.80 TAL 175.08 TAP 55.28 RCA 100.35 APO 151.12 V2 35.034
RC 139.266 GL -19.29 GP 24.07 ZAL 73.02 ZAP 149.37 ETS 45.43 ZAE 125.27 ETE 162.96 ZAC 124.46 ETC 257.70 CLP-160.47
PLANETOCENTRIC CONIC
C3 11.417 VHL 3.379 DLA -42.67 RAL 265.08 RAD 6567.4 VEL 11.524 PTH 2.01 VHP 6.123 DPA 4.56 RAP 242.37 ECC 1.1879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.64	8 45 7	1436.68	33.07	12.73	130.12	118.66	9 9 4	836.7	36.60	4.40
123.36	15 57 52	5385.30	33.08	247.76	130.13	118.65	17 27 37	4785.3	36.61	239.43
56.64	8 45 7	1436.68	33.07	12.73	130.12	118.66	9 9 4	836.7	36.60	4.40
123.36	15 57 52	5385.30	33.08	247.76	130.13	118.65	17 27 37	4785.3	36.61	239.43
56.64	8 45 7	1436.68	33.07	12.73	130.12	118.66	9 9 4	836.7	36.60	4.40
123.36	15 57 52	5385.30	33.08	247.76	130.13	118.65	17 27 37	4785.3	36.61	239.43

DIFFERENTIAL CORRECTIONS
TDE-1.0743 TRA 1.2120 TC3-6.2709 BAU .9603
RDE .3012 RRA -.2292 RC3 .5083 FAU .04506
FDE -.4425 FRA 1.1111 FC3-3.4165 BSP 17286
BDE 1.1157 BRA 1.2335 BC3 6.2914 FSP -1026

MID-COURSE EXECUTION ACCURACY
SGT 5393.4 SGR 811.3 SG3 305.0
RRT -.8829 RRF -.8837 RTF .9619
SGB 5454.1 R23 .0643 R13 -.9626
SG1 5441.0 SG2 377.6 THA 172.40

ORBIT DETERMINATION ACCURACY
ST 2009.3 SR 534.9 SS 569.4
CRT -.9906 CRS .8785 CST -.9340
LSA 2145.3 MSA 212.7 SSA 19.9
EL1 2078.1 EL2 70.9 ALF 165.21

LAUNCH DATE SEP 1 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 511.082
RL 150.98 LAL .00 LOL 338.15 VL 26.468 GAL 1.61 AZL 92.17 HCA 243.41 SMA 125.50 ECC .20487 INC 2.1721 V1 29.511
RP 108.21 LAP 1.94 LOP 221.54 VP 37.356 GAP 8.81 AZP 89.03 TAL 173.74 TAP 57.15 RCA 99.79 APO 151.21 V2 35.021
RC 141.459 GL -17.01 GP 22.73 ZAL 70.34 ZAP 151.11 ETS 45.83 ZAE 125.29 ETE 164.01 ZAC 123.41 ETC 258.27 CLP-161.67
PLANETOCENTRIC CONIC
C3 11.757 VHL 3.429 DLA -40.44 RAL 268.42 RAD 6567.4 VEL 11.539 PTH 2.01 VHP 6.260 DPA 2.80 RAP 243.81 ECC-1.1935

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.83	9 12 9	1405.02	31.29	8.88	132.91	117.05	9 35 34	805.0	34.64	.63
120.17	15 57 29	5429.18	31.31	250.46	132.92	117.03	17 27 58	4829.2	34.65	242.21
59.83	9 12 9	1405.02	31.29	8.88	132.91	117.05	9 35 34	805.0	34.64	.63
120.17	15 57 29	5429.18	31.31	250.46	132.92	117.03	17 27 58	4829.2	34.65	242.21
59.83	9 12 9	1405.02	31.29	8.88	132.91	117.05	9 35 34	805.0	34.64	.63
120.17	15 57 29	5429.18	31.31	250.46	132.92	117.03	17 27 58	4829.2	34.65	242.21

DIFFERENTIAL CORRECTIONS
TDE -.9265 TRA 1.4016 TC3-6.1966 BAU .9766
RDE .2857 RRA -.2394 RC3 .4538 FAU .04254
FDE -.3175 FRA 1.1794 FC3-3.1327 BSP 17521
BDE .9695 BRA 1.4219 BC3 6.2132 FSP -992

MID-COURSE EXECUTION ACCURACY
SGT 5470.3 SGR 775.2 SG3 294.3
RRT -.8675 RRF -.8645 RTF .9617
SGB 5524.9 R23 .0526 R13 -.9622
SG1 5511.6 SG2 382.7 THA 172.96

ORBIT DETERMINATION ACCURACY
ST 1807.0 SR 502.8 SS 510.0
CRT -.9749 CRS .7938 CST -.9078
LSA 1928.8 MSA 239.3 SSA 20.3
EL1 1872.5 EL2 108.0 ALF 164.77

LAUNCH DATE SEP 1 1970 FLIGHT TIME 180.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 516.894
RL 150.98 LAL .00 LOL 338.15 VL 26.431 GAL 1.99 AZL 91.94 HCA 246.60 SMA 125.27 ECC .20803 INC 1.9436 V1 29.511
RP 108.25 LAP 1.78 LOP 224.74 VP 37.317 GAP 9.15 AZP 89.23 TAL 172.40 TAP 59.00 RCA 99.21 APO 151.33 V2 35.008
RC 143.643 GL -14.85 GP 21.53 ZAL 67.69 ZAP 152.72 ETS 46.35 ZAE 125.28 ETE 164.95 ZAC 122.48 ETC 258.82 CLP-162.83
PLANETOCENTRIC CONIC
C3 12.225 VHL 3.496 DLA -38.28 RAL 271.57 RAD 6567.5 VEL 11.559 PTH 2.02 VHP 6.410 DPA 1.16 RAP 245.34 ECC 1.2012

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.08	9 40 3	1369.59	29.50	4.88	135.76	115.59	10 2 53	769.6	32.68	356.72
116.92	15 54 44	5481.06	29.51	253.78	135.76	115.58	17 26 5	4881.1	32.69	245.62
63.08	9 40 3	1369.59	29.50	4.88	135.76	115.59	10 2 53	769.6	32.68	356.72
116.92	15 54 44	5481.06	29.51	253.78	135.76	115.58	17 26 5	4881.1	32.69	245.62
63.08	9 40 3	1369.59	29.50	4.88	135.76	115.59	10 2 53	769.6	32.68	356.72
116.92	15 54 44	5481.06	29.51	253.78	135.76	115.58	17 26 5	4881.1	32.69	245.62

DIFFERENTIAL CORRECTIONS
TDE -.7780 TRA 1.6000 TC3-6.0525 BAU .9914
RDE .2746 RRA -.2497 RC3 .4027 FAU .03996
FDE -.2048 FRA 1.2421 FC3-2.8297 BSP 17753
BDE .8250 BRA 1.6194 BC3 6.0659 FSP -960

MID-COURSE EXECUTION ACCURACY
SGT 5540.4 SGR 743.9 SG3 283.3
RRT -.8508 RRF -.8444 RTF .9613
SGB 5590.1 R23 .0428 R13 -.9617
SG1 5576.6 SG2 388.4 THA 173.45

ORBIT DETERMINATION ACCURACY
ST 1626.5 SR 476.4 SS 470.3
CRT -.9438 CRS .6750 CST -.8795
LSA 1737.6 MSA 272.5 SSA 20.2
EL1 1688.1 EL2 151.7 ALF 164.42

LAUNCH DATE SEP 1 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 522.678

RL	150.98	LAL	.00	LOL	338.15	VL	26.394	GAL	2.38	AZL	91.73	HCA	249.80	SMA	125.04	ECC	.21143	INC	1.7259	VI	29.511
RP	108.29	LAP	1.62	LOP	227.94	VP	37.279	GAP	9.50	AZP	89.40	TAL	171.04	TAP	60.83	RCA	98.60	APO	151.48	V2	34.995
RC	145.816	GL	-12.81	GP	20.44	ZAL	65.07	ZAP	154.23	ETS	46.99	ZAE	125.24	ETE	165.78	ZAC	121.65	ETC	259.36	CLP	-163.96

PLANETOCENTRIC CONIC

C3	12.825	VHL	3.581	DLA	-36.20	RAL	274.55	RAD	6567.5	VEL	11.585	PTH	2.03	VHP	6.572	DPA	-.34	RAP	246.97	ECC	1.2111

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.44	10 9 19	1328.82	27.71	.62	138.66	114.28	10 31 27	728.8	30.74	352.55
113.56	15 49 12	5542.27	27.72	257.81	138.66	114.27	17 21 35	4942.3	30.75	249.74
66.44	10 9 19	1328.82	27.71	.62	138.66	114.28	10 31 27	728.8	30.74	352.55
113.56	15 49 12	5542.27	27.72	257.81	138.66	114.27	17 21 35	4942.3	30.75	249.74
66.44	10 9 19	1328.82	27.71	.62	138.66	114.28	10 31 27	728.8	30.74	352.55
113.56	15 49 12	5542.27	27.72	257.81	138.66	114.27	17 21 35	4942.3	30.75	249.74

DIFFERENTIAL CORRECTIONS

TDE	-.6298	TRA	1.8076	TC3	-5.8523	BAU	1.0053
RDE	.2673	RRA	-.2603	RC3	.3569	FAU	.03744
FDE	-.1044	FRA	1.3001	FC3	-2.5271	BSP	17976
BDE	.6842	BRA	1.8263	BC3	5.8631	FSP	-927

MID-COURSE EXECUTION ACCURACY

SGT	5606.1	SGR	717.3	SG3	272.5		
RRT	-.8335	RRF	-.8239	RTF	.9610		
SGB	5651.8	R23	.0344	R13	-.9613		
SG1	5638.1	SG2	394.1	THA	173.88		

ORBIT DETERMINATION ACCURACY

ST	1478.8	SR	454.9	SS	450.3
CRT	-.8894	CRS	.5310	CST	-.8583
LSA	1581.2	MSA	310.1	SSA	20.0
EL1	1534.2	EL2	200.5	ALF	164.43

LAUNCH DATE SEP 1 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 528.431

RL	150.98	LAL	.00	LOL	338.15	VL	26.357	GAL	2.80	AZL	91.52	HCA	252.99	SMA	124.81	ECC	.21509	INC	1.5172	VI	29.511
RP	108.33	LAP	1.45	LOP	231.13	VP	37.240	GAP	9.86	AZP	89.56	TAL	169.67	TAP	62.66	RCA	97.96	APO	151.65	V2	34.982
RC	147.979	GL	-10.91	GP	19.46	ZAL	62.51	ZAP	155.64	ETS	47.76	ZAE	125.19	ETE	166.52	ZAC	120.92	ETC	259.91	CLP	-165.06

PLANETOCENTRIC CONIC

C3	13.564	VHL	3.683	DLA	-34.20	RAL	277.35	RAD	6567.5	VEL	11.617	PTH	2.04	VHP	6.746	DPA	-1.73	RAP	248.68	ECC	1.2232

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.98	10 40 39	1280.28	25.95	355.91	141.60	113.10	11 1 59	680.3	28.84	347.92
110.02	15 40 14	5615.06	25.96	262.70	141.61	113.08	17 13 49	5015.1	28.85	254.72
69.98	10 40 39	1280.28	25.95	355.91	141.60	113.10	11 1 59	680.3	28.84	347.92
110.02	15 40 14	5615.06	25.96	262.70	141.61	113.08	17 13 49	5015.1	28.85	254.72
69.98	10 40 39	1280.28	25.95	355.91	141.60	113.10	11 1 59	680.3	28.84	347.92
110.02	15 40 14	5615.06	25.96	262.70	141.61	113.08	17 13 49	5015.1	28.85	254.72

DIFFERENTIAL CORRECTIONS

TDE	-.4811	TRA	2.0246	TC3	-5.6041	BAU	1.0179
RDE	.2633	RRA	-.2711	RC3	.3154	FAU	.03495
FDE	-.0150	FRA	1.3536	FC3	-2.2304	BSP	18178
BDE	.5484	BRA	2.0427	BC3	5.6129	FSP	-893

MID-COURSE EXECUTION ACCURACY

SGT	5665.7	SGR	694.1	SG3	261.8		
RRT	-.8156	RRF	-.8033	RTF	.9608		
SGB	5708.1	R23	.0273	R13	-.9610		
SG1	5694.1	SG2	399.7	THA	174.27		

ORBIT DETERMINATION ACCURACY

ST	1371.3	SR	437.3	SS	446.3
CRT	-.8041	CRS	.3786	CST	-.8534
LSA	1466.1	MSA	348.2	SSA	19.5
EL1	1417.2	EL2	251.6	ALF	165.14

LAUNCH DATE SEP 1 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 534.151

RL	150.98	LAL	.00	LOL	338.15	VL	26.320	GAL	3.24	AZL	91.32	HCA	256.18	SMA	124.58	ECC	.21902	INC	1.3156	VI	29.511
RP	108.37	LAP	1.28	LOP	234.33	VP	37.202	GAP	10.24	AZP	89.69	TAL	168.29	TAP	64.46	RCA	97.29	APO	151.86	V2	34.969
RC	150.132	GL	-9.13	GP	18.58	ZAL	60.03	ZAP	156.96	ETS	48.68	ZAE	125.13	ETE	167.18	ZAC	120.26	ETC	260.45	CLP	-166.13

PLANETOCENTRIC CONIC

C3	14.452	VHL	3.802	DLA	-32.28	RAL	279.99	RAD	6567.6	VEL	11.655	PTH	2.05	VHP	6.932	DPA	-3.02	RAP	250.46	ECC	1.2378

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.82	11 15 26	1219.53	24.21	350.43	144.59	112.03	11 35 45	619.5	26.99	342.52
106.18	15 26 32	5703.67	24.22	268.75	144.59	112.02	17 1 36	5103.7	26.99	260.84
73.82	11 15 26	1219.53	24.21	350.43	144.59	112.03	11 35 45	619.5	26.99	342.52
106.18	15 26 32	5703.67	24.22	268.75	144.59	112.02	17 1 36	5103.7	26.99	260.84
110.00	14 24 35	607.39	17.37	302.00	141.02	119.92	14 34 43	7.4	21.21	294.98
110.00	17 16 33	5363.81	31.46	245.26	147.26	104.11	18 45 57	4763.8	33.08	236.40

DIFFERENTIAL CORRECTIONS

TDE	-.3407	TRA	2.2427	TC3	-5.3436	BAU	1.0338
RDE	.2631	RRA	-.2812	RC3	.2817	FAU	.03282
FDE	.0581	FRA	1.3973	FC3	-1.9662	BSP	18588
BDE	.4305	BRA	2.2603	BC3	5.3510	FSP	-874

MID-COURSE EXECUTION ACCURACY

SGT	5723.1	SGR	674.2	SG3	251.1		
RRT	-.7978	RRF	-.7830	RTF	.9611		
SGB	5762.7	R23	.0205	R13	-.9613		
SG1	5748.4	SG2	404.7	THA	174.60		

ORBIT DETERMINATION ACCURACY

ST	1310.4	SR	424.2	SS	451.5
CRT	-.6923	CRS	.2439	CST	-.8675
LSA	1398.9	MSA	379.1	SSA	18.9
EL1	1344.7	EL2	298.3	ALF	166.70

LAUNCH DATE SEP 1 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 539.838

RL	150.98	LAL	.00	LOL	338.15	VL	26.282	GAL	3.70	AZL	91.12	HCA	259.37	SMA	124.35	ECC	.22325	INC	1.1197	VI	29.511
RP	108.41	LAP	1.10	LOP	237.52	VP	37.163	GAP	10.62	AZP	89.79	TAL	166.90	TAP	66.26	RCA	96.59	APO	152.11	V2	34.956
RC	152.275	GL	-7.48	GP	17.78	ZAL	57.63	ZAP	158.20	ETS	49.76	ZAE	125.06	ETE	167.77	ZAC	119.66	ETC	261.00	CLP	-167.18

PLANETOCENTRIC CONIC

C3	15.499	VHL	3.937	DLA	-30.46	RAL	282.49	RAD	6567.6	VEL	11.700	PTH	2.06	VHP	7.131	DPA	-4.20	RAP	252.30	ECC	1.2551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.29	11 56 43	1136.56	22.53	343.44	147.60	111.05	12 15 40	536.6	25.19	335.60
101.71	15 5 8	5817.94	22.54	276.65	147.61	111.04	16 42 6	5217.9	25.20	268.82
78.29	11 56 43	1136.56	22.53	343.44	147.60	111.05	12 15 40	536.6	25.19	335.60
101.71	15 5 8	5817.94	22.54	276.65	147.61	111.04	16 42 6	5217.9	25.20	268.82
110.00	14 0 43	732.66	12.98	309.06	142.62	121.90	14 12 55	132.7	17.10	302.37
110.00	18 0 19	5269.85	32.81	238.26	150.84	100.17	19 28 8	4669.8	33.87	229.18

DIFFERENTIAL CORRECTIONS

TDE	-.1835	TRA	2.4877	TC3	-5.0132	BAU	1.0400
RDE	.2628	RRA	-.2940	RC3	.2455	FAU	.03021
FDE	.1346	FRA	1.4498	FC3	-1.6873	BSP	18589
BDE	.3205	BRA	2.5051	BC3	5.0192	FSP	-831

MID-COURSE EXECUTION ACCURACY

SGT	5770.0	SGR	655.8	SG3	241.2		
RRT	-.7796	RRF	-.7629	RTF	.9605		
SGB	5807.1	R23	.0166	R13	-.9606		
SG1	5792.7	SG2	409.1	THA	174.91		

ORBIT DETERMINATION ACCURACY

ST	1293.4	SR	410.5	SS	468.9
CRT	-.5471	CRS	.1109	CST	-.8916
LSA	1377.8	MSA	403.4	SSA	18.3
EL1	1314.2	EL2	338.2	ALF	169.44

LAUNCH DATE SEP 1 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 545.485

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RL  150.98 LAL    .00 LOL 338.15 VL  26.245 GAL   4.18 AZL  90.93 HCA 262.55 SMA 124.12 ECC .22780 INC  .9279 V1  29.511
RP  108.45 LAP    .92 LOP 240.70 VP  37.125 GAP  11.02 AZP  89.88 TAL 165.50 TAP  68.05 RCA  95.85 APO 152.40 V2  34.943
RC 154.408 GL   -5.95 GP   17.05 ZAL  55.32 ZAP 159.37 ETS  51.01 ZAE 124.98 ETE 168.29 ZAC 119.12 ETC 261.55 CLP-168.21
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PLANETOCENTRIC CONIC

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C3  16.723 VHL  4.089 DLA -28.72 RAL 284.83 RAD 6567.7 VEL 11.752 PTH   2.07 VHP  7.343 DPA  -5.29 RAP 254.21 ECC 1.2752
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.97	12 58 16	986.57	20.90	331.68	150.64	110.16	13 14 42	386.6	23.46	323.91
95.03	14 22 18	714.47	20.91	311.75	150.65	110.15	14 34 13	114.5	23.47	303.98
100.00	13 51 32	813.64	15.57	316.67	148.26	115.84	14 5 6	213.6	18.92	309.48
100.00	16 11 43	5650.67	26.44	265.58	152.53	104.48	17 45 54	5050.7	28.17	257.20
110.00	13 45 27	832.78	9.32	314.50	144.65	123.04	13 59 20	232.8	13.60	308.02
110.00	18 34 18	5204.30	33.49	233.27	154.09	97.29	20 1 2	4604.3	34.13	224.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.0310 TRA 2.7379 TC3-4.6815 BAU 1.0477   SGT 5813.5 SGR  639.3 SG3  231.5          ST  1318.1 SR   399.6 SS   488.5
RDE  .2652 RRA -.3064 RC3  .2151 FAU .02787   RRT -.7618 RRF -.7436 RTF  .9602          CRT -.3977 CRS  .0059 CST -.9190
FDE  .1991 FRA 1.4956 FC3-1.4426 BSP  18731   SGB 5848.6 R23  .0129 R13 -.9603          LSA 1401.6 MSA  413.2 SSA   17.7
BDE  .2670 BRA 2.7550 BC3 4.6864 FSP   -798   SG1 5834.0 SG2  412.7 THA 175.19          EL1 1328.4 EL2  363.8 ALF 172.56
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 551.090

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RL  150.98 LAL    .00 LOL 338.15 VL  26.208 GAL   4.69 AZL  90.74 HCA 265.74 SMA 123.90 ECC .23272 INC  .7390 V1  29.511
RP  108.49 LAP    .74 LOP 243.89 VP  37.087 GAP  11.43 AZP  89.95 TAL 164.10 TAP  69.84 RCA  95.07 APO 152.73 V2  34.931
RC 156.530 GL   -4.54 GP   16.39 ZAL  53.11 ZAP 160.46 ETS  52.45 ZAE 124.89 ETE 168.77 ZAC 118.63 ETC 262.11 CLP-169.22
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PLANETOCENTRIC CONIC

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C3  18.140 VHL  4.259 DLA -27.09 RAL 287.04 RAD 6567.7 VEL 11.812 PTH   2.09 VHP  7.568 DPA  -6.29 RAP 256.17 ECC 1.2985
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 35 55	1108.42	13.88	337.52	151.39	114.93	12 54 23	508.4	17.13	330.35
90.00	15 2 17	630.30	24.99	306.95	155.52	103.77	15 12 48	30.3	26.64	298.67
100.00	13 22 5	959.28	11.08	325.14	149.96	117.94	13 38 4	359.3	14.73	318.26
100.00	16 58 49	5542.71	28.05	257.96	156.26	100.79	18 31 11	4942.7	29.25	249.36
110.00	13 34 33	920.11	6.04	319.14	146.93	123.71	13 49 53	320.1	10.43	312.80
110.00	19 2 49	5154.65	33.85	229.44	157.20	95.05	20 28 44	4554.6	34.18	220.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .1223 TRA 2.9995 TC3-4.3432 BAU 1.0543   SGT 5852.8 SGR  624.0 SG3  222.2          ST  1374.1 SR   390.1 SS   509.3
RDE  .2693 RRA -.3190 RC3  .1883 FAU .02563   RRT -.7445 RRF -.7250 RTF  .9602          CRT -.2566 CRS -.0786 CST -.9426
FDE  .2563 FRA 1.5389 FC3-1.2233 BSP  18875   SGB 5885.9 R23  .0098 R13 -.9603          LSA 1459.3 MSA  412.0 SSA   17.1
BDE  .2958 BRA 3.0164 BC3 4.3472 FSP   -767   SG1 5871.3 SG2  415.3 THA 175.44          EL1 1378.0 EL2  375.9 ALF 175.50
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 556.648

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RL  150.98 LAL    .00 LOL 338.15 VL  26.171 GAL   5.23 AZL  90.55 HCA 268.92 SMA 123.68 ECC .23802 INC  .5517 V1  29.511
RP  108.53 LAP    .55 LOP 247.07 VP  37.050 GAP  11.87 AZP  89.99 TAL 162.70 TAP  71.62 RCA  94.24 APO 153.11 V2  34.919
RC 158.641 GL   -3.24 GP   15.79 ZAL  51.00 ZAP 161.49 ETS  54.09 ZAE 124.81 ETE 169.19 ZAC 118.18 ETC 262.67 CLP-170.21
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PLANETOCENTRIC CONIC

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C3  19.773 VHL  4.447 DLA -25.54 RAL 289.13 RAD 6567.8 VEL 11.881 PTH   2.11 VHP  7.809 DPA  -7.21 RAP 258.17 ECC 1.3254
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 7 40	1251.47	9.63	345.87	153.26	116.76	12 28 31	651.5	13.15	338.96
90.00	15 47 9	5815.91	26.45	277.72	159.20	100.49	17 24 5	5215.9	27.63	269.25
100.00	13 4 4	1069.35	7.50	331.36	152.12	119.02	13 21 53	469.4	11.32	324.65
100.00	17 33 26	5473.26	28.83	252.95	159.64	98.26	19 4 39	4873.3	29.67	244.25
110.00	13 26 22	999.37	3.03	323.31	149.37	124.06	13 43 2	399.4	7.48	317.05
110.00	19 27 37	5116.01	34.04	226.44	160.26	93.28	20 52 53	4516.0	34.12	217.19

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .2775 TRA 3.2733 TC3-4.0032 BAU 1.0591   SGT 5886.7 SGR  609.3 SG3  213.2          ST  1451.1 SR   381.4 SS   529.8
RDE  .2747 RRA -.3319 RC3  .1644 FAU .02348   RRT -.7275 RRF -.7071 RTF  .9603          CRT -.1325 CRS -.1469 CST -.9604
FDE  .3079 FRA 1.5804 FC3-1.0282 BSP  19014   SGB 5918.2 R23  .0072 R13 -.9604          LSA 1539.0 MSA  403.8 SSA   16.5
BDE  .3905 BRA 3.2900 BC3 4.0065 FSP   -737   SG1 5903.5 SG2  416.8 THA 175.67          EL1 1452.1 EL2  377.8 ALF 177.86
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 562.154

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RL  150.98 LAL    .00 LOL 338.15 VL  26.135 GAL   5.80 AZL  90.37 HCA 272.10 SMA 123.46 ECC .24376 INC  .3650 V1  29.511
RP  108.56 LAP    .37 LOP 250.25 VP  37.013 GAP  12.32 AZP  90.01 TAL 161.31 TAP  73.40 RCA  93.36 APO 153.55 V2  34.907
RC 160.740 GL   -2.04 GP   15.24 ZAL  49.00 ZAP 162.45 ETS  55.96 ZAE 124.71 ETE 169.57 ZAC 117.77 ETC 263.24 CLP-171.19
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PLANETOCENTRIC CONIC

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C3  21.649 VHL  4.653 DLA -24.09 RAL 291.09 RAD 6567.9 VEL 11.959 PTH   2.13 VHP  8.065 DPA  -8.04 RAP 260.22 ECC 1.3563
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 49 55	1361.22	6.21	352.12	155.52	117.68	12 12 36	761.2	9.87	345.36
90.00	16 20 32	5749.56	27.19	273.00	162.57	98.23	17 56 21	5149.6	28.05	264.44
100.00	12 51 14	1163.27	4.37	336.57	154.51	119.60	13 10 38	563.3	8.28	329.96
100.00	18 1 54	5422.75	29.27	249.26	162.87	96.36	19 32 16	4822.7	29.84	240.50
110.00	13 20 3	1072.94	.22	327.15	151.93	124.18	13 37 55	472.9	4.71	320.93
110.00	19 49 35	5085.84	34.14	224.08	163.29	91.90	21 14 21	4485.8	34.02	214.84

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .4347 TRA 3.5601 TC3-3.6677 BAU 1.0623   SGT 5915.8 SGR  595.1 SG3  204.6          ST  1540.3 SR   373.4 SS   549.1
RDE  .2813 RRA -.3449 RC3  .1432 FAU .02144   RRT -.7111 RRF -.6901 RTF  .9606          CRT -.0280 CRS -.2018 CST -.9729
FDE  .3541 FRA 1.6208 FC3 -.8573 BSP  19151   SGB 5945.7 R23  .0051 R13 -.9606          LSA 1630.9 MSA  391.9 SSA   16.0
BDE  .5178 BRA 3.5768 BC3 3.6705 FSP   -709   SG1 5931.0 SG2  417.4 THA 175.89          EL1 1540.4 EL2  373.3 ALF 179.59
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LAUNCH DATE SEP 1 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 567.602

RL 150.98 LAL .00 LOL 338.15 VL 26.098 GAL 6.40 AZL 90.18 HCA 275.27 SMA 123.24 ECC .24997 INC .1774 V1 29.511
RP 108.60 LAP .18 LOP 253.42 VP 36.977 GAP 12.80 AZP 90.02 TAL 159.91 TAP 75.19 RCA 92.43 APO 154.04 V2 34.896
RC 162.826 GL -.95 GP 14.74 ZAL 47.09 ZAP 163.34 ETS 58.08 ZAE 124.61 ETE 169.92 ZAC 117.38 ETC 263.82 CLP-172.16

PLANETOCENTRIC CONIC

C3 23.799 VHL 4.878 DLA -22.73 RAL 292.93 RAD 6568.0 VEL 12.049 PTH 2.15 VHP 8.339 DPA -8.81 RAP 262.30 ECC 1.3917

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 37 6	1455.30	3.21	357.41	157.98	118.15	12 1 21	855.3	6.95	350.72
90.00	16 48 4	5701.52	27.61	269.55	165.82	96.55	18 23 5	5101.5	28.23	260.94
100.00	12 41 30	1247.43	1.53	341.20	157.05	119.86	13 2 18	647.4	5.49	334.65
100.00	18 26 21	5384.62	29.52	246.45	166.04	94.91	19 56 6	4784.6	29.89	237.67
110.00	13 15 3	1142.23	-2.43	330.76	154.58	124.11	13 34 6	542.2	2.07	324.56
110.00	20 9 17	5062.58	34.17	222.27	166.31	90.82	21 33 40	4462.6	33.91	213.03

DIFFERENTIAL CORRECTIONS
TDE .5947 TRA 3.8613 TC3-3.3396 BAU 1.0633
RDE .2889 RRA -.3580 RC3 .1240 FAU .01945
FDE .3961 FRA 1.6605 FC3 -.7077 BSP 19280
BDE .6611 BRA 3.8778 BC3 3.3419 FSP -682

MID-COURSE EXECUTION ACCURACY
SGT 5939.6 SGR 581.0 SG3 196.3
RRT -.6950 RRF -.6738 RTF .9610
SGB 5968.0 R23 .0035 R13 -.9610
SG1 5953.4 SG2 416.8 THA 176.09

ORBIT DETERMINATION ACCURACY
ST 1634.9 SR 365.9 SS 567.0
CRT .0584 CRS -.2467 CST -.9814
LSA 1727.6 MSA 378.6 SSA 15.5
EL1 1635.1 EL2 365.2 ALF .79

LAUNCH DATE SEP 1 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 572.983

RL 150.98 LAL .00 LOL 338.15 VL 26.062 GAL 7.04 AZL 89.99 HCA 278.45 SMA 123.02 ECC .25670 INC .0000 V1 29.511
RP 108.63 LAP -.01 LOP 256.60 VP 36.941 GAP 13.30 AZP 90.00 TAL 158.53 TAP 76.98 RCA 91.44 APO 154.60 V2 34.885
RC 164.900 GL .06 GP 14.28 ZAL 45.29 ZAP 164.18 ETS 60.46 ZAE 124.50 ETE 170.24 ZAC 117.01 ETC 264.40 CLP-173.12

PLANETOCENTRIC CONIC

C3 26.261 VHL 5.125 DLA -21.45 RAL 294.67 RAD 6568.1 VEL 12.151 PTH 2.18 VHP 8.633 DPA -9.49 RAP 264.41 ECC 1.4322

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 27 15	1539.73	.49	2.12	160.58	118.31	11 52 55	939.7	4.27	355.48
90.00	17 11 45	5665.57	27.86	266.95	169.01	95.27	18 46 11	5065.6	28.30	258.31
100.00	12 33 50	1324.86	-1.10	345.45	159.70	119.87	12 55 55	724.9	2.88	338.92
100.00	18 47 52	5355.67	29.67	244.31	169.17	93.79	20 17 7	4755.7	29.88	235.52
110.00	13 11 5	1208.12	-4.93	334.21	157.31	123.87	13 31 13	608.1	-.45	327.99
110.00	20 27 6	5045.17	34.18	220.91	169.35	90.02	21 51 12	4445.2	33.81	211.68

DIFFERENTIAL CORRECTIONS
TDE .7571 TRA 4.1766 TC3-3.0248 BAU 1.0626
RDE .2975 RRA -.3709 RC3 .1070 FAU .01758
FDE .4340 FRA 1.6996 FC3 -.5797 BSP 19429
BDE .8135 BRA 4.1931 BC3 3.0267 FSP -657

MID-COURSE EXECUTION ACCURACY
SGT 5958.2 SGR 566.7 SG3 188.4
RRT -.6793 RRF -.6580 RTF .9616
SGB 5985.1 R23 .0022 R13 -.9616
SG1 5970.7 SG2 415.0 THA 176.29

ORBIT DETERMINATION ACCURACY
ST 1729.4 SR 358.5 SS 583.0
CRT .1292 CRS -.2837 CST -.9871
LSA 1823.6 MSA 365.1 SSA 14.9
EL1 1730.0 EL2 355.4 ALF 1.60

LAUNCH DATE SEP 1 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 578.290

RL 150.98 LAL .00 LOL 338.15 VL 26.026 GAL 7.71 AZL 89.80 HCA 281.62 SMA 122.81 ECC .26401 INC .2029 V1 29.511
RP 108.66 LAP -.20 LOP 259.77 VP 36.906 GAP 13.84 AZP 89.96 TAL 157.15 TAP 78.77 RCA 90.39 APO 155.23 V2 34.874
RC 166.961 GL .97 GP 13.86 ZAL 43.60 ZAP 164.95 ETS 63.14 ZAE 124.39 ETE 170.53 ZAC 116.66 ETC 264.98 CLP-174.08

PLANETOCENTRIC CONIC

C3 29.080 VHL 5.393 DLA -20.26 RAL 296.30 RAD 6568.2 VEL 12.266 PTH 2.21 VHP 8.947 DPA -10.11 RAP 266.55 ECC 1.4786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 19 26	1617.46	-2.02	6.46	163.28	118.25	11 46 23	1017.5	1.77	359.83
90.00	17 32 35	5638.62	28.02	264.99	172.16	94.30	19 6 34	5038.6	28.32	256.34
100.00	12 27 40	1397.28	-3.55	349.43	162.43	119.70	12 50 57	797.3	.43	342.90
100.00	19 7 3	5334.03	29.76	242.71	172.29	92.95	20 35 57	4734.0	29.85	233.91
110.00	13 7 53	1271.24	-7.32	337.54	160.11	123.48	13 29 4	671.2	-2.86	331.29
110.00	20 43 19	5032.83	34.18	219.94	172.40	89.45	22 7 12	4432.8	33.72	210.73

DIFFERENTIAL CORRECTIONS
TDE .9228 TRA 4.5079 TC3-2.7239 BAU 1.0596
RDE .3070 RRA -.3835 RC3 .0917 FAU .01579
FDE .4687 FRA 1.7384 FC3 -.4702 BSP 19593
BDE .9725 BRA 4.5242 BC3 2.7254 FSP -634

MID-COURSE EXECUTION ACCURACY
SGT 5971.3 SGR 552.1 SG3 180.9
RRT -.6637 RRF -.6428 RTF .9624
SGB 5996.7 R23 .0012 R13 -.9625
SG1 5982.5 SG2 412.2 THA 176.47

ORBIT DETERMINATION ACCURACY
ST 1820.7 SR 351.3 SS 597.4
CRT .1876 CRS -.3148 CST -.9910
LSA 1916.0 MSA 351.9 SSA 14.5
EL1 1821.9 EL2 344.8 ALF 2.15

LAUNCH DATE SEP 1 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 583.511

RL 150.98 LAL .00 LOL 338.15 VL 25.991 GAL 8.44 AZL 89.60 HCA 284.79 SMA 122.60 ECC .27197 INC .3995 V1 29.511
RP 108.69 LAP -.39 LOP 262.94 VP 36.871 GAP 14.41 AZP 89.90 TAL 155.79 TAP 80.59 RCA 89.26 APO 155.94 V2 34.864
RC 169.007 GL 1.81 GP 13.48 ZAL 42.00 ZAP 165.65 ETS 66.14 ZAE 124.27 ETE 170.80 ZAC 116.32 ETC 265.57 CLP-175.03

PLANETOCENTRIC CONIC

C3 32.310 VHL 5.684 DLA -19.14 RAL 297.83 RAD 6568.3 VEL 12.397 PTH 2.24 VHP 9.286 DPA -10.66 RAP 268.71 ECC 1.5317

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 13 4	1690.14	-4.36	10.52	166.06	118.01	11 41 14	1090.1	-.58	3.88
90.00	17 51 10	5618.82	28.11	263.55	175.30	93.58	19 24 49	5018.8	28.31	254.89
100.00	12 22 36	1465.75	-5.85	353.21	165.24	119.37	12 47 2	865.8	-1.89	346.66
100.00	19 24 19	5318.43	29.81	241.55	175.40	92.34	20 52 58	4718.4	29.82	232.75
110.00	13 5 17	1332.00	-9.58	340.79	162.96	122.97	13 27 29	732.0	-5.18	334.47
110.00	20 58 8	5024.95	34.17	219.33	175.46	89.08	22 21 53	4424.9	33.67	210.12

DIFFERENTIAL CORRECTIONS
TDE 1.0922 TRA 4.8565 TC3-2.4385 BAU 1.0539
RDE .3173 RRA -.3956 RC3 .0780 FAU .01409
FDE .5007 FRA 1.7779 FC3 -.3775 BSP 19761
BDE 1.1373 BRA 4.8726 BC3 2.4398 FSP -612

MID-COURSE EXECUTION ACCURACY
SGT 5978.9 SGR 537.0 SG3 173.6
RRT -.6482 RRF -.6278 RTF .9635
SGB 6003.0 R23 .0005 R13 -.9635
SG1 5989.1 SG2 408.2 THA 176.65

ORBIT DETERMINATION ACCURACY
ST 1906.7 SR 344.0 SS 610.3
CRT .2363 CRS -.3413 CST -.9937
LSA 2002.8 MSA 339.2 SSA 14.0
EL1 1908.5 EL2 333.9 ALF 2.52

LAUNCH DATE SEP 1 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 588.633

RL	150.98	LAL	.00	LOL	338.15	VL	25.955	GAL	9.20	AZL	89.40	HCA	287.96	SMA	122.39	ECC	.28065	INC	.6018	V1	29.511
RP	108.72	LAP	-.57	LOP	266.11	VP	36.837	GAP	15.02	AZP	89.81	TAL	154.46	TAP	82.42	RCA	88.04	APO	156.74	V2	34.855
RC	171.039	GL	2.57	GP	13.12	ZAL	40.50	ZAP	166.29	ETS	69.47	ZAE	124.13	ETE	171.05	ZAC	116.00	ETC	266.16	CLP	-175.99

PLANETOCENTRIC CONIC

C3	36.017	VHL	6.001	DLA	-18.10	RAL	299.26	RAO	6568.4	VEL	12.545	PTH	2.27	VHP	9.651	OPA	-11.14	RAP	270.88	ECC	1.5927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 7 48	1758.82	-6.54	14.39	168.89	117.61	11 37 7	1158.8	-2.79	7.72
90.00	18 7 53	5604.93	28.16	262.54	178.42	93.08	19 41 18	5004.9	28.29	253.87
100.00	12 18 25	1531.00	-8.01	356.84	168.09	118.89	12 43 56	931.0	-4.10	350.25
100.00	19 39 58	5307.99	29.84	240.78	178.50	91.94	21 8 26	4708.0	29.79	231.97
110.00	13 3 11	1390.72	-11.74	343.97	165.85	122.34	13 26 21	790.7	-7.39	337.58
110.00	21 11 42	5021.03	34.17	219.02	178.54	88.90	22 35 23	4421.0	33.64	209.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	1.2671	TRA	5.2248	TC3	-2.1689	BAU	1.0448	SGT	5981.7	SGR	521.2	SG3	166.7	ST	1987.0	SR	336.6	SS	622.4
RDE	.3283	RRA	-.4071	RC3	.0656	FAU	.01244	RRT	-.6325	RRF	-.6130	RTF	.9647	CRT	.2779	CRS	-.3645	CST	-.9955
FDE	.5308	FRA	1.8185	FC3	-.2990	BSP	19940	SGB	6004.4	R23	.0000	R13	-.9647	LSA	2083.7	MSA	326.8	SSA	13.5
BOE	1.3090	BRA	5.2406	BC3	2.1699	FSP	-592	SG1	5990.8	SG2	403.1	THA	176.83	EL1	1989.3	EL2	323.0	ALF	2.77

LAUNCH DATE SEP 1 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 593.640

RL	150.98	LAL	.00	LOL	338.15	VL	25.920	GAL	10.03	AZL	89.19	HCA	291.13	SMA	122.19	ECC	.29013	INC	.8112	V1	29.511
RP	108.75	LAP	-.76	LOP	269.28	VP	36.804	GAP	15.67	AZP	89.71	TAL	153.14	TAP	84.27	RCA	86.74	APO	157.64	V2	34.846
RC	173.056	GL	3.26	GP	12.80	ZAL	39.10	ZAP	166.85	ETS	73.17	ZAE	123.98	ETE	171.28	ZAC	115.68	ETC	266.74	CLP	-176.96

PLANETOCENTRIC CONIC

C3	40.279	VHL	6.347	DLA	-17.13	RAL	300.61	RAO	6568.5	VEL	12.714	PTH	2.31	VHP	10.047	OPA	-11.56	RAP	273.06	ECC	1.6629

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 3 24	1824.20	-8.58	18.10	171.77	117.09	11 33 48	1224.2	-4.88	11.38
90.00	18 23 1	5596.08	28.19	261.89	181.53	92.76	19 56 17	4996.1	28.28	253.23
100.00	12 14 54	1593.49	-10.05	.37	170.99	118.30	12 41 27	993.5	-6.19	353.70
100.00	19 54 12	5302.01	29.85	240.33	181.60	91.70	21 22 34	4702.0	29.77	231.53
110.00	13 1 27	1447.62	-13.79	347.10	168.79	121.59	13 25 35	847.6	-9.51	340.61
110.00	21 24 8	5020.65	34.17	218.99	181.63	88.88	22 47 49	4420.7	33.63	209.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	1.4481	TRA	5.6150	TC3	-1.9145	BAU	1.0314	SGT	5979.3	SGR	504.7	SG3	160.1	ST	2060.8	SR	329.0	SS	634.0
RDE	.3400	RRA	-.4177	RC3	.0544	FAU	.01082	RRT	-.6164	RRF	-.5979	RTF	.9661	CRT	.3137	CRS	-.3854	CST	-.9968
FDE	.5596	FRA	1.8610	FC3	-.2326	BSP	20101	SGB	6000.6	R23	-.0003	R13	-.9661	LSA	2158.2	MSA	314.7	SSA	13.1
BOE	1.4875	BRA	5.6305	BC3	1.9153	FSP	-572	SG1	5987.4	SG2	396.9	THA	177.01	EL1	2063.4	EL2	312.0	ALF	2.93

LAUNCH DATE SEP 1 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 598.514

RL	150.98	LAL	.00	LOL	338.15	VL	25.886	GAL	10.91	AZL	88.97	HCA	294.29	SMA	121.99	ECC	.30052	INC	1.0297	V1	29.511
RP	108.78	LAP	-.94	LOP	272.45	VP	36.772	GAP	16.38	AZP	89.58	TAL	151.86	TAP	86.16	RCA	85.33	APO	158.65	V2	34.837
RC	175.059	GL	3.90	GP	12.50	ZAL	37.79	ZAP	167.33	ETS	77.23	ZAE	123.81	ETE	171.50	ZAC	115.37	ETC	267.33	CLP	-177.93

PLANETOCENTRIC CONIC

C3	45.194	VHL	6.723	DLA	-16.23	RAL	301.86	RAO	6568.7	VEL	12.906	PTH	2.35	VHP	10.476	OPA	-11.92	RAP	275.24	ECC	1.7438

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 59 40	1886.73	-10.50	21.70	174.69	116.45	11 31 7	1286.7	-6.87	14.91
90.00	18 36 45	5591.57	28.21	261.56	184.62	92.59	20 9 57	4991.6	28.27	252.90
100.00	12 11 55	1653.58	-11.97	3.80	173.93	117.60	12 39 29	1053.6	-8.18	357.06
100.00	20 7 11	5299.96	29.85	240.18	184.69	91.62	21 35 31	4700.0	29.76	231.38
110.00	13 0 2	1502.84	-15.74	350.20	171.76	120.74	13 25 5	902.8	-11.55	343.60
110.00	21 35 33	5023.46	34.17	219.21	184.72	89.01	22 59 17	4423.5	33.66	210.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	1.6377	TRA	6.0301	TC3	-1.6755	BAU	1.0127	SGT	5972.9	SGR	487.4	SG3	153.9	ST	2128.7	SR	321.0	SS	645.7
RDE	.3522	RRA	-.4272	RC3	.0444	FAU	.00923	RRT	-.5996	RRF	-.5825	RTF	.9677	CRT	.3456	CRS	-.4047	CST	-.9978
FDE	.5880	FRA	1.9062	FC3	-.1768	BSP	20236	SGB	5992.7	R23	-.0004	R13	-.9677	LSA	2227.0	MSA	302.9	SSA	12.6
BOE	1.6751	BRA	6.0452	BC3	1.6760	FSP	-553	SG1	5980.0	SG2	389.6	THA	177.19	EL1	2131.7	EL2	300.8	ALF	3.04

LAUNCH DATE SEP 1 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 603.230

RL	150.98	LAL	.00	LOL	338.15	VL	25.852	GAL	11.87	AZL	88.74	HCA	297.46	SMA	121.79	ECC	.31194	INC	1.2593	V1	29.511
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.740	GAP	17.15	AZP	89.42	TAL	150.62	TAP	88.08	RCA	83.80	APO	159.78	V2	34.829
RC	177.047	GL	4.47	GP	12.23	ZAL	36.58	ZAP	167.72	ETS	81.67	ZAE	123.62	ETE	171.70	ZAC	115.07	ETC	267.91	CLP	-178.92

PLANETOCENTRIC CONIC

C3	50.880	VHL	7.133	DLA	-15.40	RAL	303.03	RAO	6568.9	VEL	13.124	PTH	2.40	VHP	10.944	OPA	-12.22	RAP	277.41	ECC	1.8374

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 56 28	1946.72	-12.30	25.19	177.63	115.71	11 28 55	1346.7	-8.74	18.32
90.00	18 49 14	5590.87	28.21	261.51	187.70	92.57	20 22 25	4990.9	28.27	252.85
100.00	12 9 23	1711.46	-13.77	7.15	176.89	116.80	12 37 55	1111.5	-10.07	.32
100.00	20 19 0	5301.37	29.85	240.29	187.77	91.68	21 47 22	4701.4	29.76	231.48
110.00	12 58 52	1556.47	-17.58	353.26	174.76	119.80	13 24 49	956.5	-13.48	346.55
110.00	21 46 1	5029.13	34.18	219.65	187.81	89.27	23 9 50	4429.1	33.70	210.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	1.8373	TRA	6.4746	TC3	-1.4508	BAU	.9871	SGT	5963.3	SGR	469.2	SG3	148.0	ST	2191.0	SR	312.8	SS	658.0
RDE	.3651	RRA	-.4354	RC3	.0353	FAU	.00763	RRT	-.5819	RRF	-.5662	RTF	.9695	CRT	.3744	CRS	-.4230	CST	-.9984
FDE	.6166	FRA	1.9552	FC3	-.1298	BSP	20314	SGB	5981.7	R23	-.0004	R13	-.9695	LSA	2290.5	MSA	291.1	SSA	12.2
BOE	1.8732	BRA	6.4892	BC3	1.4512	FSP	-532	SG1	5969.5	SG2	381.2	THA	177.37	EL1	2194.2	EL2	289.7	ALF	3.11

LAUNCH DATE SEP 1 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 607.758

RL 150.98 LAL .00 LOL 338.15 VL 25.819 GAL 12.90 AZL 88.50 HCA 300.62 SMA 121.60 ECC .32451 INC 1.5023 V1 29.511
RP 108.83 LAP -1.29 LOP 278.78 VP 36.710 GAP 17.98 AZP 89.23 TAL 149.43 TAP 90.05 RCA 82.14 APO 161.06 V2 34.822
RC 179.021 GL 4.99 GP 11.98 ZAL 35.46 ZAP 168.02 ETS 86.47 ZAE 123.41 ETE 171.90 ZAC 114.76 ETC 268.49 CLP-179.93

PLANETOCENTRIC CONIC

C3 57.485 VHL 7.582 DLA -14.63 RAL 304.10 RAD 6569.0 VEL 13.373 PTH 2.44 VHP 11.456 DPA -12.46 RAP 279.57 ECC 1.9461

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 53 43	2804.38	-13.98	28.59	180.59	114.88	11 27 7	1404.4	-10.51	21.63
90.00	19 0 35	5593.52	28.20	261.71	190.74	92.66	20 33 48	4993.5	28.27	253.04
100.00	12 7 12	1767.28	-15.46	10.43	179.86	115.91	12 36 39	1167.3	-11.85	3.50
100.00	20 29 47	5305.85	29.84	240.62	190.82	91.85	21 58 13	4705.9	29.78	231.82
110.00	12 57 53	1608.50	-19.31	356.30	177.77	118.77	13 24 41	1008.5	-15.33	349.46
110.00	21 55 35	5037.36	34.18	220.30	190.89	89.66	23 19 33	4437.4	33.76	211.08

DIFFERENTIAL CORRECTIONS
TDE 2.0487 TRA 6.9515 TC3-1.2404 BAU .9535
RDE .3787 RRA -.4417 RC3 .0272 FAU .00600
FDE .6460 FRA 2.0087 FC3 -.0903 BSP 20336
BDE 2.0834 BRA 6.9655 BC3 1.2407 FSP -511

MID-COURSE EXECUTION ACCURACY
SGT 5950.7 SGR 450.1 SG3 142.5
RRT -.5628 RRF -.5486 RTF .9714
SGB 5967.7 R23 -.0003 R13 -.9714
SG1 5956.1 SG2 371.7 THA 177.55

ORBIT DETERMINATION ACCURACY
ST 2247.9 SR 304.3 SS 671.2
CRT .4012 CRS -.4410 CST -.9989
LSA 2349.0 MSA 279.4 SSA 11.8
EL1 2251.2 EL2 278.3 ALF 3.16

LAUNCH DATE SEP 1 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 612.062

RL 150.98 LAL .00 LOL 338.15 VL 25.787 GAL 14.02 AZL 88.24 HCA 303.78 SMA 121.41 ECC .33840 INC 1.7616 V1 29.511
RP 108.85 LAP -1.46 LOP 281.94 VP 36.681 GAP 18.90 AZP 89.02 TAL 148.30 TAP 92.08 RCA 80.33 APO 162.50 V2 34.815
RC 180.980 GL 5.47 GP 11.74 ZAL 34.44 ZAP 168.22 ETS 91.59 ZAE 123.16 ETE 172.09 ZAC 114.46 ETC 269.05 CLP 179.03

PLANETOCENTRIC CONIC

C3 65.191 VHL 8.074 DLA -13.92 RAL 305.09 RAD 6569.2 VEL 13.658 PTH 2.50 VHP 12.019 DPA -12.66 RAP 281.71 ECC 2.0729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 51 19	2059.81	-15.54	31.91	183.54	113.97	11 25 39	1459.8	-12.17	24.86
90.00	19 10 51	5599.14	28.18	262.12	193.75	92.87	20 44 10	4999.1	28.28	253.45
100.00	12 5 18	1821.10	-17.03	13.66	182.83	114.94	12 35 39	1221.1	-13.53	6.62
100.00	20 39 33	5313.07	29.82	241.16	193.84	92.14	22 8 7	4713.1	29.80	232.35
110.00	12 57 2	1659.05	-20.94	359.32	180.79	117.66	13 24 41	1059.1	-17.07	352.33
110.00	22 4 19	5047.89	34.18	221.12	193.94	90.14	23 28 26	4447.9	33.82	211.89

DIFFERENTIAL CORRECTIONS
TDE 2.2760 TRA 7.4665 TC3-1.0435 BAU .9097
RDE .3930 RRA -.4458 RC3 .0200 FAU .00431
FDE .6771 FRA 2.0678 FC3 -.0572 BSP 20227
BDE 2.3097 BRA 7.4798 BC3 1.0437 FSP -488

MID-COURSE EXECUTION ACCURACY
SGT 5936.8 SGR 430.1 SG3 137.3
RRT -.5415 RRF -.5292 RTF .9736
SGB 5952.4 R23 -.0000 R13 -.9736
SG1 5941.4 SG2 361.3 THA 177.74

ORBIT DETERMINATION ACCURACY
ST 2300.6 SR 295.5 SS 686.1
CRT .4269 CRS -.4591 CST -.9992
LSA 2404.0 MSA 267.5 SSA 11.3
EL1 2304.1 EL2 266.8 ALF 3.18

LAUNCH DATE SEP 1 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 616.095

RL 150.98 LAL .00 LOL 338.15 VL 25.755 GAL 15.24 AZL 87.96 HCA 306.94 SMA 121.23 ECC .35380 INC 2.0407 V1 29.511
RP 108.87 LAP -1.63 LOP 285.10 VP 36.653 GAP 19.91 AZP 88.77 TAL 147.25 TAP 94.18 RCA 78.34 APO 164.13 V2 34.809
RC 182.925 GL 5.89 GP 11.53 ZAL 33.52 ZAP 168.29 ETS 97.00 ZAE 122.87 ETE 172.28 ZAC 114.15 ETC 269.61 CLP 177.97

PLANETOCENTRIC CONIC

C3 74.230 VHL 8.616 DLA -13.27 RAL 305.98 RAD 6569.4 VEL 13.985 PTH 2.55 VHP 12.641 DPA -12.80 RAP 283.82 ECC 2.2216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 49 12	2113.03	-16.98	35.15	186.47	113.01	11 24 25	1513.0	-13.72	27.99
90.00	19 20 7	5607.38	28.15	262.72	196.71	93.17	20 53 34	5007.4	28.30	254.05
100.00	12 3 37	1872.92	-18.49	16.81	185.78	113.91	12 34 50	1272.9	-15.10	9.66
100.00	20 48 23	5322.72	29.80	241.87	196.81	92.51	22 17 6	4722.7	29.83	233.07
110.00	12 56 17	1707.94	-22.46	2.31	183.79	116.48	13 24 45	1107.9	-18.72	355.17
110.00	22 12 12	5060.47	34.18	222.10	196.95	90.72	23 36 32	4460.5	33.90	212.87

DIFFERENTIAL CORRECTIONS
TDE 2.5195 TRA 8.0224 TC3 -.8600 BAU .8536
RDE .4082 RRA -.4471 RC3 .0137 FAU .00254
FDE .7100 FRA 2.1334 FC3 -.0296 BSP 20017
BDE 2.5523 BRA 8.0349 BC3 .8602 FSP -464

MID-COURSE EXECUTION ACCURACY
SGT 5920.3 SGR 409.4 SG3 132.5
RRT -.5177 RRF -.5072 RTF .9758
SGB 5934.4 R23 .0003 R13 -.9758
SG1 5924.1 SG2 350.0 THA 177.94

ORBIT DETERMINATION ACCURACY
ST 2348.1 SR 286.5 SS 702.9
CRT .4520 CRS -.4778 CST -.9994
LSA 2454.4 MSA 255.7 SSA 10.9
EL1 2351.7 EL2 255.2 ALF 3.20

LAUNCH DATE SEP 1 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 619.798

RL 150.98 LAL .00 LOL 338.15 VL 25.724 GAL 16.58 AZL 87.66 HCA 310.09 SMA 121.06 ECC .37092 INC 2.3439 V1 29.511
RP 108.88 LAP -1.79 LOP 288.27 VP 36.626 GAP 21.03 AZP 88.49 TAL 146.28 TAP 96.37 RCA 76.16 APO 165.96 V2 34.804
RC 184.854 GL 6.28 GP 11.33 ZAL 32.70 ZAP 168.25 ETS 102.61 ZAE 122.55 ETE 172.47 ZAC 113.85 ETC 270.16 CLP 176.85

PLANETOCENTRIC CONIC

C3 84.893 VHL 9.214 DLA -12.68 RAL 306.78 RAD 6569.7 VEL 14.361 PTH 2.61 VHP 13.330 DPA -12.90 RAP 285.90 ECC 2.3971

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 47 18	2164.00	-18.31	38.30	189.36	111.98	11 23 22	1564.0	-15.17	31.04
90.00	19 28 24	5617.97	28.11	263.49	199.60	93.55	21 2 2	5018.0	28.31	254.83
100.00	12 2 6	1922.67	-19.83	19.90	188.69	112.83	12 34 9	1322.7	-16.57	12.62
100.00	20 56 17	5334.54	29.76	242.75	199.71	92.97	22 25 11	4734.5	29.85	233.94
110.00	12 55 36	1755.10	-23.86	5.25	186.76	115.24	13 24 51	1155.1	-20.26	357.96
110.00	22 19 16	5074.86	34.16	223.23	199.91	91.39	23 43 51	4474.9	33.97	213.99

DIFFERENTIAL CORRECTIONS
TDE 2.7815 TRA 8.6268 TC3 -.6901 BAU .7833
RDE .4247 RRA -.4448 RC3 .0085 FAU .00065
FDE .7453 FRA 2.2068 FC3 -.0066 BSP 19688
BDE 2.8137 BRA 8.6383 BC3 .6901 FSP -438

MID-COURSE EXECUTION ACCURACY
SGT 5903.0 SGR 387.8 SG3 128.0
RRT -.4902 RRF -.4817 RTF .9782
SGB 5915.7 R23 .0007 R13 -.9782
SG1 5906.0 SG2 337.8 THA 178.15

ORBIT DETERMINATION ACCURACY
ST 2390.5 SR 277.4 SS 721.9
CRT .4771 CRS -.4974 CST -.9996
LSA 2500.6 MSA 243.8 SSA 10.4
EL1 2394.2 EL2 243.4 ALF 3.20

LAUNCH DATE SEP 2 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 11 1970

HELIOCENTRIC CONIC DISTANCE 166.497

RL	150.95	LAL	.00	LOL	339.12	VL	23.764	GAL	-2.05	AZL	91.70	HCA	69.45	SMA	111.18	ECC	.35927	INC	1.6950	V1	29.518
RP	108.11	LAP	-1.59	LOP	48.56	VP	35.517	GAP	-21.00	AZP	90.60	TAL	183.66	TAP	253.11	RCA	71.23	APO	151.12	V2	35.053
RC	40.156	GL	-6.91	GP	-9.34	ZAL	94.25	ZAP	12.88	ETS	130.78	ZAE	169.50	ETE	338.51	ZAC	91.31	ETC	259.48	CLP	8.91

PLANETOCENTRIC CONIC

C3	34.054	VHL	5.836	DLA	-27.90	RAL	241.47	RAD	6568.3	VEL	12.467	PTH	2.26	VHP	12.814	DPA	-27.46	RAP	232.52	ECC	1.5604

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 0 42	1162.46	12.31	340.71	116.88	115.70	10 20 4	562.5	15.67	333.64
90.00	11 26 5	884.95	19.81	323.80	120.22	110.66	11 40 50	284.9	22.45	316.12
100.00	10 33 17	1057.07	7.91	330.67	114.57	118.92	10 50 54	457.1	11.70	323.94
100.00	13 36 10	5753.61	24.49	272.61	121.98	107.69	15 12 4	5153.6	26.68	264.49
110.00	10 38 17	1041.39	1.43	325.50	110.59	124.16	10 55 38	441.4	5.90	319.27
110.00	15 47 40	5342.05	31.81	243.66	124.27	103.22	17 16 42	4742.1	33.30	234.75

DIFFERENTIAL CORRECTIONS

TDE	.1711	TRA	-.6680	TC3	.1256	BAU	.0609
RDE	-.4457	RRA	-.0152	RC3	-.0462	FAU	.02090
FDE	-.0984	FRA	.3209	FC3	-.5314	BSP	2052
BDE	.4774	BRA	.6682	BC3	.1338	FSP	-140

MID-COURSE EXECUTION ACCURACY

SGT	774.9	SGR	441.2	SG3	62.4		
RRT	-.2014	RRF	.2188	RTF	-.6645		
SGB	891.7	R23	-.0266	R13	.6696		
SG1	782.2	SG2	428.1	THA	170.63		

ORBIT DETERMINATION ACCURACY

ST	278.9	SR	437.6	SS	160.9		
CRT	-.5930	CRS	-.6567	CST	.9898		
LSA	493.9	MSA	225.9	SSA	16.0		
EL1	476.1	EL2	206.4	ALF	115.93		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 173.180

RL	150.95	LAL	.00	LOL	339.12	VL	24.109	GAL	-2.13	AZL	91.48	HCA	72.66	SMA	112.74	ECC	.34068	INC	1.4841	V1	29.518
RP	108.07	LAP	-1.42	LOP	51.77	VP	35.762	GAP	-19.78	AZP	90.44	TAL	184.13	TAP	256.79	RCA	74.33	APO	151.15	V2	35.066
RC	40.238	GL	-6.53	GP	-9.82	ZAL	95.01	ZAP	12.09	ETS	122.85	ZAE	166.76	ETE	338.72	ZAC	91.00	ETC	259.71	CLP	7.10

PLANETOCENTRIC CONIC

C3	30.106	VHL	5.487	DLA	-27.38	RAL	240.72	RAD	6568.2	VEL	12.308	PTH	2.22	VHP	12.139	DPA	-28.33	RAP	233.84	ECC	1.4955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 20	1201.49	11.15	342.99	113.22	116.20	9 56 22	601.5	14.58	335.99
90.00	11 44 24	783.91	22.10	317.28	117.87	108.17	11 57 28	183.9	24.38	309.35
100.00	10 19 3	1063.50	7.69	331.03	111.39	118.07	10 36 46	463.5	11.50	324.31
100.00	13 44 23	5685.17	25.83	267.96	119.10	105.60	15 19 8	5085.2	27.72	259.67
110.00	10 29 7	1031.87	1.79	325.00	107.75	124.14	10 46 19	431.9	6.26	318.77
110.00	15 50 48	5289.57	32.56	239.75	120.93	101.02	17 18 58	4689.6	33.74	230.71

DIFFERENTIAL CORRECTIONS

TDE	.1721	TRA	-.6495	TC3	.1724	BAU	.0740
RDE	-.4222	RRA	-.0125	RC3	-.0641	FAU	.02206
FDE	-.0968	FRA	.3253	FC3	-.6345	BSP	2179
BDE	.4559	BRA	.6496	BC3	.1839	FSP	-158

MID-COURSE EXECUTION ACCURACY

SGT	807.1	SGR	446.7	SG3	69.2		
RRT	-.2254	RRF	.2457	RTF	-.6839		
SGB	922.5	R23	-.0309	R13	.6896		
SG1	815.9	SG2	430.5	THA	170.11		

ORBIT DETERMINATION ACCURACY

ST	291.3	SR	440.9	SS	161.9		
CRT	-.6092	CRS	-.6481	CST	.9916		
LSA	502.6	MSA	229.3	SSA	16.7		
EL1	484.9	EL2	210.0	ALF	117.50		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 179.889

RL	150.95	LAL	.00	LOL	339.12	VL	24.427	GAL	-2.23	AZL	91.28	HCA	75.87	SMA	114.24	ECC	.32345	INC	1.2803	V1	29.518
RP	108.03	LAP	-1.24	LOP	54.98	VP	35.990	GAP	-18.62	AZP	90.31	TAL	184.67	TAP	260.54	RCA	77.29	APO	151.19	V2	35.079
RC	40.497	GL	-6.06	GP	-10.35	ZAL	95.92	ZAP	11.59	ETS	113.80	ZAE	164.04	ETE	338.59	ZAC	90.64	ETC	259.94	CLP	5.25

PLANETOCENTRIC CONIC

C3	26.717	VHL	5.169	DLA	-26.73	RAL	239.83	RAD	6568.1	VEL	12.169	PTH	2.18	VHP	11.496	DPA	-29.23	RAP	235.14	ECC	1.4397

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 49	1234.65	10.14	344.91	109.63	116.58	9 34 23	634.7	13.63	337.97
90.00	11 59 51	691.14	23.94	311.10	115.17	105.60	12 11 22	91.1	25.85	302.95
100.00	10 3 14	1075.04	7.31	331.67	108.12	119.06	10 21 9	475.0	11.13	324.97
100.00	13 53 7	5614.02	27.04	263.02	116.06	103.26	15 26 41	5014.0	28.59	254.56
110.00	10 18 21	1027.57	1.96	324.78	104.81	124.13	10 35 29	427.6	6.42	318.54
110.00	15 54 29	5234.26	33.21	235.56	117.43	98.62	17 21 44	4634.3	34.04	226.42

DIFFERENTIAL CORRECTIONS

TDE	.1723	TRA	-.6310	TC3	.2282	BAU	.0872
RDE	-.3998	RRA	-.0102	RC3	-.0866	FAU	.02335
FDE	-.0937	FRA	.3296	FC3	-.7568	BSP	2311
BDE	.4353	BRA	.6311	BC3	.2441	FSP	-179

MID-COURSE EXECUTION ACCURACY

SGT	840.0	SGR	452.2	SG3	76.8		
RRT	-.2523	RRF	.2758	RTF	-.7028		
SGB	954.0	R23	-.0356	R13	.7093		
SG1	850.4	SG2	432.2	THA	169.53		

ORBIT DETERMINATION ACCURACY

ST	302.9	SR	443.1	SS	161.4		
CRT	-.6240	CRS	-.6337	CST	.9924		
LSA	509.9	MSA	232.1	SSA	17.4		
EL1	492.8	EL2	212.8	ALF	119.00		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 186.619

RL	150.95	LAL	.00	LOL	339.12	VL	24.719	GAL	-2.34	AZL	91.08	HCA	79.08	SMA	115.66	ECC	.30751	INC	1.0820	V1	29.518
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.201	GAP	-17.51	AZP	90.21	TAL	185.28	TAP	264.36	RCA	80.10	APO	151.23	V2	35.092
RC	40.930	GL	-5.49	GP	-10.94	ZAL	96.96	ZAP	11.44	ETS	103.97	ZAE	161.39	ETE	338.24	ZAC	90.21	ETC	260.17	CLP	3.38

PLANETOCENTRIC CONIC

C3	23.811	VHL	4.880	DLA	-25.96	RAL	238.82	RAD	6568.0	VEL	12.049	PTH	2.15	VHP	10.883	DPA	-30.17	RAP	236.41	ECC	1.3919

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 51 39	1267.25	9.14	346.78	106.08	116.92	9 12 46	667.3	12.68	339.89
90.00	12 14 0	601.77	25.43	304.98	112.23	102.88	12 24 2	1.8	26.96	296.65
100.00	9 46 3	1091.55	6.77	332.59	104.80	119.19	10 4 15	491.5	10.61	325.91
100.00	14 2 16	5540.75	28.07	257.82	112.85	100.72	15 34 37	4940.7	29.26	249.22
110.00	10 6 5	1028.70	1.91	324.84	101.80	124.14	10 23 14	428.7	6.38	318.60
110.00	15 58 44	5176.36	33.71	231.12	113.81	96.04	17 25 0	4576.4	34.18	221.90

DIFFERENTIAL CORRECTIONS

TDE	.1713	TRA	-.6125	TC3	.2933	BAU	.1003
RDE	-.3782	RRA	-.0082	RC3	-.1146	FAU	.02480
FDE	-.0885	FRA	.3332	FC3	-.9016	BSP	2447
BDE	.4152	BRA	.6126	BC3	.3149	FSP	-203

MID-COURSE EXECUTION ACCURACY

SGT	873.1	SGR	458.1	SG3	85.3		
RRT	-.2820	RRF	.3094	RTF	-.7204		
SGB	986.0	R23	-.0413	R13	.7277		
SG1	885.7	SG2	433.2	THA	168.90		

ORBIT DETERMINATION ACCURACY

ST	313.2	SR	444.1	SS	158.8		
CRT	-.6368	CRS	-.6106	CST	.9913		
LSA	515.1	MSA	234.3	SSA	18.2		
EL1	499.2	EL2	214.9	ALF	120.39		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 193.366

RL 150.95 LAL .00 LOL 339.12 VL 24.986 GAL -2.45 AZL 90.89 HCA 82.29 SMA 117.02 ECC .29283 INC .8878 V1 29.518
RP 107.95 LAP -.88 LOP 61.41 VP 36.396 GAP -16.45 AZP 90.12 TAL 185.96 TAP 268.24 RCA 82.75 APO 151.28 V2 35.105
RC 41.530 GL -4.81 GP -11.59 ZAL 98.14 ZAP 11.68 ETS 93.96 ZAE 158.85 ETE 337.72 ZAC 89.71 ETC 260.40 CLP 1.48

PLANETOCENTRIC CONIC

C3 21.326 VHL 4.618 DLA -25.05 RAL 237.72 RAD 6567.9 VEL 11.946 PTH 2.13 VHP 10.299 DPA -31.15 RAP 237.64 ECC 1.3510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 22	1301.32	8.09	348.73	102.58	117.23	8 51 3	701.3	11.68	341.88
90.00	12 27 26	5802.20	26.62	276.75	109.09	100.03	14 4 8	5202.2	27.74	268.26
100.00	9 27 43	1112.93	6.05	333.78	101.48	119.33	9 46 16	512.9	9.92	327.13
100.00	14 11 46	5465.83	28.90	252.41	109.50	97.98	15 42 52	4865.8	29.70	243.70
110.00	9 52 26	1035.37	1.66	325.19	98.76	124.15	10 9 42	435.4	6.13	318.95
110.00	16 3 32	5116.15	34.04	226.45	110.09	93.29	17 28 48	4516.1	34.12	217.20

DIFFERENTIAL CORRECTIONS
TDE .1693 TRA -.5937 TC3 .3686 BAU .1133
RDE -.3575 RRA -.0065 RC3 -.1491 FAU .02640
FDE -.0811 FRA .3363 FC3-1.0719 BSP 2581
BDE .3956 BRA .5937 BC3 .3976 FSP -230

MID-COURSE EXECUTION ACCURACY
SGT 906.1 SGR 464.6 SG3 94.7
RRT -.3154 RRF .3471 RTF -.7374
SGB 1018.2 R23 -.0477 R13 .7456
SG1 921.3 SG2 433.6 THA 168.15

ORBIT DETERMINATION ACCURACY
ST 322.0 SR 443.6 SS 154.4
CRT -.6478 CRS -.5766 CST .9869
LSA 518.1 MSA 235.8 SSA 19.1
EL1 503.8 EL2 216.0 ALF 121.65

LAUNCH DATE SEP 2 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 200.126

RL 150.95 LAL .00 LOL 339.12 VL 25.230 GAL -2.58 AZL 90.70 HCA 85.50 SMA 118.30 ECC .27936 INC .6964 V1 29.518
RP 107.91 LAP -.69 LOP 64.62 VP 36.576 GAP -15.44 AZP 90.05 TAL 186.69 TAP 272.19 RCA 85.25 APO 151.34 V2 35.117
RC 42.291 GL -4.01 GP -12.31 ZAL 99.44 ZAP 12.32 ETS 84.41 ZAE 156.43 ETE 337.04 ZAC 89.12 ETC 260.63 CLP -.47

PLANETOCENTRIC CONIC

C3 19.204 VHL 4.382 DLA -24.00 RAL 236.53 RAD 6567.8 VEL 11.857 PTH 2.10 VHP 9.744 DPA -32.18 RAP 238.82 ECC 1.3161

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 49	1337.90	6.94	350.80	99.16	117.52	8 29 7	737.9	10.58	344.01
90.00	12 40 28	5715.64	27.50	270.57	105.81	97.05	14 15 44	5115.6	28.19	261.97
100.00	9 8 24	1139.13	5.18	335.24	98.20	119.48	9 27 23	539.1	9.07	328.61
100.00	14 21 35	5389.64	29.49	246.82	106.06	95.10	15 51 25	4789.6	29.89	238.04
110.00	9 37 34	1047.65	1.19	325.83	95.72	124.16	9 55 2	447.6	5.67	319.60
110.00	16 8 54	5053.89	34.18	221.59	106.32	90.42	17 33 8	4453.9	33.86	212.36

DIFFERENTIAL CORRECTIONS
TDE .1665 TRA -.5740 TC3 .4538 BAU .1264
RDE -.3375 RRA -.0050 RC3 -.1911 FAU .02820
FDE -.0701 FRA .3391 FC3-1.2714 BSP 2733
BDE .3763 BRA .5741 BC3 .4924 FSP -260

MID-COURSE EXECUTION ACCURACY
SGT 938.3 SGR 472.1 SG3 105.3
RRT -.3540 RRF .3887 RTF -.7536
SGB 1050.4 R23 -.0530 R13 .7629
SG1 957.0 SG2 432.9 THA 167.25

ORBIT DETERMINATION ACCURACY
ST 329.0 SR 441.3 SS 147.5
CRT -.6582 CRS -.5210 CST .9751
LSA 518.1 MSA 236.6 SSA 20.1
EL1 506.4 EL2 215.9 ALF 122.82

LAUNCH DATE SEP 2 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 206.893

RL 150.95 LAL .00 LOL 339.12 VL 25.454 GAL -2.70 AZL 90.51 HCA 88.72 SMA 119.50 ECC .26702 INC .5065 V1 29.518
RP 107.88 LAP -.51 LOP 67.84 VP 36.742 GAP -14.47 AZP 90.01 TAL 187.47 TAP 276.19 RCA 87.59 APO 151.41 V2 35.129
RC 43.202 GL -3.09 GP -13.11 ZAL 100.83 ZAP 13.33 ETS 75.83 ZAE 154.16 ETE 336.21 ZAC 88.45 ETC 260.84 CLP -2.47

PLANETOCENTRIC CONIC

C3 17.399 VHL 4.171 DLA -22.79 RAL 235.27 RAD 6567.7 VEL 11.781 PTH 2.08 VHP 9.216 DPA -33.26 RAP 239.94 ECC 1.2863

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 44 1	1377.56	5.69	353.04	95.85	117.79	8 6 59	777.6	9.37	346.29
90.00	12 53 18	5629.80	28.06	264.35	102.45	93.98	14 27 8	5029.8	28.32	255.69
100.00	8 48 18	1170.08	4.14	336.94	95.00	119.63	9 7 48	570.1	8.05	330.34
100.00	14 31 42	5312.52	29.82	241.12	102.56	92.11	16 0 14	4712.5	29.80	232.31
110.00	9 21 40	1065.48	.51	326.76	92.74	124.18	9 39 26	465.5	4.99	320.54
110.00	16 14 50	4989.88	34.10	216.59	102.54	87.46	17 37 59	4389.9	33.37	207.43

DIFFERENTIAL CORRECTIONS
TDE .1606 TRA -.5553 TC3 .5473 BAU .1392
RDE -.3181 RRA -.0036 RC3 -.2419 FAU .03021
FDE -.0551 FRA .3416 FC3-1.5034 BSP 2870
BDE .3563 BRA .5554 BC3 .5984 FSP -294

MID-COURSE EXECUTION ACCURACY
SGT 970.4 SGR 481.3 SG3 117.1
RRT -.3942 RRF .4345 RTF -.7681
SGB 1083.2 R23 -.0615 R13 .7789
SG1 993.3 SG2 432.1 THA 166.30

ORBIT DETERMINATION ACCURACY
ST 332.4 SR 436.9 SS 139.0
CRT -.6616 CRS -.4335 CST .9501
LSA 513.5 MSA 237.9 SSA 21.3
EL1 504.8 EL2 215.7 ALF 123.65

LAUNCH DATE SEP 2 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 213.664

RL 150.95 LAL .00 LOL 339.12 VL 25.657 GAL -2.83 AZL 90.32 HCA 91.94 SMA 120.63 ECC .25578 INC .3170 V1 29.518
RP 107.84 LAP -.32 LOP 71.06 VP 36.894 GAP -13.54 AZP 89.99 TAL 188.29 TAP 280.23 RCA 89.78 APO 151.49 V2 35.141
RC 44.254 GL -2.04 GP -14.00 ZAL 102.32 ZAP 14.70 ETS 68.45 ZAE 152.04 ETE 335.23 ZAC 87.68 ETC 261.05 CLP -4.52

PLANETOCENTRIC CONIC

C3 15.870 VHL 3.984 DLA -21.43 RAL 233.99 RAD 6567.6 VEL 11.716 PTH 2.06 VHP 8.715 DPA -34.42 RAP 240.98 ECC 1.2612

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 21 1	1420.66	4.32	355.47	92.69	118.01	7 44 42	820.7	8.03	348.76
90.00	13 6 3	5544.52	28.30	258.12	99.07	90.87	14 38 28	4944.5	28.13	249.46
100.00	8 27 37	1205.68	2.94	338.91	91.93	119.76	8 47 43	605.7	6.88	332.33
100.00	14 42 8	5234.73	29.88	235.33	99.07	89.07	16 9 22	4634.7	29.43	226.56
110.00	9 4 55	1088.77	-.38	327.97	89.85	124.18	9 23 4	488.8	4.11	321.76
110.00	16 21 19	4924.42	33.79	211.51	98.81	84.47	17 43 23	4324.4	32.65	202.45

DIFFERENTIAL CORRECTIONS
TDE .1529 TRA -.5368 TC3 .6483 BAU .1518
RDE -.2988 RRA -.0022 RC3 -.3025 FAU .03245
FDE -.0350 FRA .3440 FC3-1.7702 BSP 3012
BDE .3357 BRA .5368 BC3 .7154 FSP -333

MID-COURSE EXECUTION ACCURACY
SGT 1001.5 SGR 492.8 SG3 130.3
RRT -.4381 RRF .4841 RTF -.7815
SGB 1116.2 R23 -.0707 R13 .7941
SG1 1029.6 SG2 430.9 THA 165.19

ORBIT DETERMINATION ACCURACY
ST 332.5 SR 429.9 SS 129.9
CRT -.6605 CRS -.2936 CST .8963
LSA 504.4 MSA 239.3 SSA 22.7
EL1 499.1 EL2 215.0 ALF 124.26

LAUNCH DATE SEP 2 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 220.436

RL	150.95	LAL	.00	LOL	339.12	VL	25.842	GAL	-2.95	AZL	90.13	HCA	95.16	SMA	121.69	ECC	.24557	INC	.1263	V1	29.518
RP	107.81	LAP	-.13	LOP	74.28	VP	37.034	GAP	-12.64	AZP	89.99	TAL	189.15	TAP	284.31	RCA	91.81	APO	151.57	V2	35.152
RC	45.436	GL	-.86	GP	-14.99	ZAL	103.86	ZAP	16.36	ETS	62.27	ZAE	150.09	ETE	334.09	ZAC	86.79	ETC	261.24	CLP	-6.65

PLANETOCENTRIC CONIC

C3	14.580	VHL	3.818	DLA	-19.92	RAL	232.70	RAD	6567.6	VEL	11.660	PTH	2.05	VHP	8.241	DPA	-35.65	RAP	241.94	ECC	1.2399

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 57 54	1467.37	2.82	358.08	89.70	118.19	7 22 22	867.4	6.57	351.41
90.00	13 18 51	5459.76	28.24	251.93	95.73	87.76	14 49 51	4859.8	27.63	243.31
100.00	8 6 33	1245.84	1.58	341.11	89.02	119.85	8 27 19	645.8	5.54	334.56
100.00	14 52 54	5156.52	29.65	229.53	95.64	86.03	16 18 50	4556.5	28.79	220.83
110.00	8 47 33	1117.35	-1.47	329.46	87.11	124.16	9 6 10	517.4	3.02	323.26
110.00	16 28 23	4857.77	33.23	206.38	95.18	81.49	17 49 21	4257.8	31.70	197.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1430	TRA	-.5182	TC3	.7549	BAU	.1642	SGT	1030.8	SGR	507.6	SG3	145.0	ST	328.5	SR	419.6	SS	123.1
RDE	-.2796	RRA	-.0008	RC3	-.3741	FAU	.03494	RRT	-.4849	RRF	.5371	RTF	-.7939	CRT	-.6535	CRS	-.0798	CST	.7875
FDE	-.0086	FRA	.3462	FC3	-2.0748	BSP	3152	SGB	1149.0	R23	-.0809	R13	.8087	LSA	490.3	MSA	241.2	SSA	24.2
BDE	.3140	BRA	.5182	BC3	.8425	FSP	-376	SG1	1065.7	SG2	429.3	THA	163.89	EL1	488.2	EL2	213.7	ALF	124.64

LAUNCH DATE SEP 2 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 227.204

RL	150.95	LAL	.00	LOL	339.12	VL	26.011	GAL	-3.07	AZL	89.93	HCA	98.39	SMA	122.67	ECC	.23633	INC	.0641	V1	29.518
RP	107.77	LAP	.06	LOP	77.50	VP	37.162	GAP	-11.79	AZP	90.01	TAL	190.03	TAP	288.42	RCA	93.68	APO	151.66	V2	35.163
RC	46.738	GL	.46	GP	-16.09	ZAL	105.43	ZAP	18.31	ETS	57.18	ZAE	148.31	ETE	332.77	ZAC	85.78	ETC	261.42	CLP	-8.85

PLANETOCENTRIC CONIC

C3	13.499	VHL	3.674	DLA	-18.25	RAL	231.43	RAD	6567.5	VEL	11.614	PTH	2.04	VHP	7.793	DPA	-36.96	RAP	242.78	ECC	1.2222

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 34 49	1517.74	1.20	.90	86.94	118.29	7 0 6	917.7	4.97	354.25
90.00	13 31 48	5375.50	27.86	245.79	92.49	84.71	15 1 24	4775.5	26.83	237.28
100.00	7 45 16	1290.39	.07	343.56	86.31	119.89	8 6 46	690.4	4.04	337.03
100.00	15 4 2	5078.09	29.14	223.76	92.33	83.03	16 28 40	4478.1	27.87	215.19
110.00	8 29 45	1151.02	-2.76	331.22	84.54	124.09	8 48 56	551.0	1.73	325.02
110.00	16 36 3	4790.23	32.43	201.28	91.71	78.56	17 55 53	4190.2	30.52	192.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1308	TRA	-.5000	TC3	.8631	BAU	.1763	SGT	1057.3	SGR	526.6	SG3	161.2	ST	320.3	SR	405.4	SS	123.9
RDE	-.2599	RRA	.0008	RC3	-.4576	FAU	.03769	RRT	-.5334	RRF	.5921	RTF	-.8048	CRT	-.6386	CRS	.2067	CST	.5976
FDE	.0254	FRA	.3484	FC3	-2.4169	BSP	3287	SGB	1181.2	R23	-.0925	R13	.8223	LSA	471.3	MSA	244.0	SSA	26.0
BDE	.2909	BRA	.5000	BC3	.9769	FSP	-425	SG1	1101.0	SG2	427.8	THA	162.38	EL1	471.1	EL2	212.1	ALF	124.79

LAUNCH DATE SEP 2 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 233.965

RL	150.95	LAL	.00	LOL	339.12	VL	26.163	GAL	-3.19	AZL	89.74	HCA	101.61	SMA	123.58	ECC	.22800	INC	.2608	V1	29.518
RP	107.74	LAP	.26	LOP	80.73	VP	37.279	GAP	-10.96	AZP	90.05	TAL	190.93	TAP	292.54	RCA	95.40	APO	151.75	V2	35.174
RC	48.150	GL	1.92	GP	-17.32	ZAL	107.01	ZAP	20.50	ETS	52.99	ZAE	146.69	ETE	331.25	ZAC	84.64	ETC	261.58	CLP	-11.14

PLANETOCENTRIC CONIC

C3	12.601	VHL	3.550	DLA	-16.44	RAL	230.20	RAD	6567.5	VEL	11.575	PTH	2.02	VHP	7.372	DPA	-38.38	RAP	243.50	ECC	1.2074

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 11 51	1571.78	-.55	3.91	84.42	118.31	6 38 3	971.8	3.24	357.28
90.00	13 45 0	5291.78	27.19	239.76	89.41	81.76	15 13 12	4691.8	25.77	231.38
100.00	7 23 57	1339.17	-1.59	346.23	83.85	119.85	7 46 16	739.2	2.40	339.71
100.00	15 15 36	4999.62	28.36	218.06	89.20	80.13	16 38 56	4399.6	26.70	209.65
110.00	8 11 43	1189.52	-4.23	333.24	82.20	123.95	8 31 32	589.5	.26	327.02
110.00	16 44 19	4722.04	31.40	196.23	88.45	75.74	18 3 1	4122.0	29.12	187.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1158	TRA	-.4827	TC3	.9704	BAU	.1883	SGT	1081.5	SGR	551.4	SG3	179.3	ST	307.9	SR	386.4	SS	138.6
RDE	-.2393	RRA	.0028	RC3	-.5544	FAU	.04073	RRT	-.5822	RRF	.6481	RTF	-.8146	CRT	-.6119	CRS	.4978	CST	.3549
FDE	.0687	FRA	.3517	FC3	-2.7979	BSP	3420	SGB	1213.9	R23	-.1054	R13	.8356	LSA	448.0	MSA	248.5	SSA	27.9
BDE	.2658	BRA	.4828	BC3	1.1176	FSP	-479	SG1	1136.5	SG2	426.6	THA	160.63	EL1	446.9	EL2	210.5	ALF	124.74

LAUNCH DATE SEP 2 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 240.718

RL	150.95	LAL	.00	LOL	339.12	VL	26.301	GAL	-3.30	AZL	89.54	HCA	104.84	SMA	124.41	ECC	.22052	INC	.4614	V1	29.518
RP	107.71	LAP	.45	LOP	83.96	VP	37.385	GAP	-10.17	AZP	90.12	TAL	191.82	TAP	296.66	RCA	96.98	APO	151.85	V2	35.184
RC	49.661	GL	3.52	GP	-18.69	ZAL	108.55	ZAP	22.93	ETS	49.53	ZAE	145.21	ETE	329.51	ZAC	83.33	ETC	261.71	CLP	-13.54

PLANETOCENTRIC CONIC

C3	11.864	VHL	3.444	DLA	-14.49	RAL	229.06	RAD	6567.5	VEL	11.543	PTH	2.01	VHP	6.977	DPA	-39.90	RAP	244.07	ECC	1.1953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 49 9	1629.43	-2.41	7.13	82.19	118.22	6 16 18	1029.4	1.38	.50
90.00	13 58 33	5208.59	26.24	233.86	86.56	78.95	15 25 22	4608.6	24.45	225.64
100.00	7 2 44	1392.00	-3.37	349.14	81.65	119.72	7 25 56	792.0	.61	342.61
100.00	15 27 39	4921.24	27.32	212.47	86.31	77.36	16 49 40	4321.2	25.30	204.25
110.00	7 53 38	1232.59	-5.86	335.50	80.11	123.74	8 14 10	632.6	-1.39	329.27
110.00	16 53 15	4653.42	30.14	191.28	85.45	73.06	18 10 48	4053.4	27.53	183.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0986	TRA	-.4661	TC3	1.0711	BAU	.2000	SGT	1101.2	SGR	583.3	SG3	199.2	ST	291.8	SR	361.4	SS	170.2
RDE	-.2171	RRA	.0052	RC3	-.6648	FAU	.04403	RRT	-.6295	RRF	.7031	RTF	-.8229	CRT	-.5709	CRS	.7092	CST	.1454
FDE	.1229	FRA	.3556	FC3	-3.2132	BSP	3550	SGB	1246.2	R23	-.1195	R13	.8483	LSA	423.4	MSA	254.1	SSA	29.9
BDE	.2385	BRA	.4661	BC3	1.2606	FSP	-539	SG1	1171.0	SG2	426.2	THA	158.58	EL1	415.0	EL2	208.6	ALF	124.65

LAUNCH DATE SEP 2 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 247.458

RL	150.95	LAL	.00	LOL	339.12	VL	26.425	GAL	-3.40	AZL	89.33	HCA	108.07	SMA	125.18	ECC	.21384	INC	.6681	V1	29.518
RP	107.68	LAP	.64	LOP	87.19	VP	37.481	GAP	-9.40	AZP	90.21	TAL	192.70	TAP	300.76	RCA	98.41	APO	151.95	V2	35.193
RC	51.263	GL	5.26	GP	-20.22	ZAL	110.04	ZAP	25.60	ETS	46.65	ZAE	143.86	ETE	327.51	ZAC	81.86	ETC	261.80	CLP	-16.04

PLANETOCENTRIC CONIC

C3	11.268	VHL	3.357	DLA	-12.41	RAL	228.01	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	6.609	DPA	-41.55	RAP	244.45	ECC	1.1855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 26 47	1690.62	-4.37	10.55	80.26	118.01	5 54 58	1090.6	-.59	3.91
90.00	14 12 33	5125.92	25.03	228.10	83.97	76.31	15 37 59	4525.9	22.90	220.08
100.00	6 41 45	1448.73	-5.28	352.27	79.76	119.46	7 5 54	848.7	-1.32	345.72
100.00	15 40 16	4843.05	26.03	207.01	83.69	74.77	17 0 59	4243.0	23.69	199.00
110.00	7 35 38	1279.99	-7.65	338.01	78.31	123.42	7 56 58	680.0	-3.20	331.75
110.00	17 2 53	4584.55	28.68	186.45	82.76	70.55	18 19 17	3984.6	25.76	178.49

DIFFERENTIAL CORRECTIONS

TDE	.0792	TRA	-.4507	TC3	1.1599	BAU	.2114
RDE	-.1927	RRA	.0084	RC3	-.7897	FAU	.04761
FDE	.1900	FRA	.3612	FC3	-3.6580	BSP	3669
BDE	.2083	BRA	.4507	BC3	1.4032	FSP	-605

MID-COURSE EXECUTION ACCURACY

SGT	1115.8	SGR	624.1	SG3	220.9		
RRT	-.6733	RRF	.7551	RTF	-.8294		
SGB	1278.4	R23	-.1346	R13	.8605		
SG1	1204.9	SG2	427.3	THA	156.19		

ORBIT DETERMINATION ACCURACY

ST	273.2	SR	329.3	SS	218.5
CRT	-.5099	CRS	.8305	CST	.0250
LSA	403.3	MSA	259.2	SSA	31.8
EL1	374.7	EL2	206.5	ALF	124.90

LAUNCH DATE SEP 2 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 254.184

RL	150.95	LAL	.00	LOL	339.12	VL	26.536	GAL	-3.49	AZL	89.12	HCA	111.30	SMA	125.88	ECC	.20789	INC	.8827	V1	29.518
RP	107.65	LAP	.82	LOP	90.42	VP	37.568	GAP	-8.67	AZP	90.32	TAL	193.55	TAP	304.85	RCA	99.71	APO	152.05	V2	35.202
RC	52.948	GL	7.13	GP	-21.93	ZAL	111.43	ZAP	28.51	ETS	44.20	ZAE	142.62	ETE	325.23	ZAC	80.21	ETC	261.86	CLP	-18.69

PLANETOCENTRIC CONIC

C3	10.799	VHL	3.286	DLA	-10.21	RAL	227.08	RAD	6567.4	VEL	11.497	PTH	2.00	VHP	6.269	DPA	-43.35	RAP	244.61	ECC	1.1777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 4 49	1755.33	-6.43	14.19	78.67	117.64	5 34 5	1155.3	-2.68	7.52
90.00	14 27 8	5043.73	23.59	222.51	81.69	73.86	15 51 11	4443.7	21.15	214.69
100.00	6 21 7	1509.22	-7.29	355.63	78.20	119.07	6 46 16	909.2	-3.36	349.05
100.00	15 53 32	4765.07	24.53	201.71	81.38	72.36	17 12 57	4165.1	21.89	193.91
110.00	7 17 52	1331.49	-9.57	340.76	76.82	122.97	7 40 3	731.5	-5.16	334.45
110.00	17 13 16	4515.57	27.02	181.77	80.39	68.22	18 28 31	3915.6	23.83	174.06

DIFFERENTIAL CORRECTIONS

TDE	.0577	TRA	-.4370	TC3	1.2298	BAU	.2225
RDE	-.1650	RRA	.0126	RC3	-.9293	FAU	.05143
FDE	.2722	FRA	.3695	FC3	-4.1227	BSP	3773
BDE	.1748	BRA	.4372	BC3	1.5414	FSP	-677

MID-COURSE EXECUTION ACCURACY

SGT	1123.7	SGR	675.5	SG3	244.3		
RRT	-.7112	RRF	.8026	RTF	-.8337		
SGB	1311.1	R23	-.1505	R13	.8726		
SG1	1238.3	SG2	430.9	THA	153.38		

ORBIT DETERMINATION ACCURACY

ST	254.2	SR	288.3	SS	281.6
CRT	-.4218	CRS	.8919	CST	-.0010
LSA	398.8	MSA	258.7	SSA	33.1
EL1	325.8	EL2	204.0	ALF	126.68

LAUNCH DATE SEP 2 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 260.894

RL	150.95	LAL	.00	LOL	339.12	VL	26.635	GAL	-3.58	AZL	88.89	HCA	114.53	SMA	126.51	ECC	.20261	INC	1.1069	V1	29.518
RP	107.63	LAP	1.01	LOP	93.65	VP	37.646	GAP	-7.96	AZP	90.46	TAL	194.37	TAP	308.90	RCA	100.88	APO	152.15	V2	35.210
RC	54.707	GL	9.14	GP	-23.83	ZAL	112.69	ZAP	31.65	ETS	42.07	ZAE	141.44	ETE	322.63	ZAC	78.34	ETC	261.88	CLP	-21.47

PLANETOCENTRIC CONIC

C3	10.444	VHL	3.232	DLA	-7.89	RAL	226.30	RAD	6567.4	VEL	11.482	PTH	2.00	VHP	5.957	DPA	-45.29	RAP	244.52	ECC	1.1719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 43 18	1823.57	-8.56	18.07	77.44	117.09	5 13 42	1223.6	-4.86	11.34
90.00	14 42 24	4961.90	21.93	217.09	79.75	71.63	16 5 6	4361.9	19.22	209.46
100.00	6 0 51	1573.43	-9.40	359.23	76.99	118.51	6 27 4	973.4	-5.52	352.59
100.00	16 7 33	4687.27	22.83	196.55	79.42	70.16	17 25 40	4087.3	19.92	188.97
110.00	7 0 24	1386.94	-11.60	343.76	75.67	122.38	7 23 31	786.9	-7.25	337.38
110.00	17 24 29	4446.53	25.20	177.23	78.38	66.10	18 38 35	3846.5	21.75	169.78

DIFFERENTIAL CORRECTIONS

TDE	.0326	TRA	-.4270	TC3	1.2689	BAU	.2327
RDE	-.1324	RRA	.0188	RC3	-1.0810	FAU	.05530
FDE	.3739	FRA	.3839	FC3	-4.5837	BSP	3818
BDE	.1363	BRA	.4274	BC3	1.6669	FSP	-747

MID-COURSE EXECUTION ACCURACY

SGT	1122.5	SGR	737.8	SG3	268.9		
RRT	-.7393	RRF	.8436	RTF	-.8347		
SGB	1343.3	R23	-.1673	R13	.8843		
SG1	1269.4	SG2	439.4	THA	150.15		

ORBIT DETERMINATION ACCURACY

ST	237.7	SR	235.9	SS	360.3
CRT	-.2922	CRS	.9187	CST	.0671
LSA	423.4	MSA	248.1	SSA	33.4
EL1	269.2	EL2	199.2	ALF	135.77

LAUNCH DATE SEP 2 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 267.585

RL	150.95	LAL	.00	LOL	339.12	VL	26.723	GAL	-3.66	AZL	88.66	HCA	117.76	SMA	127.08	ECC	.19796	INC	1.3432	V1	29.518
RP	107.60	LAP	1.19	LOP	96.89	VP	37.716	GAP	-7.28	AZP	90.63	TAL	195.14	TAP	312.90	RCA	101.93	APO	152.24	V2	35.218
RC	56.533	GL	11.29	GP	-25.95	ZAL	113.80	ZAP	35.04	ETS	40.17	ZAE	140.28	ETE	319.69	ZAC	76.26	ETC	261.84	CLP	-24.43

PLANETOCENTRIC CONIC

C3	10.194	VHL	3.193	DLA	-5.47	RAL	225.67	RAD	6567.4	VEL	11.471	PTH	1.99	VHP	5.676	DPA	-47.40	RAP	244.10	ECC	1.1678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 22 11	1895.50	-10.77	22.21	76.58	116.35	4 53 47	1295.5	-7.14	15.40
90.00	14 58 31	4880.22	20.09	211.81	78.17	69.61	16 19 51	4280.2	17.13	204.38
100.00	5 40 57	1641.43	-11.58	3.10	76.16	117.75	6 8 18	1041.4	-7.78	356.38
100.00	16 22 27	4609.52	20.94	191.55	77.82	68.17	17 39 16	4009.5	17.80	184.17
110.00	6 43 16	1446.31	-13.75	347.03	74.89	121.61	7 7 22	846.3	-9.47	340.54
110.00	17 36 37	4377.41	23.22	172.84	76.74	64.18	18 49 34	3777.4	19.55	165.62

DIFFERENTIAL CORRECTIONS

TDE	.0167	TRA	-.4088	TC3	1.3180	BAU	.2481
RDE	-.0964	RRA	.0243	RC3	-1.2555	FAU	.05977
FDE	.4832	FRA	.3910	FC3	-5.0763	BSP	4099
BDE	.0979	BRA	.4095	BC3	1.8203	FSP	-845

MID-COURSE EXECUTION ACCURACY

SGT	1119.0	SGR	821.4	SG3	296.2		
RRT	-.7749	RRF	.8805	RTF	-.8396		
SGB	1388.1	R23	-.1697	R13	.8991		
SG1	1316.0	SG2	441.5	THA	146.04		

ORBIT DETERMINATION ACCURACY

ST	224.5	SR	175.2	SS	440.3
CRT	-.2213	CRS	.9214	CST	.1150
LSA	469.9	MSA	230.4	SSA	32.8
EL1	231.7	EL2	165.5	ALF	159.27

LAUNCH DATE SEP 2 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 274.257

RL	150.95	LAL	.00	LOL	339.12	VL	26.801	GAL	-3.73	AZL	88.41	HCA	121.00	SMA	127.59	ECC	.19387	INC	1.5941	V1	29.518
RP	107.58	LAP	1.37	LOP	100.12	VP	37.777	GAP	-6.63	AZP	90.82	TAL	195.86	TAP	316.85	RCA	102.86	APO	152.33	V2	35.225
RC	58.419	GL	13.58	GP	-28.28	ZAL	114.72	ZAP	38.68	ETS	38.39	ZAE	139.10	ETE	316.38	ZAC	73.93	ETC	261.73	CLP	-27.57

PLANETOCENTRIC CONIC

C3	10.043	VHL	3.169	DLA	-2.95	RAL	225.22	RAD	6567.4	VEL	11.464	PTH	1.99	VHP	5.427	DPA	-49.68	RAP	243.31	ECC	1.1653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 1 27	1971.30	-13.02	26.63	76.13	115.37	4 34 18	1371.3	-9.50	19.73
90.00	15 15 40	4798.47	18.07	206.66	76.98	67.82	16 35 38	4198.5	14.90	199.42
100.00	5 21 25	1713.35	-13.83	7.26	75.72	116.77	5 49 58	1113.3	-10.13	.43
100.00	16 38 23	4531.65	18.89	186.67	76.61	66.40	17 53 54	3931.7	15.54	179.48
110.00	6 26 30	1509.60	-15.97	350.58	74.51	120.63	6 51 40	909.6	-11.79	343.97
110.00	17 49 47	4308.16	21.10	168.58	75.49	62.46	19 1 35	3708.2	17.25	161.58

DIFFERENTIAL CORRECTIONS

TDE	-.0041	TRA	-.3978	TC3	1.3120	BAU	.2613
RDE	-.0520	RRA	.0334	RC3	-1.4370	FAU	.06392
FDE	.6178	FRA	.4092	FC3	-5.5103	BSP	4245
BDE	.0521	BRA	.3992	BC3	1.9458	FSP	-931

MID-COURSE EXECUTION ACCURACY

SGT	1100.1	SGR	917.6	SG3	323.2		
RRT	-.7927	RRF	.9091	RTF	-.8373		
SGB	1432.5	R23	-.1744	R13	.9125		
SG1	1359.1	SG2	452.8	THA	141.48		

ORBIT DETERMINATION ACCURACY

ST	217.6	SR	99.5	SS	536.2
CRT	-.1806	CRS	.8615	CST	.2364
LSA	545.7	MSA	214.6	SSA	30.7
EL1	218.5	EL2	97.5	ALF	174.10

LAUNCH DATE SEP 2 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 280.907

RL	150.95	LAL	.00	LOL	339.12	VL	26.869	GAL	-3.78	AZL	88.14	HCA	124.23	SMA	128.04	ECC	.19029	INC	1.8626	V1	29.518
RP	107.56	LAP	1.54	LOP	103.36	VP	37.832	GAP	-5.99	AZP	91.05	TAL	196.51	TAP	320.74	RCA	103.68	APO	152.41	V2	35.232
RC	60.358	GL	16.00	GP	-30.86	ZAL	115.42	ZAP	42.56	ETS	36.65	ZAE	137.83	ETE	312.71	ZAC	71.36	ETC	261.55	CLP	-30.91

PLANETOCENTRIC CONIC

C3	9.990	VHL	3.161	DLA	-.34	RAL	224.96	RAD	6567.4	VEL	11.462	PTH	1.99	VHP	5.212	DPA	-52.13	RAP	242.05	ECC	1.1644

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 40 59	2051.40	-15.30	31.41	76.10	114.12	4 15 10	1451.4	-11.92	24.36
90.00	15 34 2	4716.25	15.88	201.62	76.20	66.24	16 52 38	4116.2	12.53	194.54
100.00	5 2 10	1789.52	-16.11	11.76	75.71	115.52	5 31 59	1189.5	-12.55	4.78
100.00	16 55 32	4453.36	16.69	181.90	75.81	64.84	18 9 45	3853.4	13.16	174.89
110.00	6 10 3	1577.02	-18.27	354.46	74.54	119.41	6 36 20	977.0	-14.22	347.69
110.00	18 4 8	4238.62	18.86	164.44	74.65	60.95	19 14 47	3638.6	14.84	157.62

DIFFERENTIAL CORRECTIONS

TDE	-.0224	TRA	-.3881	TC3	1.2709	BAU	.2758
RDE	.0015	RRA	.0454	RC3	-1.6275	FAU	.06787
FDE	.7709	FRA	.4327	FC3	-5.8821	BSP	4418
BDE	.0225	BRA	.3907	BC3	2.0649	FSP	-1019

MID-COURSE EXECUTION ACCURACY

SGT	1068.6	SGR	1032.1	SG3	349.8		
RRT	-.8020	RRF	.9318	RTF	-.8311		
SGB	1485.6	R23	-.1720	R13	.9264		
SG1	1410.3	SG2	467.1	THA	136.24		

ORBIT DETERMINATION ACCURACY

ST	216.3	SR	39.6	SS	640.1
CRT	-.7079	CRS	-.2319	CST	.3550
LSA	645.3	MSA	202.3	SSA	27.7
EL1	218.1	EL2	27.7	ALF	172.49

LAUNCH DATE SEP 2 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 287.536

RL	150.95	LAL	.00	LOL	339.12	VL	26.929	GAL	-3.83	AZL	87.85	HCA	127.47	SMA	128.44	ECC	.18717	INC	2.1528	V1	29.518
RP	107.54	LAP	1.71	LOP	106.60	VP	37.880	GAP	-5.38	AZP	91.31	TAL	197.09	TAP	324.55	RCA	104.40	APO	152.48	V2	35.238
RC	62.346	GL	18.58	GP	-33.67	ZAL	115.89	ZAP	46.68	ETS	34.86	ZAE	136.42	ETE	308.66	ZAC	68.53	ETC	261.28	CLP	-34.48

PLANETOCENTRIC CONIC

C3	10.036	VHL	3.168	DLA	2.38	RAL	224.89	RAD	6567.4	VEL	11.464	PTH	1.99	VHP	5.034	DPA	-54.74	RAP	240.23	ECC	1.1652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 20 36	2136.42	-17.60	36.59	76.54	112.55	3 56 12	1536.4	-14.39	29.38
90.00	15 53 53	4633.07	13.54	196.64	75.85	64.89	17 11 6	4033.1	10.04	189.70
100.00	4 43 3	1870.47	-18.42	16.66	76.16	113.97	5 14 13	1270.5	-15.03	9.51
100.00	17 14 7	4374.24	14.34	177.20	75.44	63.49	18 27 2	3774.2	10.67	170.34
110.00	5 53 50	1648.92	-20.62	358.71	75.03	117.89	6 21 19	1048.9	-16.73	351.75
110.00	18 19 50	4168.56	16.49	160.38	74.24	59.62	19 29 18	3568.6	12.33	153.74

DIFFERENTIAL CORRECTIONS

TDE	-.0368	TRA	-.3796	TC3	1.1905	BAU	.2919
RDE	.0664	RRA	.0613	RC3	-1.8210	FAU	.07135
FDE	.9416	FRA	.4628	FC3	-6.1547	BSP	4618
BDE	.0759	BRA	.3845	BC3	2.1757	FSP	-1101

MID-COURSE EXECUTION ACCURACY

SGT	1022.6	SGR	1165.3	SG3	374.7		
RRT	-.8011	RRF	.9491	RTF	-.8187		
SGB	1550.4	R23	-.1615	R13	.9403		
SG1	1472.8	SG2	484.2	THA	130.35		

ORBIT DETERMINATION ACCURACY

ST	217.8	SR	129.3	SS	750.4
CRT	-.5556	CRS	-.9720	CST	.4467
LSA	767.6	MSA	193.6	SSA	24.4
EL1	232.4	EL2	100.7	ALF	157.25

LAUNCH DATE SEP 2 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 294.141

RL	150.95	LAL	.00	LOL	339.12	VL	26.980	GAL	-3.87	AZL	87.53	HCA	130.70	SMA	128.78	ECC	.18448	INC	2.4693	V1	29.518
RP	107.53	LAP	1.87	LOP	109.85	VP	37.921	GAP	-4.79	AZP	91.61	TAL	197.59	TAP	328.29	RCA	105.03	APO	152.54	V2	35.243
RC	64.375	GL	21.30	GP	-36.72	ZAL	116.10	ZAP	51.01	ETS	32.94	ZAE	134.79	ETE	304.29	ZAC	65.46	ETC	260.89	CLP	-38.28

PLANETOCENTRIC CONIC

C3	10.189	VHL	3.192	DLA	5.19	RAL	225.04	RAD	6567.4	VEL	11.471	PTH	1.99	VHP	4.897	DPA	-57.48	RAP	237.70	ECC	1.1677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 0 5	2227.25	-19.87	42.29	77.46	110.60	3 37 12	1627.3	-16.89	34.88
90.00	16 15 33	4548.29	11.09	191.67	75.95	63.76	17 31 21	3948.3	7.42	184.85
100.00	4 23 52	1956.99	-20.73	22.06	77.11	112.04	4 56 29	1357.0	-17.56	14.70
100.00	17 34 27	4293.78	11.85	172.53	75.53	62.35	18 46 0	3693.8	8.05	165.79
110.00	5 37 44	1725.86	-23.00	3.42	76.02	116.02	6 6 29	1125.9	-19.31	356.22
110.00	18 37 5	4097.68	14.01	156.39	74.27	58.50	19 45 22	3497.7	9.74	149.89

DIFFERENTIAL CORRECTIONS

TDE	-.0461	TRA	-.3732	TC3	1.0643	BAU	.3095
RDE	.1458	RRA	.0829	RC3	-2.0070	FAU	.07394
FDE	1.1285	FRA	.5017	FC3	-6.2823	BSP	4822
BDE	.1529	BRA	.3823	BC3	2.2717	FSP	-1168

MID-COURSE EXECUTION ACCURACY

SGT	959.6	SGR	1316.2	SG3	396.0		
RRT	-.7860	RRF	.9621	RTF	-.7960		
SGB	1628.9	R23	-.1426	R13	.9537		
SG1	1548.9	SG2	504.2	THA	123.88		

ORBIT DETERMINATION ACCURACY

ST	219.0	SR	268.3	SS	866.2
CRT	-.5358	CRS	-.9957	CST	.5013
LSA	913.5	MSA	188.0	SSA	21.0
EL1	306.0	EL2	162.1	ALF	124.57

LAUNCH DATE SEP 2 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 300.722

RL	150.95	LAL	.00	LOL	339.12	VL	27.024	GAL	-3.90	AZL	87.18	HCA	133.94	SMA	129.08	ECC	.18216	INC	2.8183
RP	107.51	LAP	2.03	LOP	113.09	VP	37.956	GAP	-4.22	AZP	91.96	TAL	198.01	TAP	331.94	RCA	105.57	APO	152.59
RC	66.441	GL	24.19	GP	-39.99	ZAL	116.04	ZAP	55.51	ETS	30.80	ZAE	132.89	ETE	299.62	ZAC	62.14	ETC	260.37

V1	29.518	V2	35.247	CLP	-42.35														

PLANETOCENTRIC CONIC

C3	10.463	VHL	3.235	DLA	8.11	RAL	225.40	RAD	6567.4	VEL	11.483	PTH	2.00	VHP	4.805	DPA	-60.32	RAP	234.30
ECC	1.1722																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 39 5	2325.18	-22.09	48.61	78.94	108.18	3 17 50	1725.2	-19.40	40.97
90.00	16 39 26	4461.05	8.36	186.65	76.56	62.85	17 53 47	3861.1	4.66	179.93
100.00	4 4 21	2050.19	-22.99	28.05	78.60	109.65	4 38 31	1450.2	-20.10	20.45
100.00	17 56 51	4211.27	9.20	167.84	76.11	61.43	19 7 2	3611.3	5.31	161.20
110.00	5 21 32	1808.65	-25.37	8.68	77.56	113.72	5 51 40	1208.7	-21.94	1.20
110.00	18 56 10	4025.57	11.41	152.42	74.79	57.56	20 3 15	3425.6	7.05	146.04

DIFFERENTIAL CORRECTIONS

TDE	-.0421	TRA	-.3634	TC3	.9118	BAU	.3311
RDE	.2394	RRA	.1088	RC3	-2.1840	FAU	.07572
FDE	1.3146	FRA	.5396	FC3	-6.2650	BSP	5163
BDE	.2430	BRA	.3795	BC3	2.3667	FSP	-1234

MID-COURSE EXECUTION ACCURACY

SGT	881.0	SGR	1488.0	SG3	412.4		
RRT	-.7564	RRF	.9718	RTF	-.7591		
SGB	1729.2	R23	-.1181	R13	.9653		
SG1	1649.2	SG2	519.9	THA	117.03		

ORBIT DETERMINATION ACCURACY

ST	209.5	SR	430.1	SS	975.4
CRT	-.4854	CRS	-.9988	CST	.4717
LSA	1070.6	MSA	183.8	SSA	18.1
EL1	444.3	EL2	177.3	ALF	105.91

LAUNCH DATE SEP 2 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 307.278

RL	150.95	LAL	.00	LOL	339.12	VL	27.060	GAL	-3.91	AZL	86.79	HCA	137.17	SMA	129.33	ECC	.18019	INC	3.2075
RP	107.50	LAP	2.18	LOP	116.33	VP	37.986	GAP	-3.67	AZP	92.35	TAL	198.34	TAP	335.51	RCA	106.02	APO	152.63
RC	68.539	GL	27.25	GP	-43.46	ZAL	115.69	ZAP	60.13	ETS	28.36	ZAE	130.69	ETE	294.73	ZAC	58.62	ETC	259.70

V1	29.518	V2	35.251	CLP	-46.68														

PLANETOCENTRIC CONIC

C3	10.882	VHL	3.299	DLA	11.14	RAL	225.99	RAD	6567.4	VEL	11.501	PTH	2.00	VHP	4.762	DPA	-63.17	RAP	229.81
ECC	1.1791																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 17 7	2431.99	-24.18	55.74	81.01	105.20	2 57 39	1832.0	-21.86	47.84
90.00	17 6 6	4370.18	5.50	181.50	77.72	62.18	18 18 56	3770.2	1.74	174.84
100.00	3 44 4	2151.61	-25.14	34.81	80.70	106.72	4 19 55	1551.6	-22.61	26.93
100.00	18 21 51	4125.80	6.38	163.05	77.24	60.74	19 30 37	3525.8	2.44	156.49
110.00	5 4 59	1898.40	-27.69	14.62	79.74	110.90	5 36 37	1298.4	-24.60	6.82
110.00	19 17 25	3951.77	8.68	148.44	75.83	56.81	20 23 17	3351.8	4.25	142.15

DIFFERENTIAL CORRECTIONS

TDE	-.0263	TRA	-.3548	TC3	.7146	BAU	.3540
RDE	.3531	RRA	.1439	RC3	-2.3258	FAU	.07586
FDE	1.5027	FRA	.5869	FC3	-6.0357	BSP	5514
BDE	.3541	BRA	.3828	BC3	2.4331	FSP	-1269

MID-COURSE EXECUTION ACCURACY

SGT	786.6	SGR	1672.0	SG3	421.0		
RRT	-.6930	RRF	.9789	RTF	-.6911		
SGB	1847.8	R23	-.0896	R13	.9749		
SG1	1768.2	SG2	536.2	THA	109.97		

ORBIT DETERMINATION ACCURACY

ST	194.4	SR	619.8	SS	1082.6
CRT	-.3578	CRS	-.9996	CST	.3516
LSA	1249.3	MSA	181.6	SSA	15.4
EL1	624.1	EL2	180.3	ALF	96.99

LAUNCH DATE SEP 2 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 313.809

RL	150.95	LAL	.00	LOL	339.12	VL	27.090	GAL	-3.92	AZL	86.35	HCA	140.41	SMA	129.53	ECC	.17852	INC	3.6474
RP	107.49	LAP	2.32	LOP	119.58	VP	38.010	GAP	-3.14	AZP	92.81	TAL	198.59	TAP	338.99	RCA	106.41	APO	152.66
RC	70.666	GL	30.49	GP	-47.08	ZAL	115.05	ZAP	64.79	ETS	25.54	ZAE	128.14	ETE	289.68	ZAC	54.91	ETC	258.83

V1	29.518	V2	35.254	CLP	-51.28														

PLANETOCENTRIC CONIC

C3	11.481	VHL	3.388	DLA	14.28	RAL	226.82	RAD	6567.4	VEL	11.527	PTH	2.01	VHP	4.776	DPA	-65.96	RAP	223.97
ECC	1.1889																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 53 28	2550.36	-26.05	63.91	83.74	101.52	2 35 59	1950.4	-24.20	55.72
90.00	17 36 24	4273.93	2.42	176.10	79.51	61.78	18 47 38	3673.9	-1.37	169.48
100.00	3 22 26	2263.49	-27.11	42.55	83.48	103.11	4 0 9	1663.5	-25.03	34.36
100.00	18 50 8	4036.03	3.37	158.09	78.99	60.28	19 57 24	3436.0	-.61	151.56
110.00	4 47 43	1996.65	-29.89	21.42	82.62	107.42	5 20 59	1396.6	-27.21	13.25
110.00	19 41 20	3875.63	5.82	144.40	77.47	56.26	20 45 56	3275.6	1.35	138.17

DIFFERENTIAL CORRECTIONS

TDE	.0086	TRA	-.3437	TC3	.4890	BAU	.3790
RDE	.4886	RRA	.1889	RC3	-2.4201	FAU	.07430
FDE	1.6776	FRA	.6372	FC3	-5.6025	BSP	5924
BDE	.4887	BRA	.3922	BC3	2.4690	FSP	-1275

MID-COURSE EXECUTION ACCURACY

SGT	685.4	SGR	1865.7	SG3	420.6		
RRT	-.5702	RRF	.9840	RTF	-.5646		
SGB	1987.6	R23	-.0606	R13	.9821		
SG1	1910.0	SG2	550.0	THA	102.92		

ORBIT DETERMINATION ACCURACY

ST	180.8	SR	833.6	SS	1179.6
CRT	-.0415	CRS	-.9998	CST	.0384
LSA	1444.4	MSA	180.7	SSA	13.0
EL1	833.6	EL2	180.6	ALF	90.54

LAUNCH DATE SEP 2 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 320.314

RL	150.95	LAL	.00	LOL	339.12	VL	27.114	GAL	-3.91	AZL	85.85	HCA	143.64	SMA	129.70	ECC	.17712	INC	4.1519
RP	107.48	LAP	2.46	LOP	122.83	VP	38.029	GAP	-2.63	AZP	93.35	TAL	198.75	TAP	342.38	RCA	106.73	APO	152.67
RC	72.818	GL	33.92	GP	-50.83	ZAL	114.11	ZAP	69.40	ETS	22.25	ZAE	125.26	ETE	284.52	ZAC	51.06	ETC	257.74

V1	29.518	V2	35.256	CLP	-56.14														

PLANETOCENTRIC CONIC

C3	12.317	VHL	3.510	DLA	17.54	RAL	227.91	RAD	6567.5	VEL	11.563	PTH	2.02	VHP	4.854	DPA	-68.57	RAP	216.45
ECC	1.2027																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 26 57	2684.48	-27.52	73.44	87.18	96.96	2 11 41	2084.5	-26.27	65.00
90.00	18 11 36	4169.36	-.95	170.27	82.07	61.70	19 21 5	3569.4	-4.73	163.63
100.00	2 58 30	2389.23	-28.73	51.54	87.00	98.64	3 38 19	1789.2	-27.23	43.05
100.00	19 22 43	3939.85	.12	152.81	81.47	60.11	20 28 23	3339.9	-3.86	146.28
110.00	4 29 10	2105.53	-31.84	29.30	86.30	103.14	5 4 16	1505.5	-29.71	20.74
110.00	20 8 32	3796.31	2.81	140.24	79.79	55.92	21 11 49	3196.3	-1.68	134.04

DIFFERENTIAL CORRECTIONS

TDE	.0708	TRA	-.3272	TC3	.2492	BAU	.4060
RDE	.6462	RRA	.2448	RC3	-2.4531	FAU	.07099
FDE	1.8234	FRA	.6843	FC3	-4.9899	BSP	6424
BDE	.6500	BRA	.4086	BC3	2.4657	FSP	-1256

MID-COURSE EXECUTION ACCURACY

SGT	598.1	SGR	2062.4	SG3	409.8		
RRT	-.3357	RRF	.9877	RTF	-.3260		
SGB	2147.4	R23	-.0340	R13	.9871		
SG1	2072.9	SG2	560.5	THA	96.00		

ORBIT DETERMINATION ACCURACY

ST	204.0	SR	1063.6	SS	1257.9
CRT	.4632	CRS	-.9999	CST	-.4648
LSA	1650.0	MSA	180.4	SSA	10.9
EL1	1067.9	EL2	180.1	ALF	84.77

LAUNCH DATE SEP 2 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 326.792

RL	150.95	LAL	.00	LOL	339.12	VL	27.133	GAL	-3.90	AZL	85.26	HCA	146.87	SMA	129.82	ECC	.17596	INC	4.7402
RP	107.48	LAP	2.59	LOP	126.08	VP	38.044	GAP	-2.13	AZP	93.97	TAL	198.82	TAP	345.68	RCA	106.98	APO	152.67
RC	74.992	GL	37.54	GP	-54.67	ZAL	112.87	ZAP	73.86	ETS	18.45	ZAE	122.05	ETE	279.30	ZAC	47.11	ETC	256.37

PLANETOCENTRIC CONIC

C3	13.480	VHL	3.672	DLA	20.93	RAL	229.26	RAD	6567.5	VEL	11.613	PTH	2.03	VHP	5.008	DPA	-70.85	RAP	206.95

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 55 18	2841.93	-28.29	84.89	91.35	91.28	1 42 40	2241.9	-27.81	76.25
90.00	18 54 4	4050.70	-4.76	163.64	85.58	62.05	20 1 35	3450.7	-8.47	156.91
100.00	2 30 39	2534.48	-29.74	62.21	91.29	93.12	3 12 53	1934.5	-28.99	53.48
100.00	20 1 24	3833.39	-3.49	146.96	84.88	60.29	21 5 18	3233.4	-7.42	140.38
110.00	4 8 33	2228.19	-33.37	38.53	90.88	97.87	4 45 41	1628.2	-31.92	29.60
110.00	20 40 0	3712.43	-.40	135.86	82.95	55.82	21 41 52	3112.4	-4.88	129.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1684	TRA	-.3032	TC3	.0069	BAU	.4332	SGT	570.7	SGR	2251.2	SG3	388.4	ST	303.5	SR	1304.7	SS	1315.8
RDE	.8292	RRA	.3160	RC3	-2.4035	FAU	.06578	RRT	.0494	RRF	.9903	RTF	.0622	CRT	.7977	CRS	-.9999	CST	-.7987
FDE	1.9336	FRA	.7293	FC3	-4.2245	BSP	6952	SGB	2322.4	R23	-.0099	R13	.9903	LSA	1868.8	MSA	181.3	SSA	9.2
BDE	.8461	BRA	.4379	BC3	2.4035	FSP	-1198	SG1	2251.4	SG2	570.0	THA	89.23	EL1	1327.4	EL2	179.9	ALF	79.29

LAUNCH DATE SEP 2 1970 FLIGHT TIME 120.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 333.242

RL	150.95	LAL	.00	LOL	339.12	VL	27 146	GAL	-3.87	AZL	84.56	HCA	150.10	SMA	129.92	ECC	.17502	INC	5.4399
RP	107.48	LAP	2.71	LOP	129.33	VP	38.054	GAP	-1.65	AZP	94.72	TAL	198.80	TAP	348.89	RCA	107.18	APO	152.65
RC	77.186	GL	41.34	GP	-58.56	ZAL	111.34	ZAP	78.06	ETS	14.08	ZAE	118.55	ETE	274.03	ZAC	43.09	ETC	254.65

PLANETOCENTRIC CONIC

C3	15.111	VHL	3.887	DLA	24.42	RAL	230.91	RAD	6567.6	VEL	11.683	PTH	2.05	VHP	5.252	DPA	-72.65	RAP	195.29

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 6	3040.54	-27.74	99.37	96.09	84.05	1 3 47	2440.5	-28.27	90.75
90.00	19 49 24	3902.55	-9.41	155.23	90.43	63.17	20 54 27	3302.5	-12.94	148.33
100.00	1 55 24	2710.72	-29.68	75.29	96.28	86.24	2 40 35	2110.7	-29.88	66.49
100.00	20 49 48	3707.60	-7.69	139.99	89.51	61.03	21 51 35	3107.6	-11.50	133.27
110.00	3 44 26	2369.63	-34.16	49.49	96.38	91.44	4 23 55	1769.6	-33.58	40.30
110.00	21 17 16	3621.46	-3.87	131.11	87.16	56.01	22 17 37	3021.5	-8.31	124.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3143	TRA	-.2670	TC3	-.2163	BAU	.4595	SGT	655.4	SGR	2421.1	SG3	357.2	ST	481.0	SR	1541.8	SS	1346.8
RDE	1.0369	RRA	.4035	RC3	-2.2644	FAU	.05897	RRT	.4548	RRF	.9921	RTF	.4686	CRT	.9207	CRS	-1.0000	CST	-.9216
FDE	1.9969	FRA	.7648	FC3	-3.3787	BSP	7530	SGB	2508.2	R23	.0112	R13	.9922	LSA	2094.9	MSA	183.1	SSA	7.7
BDE	1.0835	BRA	.4838	BC3	2.2747	FSP	-1113	SG1	2440.5	SG2	579.1	THA	82.56	EL1	1604.9	EL2	180.4	ALF	73.76

LAUNCH DATE SEP 2 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 339.663

RL	150.95	LAL	.00	LOL	339.12	VL	27.154	GAL	-3.83	AZL	83.71	HCA	153.32	SMA	129.97	ECC	.17428	INC	6.2916
RP	107.48	LAP	2.82	LOP	132.58	VP	38.060	GAP	-1.18	AZP	95.63	TAL	198.69	TAP	352.01	RCA	107.32	APO	152.63
RC	79.396	GL	45.31	GP	-62.51	ZAL	109.53	ZAP	81.88	ETS	9.08	ZAE	114.77	ETE	268.66	ZAC	39.00	ETC	252.47

PLANETOCENTRIC CONIC

C3	17.444	VHL	4.177	DLA	28.01	RAL	232.87	RAD	6567.7	VEL	11.782	PTH	2.08	VHP	5.611	DPA	-73.81	RAP	181.60

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 43 41	3385.48	-22.97	123.43	100.16	72.98	23 40 7	2785.5	-25.09	115.40
90.00	21 30 32	3623.08	-17.44	138.65	98.03	67.33	22 30 55	3023.1	-20.37	131.19
100.00	1 1 15	2954.67	-27.27	92.99	101.42	77.26	1 50 30	2354.7	-28.75	84.50
100.00	21 59 35	3529.12	-13.41	129.82	96.10	63.03	22 58 24	2929.1	-16.92	122.79
110.00	3 13 59	2539.25	-33.66	62.70	102.66	83.65	3 56 18	1939.2	-34.17	53.49
110.00	22 3 21	3517.31	-7.81	125.62	92.78	56.61	23 1 58	2917.3	-12.14	119.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5263	TRA	-.2119	TC3	-.3995	BAU	.4835	SGT	860.8	SGR	2558.1	SG3	318.1	ST	728.7	SR	1756.4	SS	1348.1
RDE	1.2679	RRA	.5111	RC3	-2.0343	FAU	.05095	RRT	.7090	RRF	.9933	RTF	.7228	CRT	.9631	CRS	-1.0000	CST	-.9641
FDE	2.0087	FRA	.7885	FC3	-2.5286	BSP	8140	SGB	2699.0	R23	.0298	R13	.9932	LSA	2323.5	MSA	186.0	SSA	6.5
BDE	1.3728	BRA	.5533	BC3	2.0732	FSP	-1003	SG1	2633.8	SG2	589.6	THA	75.86	EL1	1892.8	EL2	182.0	ALF	68.00

LAUNCH DATE SEP 2 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 346.053

RL	150.95	LAL	.00	LOL	339.12	VL	27.158	GAL	-3.78	AZL	82.64	HCA	156.53	SMA	130.00	ECC	.17371	INC	7.3580
RP	107.48	LAP	2.92	LOP	135.83	VP	38.062	GAP	-.73	AZP	96.76	TAL	198.50	TAP	355.03	RCA	107.42	APO	152.59
RC	81.621	GL	49.41	GP	-66.53	ZAL	107.47	ZAP	85.24	ETS	3.34	ZAE	110.74	ETE	263.10	ZAC	34.85	ETC	249.64

PLANETOCENTRIC CONIC

C3	20.889	VHL	4.570	DLA	31.64	RAL	235.17	RAD	6567.8	VEL	11.928	PTH	2.12	VHP	6.121	DPA	-74.23	RAP	166.51

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.25	20 20 32	3918.08	-21.54	162.30	105.37	66.24	21 25 50	3318.1	-24.56	154.67
104.75	0 15 57	3175.50	-21.52	107.37	105.36	66.23	1 8 53	2575.5	-24.55	99.74
75.25	20 20 32	3918.08	-21.54	162.30	105.37	66.24	21 25 50	3318.1	-24.56	154.67
104.75	0 15 57	3175.50	-21.52	107.37	105.36	66.23	1 8 53	2575.5	-24.55	99.74
110.00	2 28 56	2762.84	-30.71	79.43	109.04	74.19	3 14 59	2162.8	-32.57	70.70
110.00	23 6 44	3378.75	-12.91	118.12	100.60	58.07	24 3 2	2778.7	-17.03	111.45

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8311	TRA	-.1280	TC3	-.5241	BAU	.5021	SGT	1162.2	SGR	2645.0	SG3	273.7	ST	1043.5	SR	1925.6	SS	1320.2
RDE	1.5187	RRA	.6441	RC3	-1.7198	FAU	.04211	RRT	.8322	RRF	.9940	RTF	.8465	CRT	.9795	CRS	-1.0000	CST	-.9808
FDE	1.9710	FRA	.7998	FC3	-1.7453	BSP	8753	SGB	2889.0	R23	.0469	R13	.9935	LSA	2550.2	MSA	190.6	SSA	5.5
BDE	1.7313	BRA	.6567	BC3	1.7979	FSP	-874	SG1	2825.3	SG2	603.2	THA	68.91	EL1	2182.3	EL2	185.5	ALF	61.82

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LAUNCH DATE  SEP  2 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  JAN  6 1971

 HELIOCENTRIC CONIC                                DISTANCE 352.410
  RL  150.95 LAL    .00 LOL 339.12 VL  27.159 GAL  -3.71 AZL  81.26 HCA 159.74 SMA 130.00 ECC .17329 INC 8.7408 V1  29.518
  RP  107.48 LAP   3.02 LOP 139.08 VP  38.061 GAP   -.30 AZP  98.21 TAL 198.22 TAP 357.96 RCA 107.47 APO 152.53 V2  35.256
  RC  83.861 GL   53.57 GP  -70.67 ZAL 105.19 ZAP  88.05 ETS 356.65 ZAE 106.43 ETE 257.06 ZAC  30.57 ETC 245.77 CLP -84.09
 PLANETOCENTRIC CONIC
  C3  26.203 VHL  5.119 DLA  35.25 RAL 237.83 RAD 6568.1 VEL 12.148 PTH   2.18 VHP  6.842 DPA -73.82 RAP 151.01 ECC 1.4312
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     68.06    19 46  5   4112.09     -22.08     177.58     112.83      61.79   20 54 37     3512.1     -25.67     170.18
    111.94     1 11 38   3092.12     -22.07     101.21     112.82      61.78    2  3 10     2492.1     -25.66      93.81
     68.06    19 46  5   4112.09     -22.08     177.58     112.83      61.79   20 54 37     3512.1     -25.67     170.18
    111.94     1 11 38   3092.12     -22.07     101.21     112.83      61.79    2  3 10     2492.1     -25.66      93.81
     68.06    19 46  5   4112.09     -22.08     177.58     112.83      61.79   20 54 37     3512.1     -25.67     170.18
    111.94     1 11 38   3092.12     -22.07     101.21     112.82      61.78    2  3 10     2492.1     -25.66      93.81
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 1.2755 TRA  .0046 TC3 -.5751 BAU  .5107      SGT 1544.3 SGR 2657.0 SG3  227.2            ST  1427.8 SR  2015.5 SS  1265.9
  RDE 1.7756 RRA  .8089 RC3-1.3395 FAU .03290      RRT  .8900 RRF  .9941 RTF  .9069            CRT  .9865 CRS -.9999 CST -.9884
  FDE 1.8904 FRA  .7989 FC3-1.0871 BSP  9322       SG8 3073.2 R23  .0632 R13  .9933            LSA 2768.5 MSA  197.5 SSA    4.7
  BDE 2.1863 BRA  .8089 BC3 1.4577 FSP  -732       SG1 3009.7 SG2  621.7 THA  61.31            EL1 2462.6 EL2  191.6 ALF   54.81

LAUNCH DATE  SEP  2 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  JAN  8 1971

 HELIOCENTRIC CONIC                                DISTANCE 358.727
  RL  150.95 LAL    .00 LOL 339.12 VL  27.155 GAL  -3.63 AZL  79.38 HCA 162.93 SMA 129.98 ECC .17301 INC10.6169 V1  29.518
  RP  107.49 LAP   3.10 LOP 142.33 VP  38.056 GAP    .11 AZP 100.16 TAL 197.84 TAP    .78 RCA 107.49 APO 152.47 V2  35.254
  RC  86.111 GL   57.67 GP  -75.06 ZAL 102.75 ZAP  90.22 ETS 348.38 ZAE 101.79 ETE 249.86 ZAC  26.08 ETC 239.96 CLP -90.85
 PLANETOCENTRIC CONIC
  C3  34.917 VHL  5.909 DLA  38.71 RAL 240.87 RAD 6568.4 VEL 12.501 PTH   2.26 VHP  7.883 DPA -72.54 RAP 136.02 ECC 1.5746
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     62.42    19 28 34   4271.32     -21.43     190.06     121.58      56.95   20 39 45     3671.3     -25.62     183.04
    117.58     1 53 25   3076.77     -21.41      99.55     121.57      56.94    2 44 42     2476.8     -25.61      92.54
     62.42    19 28 34   4271.32     -21.43     190.06     121.58      56.95   20 39 45     3671.3     -25.62     183.04
    117.58     1 53 25   3076.77     -21.41      99.55     121.57      56.94    2 44 42     2476.8     -25.61      92.54
     62.42    19 28 34   4271.32     -21.43     190.06     121.58      56.95   20 39 45     3671.3     -25.62     183.04
    117.58     1 53 25   3076.77     -21.41      99.55     121.57      56.94    2 44 42     2476.8     -25.61      92.54
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 1.9472 TRA  .2266 TC3 -.5486 BAU  .5030      SGT 2016.1 SGR 2546.8 SG3  181.7            ST  1890.1 SR  1963.7 SS  1191.3
  RDE 1.9874 RRA 1.0087 RC3 -.9274 FAU .02390      RRT  .9158 RRF  .9929 RTF  .9400            CRT  .9890 CRS -.9997 CST -.9923
  FDE 1.7782 FRA  .7877 FC3 -.5927 BSP  9862       SG8 3248.2 R23  .0791 R13  .9927            LSA 2967.2 MSA  208.0 SSA    3.9
  BDE 2.7824 BRA 1.0338 BC3 1.0775 FSP  -590       SG1 3182.9 SG2  648.0 THA  52.22            EL1 2718.1 EL2  201.5 ALF   46.11

LAUNCH DATE  SEP  2 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  JAN 10 1971

 HELIOCENTRIC CONIC                                DISTANCE 364.994
  RL  150.95 LAL    .00 LOL 339.12 VL  27.148 GAL  -3.54 AZL  76.68 HCA 166.10 SMA 129.93 ECC .17284 INC13.3213 V1  29.518
  RP  107.50 LAP   3.17 LOP 145.58 VP  38.048 GAP    .51 AZP 102.94 TAL 197.38 TAP   3.48 RCA 107.47 APO 152.39 V2  35.251
  RC  88.372 GL   61.50 GP  -79.85 ZAL 100.21 ZAP  91.70 ETS 336.49 ZAE  96.67 ETE 239.37 ZAC  21.19 ETC 229.66 CLP -99.71
 PLANETOCENTRIC CONIC
  C3  50.473 VHL  7.104 DLA  41.81 RAL 244.28 RAD 6568.9 VEL 13.109 PTH   2.39 VHP  9.450 DPA -70.32 RAP 122.12 ECC 1.8307
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     57.85    19 21 25   4422.37     -19.12     201.14     131.49      52.08   20 35  8     3822.4     -23.90     194.66
    122.15     2 27 44   3111.22     -19.10     100.72     131.48      52.07    3 19 35     2511.2     -23.89      94.24
     57.85    19 21 25   4422.37     -19.12     201.14     131.49      52.08   20 35  8     3822.4     -23.90     194.66
    122.15     2 27 44   3111.22     -19.10     100.72     131.48      52.07    3 19 35     2511.2     -23.89      94.24
     57.85    19 21 25   4422.37     -19.12     201.14     131.49      52.08   20 35  8     3822.4     -23.90     194.66
    122.15     2 27 44   3111.22     -19.10     100.72     131.48      52.07    3 19 35     2511.2     -23.89      94.24
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 3.0308 TRA  .6439 TC3 -.4514 BAU  .4642      SGT 2621.3 SGR 2176.4 SG3  139.9            ST  2453.3 SR  1617.7 SS  1108.7
  RDE 1.9451 RRA 1.2163 RC3 -.5191 FAU .01545      RRT  .9157 RRF  .9851 RTF  .9626            CRT  .9870 CRS -.9981 CST -.9949
  FDE 1.6547 FRA  .7730 FC3 -.2650 BSP  10380      SG8 3407.0 R23  .0948 R13  .9920            LSA 3132.8 MSA  224.1 SSA    3.2
  BDE 3.6012 BRA 1.3762 BC3  .6879 FSP  -459       SG1 3337.1 SG2  686.9 THA  39.23            EL1 2930.6 EL2  217.6 ALF   33.27

LAUNCH DATE  SEP  2 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  JAN 12 1971

 HELIOCENTRIC CONIC                                DISTANCE 371.189
  RL  150.95 LAL    .00 LOL 339.12 VL  27.137 GAL  -3.42 AZL  72.43 HCA 169.22 SMA 129.86 ECC .17275 INC17.5658 V1  29.518
  RP  107.51 LAP   3.24 LOP 148.83 VP  38.037 GAP    .88 AZP 107.27 TAL 196.80 TAP   6.01 RCA 107.42 APO 152.29 V2  35.247
  RC  90.641 GL   64.61 GP  -85.19 ZAL  97.64 ZAP  92.46 ETS 312.13 ZAE  90.74 ETE 216.59 ZAC  15.59 ETC 204.67 CLP-120.87
 PLANETOCENTRIC CONIC
  C3  81.897 VHL  9.050 DLA  44.12 RAL 247.94 RAD 6569.6 VEL 14.256 PTH   2.60 VHP 11.984 DPA -66.83 RAP 109.49 ECC 2.3478
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     54.63    19 22 55   4573.78     -14.80     210.79     142.15      47.94   20 39  9     3973.8     -20.06     204.89
    125.37     2 55 28   3191.93     -14.78     104.09     142.14      47.94    3 48 39     2591.9     -20.05      98.19
     54.63    19 22 55   4573.78     -14.80     210.79     142.15      47.94   20 39  9     3973.8     -20.06     204.89
    125.37     2 55 28   3191.93     -14.78     104.09     142.14      47.94    3 48 39     2591.9     -20.05      98.19
     54.63    19 22 55   4573.78     -14.80     210.79     142.15      47.94   20 39  9     3973.8     -20.06     204.89
    125.37     2 55 28   3191.93     -14.78     104.09     142.14      47.94    3 48 39     2591.9     -20.05      98.19
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 4.7769 TRA 1.5875 TC3 -.2884 BAU  .3552      SGT 3373.4 SGR 1087.9 SG3  104.6            ST  3053.4 SR   477.5 SS  1044.8
  RDE  .5922 RRA 1.1172 RC3 -.1485 FAU .00747      RRT  .7231 RRF  .8225 RTF  .9848            CRT  .8629 CRS -.8947 CST -.9978
  FDE 1.5604 FRA  .7757 FC3 -.0789 BSP  10839      SG8 3544.4 R23  .1088 R13  .9917            LSA 3253.1 MSA  245.5 SSA    2.4
  BDE 4.8135 BRA 1.9412 BC3  .3244 FSP  -346       SG1 3468.3 SG2  730.9 THA  13.75            EL1 3081.3 EL2  239.1 ALF    7.73
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LAUNCH DATE SEP 2 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 377.249

RL	150.95	LAL	.00	LOL	339.12	VL	27.124	GAL	-3.28	AZL	64.88	HCA	172.23	SMA	129.77	ECC	.17267	INC	25.1248
RP	107.53	LAP	3.29	LOP	152.08	VP	38.024	GAP	1.22	AZP	114.92	TAL	196.05	TAP	8.28	RCA	107.36	APO	152.17
RC	92.917	GL	65.98	GP	-85.71	ZAL	95.17	ZAP	92.50	ETS	245.44	ZAE	83.13	ETE	151.54	ZAC	8.63	ETC	128.41

V1	29.518	V2	35.243	CLP	125.69														

PLANETOCENTRIC CONIC

C3	158.460	VHL	12.588	DLA	44.69	RAL	251.50	RAD	6570.7	VEL	16.727	PTH	2.90	VHP	16.570	DPA	-61.26	RAP	98.07
ECC	3.6079																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.86	19 34 7	4715.56	-8.69	217.86	152.62	45.99	20 52 43	4115.6	-14.19	212.35
126.14	3 12 37	3318.01	-8.67	109.73	152.61	45.99	4 7 55	2718.0	-14.18	104.22
53.86	19 34 7	4715.56	-8.69	217.86	152.62	45.99	20 52 43	4115.6	-14.19	212.35
126.14	3 12 37	3318.01	-8.67	109.73	152.61	45.99	4 7 55	2718.0	-14.18	104.22
53.86	19 34 7	4715.56	-8.69	217.86	152.62	45.99	20 52 43	4115.6	-14.19	212.35
126.14	3 12 37	3318.01	-8.67	109.73	152.61	45.99	4 7 55	2718.0	-14.18	104.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.4708	TRA	2.6324	TC3	-.0329	BAU	.0697	SGT	2643.4	SGR	2509.2	SG3	77.8	ST	2096.8	SR	2351.0
RDE	-5.1295	RRA	-1.4358	RC3	-.0017	FAU	-.00132	RRT	-.9498	RRF	-.9631	RTF	.9977	CRT	-.9921	CRS	.9945
FDE	1.5775	FRA	.8473	FC3	.0072	BSP	11089	SGB	3644.7	R23	-.1006	R13	-.9938	LSA	3315.6	MSA	203.1
BDE	6.8044	BRA	2.9985	BC3	.0329	FSP	-255	SG1	3598.8	SG2	576.7	THA	136.57	EL1	3144.0	EL2	197.0

CST	-.9998	SS	1054.0	V1	29.518												
SSA	1.7	ALF	131.70														

LAUNCH DATE SEP 2 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 382.974

RL	150.95	LAL	.00	LOL	339.12	VL	27.109	GAL	-3.06	AZL	48.63	HCA	174.96	SMA	129.66	ECC	.17240	INC	41.3737
RP	107.58	LAP	3.33	LOP	155.33	VP	38.008	GAP	1.45	AZP	131.26	TAL	194.96	TAP	9.92	RCA	107.31	APO	152.01
RC	95.197	GL	62.64	GP	-74.54	ZAL	92.93	ZAP	91.89	ETS	199.55	ZAE	71.30	ETE	107.15	ZAC	5.41	ETC	335.20

V1	29.518	V2	35.238	CLP	97.10														

PLANETOCENTRIC CONIC

C3	405.861	VHL	20.146	DLA	40.72	RAL	253.87	RAD	6572.1	VEL	22.960	PTH	3.27	VHP	26.335	DPA	-51.02	RAP	87.73
ECC	7.6794																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.43	20 6 33	4779.84	-2.47	217.85	161.01	49.35	21 26 13	4179.8	-7.66	212.15
120.57	2 59 9	3506.66	-2.46	120.71	161.00	49.35	3 57 35	2906.7	-7.65	115.01
59.43	20 6 33	4779.84	-2.47	217.85	161.01	49.35	21 26 13	4179.8	-7.66	212.15
120.57	2 59 9	3506.66	-2.46	120.71	161.00	49.35	3 57 35	2906.7	-7.65	115.01
59.43	20 6 33	4779.84	-2.47	217.85	161.01	49.35	21 26 13	4179.8	-7.66	212.15
120.57	2 59 9	3506.66	-2.46	120.71	161.00	49.35	3 57 35	2906.7	-7.65	115.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3706	TRA	1.4359	TC3	-.0204	BAU	.9739	SGT	555.1	SGR	3591.6	SG3	61.1	ST	193.0	SR	3001.8
RDE	-10.3571	RRA	-5.1311	RC3	-.1783	FAU	-.01778	RRT	-.3349	RRF	-.9953	RTF	.4166	CRT	.3749	CRS	.9991
FDE	1.8943	FRA	1.1523	FC3	.0379	BSP	10740	SGB	3634.2	R23	-.0807	R13	-.9960	LSA	3256.2	MSA	186.0
BDE	10.3638	BRA	5.3282	BC3	.1795	FSP	-191	SG1	3596.5	SG2	522.3	THA	93.03	EL1	3002.6	EL2	178.9

CST	.3351	SS	1260.9	V1	29.518												
SSA	1.9	ALF	88.61														

LAUNCH DATE SEP 2 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 387.504

RL	150.95	LAL	.00	LOL	339.12	VL	27.090	GAL	-2.60	AZL	9.12	HCA	176.59	SMA	129.53	ECC	.17126	INC	80.8843
RP	107.56	LAP	3.36	LOP	158.58	VP	37.989	GAP	1.37	AZP	170.87	TAL	192.78	TAP	9.37	RCA	107.35	APO	151.72
RC	97.481	GL	46.63	GP	-51.82	ZAL	91.27	ZAP	90.96	ETS	186.71	ZAE	48.48	ETE	95.41	ZAC	26.60	ETC	286.20

V1	29.518	V2	35.232	CLP	91.55														

PLANETOCENTRIC CONIC

C3	1351.083	VHL	36.757	DLA	24.52	RAL	253.04	RAD	6573.1	VEL	38.371	PTH	3.55	VHP	47.760	DPA	-29.21	RAP	79.13
ECC	23.2354																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 39 51	3791.30	-12.76	148.77	170.37	64.50	2 43 2	3191.3	-16.09	141.68
90.00	21 19 15	4642.55	13.81	197.20	158.01	65.03	22 36 37	4042.5	10.33	190.25
100.00	3 22 25	3460.58	-15.49	125.79	171.72	64.11	4 20 6	2860.6	-18.84	118.61
100.00	22 19 21	4448.50	16.55	181.61	156.68	64.75	23 33 30	3848.5	13.01	174.60
110.00	5 11 50	3118.28	-21.70	103.06	174.99	62.92	6 3 48	2518.3	-25.15	95.61
110.00	22 46 26	4363.56	22.81	171.98	153.48	63.82	23 59 10	3763.6	19.10	164.80

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-4.9693	TRA	.2653	TC3	-.0823	BAU	4.1710	SGT	983.9	SGR	2968.4	SG3	54.6	ST	774.9	SR	1988.4
RDE	-12.3729	RRA	-9.3678	RC3	-.2158	FAU	-.07202	RRT	.8151	RRF	-.9991	RTF	-.7926	CRT	.9658	CRS	.9997
FDE	2.5156	FRA	2.1054	FC3	.0461	BSP	9272	SGB	3127.2	R23	-.0873	R13	-.9960	LSA	2707.9	MSA	202.8
BDE	13.3335	BRA	9.3716	BC3	.2309	FSP	-170	SG1	3078.5	SG2	549.6	THA	74.37	EL1	2125.8	EL2	187.9

CST	.9592	SS	1679.1	V1	29.518												
SSA	1.4	ALF	69.20														

LAUNCH DATE SEP 2 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 398.581

RL	150.95	LAL	.00	LOL	339.12	VL	27.070	GAL	-3.41	AZL	141.37	HCA	184.33	SMA	129.39	ECC	.17657	INC	51.3743
RP	107.58	LAP	3.38	LOP	161.83	VP	37.969	GAP	3.05	AZP	38.71	TAL	196.27	TAP	20.60	RCA	106.55	APO	152.24
RC	99.767	GL	-58.96	GP	68.63	ZAL	92.78	ZAP	93.44	ETS	180.49	ZAE	72.31	ETE	269.79	ZAC	145.89	ETC	283.57

V1	29.518	V2	35.226	CLP	99.48														

PLANETOCENTRIC CONIC

C3	607.034	VHL	24.638	DLA	-75.94	RAL	200.05	RAD	6572.6	VEL	26.988	PTH	3.39	VHP	31.651	DPA	83.08	RAP	334.44
ECC	10.9902																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.02	2 30 1	2424.49	1.47	81.20	109.67	165.94	3 10 26	1824.5	9.23	79.66
163.98	13 26 17	640.41	1.48	284.17	109.69	165.94	13 36 57	40.4	9.24	282.62
16.02	2 30 1	2424.49	1.47	81.20	109.67	165.94	3 10 26	1824.5	9.23	79.66
163.98	13 26 17	640.41	1.48	284.17	109.69	165.94	13 36 57	40.4	9.24	282.62
16.02	2 30 1	2424.49	1.47	81.20	109.67	165.94	3 10 26	1824.5	9.23	79.66
163.98	13 26 17	640.41	1.48	284.17	109.69	165.94	13 36 57	40.4	9.24	282.62

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.0461	TRA	1.0188	TC3	-.0893	BAU	1.8865	SGT	1424.9	SGR	3419.9	SG3	62.2	ST	985.5	SR	2995.7
RDE	-12.7667	RRA	-1.3870	RC3	.2146	FAU	-.02822	RRT	-.9345	RRF	.9992	RTF	-.9254	CRT	-.9859	CRS	-1.0000
FDE	-2.7427	FRA	-.2802	FC3	.0403	BSP	11418	SGB	3704.8	R23	-.0744	R13	.9967	LSA	3607.0	MSA	161.1
BDE	13.3926	BRA	1.7210	BC3	.2325	FSP	-195	SG1	3674.7	SG2	471.9	THA	111.65	EL1	3149.7	EL2	156.8

CST	-.9998	SS	1758.1	V1	29.518												
SSA	1.8	ALF	108.02														

LAUNCH DATE SEP 2 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 404.028

RL	150.95	LAL	.00	LOL	339.12	VL	27.048	GAL	-3.12	AZL	119.75	HCA	186.85	SMA	129.24	ECC	.17628	INC	29.7524
RP	107.60	LAP	3.39	LOP	165.07	VP	37.946	GAP	3.21	AZP	60.42	TAL	194.85	TAP	21.70	RCA	106.46	APO	152.02
RC	102.053	GL	-65.32	GP	80.87	ZAL	94.10	ZAP	96.04	ETS	159.33	ZAE	86.71	ETE	248.15	ZAC	158.49	ETC	275.87

PLANETOCENTRIC CONIC

C3	217.557	VHL	14.750	DLA	-77.54	RAL	171.41	RAD	6571.2	VEL	18.409	PTH	3.04	VHP	18.893	DPA	73.89	RAP	267.07

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.19	0 32 7	2319.01	8.70	80.99	79.46	167.39	1 10 46	1719.0	16.50	79.59
165.81	11 35 39	5816.83	8.70	260.06	79.48	167.39	13 12 36	5216.8	16.50	258.66
14.19	0 32 7	2319.01	8.70	80.99	79.46	167.39	1 10 46	1719.0	16.50	79.59
165.81	11 35 39	5816.83	8.70	260.06	79.48	167.39	13 12 36	5216.8	16.50	258.66
14.19	0 32 7	2319.01	8.70	80.99	79.46	167.39	1 10 46	1719.0	16.50	79.59
165.81	11 35 39	5816.83	8.70	260.06	79.48	167.39	13 12 36	5216.8	16.50	258.66

DIFFERENTIAL CORRECTIONS

TDE	-.8753	TRA	.1277	TC3	-.0105	BAU	.2602
RDE	-5.6171	RRA	-1.8629	RC3	.0888	FAU	-.00174
FDE	-1.4307	FRA	-.4043	FC3	.0069	BSP	12570
BDE	5.6849	BRA	1.8672	BC3	.0895	FSP	-254

MID-COURSE EXECUTION ACCURACY

SGT	411.5	SGR	4008.9	SG3	79.1		
RRT	-.0222	RRF	.9962	RTF	.0561		
SGB	4029.9	R23	-.0785	R13	.9962		
SG1	4008.9	SG2	411.4	THA	90.13		

ORBIT DETERMINATION ACCURACY

ST	346.9	SR	2402.7	SS	974.7
CRT	.8068	CRS	-.9983	CST	-.8396
LSA	2607.6	MSA	208.1	SSA	1.6
EL1	2419.0	EL2	203.6	ALF	83.31

LAUNCH DATE SEP 2 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 409.918

RL	150.95	LAL	.00	LOL	339.12	VL	27.023	GAL	-2.90	AZL	110.34	HCA	189.80	SMA	129.08	ECC	.17663	INC	20.3439
RP	107.63	LAP	3.39	LOP	168.32	VP	37.922	GAP	3.48	AZP	69.93	TAL	193.76	TAP	23.57	RCA	106.28	APO	151.88
RC	104.339	GL	-65.30	GP	80.52	ZAL	95.29	ZAP	99.38	ETS	75.88	ZAE	95.15	ETE	164.70	ZAC	163.36	ETC	213.56

PLANETOCENTRIC CONIC

C3	106.666	VHL	10.328	DLA	-76.39	RAL	169.67	RAD	6570.0	VEL	15.100	PTH	2.72	VHP	13.240	DPA	65.57	RAP	254.96

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.50	0 27 48	2189.50	17.07	78.55	75.40	165.75	1 4 18	1589.5	24.81	76.81
164.50	11 26 7	5691.66	17.07	258.91	75.42	165.75	13 0 59	5091.7	24.81	257.16
15.50	0 27 48	2189.50	17.07	78.55	75.40	165.75	1 4 18	1589.5	24.81	76.81
164.50	11 26 7	5691.66	17.07	258.91	75.42	165.75	13 0 59	5091.7	24.81	257.16
15.50	0 27 48	2189.50	17.07	78.55	75.40	165.75	1 4 18	1589.5	24.81	76.81
164.50	11 26 7	5691.66	17.07	258.91	75.42	165.75	13 0 59	5091.7	24.81	257.16

DIFFERENTIAL CORRECTIONS

TDE	-3.6951	TRA	-1.5120	TC3	-.1806	BAU	.2575
RDE	.8608	RRA	-.1476	RC3	-.0012	FAU	.01056
FDE	-1.2837	FRA	-.4177	FC3	-.0857	BSP	13032
BDE	3.7940	BRA	1.5192	BC3	.1806	FSP	-342

MID-COURSE EXECUTION ACCURACY

SGT	4129.0	SGR	590.8	SG3	106.1		
RRT	.1075	RRF	.0041	RTF	.9932		
SGB	4171.0	R23	-.1055	R13	.9929		
SG1	4129.5	SG2	587.3	THA	.90		

ORBIT DETERMINATION ACCURACY

ST	2312.1	SR	488.8	SS	882.0
CRT	-.7674	CRS	.8205	CST	-.9962
LSA	2502.8	MSA	314.0	SSA	2.1
EL1	2342.9	EL2	309.3	ALF	170.62

LAUNCH DATE SEP 2 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 415.934

RL	150.95	LAL	.00	LOL	339.12	VL	26.997	GAL	-2.71	AZL	105.33	HCA	192.89	SMA	128.90	ECC	.17725	INC	15.3309
RP	107.65	LAP	3.38	LOP	171.56	VP	37.896	GAP	3.79	AZP	75.04	TAL	192.76	TAP	25.65	RCA	106.05	APO	151.75
RC	106.624	GL	-63.14	GP	74.97	ZAL	96.18	ZAP	103.16	ETS	51.78	ZAE	101.28	ETE	141.15	ZAC	163.62	ETC	212.43

PLANETOCENTRIC CONIC

C3	63.878	VHL	7.992	DLA	-75.09	RAL	176.90	RAD	6569.2	VEL	13.610	PTH	2.49	VHP	10.309	DPA	58.81	RAP	248.77

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.00	0 59 38	2070.78	24.56	75.56	79.89	163.56	1 34 9	1470.8	32.21	73.31
163.00	11 51 56	5578.39	24.56	257.41	79.92	163.56	13 24 54	4978.4	32.21	255.16
17.00	0 59 38	2070.78	24.56	75.56	79.89	163.56	1 34 9	1470.8	32.21	73.31
163.00	11 51 56	5578.39	24.56	257.41	79.92	163.56	13 24 54	4978.4	32.21	255.16
17.00	0 59 38	2070.78	24.56	75.56	79.89	163.56	1 34 9	1470.8	32.21	73.31
163.00	11 51 56	5578.39	24.56	257.41	79.92	163.56	13 24 54	4978.4	32.21	255.16

DIFFERENTIAL CORRECTIONS

TDE	-2.8547	TRA	-1.1721	TC3	-.5203	BAU	.4757
RDE	1.9513	RRA	.3501	RC3	.1987	FAU	.02040
FDE	-1.5183	FRA	-.4129	FC3	-.2764	BSP	13701
BDE	3.4579	BRA	1.2232	BC3	.5570	FSP	-470

MID-COURSE EXECUTION ACCURACY

SGT	3941.7	SGR	1734.5	SG3	142.0		
RRT	-.9230	RRF	-.9765	RTF	.9799		
SGB	4306.5	R23	.1280	R13	-.9894		
SG1	4262.0	SG2	617.4	THA	157.39		

ORBIT DETERMINATION ACCURACY

ST	2268.9	SR	1429.1	SS	1017.0
CRT	-.9713	CRS	.9949	CST	-.9903
LSA	2852.4	MSA	297.3	SSA	2.9
EL1	2665.8	EL2	289.4	ALF	148.12

LAUNCH DATE SEP 2 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 421.994

RL	150.95	LAL	.00	LOL	339.12	VL	26.970	GAL	-2.52	AZL	102.25	HCA	196.03	SMA	128.72	ECC	.17804	INC	12.2452
RP	107.68	LAP	3.36	LOP	174.80	VP	37.868	GAP	4.10	AZP	78.22	TAL	191.77	TAP	27.80	RCA	105.80	APO	151.63
RC	108.906	GL	-60.18	GP	69.09	ZAL	96.70	ZAP	107.22	ETS	47.01	ZAE	106.18	ETE	137.51	ZAC	161.15	ETC	224.74

PLANETOCENTRIC CONIC

C3	43.387	VHL	6.587	DLA	-73.56	RAL	186.30	RAD	6568.6	VEL	12.836	PTH	2.34	VHP	8.598	DPA	52.78	RAP	244.67

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.75	1 40 43	1971.53	30.54	72.05	86.26	160.82	2 13 34	1371.5	38.05	69.13
161.25	12 25 51	5486.25	30.54	255.66	86.28	160.82	13 57 18	4886.2	38.06	252.74
18.75	1 40 43	1971.53	30.54	72.05	86.26	160.82	2 13 34	1371.5	38.05	69.13
161.25	12 25 51	5486.25	30.54	255.66	86.28	160.82	13 57 18	4886.2	38.06	252.74
18.75	1 40 43	1971.53	30.54	72.05	86.26	160.82	2 13 34	1371.5	38.05	69.13
161.25	12 25 51	5486.25	30.54	255.66	86.28	160.82	13 57 18	4886.2	38.06	252.74

DIFFERENTIAL CORRECTIONS

TDE	-2.7464	TRA	-.9314	TC3	-.9245	BAU	.5854
RDE	1.9057	RRA	.3066	RC3	.4048	FAU	.02921
FDE	-1.8050	FRA	-.3786	FC3	-.5829	BSP	14013
BDE	3.3428	BRA	.9806	BC3	1.0092	FSP	-603

MID-COURSE EXECUTION ACCURACY

SGT	3922.4	SGR	1979.9	SG3	181.4		
RRT	-.9409	RRF	-.9883	RTF	.9734		
SGB	4393.7	R23	.1476	R13	-.9856		
SG1	4352.0	SG2	604.5	THA	154.06		

ORBIT DETERMINATION ACCURACY

ST	2538.9	SR	1681.7	SS	1194.9
CRT	-.9845	CRS	.9987	CST	-.9920
LSA	3261.1	MSA	259.6	SSA	3.6
EL1	3035.3	EL2	246.6	ALF	146.64

LAUNCH DATE SEP 2 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 428.067

RL	150.95	LAL	.00	LOL	339.12	VL	26.941	GAL	-2.32	AZL	100.15	HCA	199.21	SMA	128.52	ECC	.17896	INC	10.1547
RP	107.71	LAP	3.32	LOP	178.05	VP	37.839	GAP	4.42	AZP	80.40	TAL	190.75	TAP	29.96	RCA	105.52	APO	151.52
RC	111.186	GL	-56.92	GP	63.49	ZAL	96.84	ZAP	111.40	ETS	45.74	ZAE	110.24	ETE	137.87	ZAC	157.49	ETC	234.10

V1	29.518	V2	35.184	CLP	-144.81														

PLANETOCENTRIC CONIC

C3	32.085	VHL	5.664	DLA	-71.78	RAL	195.65	RAO	6568.3	VEL	12.388	PTH	2.24	VHP	7.526	DPA	47.21	RAP	241.76
ECC	1.5280																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.81	2 22 18	1890.68	35.02	68.00	92.30	157.55	2 53 49	1290.7	42.35	64.29
159.19	12 58 54	5414.76	35.03	253.71	92.32	157.55	14 29 9	4814.8	42.36	250.00
20.81	2 22 18	1890.68	35.02	68.00	92.30	157.55	2 53 49	1290.7	42.35	64.29
159.19	12 58 54	5414.76	35.03	253.71	92.32	157.55	14 29 9	4814.8	42.36	250.00
20.81	2 22 18	1890.68	35.02	68.00	92.30	157.55	2 53 49	1290.7	42.35	64.29
159.19	12 58 54	5414.76	35.03	253.71	92.32	157.55	14 29 9	4814.8	42.36	250.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.7092	TRA	-.7395	TC3	-1.3840	BAU	.6425	SGT	3960.9	SGR	1948.1	SG3	217.7	ST	2833.2	SR	1730.0
RDE	1.6994	RRA	.2001	RC3	.5730	FAU	.03653	RRT	-.9430	RRF	-.9898	RTF	.9682	CRT	-.9897	CRS	.9996
FDE	-2.0152	FRA	-.3004	FC3	-.9857	BSP	13834	SGB	4414.1	R23	.1689	R13	-.9809	LSA	3572.1	MSA	231.5
BDE	3.1981	BRA	.7661	BC3	1.4979	FSP	-705	SG1	4374.9	SG2	587.0	THA	154.63	EL1	3312.8	EL2	211.9

SS	1339.2	V1	29.518
CST	-.9935	V2	35.174
SSA	4.4	CLP	-145.11
ALF	148.71		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 434.137

RL	150.95	LAL	.00	LOL	339.12	VL	26.911	GAL	-2.12	AZL	98.64	HCA	202.39	SMA	128.32	ECC	.18001	INC	8.6402
RP	107.74	LAP	3.28	LOP	181.28	VP	37.808	GAP	4.75	AZP	82.00	TAL	189.72	TAP	32.11	RCA	105.22	APO	151.42
RC	113.462	GL	-53.55	GP	58.27	ZAL	96.60	ZAP	115.56	ETS	45.41	ZAE	113.61	ETE	139.59	ZAC	153.49	ETC	240.33

V1	29.518	V2	35.174	CLP	-145.11														

PLANETOCENTRIC CONIC

C3	25.224	VHL	5.022	DLA	-69.78	RAL	204.26	RAO	6568.0	VEL	12.108	PTH	2.17	VHP	6.829	DPA	42.01	RAP	239.67
ECC	1.4151																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.12	3 1 32	1824.72	38.23	63.52	97.38	153.90	3 31 57	1224.7	45.31	58.94
156.88	13 28 20	5360.67	38.24	251.63	97.40	153.89	14 57 41	4760.7	45.32	247.06
23.12	3 1 32	1824.72	38.23	63.52	97.38	153.90	3 31 57	1224.7	45.31	58.94
156.88	13 28 20	5360.67	38.24	251.63	97.40	153.89	14 57 41	4760.7	45.32	247.06
23.12	3 1 32	1824.72	38.23	63.52	97.38	153.90	3 31 57	1224.7	45.31	58.94
156.88	13 28 20	5360.67	38.24	251.63	97.40	153.89	14 57 41	4760.7	45.32	247.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6562	TRA	-.5866	TC3	-1.9101	BAU	.6881	SGT	4075.7	SGR	1864.2	SG3	253.7	ST	3085.9	SR	1682.5
RDE	1.4715	RRA	.1123	RC3	.7178	FAU	.04323	RRT	-.9460	RRF	-.9896	RTF	.9661	CRT	-.9924	CRS	.9998
FDE	-2.1351	FRA	-.2066	FC3	-1.4838	BSP	14049	SGB	4481.8	R23	.1801	R13	-.9775	LSA	3793.5	MSA	209.2
BDE	3.0366	BRA	.5972	BC3	2.0405	FSP	-820	SG1	4447.5	SG2	553.7	THA	156.21	EL1	3510.1	EL2	182.0

SS	1442.4	V1	29.518
CST	-.9944	V2	35.164
SSA	5.3	CLP	-146.07
ALF	151.50		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 440.199

RL	150.95	LAL	.00	LOL	339.12	VL	26.880	GAL	-1.90	AZL	97.49	HCA	205.59	SMA	128.12	ECC	.18117	INC	7.4875
RP	107.77	LAP	3.23	LOP	184.52	VP	37.776	GAP	5.07	AZP	83.24	TAL	188.65	TAP	34.25	RCA	104.90	APO	151.33
RC	115.736	GL	-50.19	GP	53.46	ZAL	95.99	ZAP	119.61	ETS	45.34	ZAE	116.39	ETE	141.87	ZAC	149.53	ETC	244.55

V1	29.518	V2	35.164	CLP	-146.07														

PLANETOCENTRIC CONIC

C3	20.769	VHL	4.557	DLA	-67.63	RAL	212.01	RAO	6567.8	VEL	11.923	PTH	2.12	VHP	6.368	DPA	37.16	RAP	238.22
ECC	1.3418																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.61	3 37 53	1770.17	40.38	58.76	101.51	150.03	4 7 23	1170.2	47.17	53.31
154.39	13 53 48	5320.66	40.39	249.54	101.52	150.02	15 22 29	4720.7	47.18	244.09
25.61	3 37 53	1770.17	40.38	58.76	101.51	150.03	4 7 23	1170.2	47.17	53.31
154.39	13 53 48	5320.66	40.39	249.54	101.52	150.02	15 22 29	4720.7	47.18	244.09
25.61	3 37 53	1770.17	40.38	58.76	101.51	150.03	4 7 23	1170.2	47.17	53.31
154.39	13 53 48	5320.66	40.39	249.54	101.52	150.02	15 22 29	4720.7	47.18	244.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5696	TRA	-.4473	TC3	-2.4761	BAU	.7246	SGT	4208.8	SGR	1747.6	SG3	284.5	ST	3261.6	SR	1572.7
RDE	1.2504	RRA	.0406	RC3	.8246	FAU	.04867	RRT	-.9480	RRF	-.9882	RTF	.9652	CRT	-.9939	CRS	.9999
FDE	-2.1535	FRA	-.0939	FC3	-2.0289	BSP	14311	SGB	4557.2	R23	.1857	R13	-.9747	LSA	3911.1	MSA	192.6
BDE	2.8577	BRA	.4492	BC3	2.6098	FSP	-921	SG1	4527.8	SG2	516.9	THA	158.21	EL1	3617.6	EL2	157.0

SS	1490.7	V1	29.518
CST	-.9948	V2	35.153
SSA	6.3	CLP	-147.34
ALF	154.34		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 446.248

RL	150.95	LAL	.00	LOL	339.12	VL	26.848	GAL	-1.68	AZL	96.58	HCA	208.79	SMA	127.90	ECC	.18245	INC	6.5763
RP	107.80	LAP	3.16	LOP	187.75	VP	37.743	GAP	5.39	AZP	84.23	TAL	187.56	TAP	36.35	RCA	104.57	APO	151.24
RC	118.005	GL	-46.87	GP	49.07	ZAL	95.04	ZAP	123.48	ETS	45.33	ZAE	118.63	ETE	144.38	ZAC	145.80	ETC	247.52

V1	29.518	V2	35.153	CLP	-147.34														

PLANETOCENTRIC CONIC

C3	17.735	VHL	4.211	DLA	-65.39	RAL	218.99	RAO	6567.7	VEL	11.795	PTH	2.09	VHP	6.064	DPA	32.67	RAP	237.28
ECC	1.2919																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.24	4 11 38	1724.18	41.69	53.88	104.89	146.10	4 40 22	1124.2	48.15	47.62
151.76	14 15 43	5292.04	41.69	247.55	104.91	146.10	15 43 55	4692.0	48.15	241.29
28.24	4 11 38	1724.18	41.69	53.88	104.89	146.10	4 40 22	1124.2	48.15	47.62
151.76	14 15 43	5292.04	41.69	247.55	104.91	146.10	15 43 55	4692.0	48.15	241.29
28.24	4 11 38	1724.18	41.69	53.88	104.89	146.10	4 40 22	1124.2	48.15	47.62
151.76	14 15 43	5292.04	41.69	247.55	104.91	146.10	15 43 55	4692.0	48.15	241.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4585	TRA	-.3127	TC3	-3.0587	BAU	.7554	SGT	4343.8	SGR	1619.3	SG3	308.7	ST	3359.8	SR	1434.0
RDE	1.0538	RRA	-.0166	RC3	.8913	FAU	.05267	RRT	-.9489	RRF	-.9857	RTF	.9647	CRT	-.9947	CRS	1.0000
FDE	-2.0878	FRA	.0317	FC3	-2.5711	BSP	14582	SGB	4635.8	R23	.1866	R13	-.9724	LSA	3940.7	MSA	180.4
BDE	2.6749	BRA	.3131	BC3	3.1859	FSP	-1002	SG1	4610.7	SG2	481.6	THA	160.30	EL1	3650.6	EL2	135.6

SS	1488.8	V1	29.518
CST	-.9948	V2	35.153
SSA	7.4	CLP	-156.96
ALF	156.96		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 452.282

RL	150.95	LAL	.00	LOL	339.12	VL	26.815	GAL	-1.44	AZL	95.83	HCA	212.00	SMA	127.68	ECC	.18386	INC	5.8341
RP	107.84	LAP	3.09	LOP	190.98	VP	37.709	GAP	5.71	AZP	85.05	TAL	186.44	TAP	38.44	RCA	104.21	APO	151.16
RC	120.271	GL	-43.62	GP	45.09	ZAL	93.77	ZAP	127.12	ETS	45.29	ZAE	120.41	ETE	146.92	ZAC	142.37	ETC	249.69

PLANETOCENTRIC CONIC

C3	15.599	VHL	3.950	DLA	-63.08	RAL	225.32	RAD	6567.6	VEL	11.704	PTH	2.06	VHP	5.871	DPA	28.53	RAP	236.76

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.96	4 43 14	1684.65	42.31	49.01	107.78	142.25	5 11 19	1084.6	48.41	42.05
149.04	14 34 40	5272.75	42.31	245.77	107.79	142.24	16 2 33	4672.8	48.42	238.81
30.96	4 43 14	1684.65	42.31	49.01	107.78	142.25	5 11 19	1084.6	48.41	42.05
149.04	14 34 40	5272.75	42.31	245.77	107.79	142.24	16 2 33	4672.8	48.42	238.81
30.96	4 43 14	1684.65	42.31	49.01	107.78	142.25	5 11 19	1084.6	48.41	42.05
149.04	14 34 40	5272.75	42.31	245.77	107.79	142.24	16 2 33	4672.8	48.42	238.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3324	TRA	-.1790	TC3	-3.6390	BAU	.7829	SGT	4476.7	SGR	1491.8	SG3	326.0	ST	3389.1	SR	1288.4	SS	1445.7
RDE	.8871	RRA	-.0616	RC3	.9221	FAU	.05528	RRT	-.9486	RRF	-.9822	RTF	.9645	CRT	-.9953	CRS	.9999	CST	-.9944
FDE	-1.9610	FRA	.1631	FC3	-3.0683	BSP	14862	SGB	4718.7	R23	.1831	R13	-.9705	LSA	3899.6	MSA	171.3	SSA	8.5
BDE	2.4954	BRA	.1893	BC3	3.7540	FSP	-1062	SG1	4697.2	SG2	450.1	THA	162.29	EL1	3623.9	EL2	116.8	ALF	159.25

LAUNCH DATE SEP 2 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 458.301

RL	150.95	LAL	.00	LOL	339.12	VL	26.781	GAL	-1.20	AZL	95.21	HCA	215.21	SMA	127.46	ECC	.18538	INC	5.2144
RP	107.87	LAP	3.00	LOP	194.21	VP	37.674	GAP	6.02	AZP	85.74	TAL	185.28	TAP	40.49	RCA	103.83	APO	151.09
RC	122.531	GL	-40.45	GP	41.52	ZAL	92.21	ZAP	130.52	ETS	45.24	ZAE	121.79	ETE	149.40	ZAC	139.26	ETC	251.34

PLANETOCENTRIC CONIC

C3	14.067	VHL	3.751	DLA	-60.73	RAL	231.13	RAD	6567.6	VEL	11.638	PTH	2.04	VHP	5.758	DPA	24.73	RAP	236.60

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.74	5 13 12	1649.84	42.37	44.23	110.37	138.56	5 40 42	1049.8	48.11	36.72
146.26	14 51 5	5261.44	42.38	244.29	110.38	138.55	16 18 46	4661.4	48.12	236.77
33.74	5 13 12	1649.84	42.37	44.23	110.37	138.56	5 40 42	1049.8	48.11	36.72
146.26	14 51 5	5261.44	42.38	244.29	110.38	138.55	16 18 46	4661.4	48.12	236.77
33.74	5 13 12	1649.84	42.37	44.23	110.37	138.56	5 40 42	1049.8	48.11	36.72
146.26	14 51 5	5261.44	42.38	244.29	110.38	138.55	16 18 46	4661.4	48.12	236.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.1971	TRA	-.0445	TC3	-4.2007	BAU	.8088	SGT	4605.8	SGR	1371.3	SG3	336.9	ST	3357.9	SR	1147.9	SS	1370.4
RDE	.7490	RRA	-.0967	RC3	.9237	FAU	.05670	RRT	-.9471	RRF	-.9774	RTF	.9642	CRT	-.9958	CRS	.9997	CST	-.9937
FDE	-1.7935	FRA	.2942	FC3	-3.4898	BSP	15153	SGB	4805.6	R23	.1757	R13	-.9690	LSA	3800.6	MSA	164.9	SSA	9.8
BDE	2.3212	BRA	.1064	BC3	4.3010	FSP	-1101	SG1	4786.9	SG2	423.5	THA	164.13	EL1	3547.3	EL2	99.8	ALF	161.19

LAUNCH DATE SEP 2 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 464.301

RL	150.95	LAL	.00	LOL	339.12	VL	26.747	GAL	-.94	AZL	94.69	HCA	218.41	SMA	127.24	ECC	.18703	INC	4.6862
RP	107.91	LAP	2.91	LOP	197.44	VP	37.639	GAP	6.34	AZP	86.32	TAL	184.10	TAP	42.52	RCA	103.44	APO	151.04
RC	124.786	GL	-37.37	GP	38.31	ZAL	90.38	ZAP	133.68	ETS	45.17	ZAE	122.85	ETE	151.75	ZAC	136.49	ETC	252.65

PLANETOCENTRIC CONIC

C3	12.960	VHL	3.600	DLA	-58.35	RAL	236.52	RAD	6567.5	VEL	11.591	PTH	2.03	VHP	5.703	DPA	21.25	RAP	236.73

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.59	5 41 55	1618.48	41.99	39.60	112.81	135.09	6 8 54	1018.5	47.37	31.68
143.41	15 5 18	5257.12	42.00	243.18	112.82	135.09	16 32 56	4657.1	47.38	235.25
36.59	5 41 55	1618.48	41.99	39.60	112.81	135.09	6 8 54	1018.5	47.37	31.68
143.41	15 5 18	5257.12	42.00	243.18	112.82	135.09	16 32 56	4657.1	47.38	235.25
36.59	5 41 55	1618.48	41.99	39.60	112.81	135.09	6 8 54	1018.5	47.37	31.68
143.41	15 5 18	5257.12	42.00	243.18	112.82	135.09	16 32 56	4657.1	47.38	235.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0564	TRA	.0935	TC3	-4.7217	BAU	.8328	SGT	4727.5	SGR	1260.9	SG3	342.1	ST	3275.5	SR	1020.2	SS	1273.1
RDE	.6369	RRA	-.1242	RC3	.9006	FAU	.05702	RRT	-.9443	RRF	-.9712	RTF	.9641	CRT	-.9963	CRS	.9992	CST	-.9925
FDE	-1.6047	FRA	.4210	FC3	-3.8089	BSP	15452	SGB	4892.8	R23	.1646	R13	-.9677	LSA	3655.8	MSA	160.5	SSA	11.2
BDE	2.1528	BRA	.1555	BC3	4.8068	FSP	-1124	SG1	4876.2	SG2	402.4	THA	165.76	EL1	3429.7	EL2	83.6	ALF	162.75

LAUNCH DATE SEP 2 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 470.283

RL	150.95	LAL	.00	LOL	339.12	VL	26.712	GAL	-.67	AZL	94.23	HCA	221.62	SMA	127.01	ECC	.18882	INC	4.2281
RP	107.95	LAP	2.81	LOP	200.66	VP	37.602	GAP	6.66	AZP	86.84	TAL	182.90	TAP	44.52	RCA	103.03	APO	150.99
RC	127.036	GL	-34.37	GP	35.45	ZAL	88.33	ZAP	136.59	ETS	45.11	ZAE	123.65	ETE	153.92	ZAC	134.02	ETC	253.72

PLANETOCENTRIC CONIC

C3	12.169	VHL	3.488	DLA	-55.96	RAL	241.54	RAD	6567.5	VEL	11.557	PTH	2.02	VHP	5.693	DPA	18.08	RAP	237.12

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.48	6 9 42	1589.56	41.25	35.15	115.20	131.89	6 36 12	989.6	46.28	26.95
140.52	15 17 36	5259.15	41.26	242.49	115.22	131.88	16 45 15	4659.2	46.29	234.28
39.48	6 9 42	1589.56	41.25	35.15	115.20	131.89	6 36 12	989.6	46.28	26.95
140.52	15 17 36	5259.15	41.26	242.49	115.22	131.88	16 45 15	4659.2	46.29	234.28
39.48	6 9 42	1589.56	41.25	35.15	115.20	131.89	6 36 12	989.6	46.28	26.95
140.52	15 17 36	5259.15	41.26	242.49	115.22	131.88	16 45 15	4659.2	46.29	234.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9126	TRA	.2351	TC3	-5.1917	BAU	.8562	SGT	4843.9	SGR	1162.4	SG3	342.7	ST	3150.0	SR	907.6	SS	1161.6
RDE	.5469	RRA	-.1460	RC3	.8608	FAU	.05653	RRT	-.9400	RRF	-.9633	RTF	.9639	CRT	-.9970	CRS	.9980	CST	-.9906
FDE	-1.4074	FRA	.5406	FC3	-4.0217	BSP	15755	SGB	4981.5	R23	.1507	R13	-.9667	LSA	3474.3	MSA	158.2	SSA	12.7
BDE	1.9893	BRA	.2767	BC3	5.2625	FSP	-1132	SG1	4966.4	SG2	386.8	THA	167.21	EL1	3277.5	EL2	67.7	ALF	163.97

LAUNCH DATE SEP 2 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 476.247

RL	150.95	LAL	.00	LOL	339.12	VL	26.676	GAL	-.39	AZL	93.82	HCA	224.83	SMA	126.78	ECC	.19074	INC	3.8246	V1	29.518
RP	107.99	LAP	2.70	LOP	203.88	VP	37.565	GAP	6.97	AZP	87.29	TAL	181.67	TAP	46.50	RCA	102.60	APO	150.96	V2	35.093
RC	129.278	GL	-31.46	GP	32.90	ZAL	86.08	ZAP	139.28	ETS	45.07	ZAE	124.23	ETE	155.91	ZAC	131.84	ETC	254.63	CLP	-154.51

PLANETOCENTRIC CONIC

C3	11.623	VHL	3.409	DLA	-53.57	RAL	246.25	RAD	6567.4	VEL	11.533	PTH	2.01	VHP	5.718	DPA	15.18	RAP	237.73	ECC	1.1913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.42	6 36 51	1562.17	40.22	30.88	117.62	128.95	7 2 53	962.2	44.93	22.50
137.58	15 28 2	5267.24	40.23	242.25	117.63	128.94	16 55 50	4667.2	44.94	233.87
42.42	6 36 51	1562.17	40.22	30.88	117.62	128.95	7 2 53	962.2	44.93	22.50
137.58	15 28 2	5267.24	40.23	242.25	117.63	128.94	16 55 50	4667.2	44.94	233.87
42.42	6 36 51	1562.17	40.22	30.88	117.62	128.95	7 2 53	962.2	44.93	22.50
137.58	15 28 2	5267.24	40.23	242.25	117.63	128.94	16 55 50	4667.2	44.94	233.87

DIFFERENTIAL CORRECTIONS

TDE	-1.7633	TRA	.3867	TC3	-5.5786	BAU	.8758
RDE	.4742	RRA	-.1654	RC3	.8034	FAU	.05510
FDE	-1.2074	FRA	.6582	FC3	-4.1044	BSP	15947
BDE	1.8260	BRA	.4205	BC3	5.6361	FSP	-1117

MID-COURSE EXECUTION ACCURACY

SGT	4944.5	SGR	1074.3	SG3	339.3		
RRT	-.9333	RRF	-.9534	RTF	.9630		
SGB	5059.8	R23	.1375	R13	-.9652		
SG1	5045.7	SG2	378.1	THA	168.47		

ORBIT DETERMINATION ACCURACY

ST	2983.8	SR	809.3	SS	1040.5		
CRT	-.9978	CRS	.9954	CST	-.9875		
LSA	3258.1	MSA	159.4	SSA	14.3		
EL1	3091.1	EL2	51.9	ALF	164.85		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 482.190

RL	150.95	LAL	.00	LOL	339.12	VL	26.640	GAL	-.10	AZL	93.46	HCA	228.03	SMA	126.55	ECC	.19281	INC	3.4644	V1	29.518
RP	108.03	LAP	2.58	LOP	207.10	VP	37.528	GAP	7.29	AZP	87.68	TAL	180.42	TAP	48.45	RCA	102.15	APO	150.95	V2	35.080
RC	131.513	GL	-28.65	GP	30.63	ZAL	83.67	ZAP	141.75	ETS	45.07	ZAE	124.64	ETE	157.71	ZAC	129.92	ETC	255.41	CLP	-155.88

PLANETOCENTRIC CONIC

C3	11.275	VHL	3.358	DLA	-51.18	RAL	250.69	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	5.770	DPA	12.53	RAP	238.53	ECC	1.1856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.41	7 3 33	1535.61	38.96	26.77	120.09	126.28	7 29 9	935.6	43.36	18.31
134.59	15 36 44	5281.16	38.97	242.48	120.10	126.27	17 4 45	4681.2	43.37	234.02
45.41	7 3 33	1535.61	38.96	26.77	120.09	126.28	7 29 9	935.6	43.36	18.31
134.59	15 36 44	5281.16	38.97	242.48	120.10	126.27	17 4 45	4681.2	43.37	234.02
45.41	7 3 33	1535.61	38.96	26.77	120.09	126.28	7 29 9	935.6	43.36	18.31
134.59	15 36 44	5281.16	38.97	242.48	120.10	126.27	17 4 45	4681.2	43.37	234.02

DIFFERENTIAL CORRECTIONS

TDE	-1.6252	TRA	.5350	TC3	-5.9216	BAU	.8998
RDE	.4224	RRA	-.1778	RC3	.7548	FAU	.05395
FDE	-1.0371	FRA	.7526	FC3	-4.1422	BSP	16407
BDE	1.6792	BRA	.5638	BC3	5.9695	FSP	-1129

MID-COURSE EXECUTION ACCURACY

SGT	5062.2	SGR	1005.3	SG3	335.4		
RRT	-.9274	RRF	-.9423	RTF	.9646		
SGB	5161.1	R23	.1148	R13	-.9662		
SG1	5147.8	SG2	369.9	THA	169.51		

ORBIT DETERMINATION ACCURACY

ST	2810.0	SR	735.4	SS	934.9		
CRT	-.9989	CRS	.9906	CST	-.9842		
LSA	3047.2	MSA	158.2	SSA	15.9		
EL1	2904.4	EL2	34.0	ALF	165.35		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 488.112

RL	150.95	LAL	.00	LOL	339.12	VL	26.604	GAL	.21	AZL	93.14	HCA	231.24	SMA	126.31	ECC	.19504	INC	3.1390	V1	29.518
RP	108.07	LAP	2.45	LOP	210.31	VP	37.490	GAP	7.61	AZP	88.03	TAL	179.14	TAP	50.38	RCA	101.68	APO	150.95	V2	35.067
RC	133.740	GL	-25.94	GP	28.60	ZAL	81.14	ZAP	144.04	ETS	45.14	ZAE	124.93	ETE	159.32	ZAC	128.23	ETC	256.12	CLP	-157.21

PLANETOCENTRIC CONIC

C3	11.095	VHL	3.331	DLA	-48.80	RAL	254.87	RAD	6567.4	VEL	11.510	PTH	2.00	VHP	5.846	DPA	10.11	RAP	239.50	ECC	1.1826

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.43	7 30 2	1509.13	37.51	22.79	122.63	123.86	7 55 11	909.1	41.65	14.31
131.57	15 43 39	5301.00	37.52	243.21	122.64	123.85	17 12 0	4701.0	41.65	234.73
48.43	7 30 2	1509.13	37.51	22.79	122.63	123.86	7 55 11	909.1	41.65	14.31
131.57	15 43 39	5301.00	37.52	243.21	122.64	123.85	17 12 0	4701.0	41.65	234.73
48.43	7 30 2	1509.13	37.51	22.79	122.63	123.86	7 55 11	909.1	41.65	14.31
131.57	15 43 39	5301.00	37.52	243.21	122.64	123.85	17 12 0	4701.0	41.65	234.73

DIFFERENTIAL CORRECTIONS

TDE	-1.4665	TRA	.7064	TC3	-6.1267	BAU	.9143
RDE	.3726	RRA	-.1956	RC3	.6759	FAU	.05110
FDE	-.8393	FRA	.8674	FC3	-3.9876	BSP	16514
BDE	1.5131	BRA	.7330	BC3	6.1638	FSP	-1085

MID-COURSE EXECUTION ACCURACY

SGT	5140.5	SGR	935.2	SG3	326.4		
RRT	-.9147	RRF	-.9280	RTF	.9610		
SGB	5224.9	R23	.1098	R13	-.9624		
SG1	5211.6	SG2	372.9	THA	170.50		

ORBIT DETERMINATION ACCURACY

ST	2585.5	SR	659.2	SS	806.9		
CRT	-.9995	CRS	.9786	CST	-.9751		
LSA	2782.2	MSA	171.2	SSA	17.4		
EL1	2668.1	EL2	20.9	ALF	165.70		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 494.012

RL	150.95	LAL	.00	LOL	339.12	VL	26.567	GAL	.53	AZL	92.84	HCA	234.44	SMA	126.08	ECC	.19744	INC	2.8418	V1	29.518
RP	108.11	LAP	2.31	LOP	213.53	VP	37.452	GAP	7.93	AZP	88.35	TAL	177.84	TAP	52.29	RCA	101.19	APO	150.97	V2	35.054
RC	135.957	GL	-23.33	GP	26.79	ZAL	78.52	ZAP	146.16	ETS	45.28	ZAE	125.12	ETE	160.77	ZAC	126.74	ETC	256.77	CLP	-158.50

PLANETOCENTRIC CONIC

C3	11.063	VHL	3.326	DLA	-46.45	RAL	258.82	RAD	6567.4	VEL	11.509	PTH	2.00	VHP	5.940	DPA	7.89	RAP	240.63	ECC	1.1821

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.51	7 56 26	1482.10	35.93	18.90	125.26	121.69	8 21 8	882.1	39.81	10.45
128.49	15 48 45	5326.85	35.94	244.44	125.26	121.67	17 17 32	4726.9	39.82	235.99
51.51	7 56 26	1482.10	35.93	18.90	125.26	121.69	8 21 8	882.1	39.81	10.45
128.49	15 48 45	5326.85	35.94	244.44	125.26	121.67	17 17 32	4726.9	39.82	235.99
51.51	7 56 26	1482.10	35.93	18.90	125.26	121.69	8 21 8	882.1	39.81	10.45
128.49	15 48 45	5326.85	35.94	244.44	125.26	121.67	17 17 32	4726.9	39.82	235.99

DIFFERENTIAL CORRECTIONS

TDE	-1.3320	TRA	.8563	TC3	-6.3361	BAU	.9417
RDE	.3422	RRA	-.2026	RC3	.6296	FAU	.04972
FDE	-.6925	FRA	.9347	FC3	-3.8910	BSP	17068
BDE	1.3753	BRA	.8799	BC3	6.3673	FSP	-1084

MID-COURSE EXECUTION ACCURACY

SGT	5254.9	SGR	882.8	SG3	318.4		
RRT	-.9058	RRF	-.9130	RTF	.9629		
SGB	5328.5	R23	.0860	R13	-.9639		
SG1	5315.7	SG2	369.8	THA	171.31		

ORBIT DETERMINATION ACCURACY

ST	2386.1	SR	608.9	SS	711.3		
CRT	-.9993	CRS	.9607	CST	-.9669		
LSA	2557.1	MSA	176.1	SSA	18.7		
EL1	2462.4	EL2	22.7	ALF	165.69		

LAUNCH DATE SEP 2 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 499.891

```
RL  150.95 LAL    .00 LOL 339.12 VL  26.530 GAL    .87 AZL  92.57 HCA 237.64 SMA 125.84 ECC .20001 INC 2.5678 V1  29.518
RP  108.15 LAP   2.17 LOP 216.73 VP  37.413 GAP   8.26 AZP  88.62 TAL 176.53 TAP  54.17 RCA 100.67 APO 151.02 V2  35.041
RC 138.166 GL  -20.83 GP   25.17 ZAL  75.84 ZAP 148.11 ETS  45.50 ZAE 125.24 ETE 162.05 ZAC 125.43 ETC 257.38 CLP-159.75
```

PLANETOCENTRIC CONIC

```
C3  11.168 VHL  3.342 DLA -44.13 RAL 262.56 RAD 6567.4 VEL 11.513 PTH   2.01 VHP  6.051 DPA    5.84 RAP 241.88 ECC 1.1838
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.62	8 23 2	1453.75	34.25	15.06	127.96	119.73	8 47 16	853.8	37.91	6.66
125.38	15 51 58	5359.08	34.26	246.21	127.97	119.72	17 21 17	4759.1	37.92	237.81
54.62	8 23 2	1453.75	34.25	15.06	127.96	119.73	8 47 16	853.8	37.91	6.66
125.38	15 51 58	5359.08	34.26	246.21	127.97	119.72	17 21 17	4759.1	37.92	237.81
54.62	8 23 2	1453.75	34.25	15.06	127.96	119.73	8 47 16	853.8	37.91	6.66
125.38	15 51 58	5359.08	34.26	246.21	127.97	119.72	17 21 17	4759.1	37.92	237.81

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1727 TRA 1.0414 TC3-6.3651 BAU  .9540   SGT 5322.4 SGR  833.1 SG3  308.0     ST  2148.5 SR   559.0 SS   613.3
RDE  .3132 RRA -.2159 RC3  .5593 FAU .04680   RRT -.8914 RRF -.8953 RTF  .9613     CRT -.9964 CRS  .9212 CST -.9485
FDE -.5317 FRA 1.0254 FC3-3.6282 BSP  17086   SGB 5387.3 R23  .0752 R13 -.9621     LSA 2294.8 MSA  195.1 SSA   19.7
BDE 1.2139 BRA 1.0635 BC3 6.3896 FSP  -1034   SG1 5374.3 SG2  373.9 THA 172.02     EL1 2219.5 EL2   45.7 ALF 165.46
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LAUNCH DATE SEP 2 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 505.745

```
RL  150.95 LAL    .00 LOL 339.12 VL  26.493 GAL   1.22 AZL  92.31 HCA 240.84 SMA 125.61 ECC .20278 INC 2.3126 V1  29.518
RP  108.19 LAP   2.02 LOP 219.94 VP  37.374 GAP   8.59 AZP  88.87 TAL 175.20 TAP  56.04 RCA 100.14 APO 151.08 V2  35.028
RC 140.364 GL  -18.45 GP   23.72 ZAL  73.13 ZAP 149.93 ETS  45.82 ZAE 125.30 ETE 163.20 ZAC 124.28 ETC 257.96 CLP-160.96
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PLANETOCENTRIC CONIC

```
C3  11.402 VHL  3.377 DLA -41.85 RAL 266.09 RAD 6567.4 VEL 11.523 PTH   2.01 VHP  6.177 DPA    3.97 RAP 243.26 ECC 1.1876
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.79	8 50 1	1423.30	32.50	11.20	130.74	117.97	9 13 44	823.3	35.96	2.88
122.21	15 53 9	5398.12	32.51	248.52	130.75	117.96	17 23 7	4798.1	35.96	240.20
57.79	8 50 1	1423.30	32.50	11.20	130.74	117.97	9 13 44	823.3	35.96	2.88
122.21	15 53 9	5398.12	32.51	248.52	130.75	117.96	17 23 7	4798.1	35.96	240.20
57.79	8 50 1	1423.30	32.50	11.20	130.74	117.97	9 13 44	823.3	35.96	2.88
122.21	15 53 9	5398.12	32.51	248.52	130.75	117.96	17 23 7	4798.1	35.96	240.20

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.0227 TRA 1.2257 TC3-6.3416 BAU  .9697   SGT 5399.0 SGR  792.8 SG3  297.6     ST  1931.2 SR   521.5 SS   539.4
RDE  .2934 RRA -.2267 RC3  .4998 FAU .04421   RRT -.8765 RRF -.8765 RTF  .9608     CRT -.9880 CRS  .8573 CST -.9247
FDE -.3962 FRA 1.0997 FC3-3.3570 BSP  17298   SGB 5456.9 R23  .0627 R13 -.9614     LSA 2060.3 MSA  217.4 SSA   20.4
BDE 1.0640 BRA 1.2465 BC3 6.3613 FSP  -1001   SG1 5443.8 SG2  378.5 THA 172.63     EL1 1998.9 EL2   77.9 ALF 165.04
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LAUNCH DATE SEP 2 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 511.574

```
RL  150.95 LAL    .00 LOL 339.12 VL  26.456 GAL   1.59 AZL  92.07 HCA 244.04 SMA 125.38 ECC .20575 INC 2.0730 V1  29.518
RP  108.23 LAP   1.86 LOP 223.14 VP  37.335 GAP   8.93 AZP  89.09 TAL 173.85 TAP  57.89 RCA  99.58 APO 151.17 V2  35.014
RC 142.552 GL  -16.20 GP   22.42 ZAL  70.43 ZAP 151.62 ETS  46.25 ZAE 125.32 ETE 164.21 ZAC 123.25 ETC 258.53 CLP-162.14
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PLANETOCENTRIC CONIC

```
C3  11.764 VHL  3.430 DLA -39.64 RAL 269.42 RAD 6567.4 VEL 11.539 PTH   2.01 VHP  6.316 DPA    2.24 RAP 244.74 ECC 1.1936
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.02	9 17 39	1389.80	30.72	7.25	133.58	116.39	9 40 49	789.8	33.99	359.02
118.98	15 52 6	5444.66	30.73	251.43	133.59	116.38	17 22 51	4844.7	34.00	243.20
61.02	9 17 39	1389.80	30.72	7.25	133.58	116.39	9 40 49	789.8	33.99	359.02
118.98	15 52 6	5444.66	30.73	251.43	133.59	116.38	17 22 51	4844.7	34.00	243.20
61.02	9 17 39	1389.80	30.72	7.25	133.58	116.39	9 40 49	789.8	33.99	359.02
118.98	15 52 6	5444.66	30.73	251.43	133.59	116.38	17 22 51	4844.7	34.00	243.20

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.8740 TRA 1.4170 TC3-6.2484 BAU  .9852   SGT 5472.8 SGR  759.0 SG3  287.2     ST  1731.6 SR   491.5 SS   486.1
RDE  .2793 RRA -.2372 RC3  .4459 FAU .04168   RRT -.8604 RRF -.8568 RTF  .9605     CRT -.9690 CRS  .7605 CST -.8958
FDE -.2760 FRA 1.1673 FC3-3.0671 BSP  17518   SGB 5525.2 R23  .0516 R13 -.9610     LSA 1848.1 MSA  246.1 SSA   20.7
BDE  .9175 BRA 1.4368 BC3 6.2643 FSP   -968   SG1 5511.9 SG2  384.0 THA 173.16     EL1 1796.2 EL2  117.1 ALF 164.56
```

LAUNCH DATE SEP 2 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 517.376

```
RL  150.95 LAL    .00 LOL 339.12 VL  26.418 GAL   1.97 AZL  91.85 HCA 247.23 SMA 125.14 ECC .20895 INC 1.8463 V1  29.518
RP  108.27 LAP   1.70 LOP 226.34 VP  37.296 GAP   9.27 AZP  89.29 TAL 172.49 TAP  59.72 RCA  98.99 APO 151.29 V2  35.001
RC 144.730 GL  -14.06 GP   21.25 ZAL  67.74 ZAP 153.20 ETS  46.79 ZAE 125.32 ETE 165.11 ZAC 122.35 ETC 259.08 CLP-163.28
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PLANETOCENTRIC CONIC

```
C3  12.255 VHL  3.501 DLA -37.49 RAL 272.57 RAD 6567.5 VEL 11.560 PTH   2.02 VHP  6.467 DPA     .65 RAP 246.32 ECC 1.2017
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.33	9 46 23	1351.85	28.92	3.11	136.48	114.97	10 8 54	751.9	32.02	354.97
115.67	15 48 29	5499.83	28.93	255.01	136.49	114.96	17 20 9	4899.8	32.03	246.87
64.33	9 46 23	1351.85	28.92	3.11	136.48	114.97	10 8 54	751.9	32.02	354.97
115.67	15 48 29	5499.83	28.93	255.01	136.49	114.96	17 20 9	4899.8	32.03	246.87
64.33	9 46 23	1351.85	28.92	3.11	136.48	114.97	10 8 54	751.9	32.02	354.97
115.67	15 48 29	5499.83	28.93	255.01	136.49	114.96	17 20 9	4899.8	32.03	246.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.7258 TRA 1.6164 TC3-6.0908 BAU 1.0000   SGT 5541.9 SGR  730.0 SG3  276.6     ST  1558.2 SR   467.0 SS   453.1
RDE  .2695 RRA -.2478 RC3  .3966 FAU .03916   RRT -.8435 RRF -.8364 RTF  .9602     CRT -.9322 CRS  .6302 CST -.8670
FDE -.1684 FRA 1.2288 FC3-2.7666 BSP  17751   SGB 5589.7 R23  .0418 R13 -.9605     LSA 1664.9 MSA  281.0 SSA   20.6
BDE  .7742 BRA 1.6353 BC3 6.1037 FSP   -936   SG1 5576.1 SG2  389.7 THA 173.63     EL1 1618.5 EL2  162.8 ALF 164.23
```

LAUNCH DATE SEP 2 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 523.150

RL	150.95	LAL	.00	LOL	339.12	VL	26.381	GAL	2.38	AZL	91.63	HCA	250.43	SMA	124.91	ECC	.21238	INC	1.6301
RP	108.31	LAP	1.54	LOP	229.54	VP	37.257	GAP	9.62	AZP	89.45	TAL	171.11	TAP	61.54	RCA	98.38	APO	151.43
RC	146.899	GL	-12.06	GP	20.20	ZAL	65.11	ZAP	154.67	ETS	47.46	ZAE	125.29	ETE	165.92	ZAC	121.54	ETC	259.64

V1 29.518 V2 34.988 CLP-164.39

PLANETOCENTRIC CONIC

C3	12.879	VHL	3.589	DLA	-35.41	RAL	275.54	RAD	6567.5	VEL	11.587	PTH	2.03	VHP	6.630	DPA	-.82	RAP	247.98

ECC 1.2120

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.78	10 16 43	1307.65	27.12	358.63	139.43	113.70	10 38 31	707.7	30.08	350.58
112.22	15 41 50	5565.24	27.14	259.35	139.44	113.68	17 14 35	4965.2	30.09	251.30
67.78	10 16 43	1307.65	27.12	358.63	139.43	113.70	10 38 31	707.7	30.08	350.58
112.22	15 41 50	5565.24	27.14	259.35	139.44	113.68	17 14 35	4965.2	30.09	251.30
67.78	10 16 43	1307.65	27.12	358.63	139.43	113.70	10 38 31	707.7	30.08	350.58
112.22	15 41 50	5565.24	27.14	259.35	139.44	113.68	17 14 35	4965.2	30.09	251.30

DIFFERENTIAL CORRECTIONS

TOE	-.5771	TRA	1.8253	TC3	-5.8762	BAU	1.0136
ROE	.2633	RRA	-.2586	RC3	.3519	FAU	.03668
FDE	-.0723	FRA	1.2858	FC3	-2.4656	BSP	17978
BDE	.6343	BRA	1.8435	BC3	5.8868	FSP	-905

MID-COURSE EXECUTION ACCURACY

SGT	5605.6	SGR	705.0	SG3	266.2		
RRT	-.8258	RRF	-.8156	RTF	.9600		
SGB	5649.8	R23	.0335	R13	-.9602		
SG1	5635.9	SG2	395.4	THA	174.04		

ORBIT DETERMINATION ACCURACY

ST	1419.7	SR	447.0	SS	439.0
CRT	-.8686	CRS	.4781	CST	-.8491
LSA	1518.3	MSA	320.0	SSA	20.2
EL1	1473.0	EL2	213.5	ALF	164.37

LAUNCH DATE SEP 2 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 528.893

RL	150.95	LAL	.00	LOL	339.12	VL	26.343	GAL	2.80	AZL	91.42	HCA	253.62	SMA	124.67	ECC	.21607	INC	1.4225
RP	108.35	LAP	1.36	LOP	232.73	VP	37.219	GAP	9.98	AZP	89.60	TAL	169.73	TAP	63.34	RCA	97.74	APO	151.61
RC	149.057	GL	-10.19	GP	19.25	ZAL	62.53	ZAP	156.05	ETS	48.27	ZAE	125.24	ETE	166.63	ZAC	120.82	ETC	260.19

V1 29.518 V2 34.975 CLP-165.47

PLANETOCENTRIC CONIC

C3	13.643	VHL	3.694	DLA	-33.42	RAL	278.34	RAD	6567.5	VEL	11.620	PTH	2.04	VHP	6.806	DPA	-2.18	RAP	249.73

ECC 1.2245

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.45	10 49 41	1253.93	25.36	353.59	142.42	112.54	11 10 35	653.9	28.19	345.62
108.55	15 31 13	5643.95	25.37	264.67	142.43	112.53	17 5 17	5044.0	28.19	256.71
71.45	10 49 41	1253.93	25.36	353.59	142.42	112.54	11 10 35	653.9	28.19	345.62
108.55	15 31 13	5643.95	25.37	264.67	142.43	112.53	17 5 17	5044.0	28.19	256.71
110.00	14 45 36	5783.79	21.03	273.32	140.22	117.59	16 22 0	5183.8	24.55	265.94
110.00	16 34 29	5450.13	29.86	251.47	144.27	107.46	18 5 19	4850.1	31.96	242.89

DIFFERENTIAL CORRECTIONS

TOE	-.4276	TRA	2.0439	TC3	-5.6162	BAU	1.0260
ROE	.2600	RRA	-.2698	RC3	.3115	FAU	.03424
FDE	.0136	FRA	1.3390	FC3	-2.1727	BSP	18174
BDE	.5004	BRA	2.0616	BC3	5.6248	FSP	-873

MID-COURSE EXECUTION ACCURACY

SGT	5664.2	SGR	683.4	SG3	255.9		
RRT	-.8078	RRF	-.7949	RTF	.9597		
SGB	5705.3	R23	.0266	R13	-.9599		
SG1	5691.2	SG2	400.9	THA	174.41		

ORBIT DETERMINATION ACCURACY

ST	1324.4	SR	430.5	SS	440.1
CRT	-.7714	CRS	.3232	CST	-.8502
LSA	1415.8	MSA	358.2	SSA	19.7
EL1	1367.1	EL2	265.4	ALF	165.36

LAUNCH DATE SEP 2 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 534.603

RL	150.95	LAL	.00	LOL	339.12	VL	26.305	GAL	3.25	AZL	91.22	HCA	256.81	SMA	124.44	ECC	.22004	INC	1.2217
RP	108.39	LAP	1.19	LOP	235.92	VP	37.180	GAP	10.36	AZP	89.72	TAL	168.33	TAP	65.14	RCA	97.06	APO	151.83
RC	151.205	GL	-8.44	GP	18.39	ZAL	60.03	ZAP	157.34	ETS	49.23	ZAE	125.18	ETE	167.27	ZAC	120.18	ETC	260.74

V1 29.518 V2 34.962 CLP-166.53

PLANETOCENTRIC CONIC

C3	14.558	VHL	3.816	DLA	-31.52	RAL	280.98	RAD	6567.6	VEL	11.659	PTH	2.05	VHP	6.994	DPA	-3.43	RAP	251.54

ECC 1.2396

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.53	11 27 3	1184.81	23.63	347.53	145.45	111.49	11 46 48	584.8	26.34	339.64
104.47	15 14 54	5741.66	23.64	271.38	145.45	111.48	16 50 36	5141.7	26.35	263.49
75.53	11 27 3	1184.81	23.63	347.53	145.45	111.49	11 46 48	584.8	26.34	339.64
104.47	15 14 54	5741.66	23.64	271.38	145.45	111.48	16 50 36	5141.7	26.35	263.49
110.00	14 9 7	658.62	15.60	304.93	141.27	120.81	14 20 6	58.6	19.57	298.05
110.00	17 32 1	5315.85	32.21	241.71	148.38	102.13	19 0 37	4715.8	33.54	232.74

DIFFERENTIAL CORRECTIONS

TOE	-.2851	TRA	2.2652	TC3	-5.3408	BAU	1.0409
ROE	.2602	RRA	-.2805	RC3	.2778	FAU	.03210
FDE	.0848	FRA	1.3839	FC3	-1.9089	BSP	18544
BDE	.3860	BRA	2.2825	BC3	5.3480	FSP	-853

MID-COURSE EXECUTION ACCURACY

SGT	5719.9	SGR	664.6	SG3	245.6		
RRT	-.7899	RRF	-.7746	RTF	.9600		
SGB	5758.3	R23	.0203	R13	-.9602		
SG1	5744.0	SG2	405.9	THA	174.73		

ORBIT DETERMINATION ACCURACY

ST	1277.3	SR	418.0	SS	449.3
CRT	-.6472	CRS	.1896	CST	-.8700
LSA	1362.9	MSA	387.5	SSA	19.0
EL1	1307.4	EL2	311.3	ALF	167.31

LAUNCH DATE SEP 2 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 540.278

RL	150.95	LAL	.00	LOL	339.12	VL	26.268	GAL	3.71	AZL	91.03	HCA	259.99	SMA	124.21	ECC	.22431	INC	1.0262
RP	108.43	LAP	1.01	LOP	239.11	VP	37.141	GAP	10.74	AZP	89.82	TAL	166.93	TAP	66.92	RCA	96.35	APO	152.08
RC	153.343	GL	-6.82	GP	17.61	ZAL	57.62	ZAP	158.56	ETS	50.35	ZAE	125.12	ETE	167.84	ZAC	119.60	ETC	261.29

V1 29.518 V2 34.949 CLP-167.56

PLANETOCENTRIC CONIC

C3	15.636	VHL	3.954	DLA	-29.71	RAL	283.47	RAD	6567.6	VEL	11.706	PTH	2.06	VHP	7.194	DPA	-4.58	RAP	253.41

ECC 1.2573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.60	12 14 3	1083.28	21.96	339.24	148.50	110.54	12 32 6	483.3	24.55	331.41
99.40	14 47 46	5875.19	21.97	280.68	148.51	110.52	16 25 41	5275.2	24.57	272.86
100.00	14 24 50	660.46	19.88	307.33	147.62	112.80	14 35 51	60.5	22.79	299.75
100.00	15 19 40	5773.25	24.08	273.92	149.32	108.27	16 55 53	5173.3	26.35	265.86
110.00	13 49 33	771.78	11.56	311.20	143.11	122.39	14 2 25	171.8	15.76	304.61
110.00	18 11 27	5234.69	33.20	235.59	151.80	98.64	19 38 41	4634.7	34.04	226.45

DIFFERENTIAL CORRECTIONS

TOE	-.1279	TRA	2.5107	TC3	-5.0038	BAU	1.0472
ROE	.2606	RRA	-.2933	RC3	.2426	FAU	.02956
FDE	.1578	FRA	1.4351	FC3	-1.6368	BSP	18573
BDE	.2903	BRA	2.5278	BC3	5.0096	FSP	-812

MID-COURSE EXECUTION ACCURACY

SGT	5765.4	SGR	647.2	SG3	236.0		
RRT	-.7716	RRF	-.7545	RTF	.9595		
SGB	5801.6	R23	.0163	R13	-.9596		
SG1	5787.1	SG2	410.1	THA	175.02		

ORBIT DETERMINATION ACCURACY

ST	1275.7	SR	405.1	SS	469.1
CRT	-.4936	CRS	.0633	CST	-.8982
LSA	1358.4	MSA	407.6	SSA	18.4
EL1	1292.6	EL2	347.8	ALF	170.39

LAUNCH DATE SEP 2 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 545.914

RL	150.95	LAL	.00	LOL	339.12	VL	26.231	GAL	4.20	AZL	90.83	HCA	263.18	SMA	123.99	ECC	.22892	INC	.8347
RP	108.47	LAP	.83	LOP	242.29	VP	37.103	GAP	11.14	AZP	89.90	TAL	165.52	TAP	68.70	RCA	95.60	APO	152.37
RC	155.470	GL	-5.32	GP	16.90	ZAL	55.31	ZAP	159.69	ETS	51.64	ZAE	125.05	ETE	168.35	ZAC	119.07	ETC	261.85

PLANETOCENTRIC CONIC

C3	16.893	VHL	4.110	DLA	-28.00	RAL	285.81	RAD	6567.7	VEL	11.759	PTH	2.08	VHP	7.407	DPA	-5.64	RAP	255.35

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 3 2	973.76	17.58	329.37	150.46	112.56	13 19 16	373.8	20.49	321.90
90.00	14 17 29	731.94	23.16	313.84	152.59	106.76	14 29 41	131.9	25.24	305.79
100.00	13 32 29	878.54	13.61	320.49	148.56	116.87	13 47 7	278.5	17.11	313.44
100.00	16 30 44	5590.43	27.39	261.36	153.80	102.46	18 3 54	4990.4	28.83	252.85
110.00	13 36 22	866.34	8.07	316.29	145.29	123.33	13 50 48	266.3	12.40	309.87
110.00	18 43 20	5175.40	33.72	231.04	155.00	95.99	20 9 35	4575.4	34.18	221.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0254	TRA	2.7625	TC3	-4.6648	BAU	1.0546	SGT	5807.5	SGR	631.4	SG3	226.6	ST	1313.9	SR	394.8	SS	490.3
RDE	.2634	RRA	-.3058	RC3	.2128	FAU	.02727	RRT	-.7538	RRF	-.7351	RTF	.9593	CRT	-.3415	CRS	-.0355	CST	-.9263
FDE	.2198	FRA	1.4806	FC3	-1.3974	BSP	18712	SGB	5841.7	R23	.0127	R13	-.9594	LSA	1397.0	MSA	413.3	SSA	17.8
BDE	.2647	BRA	2.7793	BC3	4.6696	FSP	-780	SG1	5827.1	SG2	413.5	THA	175.29	EL1	1321.4	EL2	369.0	ALF	173.64

LAUNCH DATE SEP 2 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 551.504

RL	150.95	LAL	.00	LOL	339.12	VL	26.193	GAL	4.72	AZL	90.65	HCA	266.36	SMA	123.76	ECC	.23389	INC	.6459
RP	108.51	LAP	.64	LOP	245.48	VP	37.065	GAP	11.56	AZP	89.96	TAL	164.12	TAP	70.48	RCA	94.81	APO	152.71
RC	157.587	GL	-3.94	GP	16.25	ZAL	53.09	ZAP	160.76	ETS	53.13	ZAE	124.97	ETE	168.81	ZAC	118.58	ETC	262.42

PLANETOCENTRIC CONIC

C3	18.348	VHL	4.283	DLA	-26.38	RAL	288.02	RAD	6567.7	VEL	11.821	PTH	2.09	VHP	7.635	DPA	-6.61	RAP	257.33

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 17 16	1173.12	11.99	341.33	151.79	115.84	12 36 50	573.1	15.37	334.29
90.00	15 20 51	5858.95	25.89	280.74	156.79	101.90	16 58 30	5259.0	27.27	272.35
100.00	13 9 15	1005.27	9.60	327.76	150.54	118.45	13 26 0	405.3	13.33	320.95
100.00	17 11 34	5502.04	28.53	255.04	157.35	99.32	18 43 16	4902.0	29.52	246.37
110.00	13 26 45	950.35	4.90	320.74	147.68	123.87	13 42 35	350.3	9.31	314.43
110.00	19 10 33	5129.73	33.99	227.50	158.09	93.91	20 36 3	4529.7	34.15	218.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1543	TRA	2.9999	TC3	-4.3769	BAU	1.0747	SGT	5845.1	SGR	617.2	SG3	216.6	ST	1364.2	SR	388.9	SS	501.6
RDE	.2708	RRA	-.3158	RC3	.1931	FAU	.02583	RRT	-.7367	RRF	-.7169	RTF	.9606	CRT	-.2184	CRS	-.1013	CST	-.9480
FDE	.2595	FRA	1.5088	FC3	-1.2190	BSP	19472	SGB	5877.6	R23	.0083	R13	-.9607	LSA	1447.5	MSA	410.1	SSA	17.0
BDE	.3117	BRA	3.0165	BC3	4.3811	FSP	-783	SG1	5862.8	SG2	416.1	THA	175.53	EL1	1367.0	EL2	378.7	ALF	176.14

LAUNCH DATE SEP 2 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 557.052

RL	150.95	LAL	.00	LOL	339.12	VL	26.156	GAL	5.27	AZL	90.46	HCA	269.54	SMA	123.54	ECC	.23926	INC	.4585
RP	108.54	LAP	.46	LOP	248.66	VP	37.028	GAP	11.99	AZP	90.00	TAL	162.70	TAP	72.24	RCA	93.98	APO	153.09
RC	159.692	GL	-2.67	GP	15.67	ZAL	50.98	ZAP	161.76	ETS	54.83	ZAE	124.88	ETE	169.22	ZAC	118.14	ETC	262.99

PLANETOCENTRIC CONIC

C3	20.024	VHL	4.475	DLA	-24.85	RAL	290.10	RAD	6567.8	VEL	11.891	PTH	2.11	VHP	7.877	DPA	-7.50	RAP	259.36

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 54 47	1298.41	8.18	348.56	153.90	117.20	12 16 26	698.4	11.76	341.71
90.00	15 59 57	5774.96	26.93	274.81	160.31	99.10	17 36 12	5175.0	27.91	266.29
100.00	12 53 50	1107.79	6.23	333.50	152.84	119.30	13 12 18	507.8	10.08	326.83
100.00	17 43 35	5440.80	29.13	250.58	160.67	97.05	19 14 16	4840.8	29.79	241.84
110.00	13 19 28	1027.40	1.96	324.77	150.20	124.13	13 36 35	427.4	6.43	318.53
110.00	19 34 27	5093.96	34.12	224.72	161.15	92.27	20 59 21	4494.0	34.05	215.47

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3361	TRA	3.3009	TC3	-3.9772	BAU	1.0656	SGT	5878.0	SGR	602.4	SG3	208.8	ST	1466.0	SR	377.4	SS	532.7
RDE	.2736	RRA	-.3316	RC3	.1629	FAU	.02298	RRT	-.7194	RRF	-.6988	RTF	.9595	CRT	-.0829	CRS	-.1778	CST	-.9653
FDE	.3247	FRA	1.5654	FC3	-.9937	BSP	18999	SGB	5908.8	R23	.0071	R13	-.9596	LSA	1554.4	MSA	398.7	SSA	16.5
BDE	.4334	BRA	3.3176	BC3	3.9805	FSP	-722	SG1	5894.0	SG2	417.3	THA	175.76	EL1	1466.4	EL2	376.0	ALF	178.69

LAUNCH DATE SEP 2 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 562.544

RL	150.95	LAL	.00	LOL	339.12	VL	26.119	GAL	5.84	AZL	90.27	HCA	272.72	SMA	123.31	ECC	.24507	INC	.2714
RP	108.58	LAP	.27	LOP	251.84	VP	36.991	GAP	12.45	AZP	90.01	TAL	161.30	TAP	74.01	RCA	93.09	APO	153.53
RC	161.784	GL	-1.51	GP	15.13	ZAL	48.97	ZAP	162.70	ETS	56.76	ZAE	124.79	ETE	169.60	ZAC	117.72	ETC	263.56

PLANETOCENTRIC CONIC

C3	21.948	VHL	4.685	DLA	-23.42	RAL	292.06	RAD	6567.9	VEL	11.972	PTH	2.13	VHP	8.136	DPA	-8.31	RAP	261.42

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 39 33	1400.69	4.95	354.35	156.29	117.92	12 2 54	800.7	8.65	347.62
90.00	16 30 48	5716.71	27.49	270.64	163.64	97.08	18 6 5	5116.7	28.18	262.05
100.00	12 42 31	1197.43	3.22	338.45	155.34	119.73	13 2 29	597.4	7.15	331.87
100.00	18 10 31	5395.20	29.46	247.23	163.88	95.31	19 40 26	4795.2	29.88	238.45
110.00	13 13 48	1099.36	-.79	328.52	152.84	124.18	13 32 7	499.4	3.70	322.32
110.00	19 55 44	5066.03	34.17	222.54	164.18	90.98	21 20 10	4466.0	33.93	213.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4947	TRA	3.5900	TC3	-3.6384	BAU	1.0684	SGT	5905.9	SGR	588.5	SG3	200.5	ST	1561.0	SR	369.7	SS	552.3
RDE	.2805	RRA	-.3447	RC3	.1417	FAU	.02096	RRT	-.7030	RRF	-.6817	RTF	.9598	CRT	.0161	CRS	-.2289	CST	-.9765
FDE	.3697	FRA	1.6061	FC3	-.8270	BSP	19132	SGB	5935.2	R23	.0051	R13	-.9599	LSA	1652.1	MSA	385.8	SSA	16.0
BDE	.5687	BRA	3.6065	BC3	3.6411	FSP	-695	SG1	5920.5	SG2	417.5	THA	175.97	EL1	1561.1	EL2	369.6	ALF	.23

LAUNCH DATE SEP 2 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 567.977

RL	150.95	LAL	.00	LOL	339.12	VL	26.082	GAL	6.45	AZL	90.08	HCA	275.89	SMA	123.09	ECC	.25135	INC	.0825
RP	108.61	LAP	.08	LOP	255.01	VP	36.955	GAP	12.93	AZP	90.01	TAL	159.89	TAP	75.79	RCA	92.15	APO	154.03
RC	163.865	GL	-.44	GP	14.64	ZAL	47.07	ZAP	163.57	ETS	58.93	ZAE	124.70	ETE	169.94	ZAC	117.33	ETC	264.14

V1 29.518 V2 34.890 CLP-172.48

PLANETOCENTRIC CONIC

C3	24.153	VHL	4.915	DLA	-22.07	RAL	293.90	RAD	6568.0	VEL	12.064	PTH	2.16	VHP	8.412	DPA	-9.04	RAP	263.53

ECC 1.3975

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 28 13	1490.45	2.08	359.37	158.86	118.25	11 53 4	890.4	5.84	352.71
90.00	16 56 50	5673.58	27.81	267.53	166.87	95.56	18 31 24	5073.6	28.29	258.90
100.00	12 33 48	1278.78	.46	342.92	157.96	119.89	12 55 7	678.8	4.44	336.39
100.00	18 33 56	5360.49	29.65	244.67	167.04	93.98	20 3 17	4760.5	29.89	235.87
110.00	13 9 20	1167.42	-3.39	332.08	155.56	124.04	13 28 47	567.4	1.10	325.87
110.00	20 14 54	5044.61	34.18	220.86	167.23	89.99	21 38 59	4444.6	33.80	211.64

DIFFERENTIAL CORRECTIONS

TDE	.6566	TRA	3.8934	TC3	-3.3080	BAU	1.0689
RDE	.2883	RRA	-.3578	RC3	.1227	FAU	.01902
FDE	.4108	FRA	1.6462	FC3	-.6819	BSP	19257
BDE	.7172	BRA	3.9098	BC3	3.3103	FSP	-668

MID-COURSE EXECUTION ACCURACY

SGT	5928.7	SGR	574.6	SG3	192.6		
RRT	-.6868	RRF	-.6654	RTF	.9603		
SGB	5956.4	R23	.0035	R13	-.9604		
SG1	5941.8	SG2	416.7	THA	176.17		

ORBIT DETERMINATION ACCURACY

ST	1659.7	SR	362.3	SS	570.3
CRT	.0973	CRS	-.2709	CST	-.9840
LSA	1752.9	MSA	372.1	SSA	15.4
EL1	1660.1	EL2	360.4	ALF	1.28

LAUNCH DATE SEP 2 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 573.342

RL	150.95	LAL	.00	LOL	339.12	VL	26.046	GAL	7.10	AZL	89.89	HCA	279.07	SMA	122.88	ECC	.25818	INC	.1058
RP	108.65	LAP	-.11	LOP	258.19	VP	36.919	GAP	13.43	AZP	89.98	TAL	158.50	TAP	77.57	RCA	91.15	APO	154.60
RC	165.932	GL	.53	GP	14.20	ZAL	45.27	ZAP	164.38	ETS	61.39	ZAE	124.60	ETE	170.25	ZAC	116.97	ETC	264.73

V1 29.518 V2 34.880 CLP-173.43

PLANETOCENTRIC CONIC

C3	26.677	VHL	5.165	DLA	-20.81	RAL	295.63	RAD	6568.1	VEL	12.168	PTH	2.18	VHP	8.708	DPA	-9.70	RAP	265.65

ECC 1.4390

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 19 24	1572.02	-.56	3.92	161.53	118.31	11 45 36	972.0	3.23	357.29
90.00	17 19 29	5641.08	28.00	265.17	170.05	94.39	18 53 30	5041.1	28.32	256.52
100.00	12 26 53	1354.19	-2.09	347.06	160.68	119.83	12 49 28	754.2	1.89	340.54
100.00	18 54 41	5334.14	29.76	242.72	170.18	92.96	20 23 35	4734.1	29.85	233.92
110.00	13 5 46	1232.33	-5.85	335.49	158.35	123.74	13 26 19	632.3	-1.38	329.26
110.00	20 32 17	5028.77	34.18	219.63	170.28	89.26	21 56 6	4428.8	33.70	210.42

DIFFERENTIAL CORRECTIONS

TDE	.8209	TRA	4.2112	TC3	-2.9914	BAU	1.0676
RDE	.2971	RRA	-.3707	RC3	.1057	FAU	.01718
FDE	.4479	FRA	1.6857	FC3	-.5575	BSP	19402
BDE	.8731	BRA	4.2275	BC3	2.9933	FSP	-644

MID-COURSE EXECUTION ACCURACY

SGT	5946.0	SGR	560.5	SG3	184.9		
RRT	-.6709	RRF	-.6496	RTF	.9610		
SGB	5972.3	R23	.0022	R13	-.9610		
SG1	5957.9	SG2	414.8	THA	176.36		

ORBIT DETERMINATION ACCURACY

ST	1756.6	SR	355.1	SS	586.4
CRT	.1635	CRS	-.3054	CST	-.9890
LSA	1851.2	MSA	358.5	SSA	14.9
EL1	1757.6	EL2	350.1	ALF	1.97

LAUNCH DATE SEP 2 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 578.631

RL	150.95	LAL	.00	LOL	339.12	VL	26.010	GAL	7.79	AZL	89.70	HCA	282.24	SMA	122.66	ECC	.26559	INC	.2994
RP	108.68	LAP	-.29	LOP	261.36	VP	36.883	GAP	13.97	AZP	89.94	TAL	157.12	TAP	79.35	RCA	90.09	APO	155.24
RC	167.985	GL	1.42	GP	13.79	ZAL	43.57	ZAP	165.13	ETS	64.13	ZAE	124.49	ETE	170.53	ZAC	116.61	ETC	265.32

V1 29.518 V2 34.869 CLP-174.38

PLANETOCENTRIC CONIC

C3	29.569	VHL	5.438	DLA	-19.63	RAL	297.26	RAD	6568.2	VEL	12.286	PTH	2.21	VHP	9.026	DPA	-10.29	RAP	267.81

ECC 1.4866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 12 19	1647.67	-2.99	8.14	164.30	118.17	11 39 47	1047.7	.80	1.51
90.00	17 39 34	5616.75	28.12	263.40	173.21	93.51	19 13 10	5016.8	28.31	254.74
100.00	12 21 18	1425.07	-4.49	350.96	163.47	119.58	12 45 3	825.1	-.51	344.42
100.00	19 13 16	5314.58	29.82	241.27	173.31	92.19	20 41 51	4714.6	29.80	232.46
110.00	13 2 55	1294.64	-8.19	338.79	161.19	123.30	13 24 30	694.6	-3.76	332.51
110.00	20 48 8	5017.78	34.16	218.77	173.35	88.75	22 11 46	4417.8	33.61	209.57

DIFFERENTIAL CORRECTIONS

TDE	.9884	TRA	4.5450	TC3	-2.6899	BAU	1.0640
RDE	.3069	RRA	-.3832	RC3	.0905	FAU	.01542
FDE	.4819	FRA	1.7252	FC3	-.4513	BSP	19564
BDE	1.0350	BRA	4.5612	BC3	2.6915	FSP	-622

MID-COURSE EXECUTION ACCURACY

SGT	5957.9	SGR	545.9	SG3	177.6		
RRT	-.6552	RRF	-.6342	RTF	.9619		
SGB	5982.8	R23	.0013	R13	-.9619		
SG1	5968.6	SG2	411.7	THA	176.55		

ORBIT DETERMINATION ACCURACY

ST	1849.1	SR	348.0	SS	600.7
CRT	.2180	CRS	-.3345	CST	-.9923
LSA	1944.6	MSA	345.4	SSA	14.4
EL1	1850.7	EL2	339.3	ALF	2.43

LAUNCH DATE SEP 2 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 583.832

RL	150.95	LAL	.00	LOL	339.12	VL	25.974	GAL	8.52	AZL	89.50	HCA	285.41	SMA	122.45	ECC	.27367	INC	.4974
RP	108.71	LAP	-.48	LOP	264.53	VP	36.849	GAP	14.55	AZP	89.87	TAL	155.75	TAP	81.16	RCA	88.94	APO	155.96
RC	170.025	GL	2.23	GP	13.41	ZAL	41.97	ZAP	165.81	ETS	67.20	ZAE	124.36	ETE	170.80	ZAC	116.28	ETC	265.91

V1 29.518 V2 34.859 CLP-175.33

PLANETOCENTRIC CONIC

C3	32.884	VHL	5.734	DLA	-18.54	RAL	298.79	RAD	6568.3	VEL	12.420	PTH	2.24	VHP	9.369	DPA	-10.81	RAP	269.98

ECC 1.5412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 6 32	1718.76	-5.27	12.13	167.13	117.86	11 35 11	1118.8	-1.50	5.48
90.00	17 57 33	5599.06	28.18	262.11	176.36	92.86	19 30 52	4999.1	28.28	253.45
100.00	12 16 42	1492.33	-6.74	354.69	166.33	119.19	12 41 34	892.3	-2.79	348.12
100.00	19 30 4	5300.72	29.85	240.24	176.43	91.65	20 58 24	4700.7	29.76	231.44
110.00	13 0 37	1354.72	-10.42	342.01	164.09	122.74	13 23 12	754.7	-6.03	335.67
110.00	21 2 38	5011.10	34.15	218.25	176.44	88.44	22 26 9	4411.1	33.56	209.05

DIFFERENTIAL CORRECTIONS

TDE	1.1603	TRA	4.8964	TC3	-2.4046	BAU	1.0577
RDE	.3174	RRA	-.3952	RC3	.0768	FAU	.01374
FDE	.5134	FRA	1.7652	FC3	-.3616	BSP	19734
BDE	1.2029	BRA	4.9124	BC3	2.4059	FSP	-602

MID-COURSE EXECUTION ACCURACY

SGT	5964.5	SGR	530.8	SG3	170.5		
RRT	-.6394	RRF	-.6191	RTF	.9630		
SGB	5988.1	R23	.0006	R13	-.9631		
SG1	5974.2	SG2	407.5	THA	176.73		

ORBIT DETERMINATION ACCURACY

ST	1935.7	SR	340.8	SS	613.7
CRT	.2637	CRS	-.3596	CST	-.9946
LSA	2032.0	MSA	332.9	SSA	13.9
EL1	1937.9	EL2	328.4	ALF	2.74

LAUNCH DATE SEP 2 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 588.932
RL 150.95 LAL .00 LOL 339.12 VL 25.938 GAL 9.30 AZL 89.30 HCA 288.58 SMA 122.25 ECC .28248 INC .7013 V1 29.518
RP 108.74 LAP -.66 LOP 267.70 VP 36.815 GAP 15.16 AZP 89.78 TAL 154.41 TAP 82.98 RCA 87.71 APO 156.78 V2 34.850
RC 172.049 GL 2.97 GP 13.07 ZAL 40.48 ZAP 166.42 ETS 70.61 ZAE 124.23 ETE 171.04 ZAC 115.95 ETC 266.50 CLP-176.88
PLANETOCENTRIC CONIC
C3 36.689 VHL 6.057 DLA -17.51 RAL 300.23 RAD 6568.4 VEL 12.572 PTH 2.28 VHP 9.739 DPA -11.26 RAP 272.16 ECC 1.6038

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 1 44	1786.17	-7.40	15.94	170.02	117.41	11 31 30	1186.2	-3.67	9.25
90.00	18 13 47	5586.93	28.22	261.22	179.49	92.42	19 46 54	4986.9	28.26	252.56
100.00	12 12 53	1556.56	-8.85	358.28	169.24	118.67	12 38 50	956.6	-4.96	351.66
100.00	19 45 18	5291.76	29.87	239.57	179.55	91.30	21 13 30	4691.8	29.73	230.77
110.00	12 58 46	1412.84	-12.54	345.18	167.03	122.06	13 22 18	812.8	-8.22	338.75
110.00	21 15 55	5008.25	34.15	218.02	179.53	88.31	22 39 24	4408.2	33.54	208.84

DIFFERENTIAL CORRECTIONS
TDE 1.3372 TRA 5.2676 TC3-2.1355 BAU 1.0479
RDE .3286 RRA -.4064 RC3 .0645 FAU .01211
FDE .5430 FRA 1.8064 FC3 -.2858 BSP 19908
BDE 1.3770 BRA 5.2833 BC3 2.1365 FSP -582

MID-COURSE EXECUTION ACCURACY
SGT 5965.9 SGR 515.0 SG3 163.8
RRT -.6233 RRF -.6039 RTF .9644
SGB 5988.1 R23 .0001 R13 -.9644
SG1 5974.6 SG2 402.1 THA 176.91

ORBIT DETERMINATION ACCURACY
ST 2015.7 SR 333.6 SS 625.6
CRT .3026 CRS -.3816 CST -.9962
LSA 2112.5 MSA 320.8 SSA 13.5
EL1 2018.3 EL2 317.5 ALF 2.94

LAUNCH DATE SEP 2 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 593.914
RL 150.95 LAL .00 LOL 339.12 VL 25.903 GAL 10.14 AZL 89.09 HCA 291.74 SMA 122.04 ECC .29211 INC .9128 V1 29.518
RP 108.77 LAP -.85 LOP 270.86 VP 36.782 GAP 15.83 AZP 89.66 TAL 153.09 TAP 84.83 RCA 86.39 APO 157.69 V2 34.841
RC 174.060 GL 3.64 GP 12.75 ZAL 39.08 ZAP 166.96 ETS 74.37 ZAE 124.08 ETE 171.27 ZAC 115.63 ETC 267.09 CLP-177.24
PLANETOCENTRIC CONIC
C3 41.067 VHL 6.408 DLA -16.56 RAL 301.57 RAD 6568.6 VEL 12.745 PTH 2.32 VHP 10.139 DPA -11.65 RAP 274.35 ECC 1.6759

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 57 42	1850.49	-9.40	19.61	172.95	116.84	11 28 33	1250.5	-5.72	12.86
90.00	18 28 30	5579.57	28.24	260.69	182.61	92.15	20 1 29	4979.6	28.24	252.02
100.00	12 9 42	1618.21	-10.84	1.77	172.18	118.03	12 36 40	1018.2	-7.01	355.08
100.00	19 59 12	5287.08	29.87	239.23	182.66	91.12	21 27 19	4687.1	29.71	230.42
110.00	12 57 15	1469.21	-14.56	348.30	170.02	121.27	13 21 44	869.2	-10.31	341.78
110.00	21 28 7	5008.85	34.15	218.07	182.64	88.34	22 51 36	4408.8	33.54	208.88

DIFFERENTIAL CORRECTIONS
TDE 1.5211 TRA 5.6612 TC3-1.8820 BAU 1.0337
RDE .3405 RRA -.4167 RC3 .0533 FAU .01052
FDE .5717 FRA 1.8498 FC3 -.2218 BSP 20066
BDE 1.5588 BRA 5.6766 BC3 1.8828 FSP -563

MID-COURSE EXECUTION ACCURACY
SGT 5962.7 SGR 498.4 SG3 157.4
RRT -.6067 RRF -.5885 RTF .9658
SGB 5983.5 R23 -.0001 R13 -.9659
SG1 5970.4 SG2 395.7 THA 177.08

ORBIT DETERMINATION ACCURACY
ST 2089.1 SR 326.0 SS 637.3
CRT .3365 CRS -.4016 CST -.9973
LSA 2186.7 MSA 308.9 SSA 13.0
EL1 2092.1 EL2 306.6 ALF 3.07

LAUNCH DATE SEP 2 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 598.758
RL 150.95 LAL .00 LOL 339.12 VL 25.869 GAL 11.04 AZL 88.87 HCA 294.91 SMA 121.84 ECC .30267 INC 1.1338 V1 29.518
RP 108.79 LAP -1.03 LOP 274.03 VP 36.750 GAP 16.54 AZP 89.52 TAL 151.81 TAP 86.71 RCA 84.96 APO 158.72 V2 34.833
RC 176.055 GL 4.24 GP 12.46 ZAL 37.77 ZAP 167.41 ETS 78.50 ZAE 123.91 ETE 171.48 ZAC 115.31 ETC 267.68 CLP-178.21
PLANETOCENTRIC CONIC
C3 46.118 VHL 6.791 DLA -15.68 RAL 302.82 RAD 6568.7 VEL 12.941 PTH 2.36 VHP 10.574 DPA -11.98 RAP 276.53 ECC 1.7590

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 54 18	1912.11	-11.27	23.17	175.91	116.15	11 26 10	1312.1	-7.66	16.35
90.00	18 41 53	5576.36	28.25	260.45	185.72	92.04	20 14 49	4976.4	28.23	251.79
100.00	12 7 0	1677.53	-12.72	5.18	175.16	117.28	12 34 57	1077.5	-8.96	358.40
100.00	20 11 52	5286.17	29.87	239.16	185.77	91.09	21 39 58	4686.2	29.71	230.36
110.00	12 56 2	1523.94	-16.47	351.39	173.03	120.39	13 21 26	923.9	-12.31	344.75
110.00	21 39 19	5012.53	34.15	218.36	185.75	88.51	23 2 52	4412.5	33.57	209.16

DIFFERENTIAL CORRECTIONS
TDE 1.7141 TRA 6.0808 TC3-1.6439 BAU 1.0139
RDE .3531 RRA -.4258 RC3 .0433 FAU .00894
FDE .6002 FRA 1.8961 FC3 -.1678 BSP 20194
BDE 1.7500 BRA 6.0957 BC3 1.6444 FSP -543

MID-COURSE EXECUTION ACCURACY
SGT 5955.7 SGR 481.0 SG3 151.4
RRT -.5894 RRF -.5725 RTF .9675
SGB 5975.1 R23 -.0002 R13 -.9675
SG1 5962.4 SG2 388.2 THA 177.26

ORBIT DETERMINATION ACCURACY
ST 2156.7 SR 318.2 SS 649.3
CRT .3668 CRS -.4203 CST -.9981
LSA 2255.1 MSA 297.3 SSA 12.6
EL1 2159.9 EL2 295.6 ALF 3.16

LAUNCH DATE SEP 2 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 603.439
RL 150.95 LAL .00 LOL 339.12 VL 25.835 GAL 12.01 AZL 88.63 HCA 298.07 SMA 121.65 ECC .31428 INC 1.3663 V1 29.518
RP 108.82 LAP -1.21 LOP 277.19 VP 36.719 GAP 17.32 AZP 89.36 TAL 150.57 TAP 88.63 RCA 83.41 APO 159.88 V2 34.825
RC 178.036 GL 4.79 GP 12.19 ZAL 36.57 ZAP 167.78 ETS 83.00 ZAE 123.72 ETE 171.69 ZAC 115.00 ETC 268.26 CLP-179.20
PLANETOCENTRIC CONIC
C3 51.967 VHL 7.209 DLA -14.86 RAL 303.98 RAD 6568.9 VEL 13.165 PTH 2.40 VHP 11.049 DPA -12.26 RAP 278.71 ECC 1.8553

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 51 23	1971.30	-13.02	26.63	178.89	115.37	11 24 14	1371.3	-9.50	19.73
90.00	18 54 3	5576.81	28.25	260.49	188.80	92.05	20 27 0	4976.8	28.23	251.82
100.00	12 4 42	1734.74	-14.48	8.51	178.16	116.44	12 33 36	1134.7	-10.81	1.64
100.00	20 23 25	5288.60	29.87	239.34	188.86	91.18	21 51 34	4688.6	29.72	230.54
110.00	12 55 1	1577.10	-18.27	354.46	176.06	119.40	13 21 18	977.1	-14.22	347.69
110.00	21 49 35	5019.01	34.16	218.86	188.86	88.81	23 13 14	4419.0	33.62	209.66

DIFFERENTIAL CORRECTIONS
TDE 1.9174 TRA 6.5295 TC3-1.4203 BAU .9871
RDE .3663 RRA -.4333 RC3 .0342 FAU .00735
FDE .6290 FRA 1.9462 FC3 -.1224 BSP 20258
BDE 1.9521 BRA 6.5438 BC3 1.4207 FSP -524

MID-COURSE EXECUTION ACCURACY
SGT 5945.1 SGR 462.8 SG3 145.7
RRT -.5709 RRF -.5556 RTF .9694
SGB 5963.1 R23 -.0002 R13 -.9694
SG1 5951.0 SG2 379.6 THA 177.44

ORBIT DETERMINATION ACCURACY
ST 2218.3 SR 310.1 SS 661.8
CRT .3945 CRS -.4383 CST -.9987
LSA 2318.0 MSA 285.7 SSA 12.1
EL1 2221.7 EL2 284.5 ALF 3.21

LAUNCH DATE SEP 2 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 607.928

RL	150.95	LAL	.00	LOL	339.12	VL	25.802	GAL	13.05	AZL	88.39	HCA	301.23	SMA	121.45	ECC	.32708	INC	1.6128	V1	29.518
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.689	GAP	18.17	AZP	89.16	TAL	149.38	TAP	90.61	RCA	81.73	APO	161.18	V2	34.818
RC	180.002	GL	5.29	GP	11.94	ZAL	35.46	ZAP	168.05	ETS	87.85	ZAE	123.51	ETE	171.88	ZAC	114.69	ETC	268.83	CLP	179.79

PLANETOCENTRIC CONIC

C3	58.767	VHL	7.666	DLA	-14.11	RAL	305.05	RAD	6569.1	VEL	13.421	PTH	2.45	VHP	11.570	DPA	-12.48	RAP	280.88	ECC	1.9672

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 48 52	2028.21	-14.65	30.01	181.88	114.50	11 22 40	1428.2	-11.23	23.01
90.00	19 5 7	5580.49	28.24	260.75	191.86	92.19	20 38 7	4980.5	28.24	252.09
100.00	12 2 43	1789.92	-16.13	11.78	181.17	115.52	12 32 33	1189.9	-12.56	4.81
100.00	20 33 57	5294.01	29.86	239.74	191.92	91.39	22 2 11	4694.0	29.74	230.94
110.00	12 54 11	1628.72	-19.97	357.50	179.11	118.34	13 21 20	1028.7	-16.03	350.60
110.00	21 58 58	5027.97	34.18	219.56	191.95	89.22	23 22 46	4428.0	33.69	210.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.1332	TRA	7.0113	TC3	-1.2111	BAU	.9518	SGT	5931.7	SGR	443.6	SG3	140.3	ST	2274.4	SR	301.7	SS	675.4
RDE	.3802	RRA	-.4390	RC3	.0262	FAU	.00573	RRT	-.5509	RRF	-.5372	RTF	.9714	CRT	.4203	CRS	-.4560	CST	-.9990
FDE	.6588	FRA	2.0009	FC3	-.0844	BSP	20245	SGB	5948.2	R23	-.0001	R13	-.9714	LSA	2375.8	MSA	274.2	SSA	11.7
BDE	2.1668	BRA	7.0250	BC3	1.2114	FSP	-503	SG1	5936.7	SG2	369.9	THA	177.63	EL1	2277.9	EL2	273.3	ALF	3.24

LAUNCH DATE SEP 2 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 612.184

RL	150.95	LAL	.00	LOL	339.12	VL	25.769	GAL	14.20	AZL	88.12	HCA	304.39	SMA	121.27	ECC	.34123	INC	1.8762	V1	29.518
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.660	GAP	19.10	AZP	88.94	TAL	148.25	TAP	92.64	RCA	79.89	APO	162.65	V2	34.812
RC	181.954	GL	5.75	GP	11.72	ZAL	34.44	ZAP	168.22	ETS	93.00	ZAE	123.26	ETE	172.08	ZAC	114.38	ETC	269.40	CLP	178.76

PLANETOCENTRIC CONIC

C3	66.709	VHL	8.168	DLA	-13.41	RAL	306.03	RAD	6569.3	VEL	13.714	PTH	2.51	VHP	12.142	DPA	-12.64	RAP	283.02	ECC	2.0979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 46 40	2082.94	-16.17	33.32	184.86	113.57	11 21 23	1482.9	-12.85	26.21
90.00	19 15 8	5587.02	28.22	261.23	194.88	92.42	20 48 15	4987.0	28.26	252.57
100.00	12 1 0	1843.13	-17.66	14.99	184.16	114.52	12 31 43	1243.1	-14.20	7.90
100.00	20 43 30	5302.06	29.85	240.34	194.95	91.71	22 11 52	4702.1	29.77	231.53
110.00	12 53 28	1678.78	-21.56	.52	182,16	117.19	13 21 27	1078.8	-17.74	353.47
110.00	22 7 31	5039.18	34.18	220.44	195.01	89.74	23 31 30	4439.2	33.77	211.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.3646	TRA	7.5320	TC3	-1.0156	BAU	.9059	SGT	5916.9	SGR	423.6	SG3	135.3	ST	2325.8	SR	293.1	SS	690.6
RDE	.3949	RRA	-.4423	RC3	.0191	FAU	.00404	RRT	-.5286	RRF	-.5167	RTF	.9736	CRT	.4453	CRS	-.4740	CST	-.9993
FDE	.6902	FRA	2.0614	FC3	-.0524	BSP	20150	SGB	5932.1	R23	.0002	R13	-.9736	LSA	2429.7	MSA	262.6	SSA	11.3
BDE	2.3973	BRA	7.5450	BC3	1.0158	FSP	-480	SG1	5921.2	SG2	359.3	THA	177.82	EL1	2329.5	EL2	262.0	ALF	3.25

LAUNCH DATE SEP 2 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 616.160

RL	150.95	LAL	.00	LOL	339.12	VL	25.738	GAL	15.44	AZL	87.84	HCA	307.55	SMA	121.09	ECC	.35692	INC	2.1602	V1	29.518
RP	108.87	LAP	-1.71	LOP	286.68	VP	36.632	GAP	20.13	AZP	88.68	TAL	147.20	TAP	94.74	RCA	77.87	APO	164.31	V2	34.806
RC	183.891	GL	6.16	GP	11.50	ZAL	33.52	ZAP	168.27	ETS	98.42	ZAE	122.97	ETE	172.26	ZAC	114.07	ETC	269.96	CLP	177.68

PLANETOCENTRIC CONIC

C3	76.033	VHL	8.720	DLA	-12.78	RAL	306.92	RAD	6569.5	VEL	14.049	PTH	2.56	VHP	12.775	DPA	-12.76	RAP	285.13	ECC	2.2513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 44 44	2135.48	-17.57	36.53	187.81	112.57	11 20 20	1535.5	-14.36	29.33
90.00	19 24 9	5596.10	28.19	261.89	197.84	92.76	20 57 25	4996.1	28.28	253.23
100.00	11 59 29	1894.34	-19.08	18.13	187.14	113.46	12 31 3	1294.3	-15.74	10.93
100.00	20 52 6	5312.47	29.82	241.11	197.92	92.11	22 20 39	4712.5	29.80	232.31
110.00	12 52 51	1727.20	-23.04	3.50	185.19	115.98	13 21 38	1127.2	-19.35	356.30
110.00	22 15 14	5052.37	34.18	221.47	198.03	90.35	23 39 26	4452.4	33.85	212.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.6133	TRA	8.0956	TC3	-.8338	BAU	.8477	SGT	5900.5	SGR	402.8	SG3	130.6	ST	2372.4	SR	284.2	SS	707.9
RDE	.4106	RRA	-.4426	RC3	.0130	FAU	.00226	RRT	-.5033	RRF	-.4933	RTF	.9759	CRT	.4699	CRS	-.4927	CST	-.9995
FDE	.7239	FRA	2.1287	FC3	-.0257	BSP	19923	SGB	5914.2	R23	.0005	R13	-.9759	LSA	2479.3	MSA	250.9	SSA	10.8
BDE	2.6453	BRA	8.1077	BC3	.8339	FSP	-456	SG1	5904.0	SG2	347.8	THA	178.03	EL1	2376.2	EL2	250.5	ALF	3.26

LAUNCH DATE SEP 2 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 619.793

RL	150.95	LAL	.00	LOL	339.12	VL	25.707	GAL	16.81	AZL	87.53	HCA	310.70	SMA	120.91	ECC	.37438	INC	2.4693	V1	29.518
RP	108.89	LAP	-1.87	LOP	289.85	VP	36.606	GAP	21.27	AZP	88.39	TAL	146.24	TAP	96.94	RCA	75.65	APO	166.18	V2	34.801
RC	185.813	GL	6.53	GP	11.31	ZAL	32.71	ZAP	168.19	ETS	104.02	ZAE	122.64	ETE	172.45	ZAC	113.76	ETC	270.50	CLP	176.57

PLANETOCENTRIC CONIC

C3	87.048	VHL	9.330	DLA	-12.21	RAL	307.71	RAD	6569.7	VEL	14.436	PTH	2.62	VHP	13.477	DPA	-12.84	RAP	287.20	ECC	2.4326

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 43 1	2185.77	-18.86	39.67	190.72	111.52	11 19 26	1585.8	-15.77	32.35
90.00	19 32 12	5607.45	28.15	262.72	200.73	93.17	21 5 39	5007.4	28.30	254.06
100.00	11 58 7	1943.47	-20.38	21.20	190.07	112.35	12 30 30	1343.5	-17.17	13.88
100.00	20 59 47	5324.98	29.79	242.04	200.83	92.60	22 28 32	4725.0	29.83	233.23
110.00	12 52 16	1773.88	-24.40	6.44	188.18	114.72	13 21 50	1173.9	-20.86	359.09
110.00	22 22 7	5067.34	34.17	222.64	200.99	91.04	23 46 35	4467.3	33.94	213.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.8812	TRA	8.7076	TC3	-.6655	BAU	.7746	SGT	5882.7	SGR	381.2	SG3	126.2	ST	2413.7	SR	275.3	SS	727.5
RDE	.4276	RRA	-.4391	RC3	.0079	FAU	.00037	RRT	-.4741	RRF	-.4660	RTF	.9784	CRT	.4947	CRS	-.5126	CST	-.9997
FDE	.7600	FRA	2.2038	FC3	-.0037	BSP	19568	SGB	5895.0	R23	.0008	R13	-.9784	LSA	2524.6	MSA	239.1	SSA	10.4
BDE	2.9128	BRA	8.7187	BC3	.6656	FSP	-431	SG1	5885.5	SG2	335.5	THA	178.23	EL1	2417.6	EL2	238.9	ALF	3.26

LAUNCH DATE SEP 3 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 12 1970

HELIOCENTRIC CONIC DISTANCE 167.377

RL	150.91	LAL	.00	LOL	340.09	VL	23.914	GAL	-2.42	AZL	91.60	HCA	70.09	SMA	111.81	ECC	.35193	INC	1.5981	V1	29.525
RP	108.09	LAP	-1.50	LOP	50.17	VP	35.618	GAP	-20.52	AZP	90.54	TAL	184.47	TAP	254.56	RCA	72.46	APO	151.16	V2	35.060
RC	40.174	GL	-6.70	GP	-9.57	ZAL	95.92	ZAP	12.58	ETS	127.65	ZAE	167.95	ETE	338.97	ZAC	91.19	ETC	259.63	CLP	8.20

PLANETOCENTRIC CONIC

C3	32.582	VHL	5.708	DLA	-27.56	RAL	240.73	RAD	6568.3	VEL	12.408	PTH	2.24	VHP	12.553	DPA	-27.95	RAP	233.39	ECC	1.5362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 38 53	1200.23	11.18	342.91	114.76	116.18	9 58 53	600.2	14.62	335.92
90.00	11 34 7	824.91	21.21	319.95	119.12	109.22	11 47 52	224.9	23.63	312.12
100.00	10 18 52	1070.98	7.45	331.45	112.78	119.03	10 36 43	471.0	11.26	324.74
100.00	13 36 48	5717.43	25.22	270.16	120.53	106.60	15 12 6	5117.4	27.25	261.95
110.00	10 27 19	1044.45	1.31	325.66	109.00	124.16	10 44 44	444.5	5.79	319.43
110.00	15 44 51	5316.72	32.19	241.78	122.57	102.17	17 13 28	4716.7	33.53	232.80

DIFFERENTIAL CORRECTIONS

TDE	.1636	TRA	-.6550	TC3	.1384	BAU	.0646
RDE	-.4346	RRA	-.0173	RC3	-.0534	FAU	.02126
FDE	-.0925	FRA	.3089	FC3	-.5650	BSP	1869
BDE	.4644	BRA	.6553	BC3	.1483	FSP	-140

MID-COURSE EXECUTION ACCURACY

SGT	775.9	SGR	440.9	SG3	63.9		
RRT	-.1951	RRF	.2237	RTF	-.6562		
SGB	892.4	R23	-.0401	R13	.6622		
SG1	782.7	SG2	428.7	THA	170.93		

ORBIT DETERMINATION ACCURACY

ST	276.6	SR	436.3	SS	153.4		
CRT	-.5830	CRS	-.6469	CST	.9889		
LSA	489.1	MSA	225.6	SSA	16.4		
EL1	473.2	EL2	207.2	ALF	115.51		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 174.072

RL	150.91	LAL	.00	LOL	340.09	VL	24.251	GAL	-2.49	AZL	91.39	HCA	73.29	SMA	113.36	ECC	.33378	INC	1.3882	V1	29.525
RP	108.05	LAP	-1.33	LOP	53.38	VP	35.858	GAP	-19.32	AZP	90.40	TAL	185.00	TAP	258.29	RCA	75.52	APO	151.20	V2	35.073
RC	40.345	GL	-6.27	GP	-10.07	ZAL	96.79	ZAP	11.90	ETS	119.22	ZAE	165.22	ETE	338.95	ZAC	90.86	ETC	259.86	CLP	6.36

PLANETOCENTRIC CONIC

C3	28.846	VHL	5.371	DLA	-26.96	RAL	239.88	RAD	6568.2	VEL	12.256	PTH	2.21	VHP	11.886	DPA	-28.82	RAP	234.70	ECC	1.4747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 16 22	1232.83	10.20	344.80	111.14	116.56	9 36 55	632.8	13.69	337.86
90.00	11 49 50	731.15	23.18	313.79	116.50	106.74	12 2 1	131.2	25.25	305.73
100.00	10 3 45	1079.75	7.16	331.94	109.51	119.10	10 21 45	479.8	10.98	325.24
100.00	13 45 8	5647.51	26.49	265.36	117.52	104.38	15 19 15	5047.5	28.21	256.98
110.00	10 17 11	1037.60	1.57	325.30	106.07	124.15	10 34 28	437.6	6.05	319.07
110.00	15 48 12	5262.43	32.90	237.70	119.10	99.85	17 15 54	4662.4	33.91	228.61

DIFFERENTIAL CORRECTIONS

TDE	.1651	TRA	-.6355	TC3	.1891	BAU	.0782
RDE	-.4117	RRA	-.0150	RC3	-.0730	FAU	.02249
FDE	-.0900	FRA	.3124	FC3	-.6750	BSP	2026
BDE	.4436	BRA	.6357	BC3	.2027	FSP	-160

MID-COURSE EXECUTION ACCURACY

SGT	806.7	SGR	446.5	SG3	71.0		
RRT	-.2210	RRF	.2517	RTF	-.6769		
SGB	922.1	R23	-.0432	R13	.6836		
SG1	815.1	SG2	431.0	THA	170.29		

ORBIT DETERMINATION ACCURACY

ST	288.3	SR	439.3	SS	153.2		
CRT	-.6012	CRS	-.6346	CST	.9909		
LSA	497.1	MSA	228.5	SSA	17.1		
EL1	481.6	EL2	210.1	ALF	117.10		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 180.792

RL	150.91	LAL	.00	LOL	340.09	VL	24.561	GAL	-2.58	AZL	91.19	HCA	76.50	SMA	114.84	ECC	.31698	INC	1.1852	V1	29.525
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.081	GAP	-18.17	AZP	90.28	TAL	185.59	TAP	262.10	RCA	78.44	APO	151.24	V2	35.086
RC	40.692	GL	-5.75	GP	-10.63	ZAL	97.79	ZAP	11.53	ETS	109.77	ZAE	162.55	ETE	338.67	ZAC	90.46	ETC	260.09	CLP	4.50

PLANETOCENTRIC CONIC

C3	25.646	VHL	5.064	DLA	-26.25	RAL	238.90	RAD	6568.0	VEL	12.125	PTH	2.17	VHP	11.252	DPA	-29.73	RAP	235.97	ECC	1.4221

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 22	1264.08	9.24	346.60	107.55	116.89	9 15 27	664.1	12.78	339.70
90.00	12 4 2	641.44	24.80	307.72	113.62	104.12	12 14 43	41.4	26.50	299.46
100.00	9 47 10	1093.59	6.70	332.71	106.19	119.20	10 5 24	493.6	10.54	326.03
100.00	13 53 55	5575.21	27.61	260.28	114.34	101.93	15 26 50	4975.2	28.98	251.74
110.00	10 5 29	1036.09	1.63	325.22	103.05	124.15	10 22 45	436.1	6.10	318.99
110.00	15 52 5	5205.47	33.48	233.36	115.50	97.34	17 18 51	4605.5	34.13	224.18

DIFFERENTIAL CORRECTIONS

TDE	.1649	TRA	-.6169	TC3	.2477	BAU	.0913
RDE	-.3898	RRA	-.0131	RC3	-.0975	FAU	.02384
FDE	-.0854	FRA	.3156	FC3	-.8047	BSP	2153
BDE	.4232	BRA	.6171	BC3	.2662	FSP	-181

MID-COURSE EXECUTION ACCURACY

SGT	838.7	SGR	452.2	SG3	78.8		
RRT	-.2483	RRF	.2826	RTF	-.6958		
SGB	952.9	R23	-.0484	R13	.7033		
SG1	848.9	SG2	432.8	THA	169.66		

ORBIT DETERMINATION ACCURACY

ST	299.0	SR	441.0	SS	151.2		
CRT	-.6154	CRS	-.6136	CST	.9912		
LSA	503.0	MSA	231.1	SSA	17.9		
EL1	488.5	EL2	212.8	ALF	118.53		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 187.531

RL	150.91	LAL	.00	LOL	340.09	VL	24.844	GAL	-2.69	AZL	90.99	HCA	79.71	SMA	116.25	ECC	.30148	INC	.9874	V1	29.525
RP	107.97	LAP	-.97	LOP	59.80	VP	36.287	GAP	-17.08	AZP	90.18	TAL	186.26	TAP	265.97	RCA	81.20	APO	151.30	V2	35.098
RC	41.209	GL	-5.13	GP	-11.24	ZAL	98.94	ZAP	11.53	ETS	99.76	ZAE	159.96	ETE	338.21	ZAC	90.00	ETC	260.32	CLP	2.60

PLANETOCENTRIC CONIC

C3	22.910	VHL	4.786	DLA	-25.40	RAL	237.81	RAD	6567.9	VEL	12.012	PTH	2.14	VHP	10.647	DPA	-30.68	RAP	237.22	ECC	1.3770

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 19	1296.44	8.24	348.45	104.01	117.19	8 53 55	696.4	11.82	341.60
90.00	12 17 24	5841.77	26.12	279.54	110.52	101.34	13 54 46	5241.8	27.42	271.11
100.00	9 29 20	1112.36	6.07	333.75	102.84	119.32	9 47 52	512.4	9.94	327.09
100.00	14 3 5	5501.08	28.54	254.97	111.01	99.28	15 34 46	4901.1	29.53	246.30
110.00	9 52 22	1040.08	1.48	325.43	99.99	124.15	10 9 42	440.1	5.95	319.20
110.00	15 56 32	5146.13	33.90	228.78	111.78	94.66	17 22 18	4546.1	34.18	219.54

DIFFERENTIAL CORRECTIONS

TDE	.1628	TRA	-.5985	TC3	.3147	BAU	.1040
RDE	-.3687	RRA	-.0115	RC3	-.1279	FAU	.02534
FDE	-.0786	FRA	.3182	FC3	-.9577	BSP	2271
BDE	.4030	BRA	.5987	BC3	.3396	FSP	-206

MID-COURSE EXECUTION ACCURACY

SGT	870.5	SGR	458.3	SG3	87.6		
RRT	-.2777	RRF	.3172	RTF	-.7129		
SGB	983.8	R23	-.0957	R13	.7215		
SG1	882.8	SG2	434.1	THA	168.99		

ORBIT DETERMINATION ACCURACY

ST	307.7	SR	441.4	SS	147.2		
CRT	-.6255	CRS	-.5811	CST	.9887		
LSA	506.3	MSA	233.4	SSA	18.8		
EL1	493.3	EL2	214.8	ALF	119.74		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 194.285

RL	150.91	LAL	.00	LOL	340.09	VL	25.104	GAL	-2.80	AZL	90.79	HCA	82.93	SMA	117.59	ECC	.28724	INC	.7934	V1	29.525
RP	107.93	LAP	-.79	LOP	63.01	VP	36.477	GAP	-16.03	AZP	90.10	TAL	186.98	TAP	269.91	RCA	83.81	APO	151.36	V2	35.111
RC	41.891	GL	-4.39	GP	-11.91	ZAL	100.21	ZAP	11.93	ETS	89.84	ZAE	157.49	ETE	337.60	ZAC	89.47	ETC	260.54	CLP	.66

PLANETOCENTRIC CONIC

C3	20.575	VHL	4.536	DLA	-24.41	RAL	236.63	RAD	6567.8	VEL	11.915	PTH	2.12	VHP	10.072	DPA	-31.67	RAP	238.42	ECC	1.3386

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 0	1331.09	7.16	350.42	100.53	117.47	8 32 11	731.1	10.78	343.62
90.00	12 30 18	5755.24	27.13	273.41	107.26	98.43	14 6 14	5155.2	28.02	264.85
100.00	9 10 26	1136.00	5.28	335.06	99.51	119.46	9 29 22	536.0	9.17	328.43
100.00	14 12 33	5425.57	29.25	249.47	107.57	96.47	15 42 59	4825.6	29.84	240.71
110.00	9 37 58	1049.64	1.11	325.93	96.92	124.17	9 55 27	449.6	5.59	319.70
110.00	16 1 31	5084.69	34.14	223.99	107.99	91.84	17 26 15	4484.7	34.02	214.75

DIFFERENTIAL CORRECTIONS

TDE	.1430	TRA	-.5805	TC3	.3758	BAU	.1129	SGT	892.9	SGR	464.8	SG3	97.3	ST	301.8	SR	440.0	SS	140.9
RDE	-.3483	RRA	-.0100	RC3	-.1647	FAU	.02699	RRT	-.2872	RRF	.3548	RTF	-.7216	CRT	-.5912	CRS	-.5257	CST	.9851
FDE	-.0681	FRA	.3210	FC3	-1.1358	BSP	2356	SGB	1006.7	R23	-.0847	R13	.7330	LSA	496.6	MSA	239.8	SSA	19.9
BDE	.3765	BRA	.5806	BC3	.4103	FSP	-231	SG1	906.0	SG2	438.8	THA	168.85	EL1	485.9	EL2	220.4	ALF	118.44

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 3 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 201.049

RL	150.91	LAL	.00	LOL	340.09	VL	25.341	GAL	-2.91	AZL	90.60	HCA	86.14	SMA	118.85	ECC	.27419	INC	.6019	V1	29.525
RP	107.89	LAP	-.60	LOP	66.23	VP	36.652	GAP	-15.03	AZP	90.04	TAL	187.76	TAP	273.91	RCA	86.26	APO	151.43	V2	35.123
RC	42.728	GL	-3.54	GP	-12.66	ZAL	101.59	ZAP	12.73	ETS	80.60	ZAE	155.16	ETE	336.84	ZAC	88.85	ETC	260.76	CLP	-1.32

PLANETOCENTRIC CONIC

C3	18.589	VHL	4.311	DLA	-23.27	RAL	235.38	RAD	6567.8	VEL	11.831	PTH	2.10	VHP	9.525	DPA	-32.72	RAP	239.56	ECC	1.3059

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 47 21	1368.75	5.97	352.55	97.14	117.73	8 10 10	768.7	9.64	345.79
90.00	12 42 56	5669.45	27.84	267.23	103.89	95.41	14 17 26	5069.5	28.30	258.59
100.00	8 50 39	1164.44	4.33	336.63	96.24	119.61	9 10 3	564.4	8.24	330.03
100.00	14 22 20	5348.99	29.70	243.82	104.06	93.53	15 51 29	4749.0	29.88	235.02
110.00	9 22 26	1064.78	.54	326.72	93.88	124.18	9 40 10	464.8	5.02	320.50
110.00	16 7 2	5021.42	34.17	219.05	104.17	88.92	17 30 44	4421.4	33.64	209.85

DIFFERENTIAL CORRECTIONS

TDE	.1623	TRA	-.5535	TC3	.4930	BAU	.1333	SGT	931.8	SGR	473.9	SG3	108.5	ST	323.1	SR	437.4	SS	133.6
RDE	-.3291	RRA	-.0095	RC3	-.2109	FAU	.02902	RRT	-.3638	RRF	.4019	RTF	-.7535	CRT	-.6610	CRS	-.4681	CST	.9596
FDE	-.0578	FRA	.3194	FC3	-1.3515	BSP	2711	SGB	1045.4	R23	-.0562	R13	.7638	LSA	509.4	MSA	231.6	SSA	20.8
BDE	.3670	BRA	.5536	BC3	.5362	FSP	-268	SG1	951.9	SG2	432.1	THA	166.74	EL1	500.9	EL2	211.7	ALF	122.52

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 3 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 207.820

RL	150.91	LAL	.00	LOL	340.09	VL	25.558	GAL	-3.03	AZL	90.41	HCA	89.36	SMA	120.03	ECC	.26228	INC	.4118	V1	29.525
RP	107.86	LAP	-.41	LOP	69.45	VP	36.814	GAP	-14.07	AZP	90.00	TAL	188.59	TAP	277.96	RCA	88.55	APO	151.51	V2	35.135
RC	43.711	GL	-2.56	GP	-13.50	ZAL	103.07	ZAP	13.90	ETS	72.47	ZAE	152.98	ETE	335.94	ZAC	88.13	ETC	260.97	CLP	-3.36

PLANETOCENTRIC CONIC

C3	16.905	VHL	4.112	DLA	-21.98	RAL	234.08	RAD	6567.7	VEL	11.760	PTH	2.08	VHP	9.005	DPA	-33.82	RAP	240.63	ECC	1.2782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 24 29	1409.71	4.67	354.85	93.88	117.96	7 47 58	809.7	8.37	348.13
90.00	12 55 27	5584.35	28.23	261.04	100.48	92.33	14 28 32	4984.4	28.25	252.37
100.00	8 30 13	1197.55	3.21	338.46	93.08	119.74	8 50 10	597.5	7.15	331.88
100.00	14 32 24	5271.75	29.89	238.09	100.52	90.52	16 0 16	4671.7	29.64	229.29
110.00	9 6 0	1085.38	-.25	327.79	90.92	124.18	9 24 5	485.4	4.23	321.58
110.00	16 13 7	4956.68	33.97	214.01	100.38	85.94	17 35 43	4356.7	33.03	204.89

DIFFERENTIAL CORRECTIONS

TDE	.1560	TRA	-.5346	TC3	.5885	BAU	.1459	SGT	962.7	SGR	483.9	SG3	120.8	ST	324.9	SR	431.9	SS	124.3
RDE	-.3099	RRA	-.0085	RC3	-.2650	FAU	.03113	RRT	-.4058	RRF	.4490	RTF	-.7678	CRT	-.6630	CRS	-.3454	CST	.9156
FDE	-.0401	FRA	.3202	FC3	-1.5945	BSP	2851	SGB	1077.5	R23	-.0644	R13	.7797	LSA	502.9	MSA	232.6	SSA	22.2
BDE	.3469	BRA	.5347	BC3	.6454	FSP	-304	SG1	987.5	SG2	431.2	THA	165.69	EL1	497.5	EL2	211.1	ALF	123.23

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 3 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 214.594

RL	150.91	LAL	.00	LOL	340.09	VL	25.755	GAL	-3.15	AZL	90.22	HCA	92.58	SMA	121.14	ECC	.25145	INC	.2216	V1	29.525
RP	107.82	LAP	-.22	LOP	72.67	VP	36.962	GAP	-13.15	AZP	89.99	TAL	189.46	TAP	282.04	RCA	90.68	APO	151.60	V2	35.146
RC	44.829	GL	-1.45	GP	-14.42	ZAL	104.61	ZAP	15.40	ETS	65.57	ZAE	150.96	ETE	334.89	ZAC	87.31	ETC	261.17	CLP	-5.46

PLANETOCENTRIC CONIC

C3	15.484	VHL	3.935	DLA	-20.54	RAL	232.76	RAD	6567.6	VEL	11.699	PTH	2.06	VHP	8.513	DPA	-35.00	RAP	241.63	ECC	1.2548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 28	1454.21	3.24	357.35	90.79	118.15	7 25 42	854.2	6.98	350.66
90.00	13 7 58	5499.84	28.31	254.86	97.08	89.23	14 39 38	4899.8	27.90	246.21
100.00	8 9 20	1235.21	1.94	340.53	90.07	119.84	8 29 55	635.2	5.90	333.98
100.00	14 42 47	5194.07	29.80	232.31	97.03	87.49	16 9 21	4594.1	29.13	223.57
110.00	8 48 52	1111.29	-1.24	329.15	88.08	124.16	9 7 23	511.3	3.25	322.94
110.00	16 19 44	4890.75	33.54	208.91	96.66	82.95	17 41 15	4290.8	32.20	199.93

DIFFERENTIAL CORRECTIONS

TDE	.1469	TRA	-.5160	TC3	.6899	BAU	.1582	SGT	992.1	SGR	496.5	SG3	134.4	ST	322.4	SR	423.5	SS	116.1
RDE	-.2908	RRA	-.0076	RC3	-.3291	FAU	.03349	RRT	-.4502	RRF	.4997	RTF	-.7809	CRT	-.6580	CRS	-.1506	CST	.8234
FDE	-.0166	FRA	.3207	FC3	-1.8723	BSP	2991	SGB	1109.4	R23	-.0743	R13	.7949	LSA	491.4	MSA	234.0	SSA	23.7
BDE	.3258	BRA	.5161	BC3	.7643	FSP	-345	SG1	1022.6	SG2	430.1	THA	164.50	EL1	489.0	EL2	210.3	ALF	123.62

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 3 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 221.366

RL	150.91	LAL	.00	LOL	340.09	VL	25.934	GAL	-3.26	AZL	90.03	HCA	95.81	SMA	122.17	ECC	.24164	INC	.0280	V1	29.525
RP	107.79	LAP	-.03	LOP	75.89	VP	37.097	GAP	-12.27	AZP	90.00	TAL	190.35	TAP	286.16	RCA	92.65	APO	151.69	V2	35.158
RC	46.073	GL	-.21	GP	-15.45	ZAL	106.20	ZAP	17.19	ETS	59.84	ZAE	149.11	ETE	333.66	ZAC	86.38	ETC	261.36	CLP	-7.63

PLANETOCENTRIC CONIC

C3	14.291	VHL	3.780	DLA	-18.95	RAL	231.46	RAD	6567.6	VEL	11.648	PTH	2.04	VHP	8.048	DPA	-36.25	RAP	242.53	ECC	1.2352

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 38 26	1502.31	1.69	.03	87.91	118.27	7 3 28	902.3	5.46	353.38
90.00	13 20 34	5415.94	28.08	248.73	93.76	86.17	14 50 50	4815.9	27.25	240.16
100.00	7 48 10	1277.28	.51	342.84	87.25	119.89	8 9 27	677.3	4.49	336.30
100.00	14 53 31	5116.20	29.42	226.56	93.64	84.48	16 18 47	4516.2	28.35	217.92
110.00	8 31 14	1142.32	-2.43	330.77	85.41	124.11	8 50 17	542.3	2.06	324.56
110.00	16 26 56	4823.93	32.86	203.81	93.09	80.01	17 47 20	4223.9	31.13	195.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1359	TRA	-.4976	TC3	.7959	BAU	.1706	SGT	1020.0	SGR	512.8	SG3	149.7	ST	316.2	SR	411.6	SS	113.6
RDE	-.2715	RRA	-.0066	RC3	-.4044	FAU	.03611	RRT	-.4979	RRF	.5537	RTF	-.7931	CRT	-.6469	CRS	.1258	CST	.6501
FDE	.0135	FRA	.3211	FC3	-2.1878	BSP	3131	SGB	1141.6	R23	-.0848	R13	.8096	LSA	475.5	MSA	235.8	SSA	25.5
BDE	.3037	BRA	.4976	BC3	.8928	FSP	-390	SG1	1058.1	SG2	428.7	THA	163.09	EL1	475.2	EL2	208.9	ALF	123.80

LAUNCH DATE SEP 3 1970 FLIGHT TIME 88.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 228.133

RL	150.91	LAL	.00	LOL	340.09	VL	26.096	GAL	-3.37	AZL	89.84	HCA	99.03	SMA	123.13	ECC	.23279	INC	.1615	V1	29.525
RP	107.76	LAP	.16	LOP	79.12	VP	37.221	GAP	-11.42	AZP	90.03	TAL	191.27	TAP	290.30	RCA	94.47	APO	151.79	V2	35.168
RC	47.431	GL	1.16	GP	-16.60	ZAL	107.80	ZAP	19.25	ETS	55.12	ZAE	147.43	ETE	332.25	ZAC	85.32	ETC	261.52	CLP	-9.88

PLANETOCENTRIC CONIC

C3	13.297	VHL	3.646	DLA	-17.22	RAL	230.19	RAD	6567.5	VEL	11.605	PTH	2.03	VHP	7.609	DPA	-37.60	RAP	243.31	ECC	1.2188

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 15 31	1554.00	.03	2.92	85.26	118.32	6 41 25	954.0	3.81	356.28
90.00	13 33 21	5332.68	27.55	242.70	90.59	83.19	15 2 14	4732.7	26.32	234.25
100.00	7 26 56	1323.55	-1.06	345.37	84.66	119.88	7 48 59	723.5	2.93	338.85
100.00	15 4 37	5038.36	28.78	220.86	90.40	81.55	16 28 35	4438.4	27.31	212.37
110.00	8 13 20	1178.18	-3.80	332.64	82.95	124.00	8 32 58	578.2	.69	326.43
110.00	16 34 42	4756.49	31.95	198.76	89.71	77.15	17 53 59	4156.5	29.85	190.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1224	TRA	-.4797	TC3	.9016	BAU	.1825	SGT	1044.9	SGR	533.6	SG3	166.6	ST	305.6	SR	395.4	SS	123.1
RDE	-.2515	RRA	-.0054	RC3	-.4915	FAU	.03900	RRT	-.5464	RRF	.6091	RTF	-.8038	CRT	-.6254	CRS	.4374	CST	.3989
FDE	.0524	FRA	.3215	FC3	-2.5394	BSP	3265	SGB	1173.3	R23	-.0968	R13	.8233	LSA	455.2	MSA	238.6	SSA	27.4
BDE	.2797	BRA	.4797	BC3	1.0268	FSP	-441	SG1	1092.7	SG2	427.4	THA	161.48	EL1	454.6	EL2	207.4	ALF	123.70

LAUNCH DATE SEP 3 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 234.892

RL	150.91	LAL	.00	LOL	340.09	VL	26.243	GAL	-3.48	AZL	89.64	HCA	102.26	SMA	124.01	ECC	.22484	INC	.3591	V1	29.525
RP	107.72	LAP	.35	LOP	82.34	VP	37.334	GAP	-10.61	AZP	90.08	TAL	192.18	TAP	294.44	RCA	96.13	APO	151.90	V2	35.179
RC	48.893	GL	2.67	GP	-17.88	ZAL	109.38	ZAP	21.55	ETS	51.24	ZAE	145.90	ETE	330.63	ZAC	84.11	ETC	261.66	CLP	-12.23

PLANETOCENTRIC CONIC

C3	12.476	VHL	3.532	DLA	-15.35	RAL	228.98	RAD	6567.5	VEL	11.570	PTH	2.02	VHP	7.197	DPA	-39.05	RAP	243.95	ECC	1.2053

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 52 49	1609.39	-1.76	5.99	82.88	118.27	6 19 38	1009.4	2.04	359.37
90.00	13 46 25	5250.09	26.74	236.79	87.61	80.33	15 13 55	4650.1	25.14	228.49
100.00	7 5 46	1373.82	-2.76	348.14	82.32	119.78	7 28 40	773.8	1.22	341.61
100.00	15 16 9	4960.70	27.87	215.27	87.37	78.74	16 38 50	4360.7	26.04	206.95
110.00	7 55 19	1218.61	-5.33	334.76	80.72	123.81	8 15 38	618.6	-.85	328.54
110.00	16 43 5	4688.68	30.82	193.80	86.57	74.42	18 1 14	4088.7	28.37	185.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1066	TRA	-.4626	TC3	1.0026	BAU	.1942	SGT	1066.3	SGR	560.7	SG3	185.2	ST	291.2	SR	373.9	SS	148.7
RDE	-.2304	RRA	-.0039	RC3	-.5916	FAU	.04217	RRT	-.5946	RRF	.6650	RTF	-.8129	CRT	-.5914	CRS	.6796	CST	.1579
FDE	.1010	FRA	.3225	FC3	-2.9266	BSP	3394	SGB	1204.7	R23	-.1102	R13	.8365	LSA	432.6	MSA	242.3	SSA	29.5
BDE	.2538	BRA	.4626	BC3	1.1641	FSP	-497	SG1	1126.6	SG2	426.7	THA	159.58	EL1	427.0	EL2	205.7	ALF	123.44

LAUNCH DATE SEP 3 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 241.641

RL	150.91	LAL	.00	LOL	340.09	VL	26.375	GAL	-3.58	AZL	89.44	HCA	105.48	SMA	124.83	ECC	.21771	INC	.5612	V1	29.525
RP	107.69	LAP	.54	LOP	85.57	VP	37.436	GAP	-9.82	AZP	90.15	TAL	193.09	TAP	298.58	RCA	97.65	APO	152.00	V2	35.188
RC	50.451	GL	4.30	GP	-19.31	ZAL	110.91	ZAP	24.10	ETS	48.02	ZAE	144.51	ETE	328.78	ZAC	82.75	ETC	261.78	CLP	-14.69

PLANETOCENTRIC CONIC

C3	11.808	VHL	3.436	DLA	-13.36	RAL	227.86	RAD	6567.5	VEL	11.541	PTH	2.01	VHP	6.811	DPA	-40.61	RAP	244.42	ECC	1.1943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 30 28	1667.82	-3.64	9.27	80.80	118.10	5 58 15	1067.8	.14	2.64
90.00	13 59 52	5168.19	25.68	231.03	84.88	77.64	15 26 0	4568.2	23.72	222.91
100.00	6 44 49	1427.90	-4.58	351.11	80.28	119.57	7 8 37	827.9	-.61	344.58
100.00	15 28 11	4883.35	26.72	209.81	84.61	76.08	16 49 35	4283.3	24.55	201.68
110.00	7 37 22	1263.31	-7.02	337.12	78.77	123.54	7 58 26	663.3	-2.56	330.87
110.00	16 52 7	4620.70	29.47	188.97	83.71	71.84	18 9 8	4020.7	26.71	180.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0887	TRA	-.4463	TC3	1.0962	BAU	.2058	SGT	1083.7	SGR	595.6	SG3	205.8	ST	273.9	SR	346.1	SS	190.6
RDE	-.2074	RRA	-.0020	RC3	-.7055	FAU	.04566	RRT	-.6411	RRF	.7194	RTF	-.8207	CRT	-.5402	CRS	.8222	CST	.0007
FDE	.1613	FRA	.3243	FC3	-3.3474	BSP	3523	SGB	1236.6	R23	-.1245	R13	.8494	LSA	411.8	MSA	246.1	SSA	31.6
BDE	.2256	BRA	.4463	BC3	1.3036	FSP	-560	SG1	1160.6	SG2	426.8	THA	157.36	EL1	391.6	EL2	203.7	ALF	123.19

LAUNCH DATE SEP 3 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 248.377

RL	150.91	LAL	.00	LOL	340.09	VL	26.494	GAL	-3.68	AZL	89.23	HCA	108.71	SMA	125.57	ECC	.21137	INC	.7698	V1	29.525		
RP	107.67	LAP	.73	LOP	88.80	VP	37.529	GAP	-9.07	AZP	90.25	TAL	193.98	TAP	302.69	RCA	99.03	APO	152.11	V2	35.198		
RC	52.096	GL	6.07	GP	-20.91	ZAL	112.37	ZAP	26.87	ETS	45.31	ZAE	143.25	ETE	326.65	ZAC	81.21	ETC	261.86	CLP	-17.28		

PLANETOCENTRIC CONIC

C3	11.274	VHL	3.358	DLA	-11.25	RAL	226.86	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	6.454	DPA	-42.31	RAP	244.70	ECC	1.1855		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 8 31	1729.79	-5.62	12.75	79.04	117.80	5 37 21	1129.8	-1.86	6.09
90.00	14 13 48	5086.96	24.37	225.44	82.44	75.12	15 38 35	4487.0	22.10	217.51
100.00	6 24 12	1485.61	-6.51	354.31	78.55	119.24	6 48 58	885.6	-2.57	347.75
100.00	15 40 48	4806.37	25.35	204.50	82.14	73.61	17 0 54	4206.4	22.86	196.58
110.00	7 19 38	1312.03	-8.84	339.72	77.12	123.15	7 41 30	712.0	-4.42	333.42
110.00	17 1 51	4552.72	27.94	184.27	81.17	69.45	18 17 44	3952.7	24.88	176.43

DIFFERENTIAL CORRECTIONS

TDE	.0690	TRA	-.4313	TC3	1.1759	BAU	.2173
RDE	-.1819	RRA	.0007	RC3	-.8335	FAU	.04941
FDE	.2349	FRA	.3277	FC3	-3.7939	BSP	3647
BDE	.1945	BRA	.4313	BC3	1.4414	FSP	-629

MID-COURSE EXECUTION ACCURACY

SGT	1095.7	SGR	640.0	SG3	228.2		
RRT	-.6837	RRF	.7704	RTF	-.8267		
SGB	1268.9	R23	-.1394	R13	.8620		
SG1	1194.4	SG2	428.5	THA	154.76		

ORBIT DETERMINATION ACCURACY

ST	255.1	SR	310.8	SS	246.7		
CRT	-.4667	CRS	.8949	CST	-.0608		
LSA	400.5	MSA	247.0	SSA	33.4		
EL1	347.9	EL2	201.6	ALF	123.47		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 255.097

RL	150.91	LAL	.00	LOL	340.09	VL	26.601	GAL	-3.76	AZL	89.01	HCA	111.95	SMA	126.24	ECC	.20573	INC	.9866	V1	29.525		
RP	107.64	LAP	.92	LOP	92.04	VP	37.612	GAP	-8.35	AZP	90.37	TAL	194.84	TAP	306.78	RCA	100.27	APO	152.21	V2	35.206		
RC	53.818	GL	7.97	GP	-22.68	ZAL	113.70	ZAP	29.89	ETS	42.99	ZAE	142.07	ETE	324.23	ZAC	79.48	ETC	261.90	CLP	-20.00		

PLANETOCENTRIC CONIC

C3	10.861	VHL	3.296	DLA	-9.02	RAL	225.99	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	6.124	DPA	-44.14	RAP	244.73	ECC	1.1787		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 47 3	1795.05	-7.68	16.44	77.62	117.34	5 16 58	1195.1	-3.95	9.74
90.00	14 28 20	5006.33	22.86	220.02	80.32	72.82	15 51 46	4406.3	20.29	212.28
100.00	6 3 59	1546.84	-8.53	357.73	77.16	118.76	6 29 46	946.8	-4.63	351.12
100.00	15 54 4	4729.77	23.78	199.35	80.00	71.33	17 12 54	4129.8	21.01	191.65
110.00	7 2 12	1364.56	-10.79	342.55	75.80	122.64	7 24 57	764.6	-6.41	336.19
110.00	17 12 21	4484.82	26.23	179.73	78.98	67.25	18 27 6	3884.8	22.92	172.14

DIFFERENTIAL CORRECTIONS

TDE	.0473	TRA	-.4179	TC3	1.2351	BAU	.2285
RDE	-.1525	RRA	.0044	RC3	-.9752	FAU	.05336
FDE	.3248	FRA	.3339	FC3	-4.2536	BSP	3756
BDE	.1597	BRA	.4179	BC3	1.5737	FSP	-703

MID-COURSE EXECUTION ACCURACY

SGT	1100.3	SGR	695.4	SG3	252.3		
RRT	-.7198	RRF	.8161	RTF	-.8306		
SGB	1301.6	R23	-.1541	R13	.8746		
SG1	1227.6	SG2	432.6	THA	151.71		

ORBIT DETERMINATION ACCURACY

ST	236.8	SR	265.9	SS	316.2		
CRT	-.3622	CRS	.9298	CST	-.0390		
LSA	409.2	MSA	241.1	SSA	34.4		
EL1	295.5	EL2	198.6	ALF	126.10		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 261.800

RL	150.91	LAL	.00	LOL	340.09	VL	26.695	GAL	-3.84	AZL	88.79	HCA	115.18	SMA	126.85	ECC	.20075	INC	1.2136	V1	29.525		
RP	107.61	LAP	1.10	LOP	95.27	VP	37.687	GAP	-7.65	AZP	90.52	TAL	195.65	TAP	310.83	RCA	101.38	APO	152.31	V2	35.214		
RC	55.612	GL	10.00	GP	-24.65	ZAL	114.89	ZAP	33.14	ETS	40.94	ZAE	140.94	ETE	321.47	ZAC	77.54	ETC	261.89	CLP	-22.88		

PLANETOCENTRIC CONIC

C3	10.556	VHL	3.249	DLA	-6.70	RAL	225.27	RAD	6567.4	VEL	11.487	PTH	2.00	VHP	5.824	DPA	-46.13	RAP	244.49	ECC	1.1737		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 26 4	1863.65	-9.80	20.37	76.57	116.70	4 57 8	1263.7	-6.14	13.60
90.00	14 43 35	4926.15	21.15	214.76	78.56	70.72	16 5 42	4326.2	18.33	207.22
100.00	5 44 13	1611.57	-10.63	1.39	76.13	118.10	6 11 4	1011.6	-6.79	354.71
100.00	16 8 8	4653.49	22.03	194.36	78.21	69.27	17 25 41	4053.5	19.01	186.87
110.00	6 45 9	1420.77	-12.83	345.62	74.83	121.96	7 8 50	820.8	-8.52	339.18
110.00	17 23 41	4417.04	24.37	175.34	77.15	65.25	18 37 18	3817.0	20.83	167.99

DIFFERENTIAL CORRECTIONS

TDE	.0237	TRA	-.4074	TC3	1.2638	BAU	.2392
RDE	-.1181	RRA	.0097	RC3	-1.1292	FAU	.05740
FDE	.4336	FRA	.3449	FC3	-4.7073	BSP	3828
BDE	.1204	BRA	.4075	BC3	1.6948	FSP	-777

MID-COURSE EXECUTION ACCURACY

SGT	1095.2	SGR	762.9	SG3	277.5		
RRT	-.7466	RRF	.8553	RTF	-.8310		
SGB	1334.7	R23	-.1684	R13	.8870		
SG1	1259.7	SG2	441.3	THA	148.17		

ORBIT DETERMINATION ACCURACY

ST	222.4	SR	209.4	SS	398.4		
CRT	-.2226	CRS	.9422	CST	.0578		
LSA	445.7	MSA	228.5	SSA	34.1		
EL1	239.6	EL2	189.5	ALF	142.55		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 268.485

RL	150.91	LAL	.00	LOL	340.09	VL	26.779	GAL	-3.91	AZL	88.55	HCA	118.41	SMA	127.40	ECC	.19637	INC	1.4530	V1	29.525		
RP	107.59	LAP	1.28	LOP	98.51	VP	37.753	GAP	-6.98	AZP	90.69	TAL	196.41	TAP	314.82	RCA	102.38	APO	152.41	V2	35.222		
RC	57.469	GL	12.16	GP	-26.84	ZAL	115.90	ZAP	36.64	ETS	39.08	ZAE	139.82	ETE	318.36	ZAC	75.37	ETC	261.82	CLP	-25.94		

PLANETOCENTRIC CONIC

C3	10.353	VHL	3.218	DLA	-4.29	RAL	224.72	RAD	6567.4	VEL	11.478	PTH	2.00	VHP	5.554	DPA	-48.29	RAP	243.90	ECC	1.1704		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 5 32	1935.72	-11.97	24.55	75.90	115.85	4 37 48	1335.7	-8.40	17.69
90.00	14 59 45	4846.21	19.27	209.65	77.17	68.84	16 20 31	4246.2	16.22	202.30
100.00	5 24 52	1679.81	-12.79	5.31	75.48	117.25	5 52 52	1079.8	-9.04	358.53
100.00	16 23 6	4577.36	20.11	189.52	76.80	67.41	17 39 23	3977.4	16.88	182.22
110.00	6 28 30	1480.60	-14.96	348.94	74.23	121.10	6 53 10	880.6	-10.73	342.39
110.00	17 35 57	4349.33	22.38	171.10	75.70	63.46	18 48 27	3749.3	18.63	163.96

DIFFERENTIAL CORRECTIONS

TDE	-.0037	TRA	-.4027	TC3	1.2480	BAU	.2485
RDE	-.0760	RRA	.0184	RC3	-1.2908	FAU	.06124
FDE	.5668	FRA	.3664	FC3	-5.1210	BSP	3809
BDE	.0761	BRA	.4031	BC3	1.7955	FSP	-844

MID-COURSE EXECUTION ACCURACY

SGT	1078.0	SGR	842.3	SG3	303.1		
RRT	-.7597	RRF	.8875	RTF	-.8260		
SGB	1368.0	R23	-.1813	R13	.8995		
SG1	1289.1	SG2	458.0	THA	144.08		

ORBIT DETERMINATION ACCURACY

ST	217.2	SR	138.0	SS	495.7		
CRT	-.0613	CRS	.9277	CST	.2288		
LSA	514.6	MSA	214.7	SSA	32.2		
EL1	217.5	EL2	137.5	ALF	176.28		

LAUNCH DATE SEP 3 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 275.148

RL	150.91	LAL	.00	LOL	340.09	VL	26.853	GAL	-3.97	AZL	88.29	HCA	121.65	SMA	127.88	ECC	.19253	INC	1.7077	V1	29.525		
RP	107.57	LAP	1.45	LOP	101.74	VP	37.812	GAP	-6.33	AZP	90.90	TAL	197.11	TAP	318.76	RCA	103.26	APO	152.50	V2	35.229		
RC	59.382	GL	14.44	GP	-29.25	ZAL	116.71	ZAP	40.39	ETS	37.30	ZAE	138.66	ETE	314.87	ZAC	72.97	ETC	261.68	CLP	-29.19		

PLANETOCENTRIC CONIC

C3	10.246	VHL	3.201	DLA	-1.78	RAL	224.35	RAD	6567.4	VEL	11.473	PTH	1.99	VHP	5.318	DPA	-50.61	RAP	242.90	ECC	1.1686		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 45 20	2011.61	-14.18	29.02	75.63	114.77	4 18 52	1411.6	-10.73	22.05
90.00	15 16 56	4766.15	17.22	204.66	76.16	67.17	16 36 23	4166.2	13.98	197.49
100.00	5 5 51	1751.89	-15.00	9.52	75.23	116.16	5 35 3	1151.9	-11.36	2.62
100.00	16 39 7	4501.10	18.05	184.80	75.78	65.76	17 54 8	3901.1	14.63	177.68
110.00	6 12 12	1544.22	-17.16	352.56	74.03	120.02	6 37 56	944.2	-13.04	345.87
110.00	17 49 16	4281.54	20.25	166.98	74.63	61.86	19 0 37	3681.5	16.33	160.05

DIFFERENTIAL CORRECTIONS

TDE	-.0123	TRA	-.3821	TC3	1.2666	BAU	.2671
RDE	-.0313	RRA	.0239	RC3	-1.4829	FAU	.06604
FDE	.6960	FRA	.3694	FC3	-5.5798	BSP	4219
BDE	.0337	BRA	.3829	BC3	1.9502	FSP	-960

MID-COURSE EXECUTION ACCURACY

SGT	1061.3	SGR	952.0	SG3	331.8		
RRT	-.7897	RRF	.9162	RTF	-.8284		
SGB	1425.7	R23	-.1739	R13	.9156		
SG1	1349.7	SG2	459.2	THA	138.93		

ORBIT DETERMINATION ACCURACY

ST	207.9	SR	64.2	SS	581.7
CRT	-.1572	CRS	.7907	CST	.2686
LSA	586.8	MSA	201.0	SSA	30.2
EL1	208.2	EL2	63.3	ALF	176.94

LAUNCH DATE SEP 3 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 281.789

RL	150.91	LAL	.00	LOL	340.09	VL	26.917	GAL	-4.02	AZL	88.02	HCA	124.88	SMA	128.31	ECC	.18918	INC	1.9809	V1	29.525		
RP	107.55	LAP	1.62	LOP	104.98	VP	37.863	GAP	-5.70	AZP	91.13	TAL	197.74	TAP	322.62	RCA	104.04	APO	152.58	V2	35.235		
RC	61.346	GL	16.87	GP	-31.89	ZAL	117.29	ZAP	44.37	ETS	35.52	ZAE	137.38	ETE	311.01	ZAC	70.32	ETC	261.45	CLP	-32.66		

PLANETOCENTRIC CONIC

C3	10.234	VHL	3.199	DLA	.81	RAL	224.17	RAD	6567.4	VEL	11.473	PTH	1.99	VHP	5.116	DPA	-53.09	RAP	241.40	ECC	1.1684		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 25 25	2091.69	-16.41	33.85	75.80	113.41	4 0 17	1491.7	-13.10	26.73
90.00	15 35 26	4685.61	15.03	199.77	75.56	65.72	16 53 31	4085.6	11.63	192.75
100.00	4 47 8	1828.10	-17.23	14.08	75.41	114.81	5 17 36	1228.1	-13.74	7.02
100.00	16 56 24	4424.43	15.85	180.17	75.16	64.32	18 10 8	3824.4	12.26	173.21
110.00	5 56 14	1611.80	-19.42	356.50	74.25	118.70	6 23 6	1011.8	-15.44	349.64
110.00	18 3 47	4213.51	18.02	162.97	73.98	60.45	19 14 0	3613.5	13.95	156.22

DIFFERENTIAL CORRECTIONS

TDE	-.0282	TRA	-.3734	TC3	1.2095	BAU	.2822
RDE	.0261	RRA	.0355	RC3	-1.6711	FAU	.06995
FDE	.8568	FRA	.3915	FC3	-5.9169	BSP	4396
BDE	.0385	BRA	.3750	BC3	2.0629	FSP	-1046

MID-COURSE EXECUTION ACCURACY

SGT	1024.0	SGR	1072.1	SG3	358.1		
RRT	-.7945	RRF	.9371	RTF	-.8190		
SGB	1482.6	R23	-.1680	R13	.9301		
SG1	1404.5	SG2	474.6	THA	133.35		

ORBIT DETERMINATION ACCURACY

ST	208.2	SR	59.9	SS	686.5
CRT	-.5564	CRS	-.8550	CST	.3784
LSA	693.3	MSA	191.8	SSA	27.0
EL1	211.0	EL2	49.1	ALF	170.38

LAUNCH DATE SEP 3 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 288.408

RL	150.91	LAL	.00	LOL	340.09	VL	26.973	GAL	-4.06	AZL	87.72	HCA	128.12	SMA	128.68	ECC	.18627	INC	2.2765	V1	29.525		
RP	107.53	LAP	1.79	LOP	108.23	VP	37.908	GAP	-5.10	AZP	91.41	TAL	198.29	TAP	326.41	RCA	104.71	APO	152.65	V2	35.240		
RC	63.355	GL	19.43	GP	-34.77	ZAL	117.63	ZAP	48.58	ETS	33.66	ZAE	135.94	ETE	306.79	ZAC	67.42	ETC	261.13	CLP	-36.36		

PLANETOCENTRIC CONIC

C3	10.321	VHL	3.213	DLA	3.49	RAL	224.19	RAD	6567.4	VEL	11.477	PTH	1.99	VHP	4.953	DPA	-55.72	RAP	239.27	ECC	1.1699		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 5 33	2176.70	-18.63	39.10	76.42	111.72	3 41 50	1576.7	-15.52	31.80
90.00	15 55 27	4604.01	12.69	194.92	75.39	64.47	17 12 12	4004.0	9.15	188.03
100.00	4 28 32	1909.07	-19.47	19.05	76.05	113.14	5 0 21	1309.1	-16.17	11.81
100.00	17 15 10	4346.88	13.51	175.60	74.98	63.08	18 27 37	3746.9	9.79	168.78
110.00	5 40 31	1683.75	-21.71	.82	74.93	117.07	6 8 35	1083.8	-17.91	353.76
110.00	18 19 40	4144.96	15.67	159.04	73.74	59.23	19 28 45	3545.0	11.48	152.45

DIFFERENTIAL CORRECTIONS

TDE	-.0390	TRA	-.3659	TC3	1.1121	BAU	.2989
RDE	.0956	RRA	.0512	RC3	-1.8592	FAU	.07324
FDE	1.0333	FRA	.4210	FC3	-6.1428	BSP	4608
BDE	.1033	BRA	.3695	BC3	2.1664	FSP	-1126

MID-COURSE EXECUTION ACCURACY

SGT	971.1	SGR	1210.2	SG3	381.9		
RRT	-.7874	RRF	.9530	RTF	-.8015		
SGB	1551.6	R23	-.1537	R13	.9442		
SG1	1471.4	SG2	492.3	THA	127.13		

ORBIT DETERMINATION ACCURACY

ST	209.2	SR	176.4	SS	796.1
CRT	-.4880	CRS	-.9894	CST	.4496
LSA	820.8	MSA	185.6	SSA	23.6
EL1	237.8	EL2	135.5	ALF	144.67

LAUNCH DATE SEP 3 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 295.003

RL	150.91	LAL	.00	LOL	340.09	VL	27.021	GAL	-4.09	AZL	87.40	HCA	131.35	SMA	129.01	ECC	.18377	INC	2.5997	V1	29.525		
RP	107.52	LAP	1.95	LOP	111.47	VP	37.947	GAP	-4.52	AZP	91.72	TAL	198.76	TAP	330.11	RCA	105.30	APO	152.71	V2	35.245		
RC	65.403	GL	22.15	GP	-37.87	ZAL	117.70	ZAP	52.99	ETS	31.63	ZAE	134.26	ETE	302.24	ZAC	64.28	ETC	260.69	CLP	-40.31		

PLANETOCENTRIC CONIC

C3	10.517	VHL	3.243	DLA	6.27	RAL	224.42	RAD	6567.4	VEL	11.485	PTH	2.00	VHP	4.831	DPA	-58.46	RAP	236.40	ECC	1.1731		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 45 29	2267.62	-20.82	44.87	77.54	109.64	3 23 17	1667.6	-17.95	37.37
90.00	16 17 22	4520.66	10.20	190.07	75.68	63.44	17 32 43	3920.7	6.55	183.29
100.00	4 9 49	1995.65	-21.69	24.52	77.20	111.09	4 43 4	1395.6	-18.63	17.06
100.00	17 35 44	4267.86	11.02	171.05	75.25	62.04	18 46 52	3667.9	7.20	164.35
110.00	5 24 52	1760.74	-24.02	5.61	76.12	115.09	5 54 13	1160.7	-20.44	358.30
110.00	18 37 10	4075.53	13.22	155.16	73.96	58.19	19 45 5	3475.5	8.92	148.70

DIFFERENTIAL CORRECTIONS

TDE	-.0427	TRA	-.3601	TC3	.9723	BAU	.3174
RDE	.1801	RRA	.0726	RC3	-2.0373	FAU	.07555
FDE	1.2224	FRA	.4591	FC3	-6.2191	BSP	4839
BDE	.1851	BRA	.3673	BC3	2.2575	FSP	-1190

MID-COURSE EXECUTION ACCURACY

SGT	901.7	SGR	1365.3	SG3	401.6		
RRT	-.7635	RRF	.9649	RTF	-.7705		
SGB	1636.1	R23	-.1315	R13	.9573		
SG1	1554.1	SG2	511.6	THA	120.40		

ORBIT DETERMINATION ACCURACY

ST	207.2	SR	322.9	SS	908.7
CRT	-.4812	CRS	-.9977	CST	.4708
LSA	969.3	MSA	181.7	SSA	20.3
EL1	343.6	EL2	170.7	ALF	113.19

LAUNCH DATE SEP 3 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 301.575

RL	150.91	LAL	.00	LOL	340.09	VL	27.061	GAL	-4.11	AZL	87.04	HCA	134.59	SMA	129.28	ECC	.18163	INC	2.9568	V1	29.525		
RP	107.51	LAP	2.11	LOP	114.71	VP	37.979	GAP	-3.95	AZP	92.08	TAL	199.14	TAP	333.73	RCA	105.80	APO	152.76	V2	35.249		
RC	67.486	GL	25.02	GP	-41.18	ZAL	117.49	ZAP	57.54	ETS	29.35	ZAE	132.29	ETE	297.44	ZAC	60.92	ETC	260.11	CLP	-44.52		

PLANETOCENTRIC CONIC

C3	10.835	VHL	3.292	DLA	9.15	RAL	224.88	RAD	6567.4	VEL	11.499	PTH	2.00	VHP	4.756	DPA	-61.26	RAP	232.59	ECC	1.1783		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 24 53	2365.80	-22.93	51.29	79.21	107.09	3 4 19	1765.8	-20.37	43.55
90.00	16 41 37	4434.62	7.54	185.14	76.48	62.62	17 55 32	3834.6	3.81	178.45
100.00	3 50 42	2089.03	-23.85	30.61	78.89	108.57	4 25 31	1489.0	-21.09	22.90
100.00	17 58 30	4186.62	8.39	166.45	76.02	61.21	19 8 16	3586.6	4.49	159.84
110.00	5 9 7	1843.61	-26.30	10.96	77.87	112.66	5 39 51	1243.6	-23.00	3.36
110.00	18 56 33	4004.81	10.65	151.29	74.66	57.32	20 3 18	3404.8	6.26	144.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0432	TRA	-.3624	TC3	.7641	BAU	.3336	SGT	816.7	SGR	1527.3	SG3	413.9	ST	206.5	SR	506.3	SS	1033.8				
RDE	.2880	RRA	.1072	RC3	-2.1725	FAU	.07571	RRT	-.7038	RRF	.9734	RTF	-.7109	CRT	-.4708	CRS	-.9993	CST	.4674				
FDE	1.4350	FRA	.5243	FC3	-6.0493	BSP	4900	SGB	1731.9	R23	-.0995	R13	.9690	LSA	1155.2	MSA	181.8	SSA	16.9				
BDE	.2912	BRA	.3780	BC3	2.3029	FSP	-1195	SG1	1646.2	SG2	538.2	THA	113.26	EL1	516.9	EL2	178.4	ALF	102.37				

LAUNCH DATE SEP 3 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 308.119

RL	150.91	LAL	.00	LOL	340.09	VL	27.095	GAL	-4.12	AZL	86.64	HCA	137.82	SMA	129.51	ECC	.17980	INC	3.3561	V1	29.525		
RP	107.50	LAP	2.25	LOP	117.96	VP	38.006	GAP	-3.41	AZP	92.49	TAL	199.44	TAP	337.26	RCA	106.22	APO	152.80	V2	35.253		
RC	69.600	GL	28.07	GP	-44.66	ZAL	117.00	ZAP	62.19	ETS	26.73	ZAE	130.01	ETE	292.42	ZAC	57.37	ETC	259.36	CLP	-49.01		

PLANETOCENTRIC CONIC

C3	11.305	VHL	3.362	DLA	12.13	RAL	225.55	RAD	6567.4	VEL	11.519	PTH	2.01	VHP	4.731	DPA	-64.04	RAP	227.61	ECC	1.1861		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 3 7	2473.33	-24.89	58.56	81.48	103.96	2 44 21	1873.3	-22.73	50.56
90.00	17 8 47	4344.56	4.69	180.06	77.83	62.04	18 21 12	3744.6	.91	173.42
100.00	3 30 40	2191.01	-25.89	37.51	81.18	105.49	4 7 11	1591.0	-23.51	29.51
100.00	18 23 56	4102.11	5.59	161.74	77.33	60.59	19 32 18	3502.1	1.63	155.19
110.00	4 52 54	1933.67	-28.52	17.03	80.25	109.69	5 25 8	1333.7	-25.57	9.09
110.00	19 18 11	3932.21	7.95	147.40	75.88	56.64	20 23 43	3332.2	3.51	141.13

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0081	TRA	-.3439	TC3	.5980	BAU	.3634	SGT	721.9	SGR	1723.5	SG3	421.5	ST	180.7	SR	685.8	SS	1116.4				
RDE	.3994	RRA	.1345	RC3	-2.3288	FAU	.07652	RRT	-.6267	RRF	.9801	RTF	-.6228	CRT	-.1828	CRS	-.9997	CST	.1833				
FDE	1.5924	FRA	.5463	FC3	-5.8597	BSP	5561	SGB	1868.6	R23	-.0754	R13	.9773	LSA	1310.6	MSA	177.6	SSA	14.8				
BDE	.3995	BRA	.3692	BC3	2.4043	FSP	-1274	SG1	1788.2	SG2	542.2	THA	106.24	EL1	686.7	EL2	177.5	ALF	92.96				

LAUNCH DATE SEP 3 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 314.639

RL	150.91	LAL	.00	LOL	340.09	VL	27.122	GAL	-4.12	AZL	86.19	HCA	141.06	SMA	129.69	ECC	.17827	INC	3.8087	V1	29.525		
RP	107.49	LAP	2.39	LOP	121.20	VP	38.028	GAP	-2.89	AZP	92.96	TAL	199.65	TAP	340.70	RCA	106.57	APO	152.82	V2	35.255		
RC	71.740	GL	31.30	GP	-48.28	ZAL	116.21	ZAP	66.83	ETS	23.70	ZAE	127.38	ETE	287.27	ZAC	53.65	ETC	258.42	CLP	-53.76		

PLANETOCENTRIC CONIC

C3	11.965	VHL	3.459	DLA	15.24	RAL	226.48	RAD	6567.5	VEL	11.548	PTH	2.02	VHP	4.765	DPA	-66.70	RAP	221.21	ECC	1.1969		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 39 29	2593.03	-26.59	66.91	84.40	100.11	2 22 42	1993.0	-24.93	58.64
90.00	17 39 48	4248.55	1.61	174.69	79.83	61.72	18 50 37	3648.6	-2.19	168.06
100.00	3 9 8	2303.92	-27.70	45.41	84.16	101.71	3 47 32	1703.9	-25.80	37.12
100.00	18 52 50	4012.90	2.59	156.82	79.28	60.21	19 59 43	3412.9	-1.39	150.29
110.00	4 35 53	2032.48	-30.59	23.97	83.34	106.06	5 9 46	1432.5	-28.09	15.67
110.00	19 42 35	3857.10	5.12	143.43	77.71	56.16	20 46 52	3257.1	.64	137.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0381	TRA	-.3330	TC3	.3668	BAU	.3889	SGT	628.7	SGR	1913.7	SG3	417.7	ST	182.9	SR	901.3	SS	1205.8				
RDE	.5404	RRA	.1805	RC3	-2.4035	FAU	.07434	RRT	-.4510	RRF	.9848	RTF	-.4432	CRT	.2440	CRS	-.9998	CST	-.2431				
FDE	1.7574	FRA	.5976	FC3	-5.3790	BSP	5993	SGB	2014.3	R23	-.0466	R13	.9837	LSA	1506.1	MSA	177.4	SSA	12.5				
BDE	.5418	BRA	.3788	BC3	2.4314	FSP	-1271	SG1	1936.5	SG2	554.5	THA	99.19	EL1	902.5	EL2	177.2	ALF	87.05				

LAUNCH DATE SEP 3 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 321.131

RL	150.91	LAL	.00	LOL	340.09	VL	27.143	GAL	-4.11	AZL	85.67	HCA	144.29	SMA	129.84	ECC	.17699	INC	4.3293	V1	29.525		
RP	107.48	LAP	2.53	LOP	124.45	VP	38.045	GAP	-2.38	AZP	93.52	TAL	199.76	TAP	344.05	RCA	106.86	APO	152.82	V2	35.257		
RC	73.903	GL	34.71	GP	-52.00	ZAL	115.12	ZAP	71.39	ETS	20.20	ZAE	124.43	ETE	282.04	ZAC	49.82	ETC	257.24	CLP	-58.78		

PLANETOCENTRIC CONIC

C3	12.879	VHL	3.589	DLA	18.46	RAL	227.66	RAD	6567.5	VEL	11.587	PTH	2.03	VHP	4.864	DPA	-69.13	RAP	213.13	ECC	1.2120		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 12 37	2729.66	-27.85	76.71	88.03	95.35	1 58 6	2129.7	-26.81	68.19
90.00	18 16 7	4143.24	-1.79	168.82	82.62	61.74	19 25 10	3543.2	-5.56	162.16
100.00	2 45 3	2431.56	-29.12	54.62	87.87	97.06	3 25 35	1831.6	-27.84	46.05
100.00	19 26 21	3916.57	-.67	151.53	82.00	60.11	20 31 38	3316.6	-4.64	144.99
110.00	4 17 29	2142.40	-32.38	32.04	87.25	101.60	4 53 11	1542.4	-30.45	23.36
110.00	20 10 25	3778.50	2.13	139.31	80.24	55.88	21 13 24	3178.5	-2.36	133.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1145	TRA	-.3162	TC3	.1266	BAU	.4163	SGT	570.1	SGR	2102.9	SG3	403.6	ST	242.7	SR	1129.7	SS	1275.7				
RDE	.7028	RRA	.2375	RC3	-2.4145	FAU	.07043	RRT	-.1378	RRF	.9881	RTF	-.1261	CRT	.6777	CRS	-.9999	CST	-.6773				
FDE	1.8892	FRA	.6455	FC3	-4.7345	BSP	6502	SGB	2178.8	R23	-.0208	R13	.9880	LSA	1711.9	MSA	177.7	SSA	10.6				
BDE	.7121	BRA	.3955	BC3	2.4179	FSP	-1239	SG1	2104.5	SG2	564.2	THA	92.31	EL1	1141.9	EL2	176.6	ALF	81.51				

LAUNCH DATE SEP 3 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 327.597

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RL  150.91 LAL    .00 LOL 340.09 VL  27.159 GAL  -4.08 AZL  85.06 HCA 147.52 SMA 129.95 ECC .17594 INC 4.9387 V1  29.525
RP  107.48 LAP   2.65 LOP 127.70 VP  38.057 GAP  -1.89 AZP  94.17 TAL 199.79 TAP 347.31 RCA 107.09 APO 152.81 V2  35.258
RC  76.087 GL   38.32 GP  -55.78 ZAL 113.72 ZAP  75.75 ETS  16.16 ZAE 121.16 ETE 276.76 ZAC  45.91 ETC 255.77 CLP -64.04
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PLANETOCENTRIC CONIC

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C3  14.145 VHL  3.761 DLA  21.81 RAL 229.12 RAD 6567.6 VEL 11.642 PTH   2.04 VHP  5.041 DPA -71.19 RAP 203.12 ECC 1.2328
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 52	2892.09	-28.31	88.56	92.35	89.44	1 28 4	2292.1	-28.09	79.90
90.00	19 0 28	4021.63	-5.69	162.00	86.42	62.21	20 7 30	3421.6	-9.36	155.25
100.00	2 16 32	2580.40	-29.87	65.61	92.34	91.33	2 59 32	1980.4	-29.36	56.85
100.00	20 6 30	3808.56	-4.33	145.59	85.67	60.39	21 9 58	3208.6	-8.24	138.99
110.00	3 56 45	2266.86	-33.69	41.51	92.04	96.14	4 34 32	1666.9	-32.48	32.48
110.00	20 42 46	3694.86	-1.07	134.95	83.64	55.83	21 44 21	3094.9	-5.54	128.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .2301 TRA -.2910 TC3 -.1087 BAU  .4436   SGT  597.9 SGR 2280.0 SG3  379.3          ST   378.6 SR  1363.6 SS  1323.8
RDE  .8888 RRA  .3099 RC3-2.3430 FAU .06470   RRT  .2757 RRF  .9905 RTF  .2896          CRT  .8771 CRS-1.0000 CST -.8773
FDE 1.9816 FRA  .6910 FC3-3.9600 BSP  7050    SGB 2357.1 R23  .0020 R13  .9907          LSA 1929.5 MSA  179.0 SSA    8.9
BDE -.9181 BRA  .4251 BC3 2.3456 FSP  -1175   SG1 2286.3 SG2  573.1 THA  85.59          EL1 1404.2 EL2  176.6 ALF  76.09
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 334.035

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RL  150.91 LAL    .00 LOL 340.09 VL  27.169 GAL  -4.05 AZL  84.33 HCA 150.74 SMA 130.02 ECC .17510 INC 5.6666 V1  29.525
RP  107.48 LAP   2.77 LOP 130.95 VP  38.065 GAP  -1.42 AZP  94.95 TAL 199.73 TAP 350.47 RCA 107.26 APO 152.79 V2  35.259
RC  78.289 GL   42.12 GP  -59.61 ZAL 112.04 ZAP  79.81 ETS  11.55 ZAE 117.61 ETE 271.43 ZAC  41.94 ETC 253.93 CLP -69.53
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PLANETOCENTRIC CONIC

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C3  15.921 VHL  3.990 DLA  25.27 RAL 230.87 RAD 6567.6 VEL 11.718 PTH   2.06 VHP  5.313 DPA -72.75 RAP 191.13 ECC 1.2620
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 16	3103.31	-27.21	103.89	97.11	81.85	24 41 59	2503.3	-28.06	95.33
90.00	20 0 6	3863.34	-10.61	152.97	91.68	63.59	21 4 30	3263.3	-14.07	146.01
100.00	1 39 20	2764.34	-29.37	79.25	97.42	84.18	2 25 24	2164.3	-29.87	70.48
100.00	20 57 39	*3677.54	-8.68	138.30	90.66	61.28	21 58 57	3077.5	-12.45	131.54
110.00	3 32 7	2411.46	-34.18	52.76	97.73	89.51	4 12 19	1811.5	-33.87	43.53
110.00	21 21 21	3603.19	-4.56	130.15	88.14	56.09	22 21 24	3003.2	-8.99	123.86

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .3984 TRA -.2520 TC3 -.3185 BAU  .4696   SGT  742.9 SGR 2432.8 SG3  345.8          ST   584.5 SR  1587.8 SS  1345.3
RDE 1.0972 RRA  .3991 RC3-2.1829 FAU .05748   RRT  .6033 RRF  .9922 RTF  .6175          CRT  .9469 CRS-1.0000 CST -.9475
FDE 2.0260 FRA  .7273 FC3-3.1254 BSP  7636    SGB 2543.7 R23  .0219 R13  .9922          LSA 2154.0 MSA  181.2 SSA    7.5
BDE 1.1673 BRA  .4720 BC3 2.2060 FSP  -1082   SG1 2476.2 SG2  582.1 THA  78.94          EL1 1682.7 EL2  177.4 ALF  70.56
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 340.443

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RL  150.91 LAL    .00 LOL 340.09 VL  27.175 GAL  -4.00 AZL  83.44 HCA 153.97 SMA 130.07 ECC .17443 INC 6.5573 V1  29.525
RP  107.48 LAP   2.87 LOP 134.20 VP  38.069 GAP   -.96 AZP  95.90 TAL 199.58 TAP 353.54 RCA 107.38 APO 152.75 V2  35.258
RC  80.507 GL   46.08 GP  -63.49 ZAL 110.08 ZAP  83.47 ETS   6.29 ZAE 113.80 ETE 266.01 ZAC  37.91 ETC 251.62 CLP -75.23
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PLANETOCENTRIC CONIC

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C3  18.471 VHL  4.298 DLA  28.81 RAL 232.94 RAD 6567.7 VEL 11.826 PTH   2.09 VHP  5.704 DPA -73.66 RAP 177.44 ECC 1.3040
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.45	21 17 20	3666.86	-20.42	143.11	100.35	69.23	22 18 27	3066.9	-23.07	135.39
95.55	22 49 33	3368.37	-20.41	121.23	100.34	69.21	23 45 41	2768.4	-23.06	113.52
100.00	0 36 8	3038.45	-25.88	98.82	102.29	74.49	1 26 47	2438.5	-27.75	90.52
100.00	22 17 22	3472.00	-15.15	126.47	97.95	63.92	23 15 14	2872.0	-18.53	119.31
110.00	3 0 15	2587.25	-33.24	66.38	104.09	81.51	3 43 22	1987.2	-34.05	57.23
110.00	22 9 45	3495.97	-8.60	124.48	94.15	56.79	23 8 1	2896.0	-12.92	118.04

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .6384 TRA -.1926 TC3 -.4827 BAU  .4924   SGT  991.2 SGR 2547.4 SG3  305.3          ST   855.7 SR  1783.5 SS  1338.4
RDE 1.3259 RRA  .5087 RC3-1.9347 FAU .04915   RRT  .7793 RRF  .9932 RTF  .7934          CRT  .9728 CRS-1.0000 CST -.9737
FDE 2.0203 FRA  .7521 FC3-2.3039 BSP  8238    SGB 2733.4 R23  .0397 R13  .9929          LSA 2381.2 MSA  184.6 SSA    6.3
BDE 1.4716 BRA  .5440 BC3 1.9940 FSP  -966    SG1 2668.3 SG2  592.9 THA  72.22          EL1 1970.0 EL2  179.5 ALF  64.76
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 346.820

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RL  150.91 LAL    .00 LOL 340.09 VL  27.177 GAL  -3.94 AZL  82.32 HCA 157.18 SMA 130.08 ECC .17394 INC 7.6797 V1  29.525
RP  107.48 LAP   2.97 LOP 137.45 VP  38.069 GAP   -.52 AZP  97.08 TAL 199.34 TAP 356.52 RCA 107.45 APO 152.70 V2  35.257
RC  82.739 GL   50.17 GP  -67.46 ZAL 107.87 ZAP  86.62 ETS    .29 ZAE 109.74 ETE 260.35 ZAC  33.81 ETC 248.59 CLP -81.16
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PLANETOCENTRIC CONIC

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C3  22.259 VHL  4.718 DLA  32.40 RAL 235.35 RAD 6567.9 VEL 11.985 PTH   2.14 VHP  6.255 DPA -73.86 RAP 162.70 ECC 1.3663
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.55	20 5 55	3969.08	-21.59	166.20	106.81	65.23	21 12 4	3369.1	-24.74	158.62
106.45	0 24 11	3155.15	-21.57	105.84	106.80	65.22	1 16 46	2555.1	-24.73	98.26
73.55	20 5 55	3969.08	-21.59	166.20	106.81	65.23	21 12 4	3369.1	-24.74	158.62
106.45	0 24 11	3155.15	-21.57	105.84	106.80	65.22	1 16 46	2555.1	-24.73	98.26
110.00	2 9 48	2829.14	-29.38	84.14	110.21	71.69	2 56 57	2229.1	-31.60	75.63
110.00	23 19 28	3343.08	-14.18	116.15	102.66	58.57	24 15 11	2743.1	-18.24	109.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .9803 TRA -.1006 TC3 -.5829 BAU  .5087   SGT 1319.4 SGR 2605.8 SG3  260.5          ST  1191.5 SR  1926.2 SS  1304.1
RDE 1.5691 RRA  .6447 RC3-1.6071 FAU .04013   RRT  .8634 RRF  .9937 RTF  .8787          CRT  .9835 CRS-1.0000 CST -.9849
FDE 1.9680 FRA  .7656 FC3-1.5609 BSP  8832    SGB 2920.8 R23  .0563 R13  .9930          LSA 2606.6 MSA  189.7 SSA    5.4
BDE 1.8501 BRA  .6525 BC3 1.7095 FSP  -834    SG1 2857.0 SG2  607.2 THA  65.19          EL1 2257.5 EL2  183.7 ALF  58.45
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LAUNCH DATE  SEP  3 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  JAN  7 1971

  HELIOCENTRIC CONIC                                  DISTANCE 353.162
   RL  150.91 LAL     .00 LOL 340.09 VL  27.175 GAL  -3.87 AZL  80.85 HCA 160.38 SMA 130.06 ECC .17358 INC 9.1469 V1  29.525
   RP  107.49 LAP    3.06 LOP 140.70 VP  38.066 GAP   -.09 AZP  98.62 TAL 199.02 TAP 359.40 RCA 107.49 APO 152.64 V2  35.255
   RC  84.985 GL    54.31 GP  -71.58 ZAL 105.45 ZAP  89.20 ETS 353.25 ZAE 105.40 ETE 254.12 ZAC  29.55 ETC 244.40 CLP -87.46
  PLANETOCENTRIC CONIC
   C3  28.159 VHL   5.307 DLA  35.96 RAL 238.14 RAD 6568.1 VEL 12.228 PTH   2.20 VHP  7.034 DPA -73.28 RAP 147.76 ECC 1.4634
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      66.85    19 36 37   4150.27     -21.89    180.51     114.52      60.73   20 45 47    3550.3     -25.61     173.19
     113.15     1 15 44   3089.73     -21.88    100.91     114.52      60.73    2  7 13    2489.7     -25.60      93.59
      66.85    19 36 37   4150.27     -21.89    180.51     114.52      60.73   20 45 47    3550.3     -25.61     173.19
     113.15     1 15 44   3089.73     -21.88    100.91     114.52      60.73    2  7 13    2489.7     -25.60      93.59
      66.85    19 36 37   4150.27     -21.89    180.51     114.52      60.73   20 45 47    3550.3     -25.61     173.19
     113.15     1 15 44   3089.73     -21.88    100.91     114.52      60.73    2  7 13    2489.7     -25.60      93.59
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 1.4761 TRA  .0458 TC3 -.6078 BAU  .5146      SGT 1720.5 SGR 2581.2 SG3  214.6      ST  1594.0 SR  1977.3 SS  1245.2
   RDE 1.8061 RRA  .8115 RC3-1.2243 FAU .03097      RRT  .9035 RRF  .9935 RTF  .9226      CRT  .9882 CRS -.9999 CST -.9904
   FDE 1.8759 FRA  .7664 FC3 -.9520 BSP   9393      SGB 3102.0 R23  .0721 R13  .9926      LSA 2821.7 MSA  197.1 SSA     4.5
   BDE 2.3325 BRA  .8128 BC3 1.3669 FSP   -693      SG1 3038.1 SG2  626.5 THA  57.38      EL1 2532.6 EL2  190.5 ALF   51.20

LAUNCH DATE  SEP  3 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  JAN  9 1971

  HELIOCENTRIC CONIC                                  DISTANCE 359.463
   RL  150.91 LAL     .00 LOL 340.09 VL  27.169 GAL  -3.79 AZL  78.84 HCA 163.57 SMA 130.02 ECC .17335 INC11.1590 V1  29.525
   RP  107.50 LAP    3.14 LOP 143.95 VP  38.059 GAP    .32 AZP 100.71 TAL 198.60 TAP   2.17 RCA 107.48 APO 152.56 V2  35.253
   RC  87.241 GL    58.38 GP  -75.97 ZAL 102.87 ZAP  91.12 ETS 344.37 ZAE 100.71 ETE 246.44 ZAC  25.04 ETC 237.96 CLP -94.64
  PLANETOCENTRIC CONIC
   C3  37.966 VHL   6.162 DLA  39.34 RAL 241.33 RAD 6568.5 VEL 12.623 PTH   2.29 VHP  8.164 DPA -71.87 RAP 133.35 ECC 1.6248
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      61.47    19 21 56   4305.36     -20.93    192.55     123.53      55.90   20 33 41    3705.4     -25.25     185.64
     118.53     1 55 48   3085.02     -20.91     99.88     123.52      55.89    2 47 13    2485.0     -25.24      92.98
      61.47    19 21 56   4305.36     -20.93    192.55     123.53      55.90   20 33 41    3705.4     -25.25     185.64
     118.53     1 55 48   3085.02     -20.91     99.88     123.52      55.89    2 47 13    2485.0     -25.24      92.98
      61.47    19 21 56   4305.36     -20.93    192.55     123.53      55.90   20 33 41    3705.4     -25.25     185.64
     118.53     1 55 48   3085.02     -20.91     99.88     123.52      55.89    2 47 13    2485.0     -25.24      92.98
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 2.2252 TRA  .2947 TC3 -.5563 BAU  .5022      SGT 2208.4 SGR 2413.7 SG3  170.3      ST  2072.0 SR  1863.0 SS  1168.2
   RDE 1.9646 RRA 1.0091 RC3 -.8181 FAU .02212      RRT  .9195 RRF  .9914 RTF  .9486      CRT  .9894 CRS -.9995 CST -.9935
   FDE 1.7566 FRA  .7576 FC3 -.5043 BSP   9937      SGB 3271.5 R23  .0877 R13  .9920      LSA 3014.2 MSA  208.2 SSA     3.8
   BDE 2.9684 BRA 1.0513 BC3  .9894 FSP   -556      SG1 3205.6 SG2  653.7 THA  47.76      EL1 2779.1 EL2  201.3 ALF   41.93

LAUNCH DATE  SEP  3 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  JAN 11 1971

  HELIOCENTRIC CONIC                                  DISTANCE 365.711
   RL  150.91 LAL     .00 LOL 340.09 VL  27.160 GAL  -3.68 AZL  75.90 HCA 166.73 SMA 129.96 ECC .17321 INC14.1019 V1  29.525
   RP  107.51 LAP    3.21 LOP 147.20 VP  38.050 GAP    .71 AZP 103.74 TAL 198.08 TAP   4.82 RCA 107.45 APO 152.47 V2  35.249
   RC  89.506 GL    62.11 GP  -80.81 ZAL 100.21 ZAP  92.35 ETS 330.97 ZAE  95.48 ETE 234.53 ZAC  20.07 ETC 225.99 CLP-104.90
  PLANETOCENTRIC CONIC
   C3  55.828 VHL   7.472 DLA  42.30 RAL 244.88 RAD 6569.0 VEL 13.311 PTH   2.43 VHP  9.882 DPA -69.48 RAP 119.91 ECC 1.9188
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      57.16    19 16 59   4455.24     -18.24    203.28     133.65      51.15   20 31 15    3855.2     -23.14     196.93
     122.84     2 29  4   3128.30     -18.23    101.48     133.64      51.15    3 21 13    2528.3     -23.12      95.13
      57.16    19 16 59   4455.24     -18.24    203.28     133.65      51.15   20 31 15    3855.2     -23.14     196.93
     122.84     2 29  4   3128.30     -18.23    101.48     133.64      51.15    3 21 13    2528.3     -23.12      95.13
      57.16    19 16 59   4455.24     -18.24    203.28     133.65      51.15   20 31 15    3855.2     -23.14     196.93
     122.84     2 29  4   3128.30     -18.23    101.48     133.64      51.15    3 21 13    2528.3     -23.12      95.13
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 3.4340 TRA  .7779 TC3 -.4356 BAU  .4525      SGT 2829.9 SGR 1931.4 SG3  130.4      ST  2644.4 SR  1394.4 SS  1089.0
   RDE 1.7529 RRA 1.1918 RC3 -.4217 FAU .01380      RRT  .9049 RRF  .9765 RTF  .9685      CRT  .9843 CRS -.9963 CST -.9958
   FDE 1.6352 FRA  .7493 FC3 -.2140 BSP  10409      SGB 3426.1 R23  .1029 R13  .9913      LSA 3173.7 MSA  225.3 SSA     3.1
   BDE 3.8555 BRA 1.4232 BC3  .6063 FSP   -428      SG1 3355.3 SG2  693.2 THA  33.31      EL1 2981.6 EL2  218.4 ALF   27.59

LAUNCH DATE  SEP  3 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  JAN 13 1971

  HELIOCENTRIC CONIC                                  DISTANCE 371.878
   RL  150.91 LAL     .00 LOL 340.09 VL  27.148 GAL  -3.56 AZL  71.18 HCA 169.83 SMA 129.88 ECC .17314 INC18.8201 V1  29.525
   RP  107.52 LAP    3.26 LOP 150.45 VP  38.037 GAP   1.07 AZP 108.55 TAL 197.45 TAP   7.29 RCA 107.39 APO 152.36 V2  35.245
   RC  91.778 GL    65.00 GP  -86.03 ZAL  97.53 ZAP  92.86 ETS 301.04 ZAE  89.32 ETE 206.23 ZAC  14.25 ETC 194.91 CLP-136.16
  PLANETOCENTRIC CONIC
   C3  93.021 VHL   9.645 DLA  44.34 RAL 248.67 RAD 6569.8 VEL 14.641 PTH   2.65 VHP 12.712 DPA -65.73 RAP 107.61 ECC 2.5309
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      54.33    19 20 42   4605.39     -13.55    212.49     144.41      47.36   20 37 27    4005.4     -18.88     206.69
     125.67     2 55 38   3217.19     -13.54    105.21     144.40      47.36    3 49 16    2617.2     -18.87      99.42
      54.33    19 20 42   4605.39     -13.55    212.49     144.41      47.36   20 37 27    4005.4     -18.88     206.69
     125.67     2 55 38   3217.19     -13.54    105.21     144.40      47.36    3 49 16    2617.2     -18.87      99.42
      54.33    19 20 42   4605.39     -13.55    212.49     144.41      47.36   20 37 27    4005.4     -18.88     206.69
     125.67     2 55 38   3217.19     -13.54    105.21     144.40      47.36    3 49 16    2617.2     -18.87      99.42
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 5.1818 TRA 1.8606 TC3 -.2449 BAU  .3193      SGT 3476.8 SGR  744.5 SG3   97.2      ST  3113.1 SR   268.3 SS  1035.9
   RDE -.2738 RRA  .8561 RC3 -.0771 FAU .00589      RRT  .2583 RRF  .3774 RTF  .9900      CRT -.4809 CRS  .4334 CST -.9986
   FDE 1.5551 FRA  .7630 FC3 -.0548 BSP  10852      SGB 3555.6 R23  .1141 R13  .9914      LSA 3283.0 MSA  241.5 SSA     2.3
   BDE 5.1890 BRA 2.0481 BC3  .2567 FSP   -322      SG1 3482.3 SG2  718.1 THA   3.31      EL1 3115.7 EL2  235.0 ALF  177.61
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 377.888

RL 150.91 LAL .00 LOL 340.09 VL 27.133 GAL -3.40 AZL 62.50 HCA 172.81 SMA 129.77 ECC .17304 INC27.4970 V1 29.525
RP 107.53 LAP 3.31 LOP 153.70 VP 38.022 GAP 1.39 AZP 117.31 TAL 196.64 TAP 9.45 RCA 107.32 APO 152.23 V2 35.240
RC 94.056 GL 65.79 GP -83.97 ZAL 94.97 ZAP 92.65 ETS 231.88 ZAE 81.18 ETE 138.73 ZAC 6.86 ETC 111.78 CLP 116.09

PLANETOCENTRIC CONIC

C3 188.007 VHL 13.712 DLA 44.31 RAL 252.27 RAD 6571.0 VEL 17.588 PTH 2.97 VHP 17.980 DPA -59.56 RAP 96.44 ECC 4.0941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.37	19 35 13	4739.08	-7.28	218.64	154.76	46.17	20 54 13	4139.1	-12.77	213.15
125.63	3 9 47	3351.89	-7.26	111.45	154.75	46.17	4 5 39	2751.9	-12.76	105.96
54.37	19 35 13	4739.08	-7.28	218.64	154.76	46.17	20 54 13	4139.1	-12.77	213.15
125.63	3 9 47	3351.89	-7.26	111.45	154.75	46.17	4 5 39	2751.9	-12.76	105.96
54.37	19 35 13	4739.08	-7.28	218.64	154.76	46.17	20 54 13	4139.1	-12.77	213.15
125.63	3 9 47	3351.89	-7.26	111.45	154.75	46.17	4 5 39	2751.9	-12.76	105.96

DIFFERENTIAL CORRECTIONS
TDE 3.6916 TRA 2.4498 TC3 -.0071 BAU .0917
RDE-6.4446 RRA-2.1491 RC3 -.0358 FAU-.00348
FDE 1.6142 FRA .8637 FC3 .0160 BSP 11047
BDE 7.4270 BRA 3.2588 BC3 .0365 FSP -238

MID-COURSE EXECUTION ACCURACY
SGT 2103.9 SGR 2972.7 SG3 72.9
RRT -.9510 RRF -.9787 RTF .9925
SGB 3641.9 R23 -.0978 R13 -.9941
SG1 3602.1 SG2 537.0 THA 124.83

ORBIT DETERMINATION ACCURACY
ST 1601.2 SR 2719.1 SS 1073.9
CRT -.9912 CRS .9967 CST -.9987
LSA 3327.9 MSA 188.9 SSA 1.7
EL1 3150.3 EL2 182.5 ALF 120.38

LAUNCH DATE SEP 3 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 383.474

RL 150.91 LAL .00 LOL 340.09 VL 27.116 GAL -3.15 AZL 43.05 HCA 175.42 SMA 129.65 ECC .17266 INC46.9493 V1 29.525
RP 107.55 LAP 3.35 LOP 156.95 VP 38.005 GAP 1.59 AZP 136.86 TAL 195.40 TAP 10.82 RCA 107.27 APO 152.04 V2 35.235
RC 96.339 GL 60.73 GP -71.10 ZAL 92.70 ZAP 91.84 ETS 195.86 ZAE 67.82 ETE 104.19 ZAC 7.94 ETC 312.83 CLP 95.69

PLANETOCENTRIC CONIC

C3 514.462 VHL 22.682 DLA 38.65 RAL 254.39 RAD 6572.4 VEL 25.214 PTH 3.35 VHP 29.565 DPA -47.68 RAP 86.42 ECC 9.4667

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.51	20 19 2	4760.05	-1.48	215.36	162.56	51.37	21 38 22	4160.1	-6.46	209.50
117.49	2 42 58	3568.12	-1.47	125.07	162.54	51.37	3 42 26	2968.1	-6.44	119.20
62.51	20 19 2	4760.05	-1.48	215.36	162.56	51.37	21 38 22	4160.1	-6.46	209.50
117.49	2 42 58	3568.12	-1.47	125.07	162.54	51.37	3 42 26	2968.1	-6.44	119.20
62.51	20 19 2	4760.05	-1.48	215.36	162.56	51.37	21 38 22	4160.1	-6.46	209.50
117.49	2 42 58	3568.12	-1.47	125.07	162.54	51.37	3 42 26	2968.1	-6.44	119.20

DIFFERENTIAL CORRECTIONS
TDE-1.2870 TRA 1.2355 TC3 -.0338 BAU 1.3911
RD-11.2837 RRA-5.8653 RC3 -.1994 FAU-.02393
FDE 2.0261 FRA 1.2609 FC3 .0403 BSP 10435
BDE11.3569 BRA 5.9940 BC3 .2023 FSP -181

MID-COURSE EXECUTION ACCURACY
SGT 537.5 SGR 3541.5 SG3 58.7
RRT .1613 RRF -.9965 RTF -.0860
SGB 3582.1 R23 -.0795 R13 -.9962
SG1 3542.6 SG2 530.3 THA 88.57

ORBIT DETERMINATION ACCURACY
ST 346.5 SR 2906.7 SS 1344.3
CRT .8523 CRS .9993 CST .8321
LSA 3215.7 MSA 188.1 SSA 1.8
EL1 2921.8 EL2 180.3 ALF 84.18

LAUNCH DATE SEP 3 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 394.771

RL 150.91 LAL .00 LOL 340.09 VL 27.096 GAL -4.01 AZL 178.05 HCA 183.38 SMA 129.52 ECC .17894 INC88.0450 V1 29.525
RP 107.57 LAP 3.37 LOP 160.20 VP 37.985 GAP 3.34 AZP 1.95 TAL 198.97 TAP 22.35 RCA 106.34 APO 152.70 V2 35.229
RC 98.624 GL -43.33 GP 48.30 ZAL 92.14 ZAP 92.37 ETS 182.41 ZAE 51.73 ETE 271.80 ZAC 125.95 ETC 280.02 CLP 93.56

PLANETOCENTRIC CONIC

C31549.896 VHL 39.369 DLA -63.66 RAL 230.43 RAD 6573.2 VEL 40.880 PTH 3.57 VHP 50.744 DPA 68.77 RAP 50.82 ECC26.5074

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.26	4 58 3	2430.06	-1.38	74.52	141.10	153.66	5 38 33	1830.1	5.78	71.38
149.74	14 52 47	724.69	-1.37	292.58	141.13	153.66	15 4 51	124.7	5.79	289.44
30.26	4 58 3	2430.06	-1.38	74.52	141.10	153.66	5 38 33	1830.1	5.78	71.38
149.74	14 52 47	724.69	-1.37	292.58	141.13	153.66	15 4 51	124.7	5.79	289.44
30.26	4 58 3	2430.06	-1.38	74.52	141.10	153.66	5 38 33	1830.1	5.78	71.38
149.74	14 52 47	724.69	-1.37	292.58	141.13	153.66	15 4 51	124.7	5.79	289.44

DIFFERENTIAL CORRECTIONS
TDE 6.8433 TRA 1.1271 TC3 -.1125 BAU 4.7946
RD-14.3548 RRA 1.3442 RC3 .2022 FAU-.08305
FDE-3.5295 FRA .3122 FC3 .0464 BSP 8800
BDE15.9026 BRA 1.7542 BC3 .2314 FSP -168

MID-COURSE EXECUTION ACCURACY
SGT 1383.3 SGR 2663.3 SG3 55.2
RRT -.9033 RRF .9995 RTF -.9026
SGB 3001.2 R23 -.0887 R13 .9955
SG1 2953.1 SG2 535.2 THA 116.06

ORBIT DETERMINATION ACCURACY
ST 1002.5 SR 2093.9 SS 2256.6
CRT -.9849 CRS-1.0000 CST .9855
LSA 3233.4 MSA 163.7 SSA 2.5
EL1 2316.2 EL2 157.0 ALF 115.37

LAUNCH DATE SEP 3 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 399.037

RL 150.91 LAL .00 LOL 340.09 VL 27.074 GAL -3.49 AZL 135.28 HCA 184.77 SMA 129.37 ECC .17696 INC45.2810 V1 29.525
RP 107.59 LAP 3.39 LOP 163.45 VP 37.963 GAP 3.17 AZP 44.82 TAL 196.61 TAP 21.38 RCA 106.48 APO 152.26 V2 35.222
RC 100.910 GL -61.15 GP 72.12 ZAL 93.20 ZAP 94.02 ETS 178.55 ZAE 76.04 ETE 267.31 ZAC 149.27 ETC 283.47 CLP 103.18

PLANETOCENTRIC CONIC

C3 480.635 VHL 21.923 DLA -77.24 RAL 192.41 RAD 6572.3 VEL 24.534 PTH 3.33 VHP 28.166 DPA 82.41 RAP 303.49 ECC 8.9100

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.53	1 52 39	2409.05	2.67	81.77	101.79	167.22	2 32 48	1809.0	10.47	80.40
165.46	12 54 51	619.91	2.68	283.27	101.82	167.22	13 5 11	19.9	10.48	281.89
14.53	1 52 39	2409.05	2.67	81.77	101.79	167.22	2 32 48	1809.0	10.47	80.40
165.46	12 54 51	619.91	2.68	283.27	101.82	167.22	13 5 11	19.9	10.48	281.89
14.53	1 52 39	2409.05	2.67	81.77	101.79	167.22	2 32 48	1809.0	10.47	80.40
165.46	12 54 51	619.91	2.68	283.27	101.82	167.22	13 5 11	19.9	10.48	281.89

DIFFERENTIAL CORRECTIONS
TDE 2.7797 TRA .8857 TC3 -.0756 BAU 1.3729
RD-10.9705 RRA-1.6053 RC3 .1998 FAU-.02006
FDE-2.3683 FRA -.3228 FC3 .0361 BSP 11693
BDE11.3172 BRA 1.8334 BC3 .2137 FSP -203

MID-COURSE EXECUTION ACCURACY
SGT 1317.3 SGR 3548.8 SG3 64.3
RRT -.9332 RRF .9989 RTF -.9201
SGB 3785.4 R23 -.0753 R13 .9966
SG1 3758.9 SG2 446.8 THA 109.39

ORBIT DETERMINATION ACCURACY
ST 791.6 SR 2923.3 SS 1531.9
CRT -.9776 CRS -.9999 CST .9747
LSA 3389.9 MSA 165.4 SSA 1.6
EL1 3024.3 EL2 161.2 ALF 104.87

LAUNCH DATE SEP 3 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 404.618

RL	150.91	LAL	.00	LOL	340.09	VL	27.050	GAL	-3.22	AZL	117.27	HCA	187.43	SMA	129.21	ECC	.17683	INC	27.2650	V1	29.525		
RP	107.61	LAP	3.39	LOP	166.70	VP	37.939	GAP	3.36	AZP	62.93	TAL	195.28	TAP	22.71	RCA	106.36	APO	152.06	V2	35.215		
RC	103.196	GL	-65.56	GP	81.54	ZAL	94.63	ZAP	96.87	ETS	144.99	ZAE	88.71	ETE	233.41	ZAC	159.84	ETC	265.03	CLP	144.38		

PLANETOCENTRIC CONIC

C3	184.695	VHL	13.590	DLA	-77.45	RAL	170.10	RAD	6571.0	VEL	17.493	PTH	2.97	VHP	17.434	DPA	72.00	RAP	262.65	ECC	4.0396		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.29	0 23 10	2293.55	10.37	80.65	77.75	167.24	1 1 24	1693.6	18.17	79.21
165.71	11 26 19	5791.70	10.38	259.81	77.77	167.24	13 2 51	5191.7	18.17	258.38
14.29	0 23 10	2293.55	10.37	80.65	77.75	167.24	1 1 24	1693.6	18.17	79.21
165.71	11 26 19	5791.70	10.38	259.81	77.77	167.24	13 2 51	5191.7	18.17	258.38
14.29	0 23 10	2293.55	10.37	80.65	77.75	167.24	1 1 24	1693.6	18.17	79.21
165.71	11 26 19	5791.70	10.38	259.81	77.77	167.24	13 2 51	5191.7	18.17	258.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.0149	TRA	-.3382	TC3	-.0032	BAU	.1061	SGT	1073.3	SGR	3907.2	SG3	83.1
RDE	-4.5058	RRA	-1.7590	RC3	.0428	FAU	.00143	RRT	.9183	RRF	.9932	RTF	.9556
FDE	-1.3149	FRA	-.4052	FC3	-.0067	BSP	12655	SGB	4051.9	R23	-.0841	R13	.9957
BDE	4.9358	BRA	1.7912	BC3	.0430	FSP	-267	SG1	4030.9	SG2	411.8	THA	75.69

ST	872.0	SR	2157.9	SS	907.4
CRT	.9647	CRS	-.9958	CST	-.9848
LSA	2488.4	MSA	219.0	SSA	1.6
EL1	2317.6	EL2	213.9	ALF	68.51

LAUNCH DATE SEP 3 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 410.539

RL	150.91	LAL	.00	LOL	340.09	VL	27.025	GAL	-3.01	AZL	109.08	HCA	190.41	SMA	129.03	ECC	.17724	INC	19.0829	V1	29.525		
RP	107.64	LAP	3.39	LOP	169.94	VP	37.914	GAP	3.64	AZP	71.21	TAL	194.21	TAP	24.62	RCA	106.16	APO	151.90	V2	35.207		
RC	105.482	GL	-64.87	GP	79.30	ZAL	95.87	ZAP	100.37	ETS	67.72	ZAE	96.53	ETE	156.28	ZAC	163.61	ETC	209.98	CLP	-165.83		

PLANETOCENTRIC CONIC

C3	94.983	VHL	9.746	DLA	-76.15	RAL	171.22	RAD	6569.9	VEL	14.708	PTH	2.66	VHP	12.536	DPA	64.00	RAP	252.97	ECC	2.5632		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.78	0 30 35	2164.30	18.68	78.00	76.42	165.37	1 6 39	1564.3	26.41	76.17
164.22	11 27 49	5667.40	18.69	258.63	76.45	165.36	13 2 17	5067.4	26.41	256.80
15.78	0 30 35	2164.30	18.68	78.00	76.42	165.37	1 6 39	1564.3	26.41	76.17
164.22	11 27 49	5667.40	18.69	258.63	76.45	165.36	13 2 17	5067.4	26.41	256.80
15.78	0 30 35	2164.30	18.68	78.00	76.42	165.37	1 6 39	1564.3	26.41	76.17
164.22	11 27 49	5667.40	18.69	258.63	76.45	165.36	13 2 17	5067.4	26.41	256.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-3.3605	TRA	-1.4494	TC3	-.2501	BAU	.3200	SGT	4100.6	SGR	787.5	SG3	111.2
RDE	1.3118	RRA	.0601	RC3	.0307	FAU	.01272	RRT	-.6437	RRF	-.7376	RTF	.9896
FDE	-1.2875	FRA	-.4134	FC3	-.1159	BSP	13032	SGB	4175.5	R23	.1133	R13	-.9918
BDE	3.6074	BRA	1.4506	BC3	.2520	FSP	-359	SG1	4132.5	SG2	598.0	THA	172.80

ST	2245.9	SR	772.5	SS	883.7
CRT	-.9055	CRS	.9476	CST	-.9936
LSA	2514.0	MSA	318.1	SSA	2.3
EL1	2354.3	EL2	312.7	ALF	162.38

LAUNCH DATE SEP 3 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 416.679

RL	150.91	LAL	.00	LOL	340.09	VL	26.998	GAL	-2.78	AZL	104.57	HCA	193.52	SMA	128.85	ECC	.17775	INC	14.5710	V1	29.525		
RP	107.66	LAP	3.37	LOP	173.18	VP	37.886	GAP	3.92	AZP	75.82	TAL	193.06	TAP	26.57	RCA	105.95	APO	151.75	V2	35.198		
RC	107.765	GL	-62.46	GP	73.61	ZAL	96.67	ZAP	104.20	ETS	50.92	ZAE	102.36	ETE	140.18	ZAC	163.23	ETC	215.26	CLP	-150.41		

PLANETOCENTRIC CONIC

C3	58.534	VHL	7.651	DLA	-74.83	RAL	179.32	RAD	6569.1	VEL	13.412	PTH	2.45	VHP	9.920	DPA	57.37	RAP	247.70	ECC	1.9633		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.29	1 5 59	2049.01	25.91	74.93	81.75	163.09	1 40 8	1449.0	33.54	72.56
162.71	11 57 6	5557.75	25.91	257.07	81.77	163.09	13 29 44	4957.7	33.54	254.70
17.29	1 5 59	2049.01	25.91	74.93	81.75	163.09	1 40 8	1449.0	33.54	72.56
162.71	11 57 6	5557.75	25.91	257.07	81.77	163.09	13 29 44	4957.7	33.54	254.70
17.29	1 5 59	2049.01	25.91	74.93	81.75	163.09	1 40 8	1449.0	33.54	72.56
162.71	11 57 6	5557.75	25.91	257.07	81.77	163.09	13 29 44	4957.7	33.54	254.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.8983	TRA	-.1497	TC3	.0607	BAU	.2263	SGT	1487.7	SGR	1535.4	SG3	81.2
RDE	1.0552	RRA	-.4344	RC3	-.2827	FAU	-.00613	RRT	-.2761	RRF	-.9546	RTF	.5249
FDE	-.9262	FRA	.2161	FC3	.0907	BSP	16498	SGB	2137.9	R23	.3059	R13	-.9442
BDE	2.1718	BRA	.4595	BC3	.2892	FSP	784	SG1	1708.8	SG2	1284.7	THA	131.74

ST	1427.4	SR	873.9	SS	615.4
CRT	-.8621	CRS	.9839	CST	-.9388
LSA	1736.1	MSA	407.4	SSA	2.8
EL1	1628.0	EL2	388.2	ALF	150.32

LAUNCH DATE SEP 3 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 422.618

RL	150.91	LAL	.00	LOL	340.09	VL	26.969	GAL	-2.61	AZL	101.73	HCA	196.67	SMA	128.66	ECC	.17869	INC	11.7305	V1	29.525		
RP	107.69	LAP	3.34	LOP	176.43	VP	37.857	GAP	4.26	AZP	78.75	TAL	192.17	TAP	28.84	RCA	105.67	APO	151.65	V2	35.189		
RC	110.046	GL	-59.35	GP	67.69	ZAL	97.30	ZAP	108.42	ETS	47.39	ZAE	107.07	ETE	137.93	ZAC	160.33	ETC	227.35	CLP	-146.34		

PLANETOCENTRIC CONIC

C3	40.539	VHL	6.367	DLA	-73.08	RAL	188.69	RAD	6568.6	VEL	12.724	PTH	2.31	VHP	8.372	DPA	51.39	RAP	243.88	ECC	1.6672		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.30	1 47 27	1953.21	31.55	71.10	87.91	160.04	2 20 0	1353.2	39.02	68.01
160.70	12 30 20	5470.32	31.56	255.27	87.94	160.03	14 1 30	4870.3	39.03	252.18
19.30	1 47 27	1953.21	31.55	71.10	87.91	160.04	2 20 0	1353.2	39.02	68.01
160.70	12 30 20	5470.32	31.56	255.27	87.94	160.03	14 1 30	4870.3	39.03	252.18
19.30	1 47 27	1953.21	31.55	71.10	87.91	160.04	2 20 0	1353.2	39.02	68.01
160.70	12 30 20	5470.32	31.56	255.27	87.94	160.03	14 1 30	4870.3	39.03	252.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.7295	TRA	-.9093	TC3	-1.0344	BAU	.6089	SGT	3959.2	SGR	1927.4	SG3	186.9
RDE	1.8070	RRA	.2818	RC3	.4384	FAU	.03096	RRT	-.9408	RRF	-.9883	RTF	.9726
FDE	-1.8152	FRA	-.3690	FC3	-.6612	BSP	14071	SGB	4403.4	R23	.1538	R13	-.9844
BDE	3.2734	BRA	.9519	BC3	1.1234	FSP	-623	SG1	4363.4	SG2	592.7	THA	154.90

ST	2597.3	SR	1647.0	SS	1207.4
CRT	-.9853	CRS	.9989	CST	-.9923
LSA	3294.3	MSA	252.6	SSA	3.8
EL1	3066.3	EL2	238.1	ALF	147.78

LAUNCH DATE SEP 3 1970 FLIGHT TIME 150.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 428.685

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RL  150.91 LAL    .00 LOL 340.09 VL  26.939 GAL  -2.41 AZL  99.78 HCA 199.84 SMA 128.46 ECC .17963 INC 9.7763 V1  29.525
RP  107.72 LAP   3.30 LOP 179.66 VP  37.827 GAP   4.58 AZP  80.79 TAL 191.13 TAP  30.98 RCA 105.38 APO 151.53 V2  35.179
RC 112.324 GL  -56.01 GP   62.17 ZAL  97.43 ZAP 112.62 ETS  46.30 ZAE 110.98 ETE 138.59 ZAC 156.55 ETC 235.87 CLP-145.46
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PLANETOCENTRIC CONIC

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C3  30.381 VHL  5.512 DLA -71.20 RAL 197.86 RAD 6568.2 VEL 12.319 PTH   2.22 VHP  7.392 DPA  45.86 RAP 241.26 ECC 1.5000
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.48	2 28 34	1875.32	35.75	66.86	93.66	156.60	2 59 50	1275.3	43.01	62.95
158.52	13 2 22	5402.68	35.75	253.27	93.68	156.60	14 32 25	4802.7	43.02	249.35
21.48	2 28 34	1875.32	35.75	66.86	93.66	156.60	2 59 50	1275.3	43.01	62.95
158.52	13 2 22	5402.68	35.75	253.27	93.68	156.60	14 32 25	4802.7	43.02	249.35
21.48	2 28 34	1875.32	35.75	66.86	93.66	156.60	2 59 50	1275.3	43.01	62.95
158.52	13 2 22	5402.68	35.75	253.27	93.68	156.60	14 32 25	4802.7	43.02	249.35

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6822 TRA -.7229 TC3-1.5092 BAU  .6592   SGT 3997.2 SGR 1875.4 SG3  221.3      ST  2874.9 SR  1668.7 SS  1336.3
RDE 1.5966 RRA  .1781 RC3  .5966 FAU .03788   RRT -.9419 RRF -.9893 RTF  .9673      CRT -.9899 CRS  .9996 CST -.9935
FDE-1.9951 FRA -.2848 FC3-1.0793 BSP  13827   SGB 4415.2 R23  .1752 R13 -.9794      LSA 3575.5 MSA  226.8 SSA    4.6
BDE 3.1214 BRA  .7446 BC3 1.6229 FSP   -717   SG1 4377.6 SG2  575.1 THA 155.71      EL1 3317.8 EL2  205.2 ALF 149.99
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 434.748

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.908 GAL  -2.20 AZL  98.34 HCA 203.03 SMA 128.25 ECC .18069 INC 8.3447 V1  29.525
RP  107.75 LAP   3.26 LOP 182.90 VP  37.795 GAP   4.90 AZP  82.31 TAL 190.07 TAP  33.11 RCA 105.08 APO 151.42 V2  35.169
RC 114.599 GL  -52.61 GP   57.03 ZAL  97.17 ZAP 116.78 ETS  45.97 ZAE 114.22 ETE 140.41 ZAC 152.54 ETC 241.55 CLP-145.88
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PLANETOCENTRIC CONIC

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C3  24.121 VHL  4.911 DLA -69.12 RAL 206.22 RAD 6568.0 VEL 12.062 PTH   2.16 VHP  6.751 DPA  40.70 RAP 239.41 ECC 1.3970
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.88	3 7 5	1811.57	38.70	62.23	98.41	152.82	3 37 17	1211.6	45.71	57.42
156.12	13 30 34	5351.81	38.71	251.16	98.43	152.82	14 59 46	4751.8	45.72	246.35
23.88	3 7 5	1811.57	38.70	62.23	98.41	152.82	3 37 17	1211.6	45.71	57.42
156.12	13 30 34	5351.81	38.71	251.16	98.43	152.82	14 59 46	4751.8	45.72	246.35
23.88	3 7 5	1811.57	38.70	62.23	98.41	152.82	3 37 17	1211.6	45.71	57.42
156.12	13 30 34	5351.81	38.71	251.16	98.43	152.82	14 59 46	4751.8	45.72	246.35

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6179 TRA -.5747 TC3-2.0511 BAU  .7023   SGT 4114.0 SGR 1788.2 SG3  255.5      ST  3106.4 SR  1609.1 SS  1424.5
RDE 1.3768 RRA  .0966 RC3  .7326 FAU .04423   RRT -.9447 RRF -.9889 RTF  .9653      CRT -.9923 CRS  .9998 CST -.9943
FDE-2.0871 FRA -.1891 FC3-1.5874 BSP  14061   SGB 4485.8 R23  .1854 R13 -.9760      LSA 3771.7 MSA  206.1 SSA    5.5
BDE 2.9579 BRA  .5827 BC3 2.1780 FSP   -827   SG1 4453.0 SG2  541.6 THA 157.32      EL1 3493.9 EL2  176.7 ALF 152.72
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 440.801

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.876 GAL  -1.98 AZL  97.25 HCA 206.23 SMA 128.04 ECC .18187 INC 7.2459 V1  29.525
RP  107.79 LAP   3.20 LOP 186.14 VP  37.763 GAP   5.22 AZP  83.49 TAL 188.99 TAP  35.22 RCA 104.75 APO 151.32 V2  35.158
RC 116.871 GL  -49.23 GP   52.31 ZAL  96.54 ZAP 120.80 ETS  45.86 ZAE 116.88 ETE 142.70 ZAC 148.63 ETC 245.42 CLP-146.88
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PLANETOCENTRIC CONIC

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C3  20.012 VHL  4.473 DLA -66.91 RAL 213.75 RAD 6567.8 VEL 11.891 PTH   2.11 VHP  6.327 DPA  35.91 RAP 238.15 ECC 1.3293
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.45	3 42 45	1758.64	40.65	57.36	102.27	148.88	4 12 3	1158.6	47.35	51.69
153.55	13 54 56	5314.43	40.66	249.06	102.28	148.88	15 23 31	4714.4	47.35	243.38
26.45	3 42 45	1758.64	40.65	57.36	102.27	148.88	4 12 3	1158.6	47.35	51.69
153.55	13 54 56	5314.43	40.66	249.06	102.28	148.88	15 23 31	4714.4	47.35	243.38
26.45	3 42 45	1758.64	40.65	57.36	102.27	148.88	4 12 3	1158.6	47.35	51.69
153.55	13 54 56	5314.43	40.66	249.06	102.28	148.88	15 23 31	4714.4	47.35	243.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5234 TRA -.4375 TC3-2.6284 BAU  .7375   SGT 4244.7 SGR 1674.0 SG3  284.3      ST  3261.0 SR  1497.1 SS  1460.1
RDE 1.1685 RRA  .0300 RC3  .8309 FAU .04929   RRT -.9465 RRF -.9872 RTF  .9643      CRT -.9937 CRS  .9999 CST -.9946
FDE-2.0841 FRA -.0760 FC3-2.1324 BSP  14319   SGB 4562.9 R23  .1900 R13 -.9732      LSA 3869.2 MSA  190.6 SSA    6.5
BDE 2.7808 BRA  .4385 BC3 2.7566 FSP   -920   SG1 4534.8 SG2  505.7 THA 159.26      EL1 3585.0 EL2  152.8 ALF 155.43
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 446.841

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RL  150.91 LAL    .00 LOL 340.09 VL  26.843 GAL  -1.75 AZL  96.37 HCA 209.43 SMA 127.82 ECC .18316 INC 6.3716 V1  29.525
RP  107.82 LAP   3.13 LOP 189.37 VP  37.729 GAP   5.53 AZP  84.45 TAL 187.87 TAP  37.30 RCA 104.41 APO 151.23 V2  35.147
RC 119.138 GL  -45.90 GP   48.02 ZAL  95.55 ZAP 124.62 ETS  45.79 ZAE 119.01 ETE 145.19 ZAC 144.97 ETC 248.17 CLP-148.13
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PLANETOCENTRIC CONIC

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C3  17.191 VHL  4.146 DLA -64.63 RAL 220.54 RAD 6567.7 VEL 11.772 PTH   2.08 VHP  6.049 DPA  31.49 RAP 237.37 ECC 1.2829
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.13	4 15 57	1713.78	41.78	52.42	105.46	144.93	4 44 31	1113.8	48.13	45.96
150.87	14 15 56	5288.03	41.78	247.09	105.47	144.92	15 44 4	4688.0	48.14	240.63
29.13	4 15 57	1713.78	41.78	52.42	105.46	144.93	4 44 31	1113.8	48.13	45.96
150.87	14 15 56	5288.03	41.78	247.09	105.47	144.92	15 44 4	4688.0	48.14	240.63
29.13	4 15 57	1713.78	41.78	52.42	105.46	144.93	4 44 31	1113.8	48.13	45.96
150.87	14 15 56	5288.03	41.78	247.09	105.47	144.92	15 44 4	4688.0	48.14	240.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4075 TRA -.3036 TC3-3.2173 BAU  .7672   SGT 4375.4 SGR 1550.3 SG3  306.4      ST  3340.7 SR  1361.9 SS  1448.1
RDE  .9852 RRA -.0234 RC3  .8895 FAU .05289   RRT -.9469 RRF -.9844 RTF  .9637      CRT -.9945 CRS 1.0000 CST -.9945
FDE-2.0041 FRA  .0490 FC3-2.6637 BSP  14593   SGB 4641.9 R23  .1901 R13 -.9709      LSA 3883.3 MSA  179.2 SSA    7.6
BDE 2.6013 BRA  .3045 BC3 3.3380 FSP   -995   SG1 4617.8 SG2  472.1 THA 161.25      EL1 3605.2 EL2  132.2 ALF 157.90
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 452.866

RL 150.91 LAL .00 LOL 340.09 VL 26.809 GAL -1.52 AZL 95.66 HCA 212.64 SMA 127.59 ECC .18457 INC 5.6556 V1 29.525
RP 107.86 LAP 3.05 LOP 192.60 VP 37.694 GAP 5.85 AZP 85.23 TAL 186.72 TAP 39.36 RCA 104.04 APO 151.14 V2 35.136
RC 121.402 GL -42.65 GP 44.14 ZAL 94.24 ZAP 128.20 ETS 45.71 ZAE 120.70 ETE 147.68 ZAC 141.62 ETC 250.20 CLP-149.51

PLANETOCENTRIC CONIC

C3 15.196 VHL 3.898 DLA -62.29 RAL 226.73 RAD 6567.6 VEL 11.687 PTH 2.06 VHP 5.874 DPA 27.42 RAP 236.98 ECC 1.2501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.89	4 47 9	1675.00	42.25	47.52	108.22	141.08	5 15 4	1075.0	48.24	40.39
148.11	14 34 7	5270.63	42.26	245.37	108.23	141.07	16 1 58	4670.6	48.25	238.24
31.89	4 47 9	1675.00	42.25	47.52	108.22	141.08	5 15 4	1075.0	48.24	40.39
148.11	14 34 7	5270.63	42.26	245.37	108.23	141.07	16 1 58	4670.6	48.25	238.24
31.89	4 47 9	1675.00	42.25	47.52	108.22	141.08	5 15 4	1075.0	48.24	40.39
148.11	14 34 7	5270.63	42.26	245.37	108.23	141.07	16 1 58	4670.6	48.25	238.24

DIFFERENTIAL CORRECTIONS
TDE-2.2792 TRA -.1710 TC3-3.8019 BAU .7944
RDE .8309 RRA -.0652 RC3 .9146 FAU .05519
FDE-1.8702 FRA .1776 FC3-3.1444 BSP 14884
BDE 2.4259 BRA .1830 BC3 3.9104 FSP -1049

MID-COURSE EXECUTION ACCURACY
SGT 4505.6 SGR 1429.1 SG3 321.9
RRT -.9463 RRF -.9805 RTF .9634
SGB 4726.8 R23 .1855 R13 -.9690
SG1 4706.0 SG2 442.2 THA 163.14

ORBIT DETERMINATION ACCURACY
ST 3355.0 SR 1223.0 SS 1398.3
CRT -.9951 CRS .9999 CST -.9940
LSA 3831.1 MSA 170.7 SSA 8.8
EL1 3569.1 EL2 114.0 ALF 160.04

LAUNCH DATE SEP 3 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 458.874

RL 150.91 LAL .00 LOL 340.09 VL 26.775 GAL -1.27 AZL 95.06 HCA 215.85 SMA 127.37 ECC .18611 INC 5.0552 V1 29.525
RP 107.89 LAP 2.96 LOP 195.83 VP 37.658 GAP 6.16 AZP 85.90 TAL 185.55 TAP 41.39 RCA 103.66 APO 151.07 V2 35.124
RC 123.660 GL -39.48 GP 40.66 ZAL 92.63 ZAP 131.53 ETS 45.62 ZAE 122.02 ETE 150.10 ZAC 138.60 ETC 251.77 CLP-150.93

PLANETOCENTRIC CONIC

C3 13.761 VHL 3.710 DLA -59.92 RAL 232.43 RAD 6567.5 VEL 11.625 PTH 2.04 VHP 5.774 DPA 23.69 RAP 236.94 ECC 1.2265

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.71	5 16 51	1640.61	42.20	42.74	110.74	137.43	5 44 12	1040.6	47.82	35.09
145.29	14 49 54	5261.02	42.21	243.97	110.75	137.42	16 17 35	4661.0	47.83	236.33
34.71	5 16 51	1640.61	42.20	42.74	110.74	137.43	5 44 12	1040.6	47.82	35.09
145.29	14 49 54	5261.02	42.21	243.97	110.75	137.42	16 17 35	4661.0	47.83	236.33
34.71	5 16 51	1640.61	42.20	42.74	110.74	137.43	5 44 12	1040.6	47.82	35.09
145.29	14 49 54	5261.02	42.21	243.97	110.75	137.42	16 17 35	4661.0	47.83	236.33

DIFFERENTIAL CORRECTIONS
TDE-2.1432 TRA -.0366 TC3-4.3636 BAU .8201
RDE .7037 RRA -.0980 RC3 .9123 FAU .05636
FDE-1.7018 FRA .3053 FC3-3.5454 BSP 15184
BDE 2.2558 BRA .1046 BC3 4.4579 FSP -1085

MID-COURSE EXECUTION ACCURACY
SGT 4631.6 SGR 1315.6 SG3 331.4
RRT -.9446 RRF -.9753 RTF .9631
SGB 4814.8 R23 .1769 R13 -.9676
SG1 4796.7 SG2 417.1 THA 164.86

ORBIT DETERMINATION ACCURACY
ST 3311.9 SR 1090.9 SS 1319.4
CRT -.9956 CRS .9997 CST -.9931
LSA 3724.6 MSA 164.6 SSA 10.1
EL1 3485.6 EL2 97.2 ALF 161.83

LAUNCH DATE SEP 3 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 464.866

RL 150.91 LAL .00 LOL 340.09 VL 26.739 GAL -1.00 AZL 94.54 HCA 219.05 SMA 127.14 ECC .18777 INC 4.5415 V1 29.525
RP 107.93 LAP 2.86 LOP 199.05 VP 37.622 GAP 6.48 AZP 86.47 TAL 184.35 TAP 43.40 RCA 103.26 APO 151.01 V2 35.112
RC 125.912 GL -36.40 GP 37.55 ZAL 90.76 ZAP 134.62 ETS 45.52 ZAE 123.02 ETE 152.38 ZAC 135.91 ETC 253.02 CLP-152.36

PLANETOCENTRIC CONIC

C3 12.725 VHL 3.567 DLA -57.53 RAL 237.73 RAD 6567.5 VEL 11.581 PTH 2.03 VHP 5.729 DPA 20.29 RAP 237.17 ECC 1.2094

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.58	5 45 26	1609.56	41.72	38.12	113.16	134.01	6 12 16	1009.6	46.98	30.10
142.42	15 3 36	5258.28	41.73	242.96	113.17	134.00	16 31 15	4658.3	46.99	234.94
37.58	5 45 26	1609.56	41.72	38.12	113.16	134.01	6 12 16	1009.6	46.98	30.10
142.42	15 3 36	5258.28	41.73	242.96	113.17	134.00	16 31 15	4658.3	46.99	234.94
37.58	5 45 26	1609.56	41.72	38.12	113.16	134.01	6 12 16	1009.6	46.98	30.10
142.42	15 3 36	5258.28	41.73	242.96	113.17	134.00	16 31 15	4658.3	46.99	234.94

DIFFERENTIAL CORRECTIONS
TDE-2.0025 TRA .1018 TC3-4.8817 BAU .8440
RDE .6007 RRA -.1243 RC3 .8869 FAU .05648
FDE-1.5154 FRA .4296 FC3-3.8427 BSP 15492
BDE 2.0906 BRA .1607 BC3 4.9616 FSP -1105

MID-COURSE EXECUTION ACCURACY
SGT 4750.5 SGR 1212.2 SG3 335.7
RRT -.9412 RRF -.9685 RTF .9628
SGB 4902.8 R23 .1654 R13 -.9662
SG1 4886.6 SG2 398.1 THA 166.40

ORBIT DETERMINATION ACCURACY
ST 3219.4 SR 971.4 SS 1220.6
CRT -.9962 CRS .9990 CST -.9917
LSA 3573.8 MSA 160.8 SSA 11.6
EL1 3361.8 EL2 81.4 ALF 163.26

LAUNCH DATE SEP 3 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 470.838

RL 150.91 LAL .00 LOL 340.09 VL 26.704 GAL -.73 AZL 94.09 HCA 222.26 SMA 126.90 ECC .18957 INC 4.0945 V1 29.525
RP 107.97 LAP 2.75 LOP 202.27 VP 37.585 GAP 6.79 AZP 86.97 TAL 183.12 TAP 45.38 RCA 102.85 APO 150.96 V2 35.099
RC 128.158 GL -33.41 GP 34.77 ZAL 88.66 ZAP 137.46 ETS 45.44 ZAE 123.77 ETE 154.48 ZAC 133.52 ETC 254.05 CLP-153.76

PLANETOCENTRIC CONIC

C3 11.986 VHL 3.462 DLA -55.13 RAL 242.69 RAD 6567.5 VEL 11.549 PTH 2.02 VHP 5.727 DPA 17.18 RAP 237.65 ECC 1.1973

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.49	6 13 11	1580.47	40.90	33.69	115.56	130.86	6 39 32	980.5	45.82	25.42
139.51	15 15 26	5261.85	40.91	242.39	115.57	130.85	16 43 7	4661.8	45.83	234.12
40.49	6 13 11	1580.47	40.90	33.69	115.56	130.86	6 39 32	980.5	45.82	25.42
139.51	15 15 26	5261.85	40.91	242.39	115.57	130.85	16 43 7	4661.8	45.83	234.12
40.49	6 13 11	1580.47	40.90	33.69	115.56	130.86	6 39 32	980.5	45.82	25.42
139.51	15 15 26	5261.85	40.91	242.39	115.57	130.85	16 43 7	4661.8	45.83	234.12

DIFFERENTIAL CORRECTIONS
TDE-1.8593 TRA .2446 TC3-5.3426 BAU .8668
RDE .5183 RRA -.1453 RC3 .8453 FAU .05581
FDE-1.3242 FRA .5467 FC3-4.0312 BSP 15787
BDE 1.9302 BRA .2845 BC3 5.4091 FSP -1110

MID-COURSE EXECUTION ACCURACY
SGT 4863.7 SGR 1120.4 SG3 335.7
RRT -.9364 RRF -.9600 RTF .9625
SGB 4991.1 R23 .1510 R13 -.9652
SG1 4976.2 SG2 384.3 THA 167.75

ORBIT DETERMINATION ACCURACY
ST 3086.4 SR 867.2 SS 1110.2
CRT -.9969 CRS .9976 CST -.9896
LSA 3389.0 MSA 158.8 SSA 13.1
EL1 3205.3 EL2 65.6 ALF 164.35

LAUNCH DATE SEP 3 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 476.791

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RL  150.91 LAL    .00 LOL 340.09 VL  26.667 GAL   -.44 AZL  93.70 HCA 225.46 SMA 126.67 ECC .19151 INC 3.6997 V1  29.525
RP  108.01 LAP   2.64 LOP 205.49 VP  37.547 GAP   7.11 AZP  87.40 TAL 181.87 TAP  47.34 RCA 102.41 APO 150.93 V2  35.086
RC 130.397 GL  -30.52 GP   32.29 ZAL  86.37 ZAP 140.08 ETS  45.40 ZAE 124.32 ETE 156.40 ZAC 131.41 ETC 254.92 CLP-155.14
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PLANETOCENTRIC CONIC

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C3  11.481 VHL  3.388 DLA -52.73 RAL 247.35 RAD 6567.4 VEL 11.527 PTH   2.01 VHP  5.757 DPA  14.34 RAP 238.34 ECC 1.1890
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.46	6 40 22	1552.87	39.80	29.43	118.00	127.99	7 6 15	952.9	44.40	21.01
136.54	15 25 27	5271.44	39.81	242.28	118.01	127.98	16 53 18	4671.4	44.41	233.86
43.46	6 40 22	1552.87	39.80	29.43	118.00	127.99	7 6 15	952.9	44.40	21.01
136.54	15 25 27	5271.44	39.81	242.28	118.01	127.98	16 53 18	4671.4	44.41	233.86
43.46	6 40 22	1552.87	39.80	29.43	118.00	127.99	7 6 15	952.9	44.40	21.01
136.54	15 25 27	5271.44	39.81	242.28	118.01	127.98	16 53 18	4671.4	44.41	233.86

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.7244 TRA  .3819 TC3-5.7684 BAU  .8940   SGT 4992.1 SGR 1044.2 SG3  333.8     ST  2935.7 SR   783.2 SS  1003.2
 RDE  .4563 RRA -.1590 RC3  .8053 FAU .05513   RRT -.9317 RRF -.9500 RTF  .9637     CRT -.9979 CRS  .9948 CST -.9870
 FDE-1.1483 FRA  .6429 FC3-4.1566 BSP  16352   SGB 5100.1 R23  .1296 R13 -.9657     LSA 3195.9 MSA  156.3 SSA   14.8
 BDE 1.7838 BRA  .4137 BC3 5.8243 FSP  -1132   SG1 5086.5 SG2  372.3 THA 168.91     EL1 3038.0 EL2   48.8 ALF 165.09
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 482.726

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RL  150.91 LAL    .00 LOL 340.09 VL  26.631 GAL   -.14 AZL  93.35 HCA 228.67 SMA 126.43 ECC .19360 INC 3.3464 V1  29.525
RP  108.05 LAP   2.51 LOP 208.71 VP  37.509 GAP   7.42 AZP  87.79 TAL 180.60 TAP  49.27 RCA 101.96 APO 150.91 V2  35.074
RC 132.627 GL  -27.72 GP   30.09 ZAL  83.92 ZAP 142.50 ETS  45.40 ZAE 124.71 ETE 158.14 ZAC 129.55 ETC 255.69 CLP-156.48
```

PLANETOCENTRIC CONIC

```
C3  11.167 VHL  3.342 DLA -50.34 RAL 251.76 RAD 6567.4 VEL 11.513 PTH   2.01 VHP  5.814 DPA  11.75 RAP 239.21 ECC 1.1838
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.46	7 7 14	1525.83	38.49	25.32	120.51	125.38	7 32 40	925.8	42.79	16.84
133.54	15 33 44	5286.97	38.50	242.65	120.52	125.37	17 1 50	4687.0	42.80	234.17
46.46	7 7 14	1525.83	38.49	25.32	120.51	125.38	7 32 40	925.8	42.79	16.84
133.54	15 33 44	5286.97	38.50	242.65	120.52	125.37	17 1 50	4687.0	42.80	234.17
46.46	7 7 14	1525.83	38.49	25.32	120.51	125.38	7 32 40	925.8	42.79	16.84
133.54	15 33 44	5286.97	38.50	242.65	120.52	125.37	17 1 50	4687.0	42.80	234.17

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.5665 TRA  .5507 TC3-6.0429 BAU  .9088   SGT 5070.9 SGR  971.7 SG3  327.4     ST  2724.9 SR   703.2 SS   880.1
 RDE  .4014 RRA -.1782 RC3  .7352 FAU .05284   RRT -.9216 RRF -.9374 RTF  .9619     CRT -.9988 CRS  .9881 CST -.9812
 FDE -.9560 FRA  .7610 FC3-4.0966 BSP  16257   SGB 5163.1 R23  .1189 R13 -.9635     LSA 2944.1 MSA  162.6 SSA   16.4
 BDE 1.6171 BRA  .5788 BC3 6.0874 FSP  -1082   SG1 5149.8 SG2  371.4 THA 169.93     EL1 2814.0 EL2   32.7 ALF 165.54
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 488.639

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.594 GAL    .17 AZL  93.03 HCA 231.87 SMA 126.20 ECC .19584 INC 3.0265 V1  29.525
RP  108.09 LAP   2.38 LOP 211.92 VP  37.471 GAP   7.74 AZP  88.13 TAL 179.31 TAP  51.18 RCA 101.48 APO 150.91 V2  35.061
RC 134.850 GL  -25.03 GP   28.12 ZAL  81.35 ZAP 144.73 ETS  45.48 ZAE 124.98 ETE 159.69 ZAC 127.92 ETC 256.39 CLP-157.78
```

PLANETOCENTRIC CONIC

```
C3  11.016 VHL  3.319 DLA -47.97 RAL 255.92 RAD 6567.4 VEL 11.507 PTH   2.00 VHP  5.893 DPA   9.38 RAP 240.25 ECC 1.1813
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.52	7 33 55	1498.73	37.00	21.34	123.11	123.03	7 58 54	898.7	41.04	12.86
130.48	15 40 14	5308.46	37.01	243.52	123.12	123.01	17 8 42	4708.5	41.05	235.04
49.52	7 33 55	1498.73	37.00	21.34	123.11	123.03	7 58 54	898.7	41.04	12.86
130.48	15 40 14	5308.46	37.01	243.52	123.12	123.01	17 8 42	4708.5	41.05	235.04
49.52	7 33 55	1498.73	37.00	21.34	123.11	123.03	7 58 54	898.7	41.04	12.86
130.48	15 40 14	5308.46	37.01	243.52	123.12	123.01	17 8 42	4708.5	41.05	235.04

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.4115 TRA  .7170 TC3-6.2356 BAU  .9234   SGT 5146.5 SGR  906.6 SG3  318.3     ST  2502.0 SR   635.3 SS   761.1
 RDE  .3576 RRA -.1933 RC3  .6610 FAU .05013   RRT -.9091 RRF -.9223 RTF  .9594     CRT -.9995 CRS  .9741 CST -.9714
 FDE -.7734 FRA  .8633 FC3-3.9400 BSP  16562   SGB 5225.7 R23  .1093 R13 -.9607     LSA 2685.6 MSA  173.3 SSA   18.0
 BDE 1.4560 BRA  .7426 BC3 6.2705 FSP  -1064   SG1 5212.4 SG2  373.0 THA 170.85     EL1 2581.3 EL2   19.7 ALF 165.76
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 494.529

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.556 GAL    .50 AZL  92.73 HCA 235.07 SMA 125.96 ECC .19826 INC 2.7337 V1  29.525
RP  108.13 LAP   2.24 LOP 215.13 VP  37.432 GAP   8.06 AZP  88.43 TAL 177.99 TAP  53.07 RCA 100.99 APO 150.93 V2  35.047
RC 137.063 GL  -22.44 GP   26.36 ZAL  78.69 ZAP 146.79 ETS  45.63 ZAE 125.17 ETE 161.08 ZAC 126.48 ETC 257.04 CLP-159.04
```

PLANETOCENTRIC CONIC

```
C3  11.009 VHL  3.318 DLA -45.61 RAL 259.85 RAD 6567.4 VEL 11.506 PTH   2.00 VHP  5.990 DPA   7.21 RAP 241.43 ECC 1.1812
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.62	8 0 39	1470.75	35.39	17.43	125.78	120.90	8 25 10	870.7	39.18	8.98
127.38	15 44 52	5336.20	35.40	244.92	125.79	120.89	17 13 48	4736.2	39.19	236.47
52.62	8 0 39	1470.75	35.39	17.43	125.78	120.90	8 25 10	870.7	39.18	8.98
127.38	15 44 52	5336.20	35.40	244.92	125.79	120.89	17 13 48	4736.2	39.19	236.47
52.62	8 0 39	1470.75	35.39	17.43	125.78	120.90	8 25 10	870.7	39.18	8.98
127.38	15 44 52	5336.20	35.40	244.92	125.79	120.89	17 13 48	4736.2	39.19	236.47

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.2771 TRA  .8700 TC3-6.4264 BAU  .9502   SGT 5259.6 SGR  858.3 SG3  310.7     ST  2301.0 SR   588.7 SS   669.3
 RDE  .3298 RRA -.2006 RC3  .6161 FAU .04874   RRT -.9000 RRF -.9067 RTF  .9615     CRT -.9990 CRS  .9524 CST -.9616
 FDE -.6323 FRA  .9298 FC3-3.8329 BSP  17030   SGB 5329.1 R23  .0848 R13 -.9624     LSA 2461.0 MSA  179.2 SSA   19.3
 BDE 1.3190 BRA  .8929 BC3 6.4559 FSP  -1053   SG1 5316.3 SG2  370.1 THA 171.60     EL1 2375.0 EL2   25.9 ALF 165.66
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 500.399

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.519 GAL    .84 AZL  92.46 HCA 238.27 SMA 125.72 ECC .20085 INC 2.4631 V1  29.525
RP  108.17 LAP   2.09 LOP 218.34 VP  37.393 GAP   8.38 AZP  88.70 TAL 176.66 TAP  54.94 RCA 100.47 APO 150.97 V2  35.034
RC 139.266 GL  -19.97 GP   24.79 ZAL  75.98 ZAP 148.70 ETS  45.87 ZAE 125.28 ETE 162.32 ZAC 125.21 ETC 257.64 CLP-160.26
```

PLANETOCENTRIC CONIC

```
C3  11.137 VHL  3.337 DLA -43.30 RAL 263.57 RAD 6567.4 VEL 11.512 PTH   2.01 VHP  6.103 DPA   5.21 RAP 242.74 ECC 1.1833
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.76	8 27 40	1441.17	33.69	13.54	128.54	119.00	8 51 41	841.2	37.26	5.16
124.24	15 47 34	5370.54	33.70	246.85	128.55	118.99	17 17 4	4770.5	37.26	238.47
55.76	8 27 40	1441.17	33.69	13.54	128.54	119.00	8 51 41	841.2	37.26	5.16
124.24	15 47 34	5370.54	33.70	246.85	128.55	118.99	17 17 4	4770.5	37.26	238.47
55.76	8 27 40	1441.17	33.69	13.54	128.54	119.00	8 51 41	841.2	37.26	5.16
124.24	15 47 34	5370.54	33.70	246.85	128.55	118.99	17 17 4	4770.5	37.26	238.47

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1202 TRA 1.0550 TC3-6.4420 BAU  .9626   SGT 5327.3 SGR  812.5 SG3  300.5      ST  2067.1 SR   543.4 SS   579.0
RDE  .3039 RRA -.2137 RC3  .5477 FAU .04585   RRT -.8849 RRF -.8883 RTF  .9600      CRT -.9952 CRS  .9062 CST -.9408
FDE -.4811 FRA 1.0173 FC3-3.5639 BSP  17088   SGB 5388.9 R23  .0743 R13 -.9607      LSA 2205.3 MSA  198.9 SSA   20.3
BDE 1.1607 BRA 1.0764 BC3 6.4652 FSP  -1009   SG1 5375.8 SG2  375.0 THA 172.28      EL1 2136.7 EL2   51.3 ALF 165.33
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 506.243

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.481 GAL   1.20 AZL  92.21 HCA 241.47 SMA 125.48 ECC .20364 INC 2.2108 V1  29.525
RP  108.21 LAP   1.94 LOP 221.54 VP  37.354 GAP   8.71 AZP  88.94 TAL 175.31 TAP  56.79 RCA  99.93 APO 151.04 V2  35.021
RC 141.459 GL  -17.61 GP   23.38 ZAL  73.24 ZAP 150.48 ETS  46.21 ZAE 125.34 ETE 163.42 ZAC 124.09 ETC 258.23 CLP-161.45
```

PLANETOCENTRIC CONIC

```
C3  11.394 VHL  3.376 DLA -41.03 RAL 267.09 RAD 6567.4 VEL 11.523 PTH   2.01 VHP  6.231 DPA   3.38 RAP 244.17 ECC 1.1875
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.97	8 55 10	1409.15	31.92	9.61	131.37	117.29	9 18 39	809.1	35.29	1.31
121.03	15 48 9	5411.99	31.93	249.36	131.38	117.27	17 18 21	4812.0	35.30	241.06
58.97	8 55 10	1409.15	31.92	9.61	131.37	117.29	9 18 39	809.1	35.29	1.31
121.03	15 48 9	5411.99	31.93	249.36	131.38	117.27	17 18 21	4812.0	35.30	241.06
58.97	8 55 10	1409.15	31.92	9.61	131.37	117.29	9 18 39	809.1	35.29	1.31
121.03	15 48 9	5411.99	31.93	249.36	131.38	117.27	17 18 21	4812.0	35.30	241.06

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.9709 TRA 1.2398 TC3-6.4048 BAU  .9785   SGT 5403.2 SGR  775.4 SG3  290.6      ST  1852.9 SR   509.0 SS   511.7
RDE  .2862 RRA -.2246 RC3  .4909 FAU .04335   RRT -.8697 RRF -.8691 RTF  .9596      CRT -.9848 CRS  .8327 CST -.9144
FDE -.3526 FRA 1.0896 FC3-3.2936 BSP  17293   SGB 5458.6 R23  .0616 R13 -.9602      LSA 1975.9 MSA  222.5 SSA   20.9
BDE 1.0122 BRA 1.2600 BC3 6.4236 FSP   -976   SG1 5445.4 SG2  379.8 THA 172.85      EL1 1919.6 EL2   85.4 ALF 164.83
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 178.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 512.062

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.443 GAL   1.57 AZL  91.97 HCA 244.67 SMA 125.25 ECC .20664 INC 1.9736 V1  29.525
RP  108.25 LAP   1.78 LOP 224.74 VP  37.315 GAP   9.05 AZP  89.16 TAL 173.95 TAP  58.62 RCA  99.37 APO 151.13 V2  35.008
RC 143.643 GL  -15.38 GP   22.12 ZAL  70.50 ZAP 152.13 ETS  46.66 ZAE 125.36 ETE 164.40 ZAC 123.10 ETC 258.80 CLP-162.60
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PLANETOCENTRIC CONIC

```
C3  11.779 VHL  3.432 DLA -38.82 RAL 270.42 RAD 6567.4 VEL 11.540 PTH   2.01 VHP  6.371 DPA   1.69 RAP 245.69 ECC 1.1938
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.25	9 23 31	1373.47	30.12	5.55	134.26	115.75	9 46 24	773.5	33.32	357.34
117.75	15 46 20	5461.50	30.14	252.51	134.27	115.73	17 17 22	4861.5	33.33	244.29
62.25	9 23 31	1373.47	30.12	5.55	134.26	115.75	9 46 24	773.5	33.32	357.34
117.75	15 46 20	5461.50	30.14	252.51	134.27	115.73	17 17 22	4861.5	33.33	244.29
62.25	9 23 31	1373.47	30.12	5.55	134.26	115.75	9 46 24	773.5	33.32	357.34
117.75	15 46 20	5461.50	30.14	252.51	134.27	115.73	17 17 22	4861.5	33.33	244.29

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.8216 TRA 1.4323 TC3-6.2984 BAU  .9942   SGT 5476.5 SGR  743.7 SG3  280.5      ST  1657.1 SR   480.7 SS   464.3
RDE  .2733 RRA -.2353 RC3  .4390 FAU .04088   RRT -.8534 RRF -.8489 RTF  .9593      CRT -.9618 CRS  .7224 CST -.8823
FDE -.2363 FRA 1.1557 FC3-3.0046 BSP  17537   SGB 5526.7 R23  .0502 R13 -.9598      LSA 1768.6 MSA  253.5 SSA   21.0
BDE  .8658 BRA 1.4515 BC3 6.3137 FSP   -947   SG1 5513.3 SG2  385.1 THA 173.36      EL1 1720.7 EL2  126.7 ALF 164.32
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 517.855

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.405 GAL   1.96 AZL  91.75 HCA 247.86 SMA 125.01 ECC .20987 INC 1.7487 V1  29.525
RP  108.29 LAP   1.62 LOP 227.94 VP  37.275 GAP   9.39 AZP  89.34 TAL 172.57 TAP  60.43 RCA  98.78 APO 151.25 V2  34.995
RC 145.816 GL  -13.28 GP   20.98 ZAL  67.80 ZAP 153.67 ETS  47.23 ZAE 125.36 ETE 165.27 ZAC 122.22 ETC 259.36 CLP-163.72
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PLANETOCENTRIC CONIC

```
C3  12.292 VHL  3.506 DLA -36.69 RAL 273.56 RAD 6567.5 VEL 11.562 PTH   2.02 VHP  6.524 DPA    .13 RAP 247.31 ECC 1.2023
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.63	9 53 9	1332.65	28.32	1.24	137.21	114.36	10 15 22	732.7	31.35	353.12
114.37	15 41 45	5520.33	28.33	256.36	137.22	114.35	17 13 46	4920.3	31.36	248.24
65.63	9 53 9	1332.65	28.32	1.24	137.21	114.36	10 15 22	732.7	31.35	353.12
114.37	15 41 45	5520.33	28.33	256.36	137.22	114.35	17 13 46	4920.3	31.36	248.24
65.63	9 53 9	1332.65	28.32	1.24	137.21	114.36	10 15 22	732.7	31.35	353.12
114.37	15 41 45	5520.33	28.33	256.36	137.22	114.35	17 13 46	4920.3	31.36	248.24

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.6727 TRA 1.6333 TC3-6.1236 BAU 1.0084   SGT 5543.0 SGR  716.7 SG3  270.2      ST  1490.8 SR   458.1 SS   438.0
RDE  .2647 RRA -.2461 RC3  .3906 FAU .03838   RRT -.8359 RRF -.8282 RTF  .9591      CRT -.9180 CRS  .5807 CST -.8544
FDE -.1335 FRA 1.2163 FC3-2.7027 BSP  17746   SGB 5589.1 R23  .0409 R13 -.9594      LSA 1593.5 MSA  290.3 SSA   20.9
BDE  .7229 BRA 1.6517 BC3 6.1360 FSP   -914   SG1 5575.4 SG2  391.1 THA 173.80      EL1 1549.7 EL2  174.8 ALF 164.04
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 523.618

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.367 GAL   2.37 AZL  91.53 HCA 251.05 SMA 124.77 ECC .21333 INC 1.5340 V1  29.525
RP  108.33 LAP   1.45 LOP 231.13 VP  37.236 GAP   9.74 AZP  89.50 TAL 171.18 TAP  62.24 RCA  98.16 APO 151.39 V2  34.982
RC 147.979 GL  -11.31 GP   19.96 ZAL  65.14 ZAP 155.11 ETS  47.94 ZAE 125.33 ETE 166.05 ZAC 121.43 ETC 259.91 CLP-164.81
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PLANETOCENTRIC CONIC

```
C3  12.940 VHL  3.597 DLA -34.63 RAL 276.53 RAD 6567.5 VEL 11.590 PTH   2.03 VHP  6.689 DPA  -1.30 RAP 249.01 ECC 1.2130
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.19	10 24 48	1284.34	26.53	356.50	140.21	113.12	10 46 12	684.3	29.42	348.47
110.81	15 33 46	5590.60	26.54	261.06	140.22	113.10	17 6 57	4990.6	29.43	253.03
69.19	10 24 48	1284.34	26.53	356.50	140.21	113.12	10 46 12	684.3	29.42	348.47
110.81	15 33 46	5590.60	26.54	261.06	140.22	113.10	17 6 57	4990.6	29.43	253.03
69.19	10 24 48	1284.34	26.53	356.50	140.21	113.12	10 46 12	684.3	29.42	348.47
110.81	15 33 46	5590.60	26.54	261.06	140.22	113.10	17 6 57	4990.6	29.43	253.03

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.5239 TRA 1.8433 TC3-5.8963 BAU 1.0218   SGT 5605.5 SGR  693.5 SG3  260.1      ST  1363.1 SR   439.5 SS   429.8
RDE  .2595 RRA -.2572 RC3  .3471 FAU .03594   RRT -.8181 RRF -.8072 RTF  .9589     CRT -.8440 CRS  .4224 CST -.8412
FDE -.0415 FRA 1.2725 FC3-2.4047 BSP  17967   SGB 5648.2 R23  .0328 R13 -.9591     LSA 1458.2 MSA  330.3 SSA   20.4
BDE  .5846 BRA 1.8611 BC3 5.9066 FSP   -884   SG1 5634.3 SG2  396.8 THA 174.19     EL1 1414.1 EL2  227.2 ALF 164.36
```

LAUNCH DATE SEP 3 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 529.349

```
RL  150.91 LAL    .00 LOL 340.09 VL  26.329 GAL   2.80 AZL  91.33 HCA 254.24 SMA 124.54 ECC .21706 INC 1.3275 V1  29.525
RP  108.37 LAP   1.28 LOP 234.33 VP  37.197 GAP  10.10 AZP  89.64 TAL 169.79 TAP  64.03 RCA  97.51 APO 151.57 V2  34.969
RC 150.132 GL   -9.46 GP   19.03 ZAL  62.55 ZAP 156.46 ETS  48.78 ZAE 125.29 ETE 166.74 ZAC 120.73 ETC 260.47 CLP-165.88
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PLANETOCENTRIC CONIC

```
C3  13.730 VHL  3.705 DLA -32.65 RAL 279.32 RAD 6567.5 VEL 11.624 PTH   2.04 VHP  6.866 DPA  -2.62 RAP 250.79 ECC 1.2260
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.02	10 59 41	1224.41	24.77	351.05	143.25	111.99	11 20 5	624.4	27.53	343.10
106.98	15 21 11	5676.25	24.78	266.89	143.25	111.98	16 55 47	5076.2	27.54	258.94
73.02	10 59 41	1224.41	24.77	351.05	143.25	111.99	11 20 5	624.4	27.53	343.10
106.98	15 21 11	5676.25	24.78	266.89	143.25	111.98	16 55 47	5076.2	27.54	258.94
110.00	14 22 47	5856.44	18.68	277.64	140.11	119.16	16 0 23	5256.4	22.42	270.51
110.00	16 57 15	5380.25	31.19	246.46	145.66	104.77	18 26 55	4780.2	32.90	237.65

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.3985 TRA 2.0387 TC3-5.6944 BAU 1.0469   SGT 5675.0 SGR  674.7 SG3  249.7      ST  1287.3 SR   428.6 SS   428.8
RDE  .2605 RRA -.2652 RC3  .3183 FAU .03442   RRT -.8011 RRF -.7872 RTF  .9606     CRT -.7489 CRS  .2961 CST -.8534
FDE  .0222 FRA 1.3075 FC3-2.1704 BSP  18758   SGB 5715.0 R23  .0230 R13 -.9608     LSA 1376.3 MSA  360.7 SSA   19.7
BDE  .4761 BRA 2.0559 BC3 5.7033 FSP   -892   SG1 5700.8 SG2  402.0 THA 174.53     EL1 1328.6 EL2  275.2 ALF 165.36
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 535.050

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RL  150.91 LAL    .00 LOL 340.09 VL  26.291 GAL   3.25 AZL  91.13 HCA 257.43 SMA 124.31 ECC .22107 INC 1.1275 V1  29.525
RP  108.41 LAP   1.10 LOP 237.52 VP  37.158 GAP  10.48 AZP  89.75 TAL 168.38 TAP  65.81 RCA  96.83 APO 151.79 V2  34.956
RC 152.275 GL   -7.75 GP   18.19 ZAL  60.04 ZAP 157.72 ETS  49.78 ZAE 125.24 ETE 167.36 ZAC 120.10 ETC 261.03 CLP-166.91
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PLANETOCENTRIC CONIC

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C3  14.673 VHL  3.831 DLA -30.76 RAL 281.96 RAD 6567.6 VEL 11.664 PTH   2.05 VHP  7.055 DPA  -3.84 RAP 252.63 ECC 1.2415
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.44	11 40 33	1143.95	23.05	344.21	146.32	110.96	11 59 37	544.0	25.69	336.33
102.56	15 1 22	5786.01	23.06	274.48	146.32	110.95	16 37 48	5186.0	25.70	266.60
77.44	11 40 33	1143.95	23.05	344.21	146.32	110.96	11 59 37	544.0	25.69	336.33
102.56	15 1 22	5786.01	23.06	274.48	146.32	110.95	16 37 48	5186.0	25.70	266.60
110.00	13 55 44	703.94	14.01	307.47	141.63	121.50	14 7 28	103.9	18.07	300.71
110.00	17 45 21	5274.02	32.76	238.58	149.40	100.35	19 13 16	4674.0	33.84	229.51

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.2298 TRA 2.2868 TC3-5.3352 BAU 1.0480   SGT 5715.8 SGR  655.3 SG3  240.2      ST  1248.7 SR   412.1 SS   448.2
RDE  .2576 RRA -.2796 RC3  .2742 FAU .03141   RRT -.7818 RRF -.7659 RTF  .9590     CRT -.5977 CRS  .1366 CST -.8747
FDE  .1099 FRA 1.3700 FC3-1.8530 BSP  18513   SGB 5753.2 R23  .0199 R13 -.9591     LSA 1331.8 MSA  394.9 SSA   19.1
BDE  .3452 BRA 2.3039 BC3 5.3422 FSP   -833   SG1 5738.8 SG2  407.0 THA 174.85     EL1 1274.5 EL2  323.7 ALF 168.06
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 540.715

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RL  150.91 LAL    .00 LOL 340.09 VL  26.253 GAL   3.73 AZL  90.93 HCA 260.62 SMA 124.08 ECC .22539 INC  .9325 V1  29.525
RP  108.45 LAP    .92 LOP 240.70 VP  37.120 GAP  10.86 AZP  89.85 TAL 166.96 TAP  67.58 RCA  96.11 APO 152.04 V2  34.943
RC 154.408 GL   -6.16 GP   17.44 ZAL  57.62 ZAP 158.90 ETS  50.94 ZAE 125.18 ETE 167.91 ZAC 119.53 ETC 261.59 CLP-167.93
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PLANETOCENTRIC CONIC

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C3  15.782 VHL  3.973 DLA -28.97 RAL 284.45 RAD 6567.6 VEL 11.712 PTH   2.06 VHP  7.257 DPA  -4.96 RAP 254.53 ECC 1.2597
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.61	12 37 47	1009.06	21.38	333.52	149.42	110.03	12 54 36	409.1	23.92	325.72
96.39	14 23 58	665.57	21.39	308.34	149.42	110.01	14 35 4	65.6	23.93	300.54
100.00	13 49 57	774.92	16.71	314.35	147.36	115.15	14 2 52	174.9	19.96	307.07
100.00	15 54 29	5662.98	26.23	266.43	151.08	104.89	17 28 52	5063.0	28.01	258.09
110.00	13 39 17	808.53	10.21	313.19	143.67	122.80	13 52 45	208.5	14.47	306.67
110.00	18 21 39	5202.14	33.51	233.10	152.72	97.19	19 48 21	4602.1	34.14	223.92

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DIFFERENTIAL CORRECTIONS -                  MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.0724 TRA 2.5334 TC3-4.9913 BAU 1.0543   SGT 5760.2 SGR  638.8 SG3  230.9      ST  1262.9 SR   400.1 SS   470.1
RDE  .2586 RRA -.2926 RC3  .2398 FAU .02893   RRT -.7634 RRF -.7458 RTF  .9585     CRT -.4373 CRS  .0174 CST -.9058
FDE  .1797 FRA 1.4207 FC3-1.5871 BSP  18553   SGB 5795.5 R23  .0161 R13 -.9586     LSA 1344.3 MSA  410.5 SSA   18.5
BDE  .2685 BRA 2.5502 BC3 4.9970 FSP   -794   SG1 5780.9 SG2  411.1 THA 175.14     EL1 1276.0 EL2  356.1 ALF 171.44
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LAUNCH DATE SEP 3 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 546.339

RL	150.91	LAL	.00	LOL	340.09	VL	26.216	GAL	4.23	AZL	90.74	HCA	263.80	SMA	123.85	ECC	.23005	INC	.7413	V1	29.525
RP	108.49	LAP	.74	LOP	243.89	VP	37.081	GAP	11.26	AZP	89.92	TAL	165.54	TAP	69.34	RCA	95.36	APO	152.34	V2	34.931
RC	156.530	GL	-4.70	GP	16.75	ZAL	55.29	ZAP	160.01	ETS	52.28	ZAE	125.12	ETE	168.41	ZAC	119.01	ETC	262.16	CLP	-168.93

PLANETOCENTRIC CONIC

C3	17.073	VHL	4.132	DLA	-27.27	RAL	286.79	RAD	6567.7	VEL	11.767	PTH	2.08	VHP	7.472	DPA	-5.98	RAP	256.49	ECC	1.2810

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 32 48	1075.28	14.83	335.54	150.47	114.40	12 50 43	475.3	18.00	328.30
90.00	14 47 39	635.29	24.91	307.30	154.18	103.93	14 58 14	35.3	26.58	299.03
100.00	13 16 50	932.99	11.91	323.64	149.00	117.62	13 32 23	333.0	15.52	316.70
100.00	16 46 18	5540.86	28.07	257.83	154.96	100.72	18 18 39	4940.9	29.26	249.23
110.00	13 27 47	898.59	6.86	318.01	145.98	123.57	13 42 46	298.6	11.22	311.64
110.00	18 51 50	5148.02	33.89	228.92	155.88	94.75	20 17 38	4548.0	34.18	219.69

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0822	TRA	2.7868	TC3	-4.6459	BAU	1.0615	SGT	5801.3	SGR	623.6	SG3	221.8	ST	1314.3	SR	390.2	SS	492.7
RDE	.2618	RRA	-.3053	RC3	.2106	FAU	.02669	RRT	-.7456	RRF	-.7265	RTF	.9584	CRT	-.2839	CRS	-.0756	CST	-.9338
FDE	.2398	FRA	1.4660	FC3	-1.3533	BSP	18689	SGB	5834.7	R23	.0124	R13	-.9585	LSA	1397.2	MSA	412.1	SSA	17.8
BDE	.2744	BRA	2.8035	BC3	4.6507	FSP	-764	SG1	5820.0	SG2	414.2	THA	175.39	EL1	1319.4	EL2	372.7	ALF	174.76

LAUNCH DATE SEP 3 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 551.919

RL	150.91	LAL	.00	LOL	340.09	VL	26.178	GAL	4.75	AZL	90.55	HCA	266.98	SMA	123.62	ECC	.23508	INC	.5523	V1	29.525
RP	108.53	LAP	.55	LOP	247.07	VP	37.043	GAP	11.68	AZP	89.97	TAL	164.12	TAP	71.10	RCA	94.56	APO	152.68	V2	34.919
RC	158.641	GL	-3.35	GP	16.12	ZAL	53.07	ZAP	161.06	ETS	53.82	ZAE	125.04	ETE	168.85	ZAC	118.53	ETC	262.73	CLP	-169.91

PLANETOCENTRIC CONIC

C3	18.566	VHL	4.309	DLA	-25.67	RAL	289.00	RAD	6567.8	VEL	11.830	PTH	2.10	VHP	7.701	DPA	-6.92	RAP	258.50	ECC	1.3055

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 1 49	1227.95	10.35	344.52	152.31	116.51	12 22 17	628.0	13.83	337.57
90.00	15 36 13	5809.67	26.53	277.28	157.96	100.28	17 13 3	5209.7	27.68	268.80
100.00	12 57 39	1047.67	8.21	330.14	151.18	118.84	13 15 7	447.7	12.00	323.40
100.00	17 23 5	5465.19	28.91	252.36	158.39	97.96	18 54 10	4865.2	29.71	243.65
110.00	13 19 17	979.79	3.78	322.28	148.46	124.00	13 35 37	379.8	8.22	316.00
110.00	19 17 56	5105.83	34.08	225.64	158.97	92.82	20 43 2	4505.8	34.10	216.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2327	TRA	3.0466	TC3	-4.3073	BAU	1.0701	SGT	5837.5	SGR	609.5	SG3	212.9	ST	1387.9	SR	382.1	SS	512.9
RDE	.2671	RRA	-.3177	RC3	.1857	FAU	.02468	RRT	-.7282	RRF	-.7080	RTF	.9587	CRT	-.1513	CRS	-.1466	CST	-.9549
FDE	.2901	FRA	1.5063	FC3	-1.1510	BSP	18949	SGB	5869.3	R23	.0092	R13	-.9588	LSA	1473.4	MSA	405.1	SSA	17.1
BDE	.3542	BRA	3.0631	BC3	4.3113	FSP	-741	SG1	5854.5	SG2	416.5	THA	175.63	EL1	1389.2	EL2	377.3	ALF	177.42

LAUNCH DATE SEP 3 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 557.452

RL	150.91	LAL	.00	LOL	340.09	VL	26.141	GAL	5.30	AZL	90.37	HCA	270.16	SMA	123.39	ECC	.24051	INC	.3648	V1	29.525
RP	108.56	LAP	.37	LOP	250.25	VP	37.006	GAP	12.11	AZP	90.00	TAL	162.70	TAP	72.86	RCA	93.72	APO	153.07	V2	34.907
RC	160.740	GL	-2.11	GP	15.54	ZAL	50.95	ZAP	162.04	ETS	55.57	ZAE	124.96	ETE	169.26	ZAC	118.09	ETC	263.30	CLP	-170.88

PLANETOCENTRIC CONIC

C3	20.285	VHL	4.504	DLA	-24.16	RAL	291.07	RAD	6567.8	VEL	11.902	PTH	2.11	VHP	7.945	DPA	-7.78	RAP	260.55	ECC	1.3338

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 43 8	1341.67	6.83	351.02	154.60	117.55	12 5 30	741.7	10.46	344.23
90.00	16 11 29	5737.88	27.30	272.16	161.39	97.83	17 47 7	5137.9	28.10	263.59
100.00	12 44 16	1144.33	5.00	335.52	153.61	119.51	13 3 20	544.3	8.90	328.90
100.00	17 53 3	5410.45	29.36	248.36	161.67	95.90	19 23 13	4810.4	29.86	239.59
110.00	13 12 48	1054.86	.91	326.20	151.07	124.17	13 30 22	454.9	5.39	319.98
110.00	19 41 0	5072.68	34.16	223.06	162.03	91.29	21 5 33	4472.7	33.96	213.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3952	TRA	3.3292	TC3	-3.9482	BAU	1.0716	SGT	5869.2	SGR	595.6	SG3	204.7	ST	1484.4	SR	373.5	SS	536.2
RDE	.2726	RRA	-.3313	RC3	.1611	FAU	.02247	RRT	-.7112	RRF	-.6902	RTF	.9587	CRT	-.0344	CRS	-.2075	CST	-.9699
FDE	.3412	FRA	1.5511	FC3	-.9592	BSP	18967	SGB	5899.3	R23	.0070	R13	-.9587	LSA	1573.4	MSA	392.9	SSA	16.5
BDE	.4801	BRA	3.3456	BC3	3.9515	FSP	-707	SG1	5884.5	SG2	417.6	THA	175.85	EL1	1484.4	EL2	373.3	ALF	179.47

LAUNCH DATE SEP 3 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 562.930

RL	150.91	LAL	.00	LOL	340.09	VL	26.103	GAL	5.89	AZL	90.18	HCA	273.34	SMA	123.17	ECC	.24639	INC	.1768	V1	29.525
RP	108.60	LAP	.18	LOP	253.42	VP	36.969	GAP	12.57	AZP	90.01	TAL	161.28	TAP	74.62	RCA	92.82	APO	153.52	V2	34.896
RC	162.826	GL	-.98	GP	15.02	ZAL	48.94	ZAP	162.95	ETS	57.56	ZAE	124.88	ETE	169.62	ZAC	117.67	ETC	263.89	CLP	-171.84

PLANETOCENTRIC CONIC

C3	22.258	VHL	4.718	DLA	-22.74	RAL	293.03	RAD	6567.9	VEL	11.985	PTH	2.14	VHP	8.206	DPA	-8.56	RAP	262.64	ECC	1.3663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 29 52	1438.16	3.76	356.45	157.11	118.09	11 53 50	838.2	7.49	349.75
90.00	16 40 22	5686.03	27.73	268.43	164.68	96.00	18 15 8	5086.0	28.27	259.81
100.00	12 34 14	1230.40	2.10	340.26	156.19	119.83	12 54 45	630.4	6.06	333.71
100.00	18 18 41	5369.03	29.61	245.30	164.87	94.31	19 48 10	4769.0	29.89	236.51
110.00	13 7 44	1125.36	-1.78	329.88	153.77	124.14	13 26 29	525.4	2.71	323.68
110.00	20 1 40	5046.83	34.18	221.04	165.08	90.09	21 25 47	4446.8	33.82	211.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.5558	TRA	3.6204	TC3	-3.6061	BAU	1.0739	SGT	5896.0	SGR	582.0	SG3	196.6	ST	1584.8	SR	366.0	SS	556.0
RDE	.2797	RRA	-.3445	RC3	.1401	FAU	.02049	RRT	-.6946	RRF	-.6732	RTF	.9591	CRT	.0590	CRS	-.2551	CST	-.9798
FDE	.3852	FRA	1.5921	FC3	-.7970	BSP	19090	SGB	5924.7	R23	.0051	R13	-.9591	LSA	1676.5	MSA	379.3	SSA	16.0
BDE	.6222	BRA	3.6368	BC3	3.6088	FSP	-680	SG1	5909.9	SG2	417.7	THA	176.06	EL1	1585.0	EL2	365.3	ALF	.82

LAUNCH DATE SEP 3 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 568.348

RL 150.91 LAL .00 LOL 340.09 VL 26.066 GAL 6.51 AZL 89.99 HCA 276.51 SMA 122.95 ECC .25276 INC .0000 V1 29.525
RP 108.63 LAP -.01 LOP 256.60 VP 36.932 GAP 13.05 AZP 90.00 TAL 159.87 TAP 76.38 RCA 91.87 APO 154.03 V2 34.885
RC 164.900 GL .06 GP 14.55 ZAL 47.04 ZAP 163.80 ETS 59.80 ZAE 124.79 ETE 169.95 ZAC 117.28 ETC 264.47 CLP-172.79

PLANETOCENTRIC CONIC

C3 24.519 VHL 4.952 DLA -21.42 RAL 294.87 RAD 6568.0 VEL 12.079 PTH 2.16 VHP 8.485 DPA -9.26 RAP 264.76 ECC 1.4035

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 19 47	1524.33	.98	1.26	159.76	118.30	11 45 11	924.3	4.76	354.62
90.00	17 5 8	5647.09	27.97	265.61	167.90	94.60	18 39 15	5047.1	28.32	256.96
100.00	12 26 25	1309.30	-.57	344.59	158.89	119.89	12 48 14	709.3	3.41	338.07
100.00	18 41 11	5337.36	29.75	242.96	168.04	93.08	20 10 8	4737.4	29.86	234.15
110.00	13 3 45	1192.28	-4.33	333.38	156.55	123.94	13 23 37	592.3	.15	327.17
110.00	20 20 21	5027.14	34.17	219.50	168.14	89.18	21 44 8	4427.1	33.68	210.29

DIFFERENTIAL CORRECTIONS
TDE .7185 TRA 3.9254 TC3-3.2751 BAU 1.0743
RDE .2879 RRA -.3576 RC3 .1213 FAU .01860
FDE .4248 FRA 1.6322 FC3 -.6566 BSP 19229
BDE .7740 BRA 3.9416 BC3 3.2773 FSP -656

MID-COURSE EXECUTION ACCURACY
SGT 5917.3 SGR 568.3 SG3 188.9
RRT -.6784 RRF -.6568 RTF .9597
SGB 5944.6 R23 .0035 R13 -.9597
SG1 5930.0 SG2 416.6 THA 176.25

ORBIT DETERMINATION ACCURACY
ST 1686.1 SR 358.8 SS 573.7
CRT .1346 CRS -.2939 CST -.9863
LSA 1779.7 MSA 365.4 SSA 15.4
EL1 1686.9 EL2 355.4 ALF 1.72

LAUNCH DATE SEP 3 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 573.697

RL 150.91 LAL .00 LOL 340.09 VL 26.030 GAL 7.16 AZL 89.80 HCA 279.68 SMA 122.73 ECC .25967 INC .2015 V1 29.525
RP 108.66 LAP -.20 LOP 259.77 VP 36.897 GAP 13.56 AZP 89.97 TAL 158.47 TAP 78.15 RCA 90.86 APO 154.60 V2 34.874
RC 166.961 GL 1.00 GP 14.11 ZAL 45.24 ZAP 164.59 ETS 62.32 ZAE 124.69 ETE 170.26 ZAC 116.91 ETC 265.06 CLP-173.74

PLANETOCENTRIC CONIC

C3 27.108 VHL 5.207 DLA -20.17 RAL 296.60 RAD 6568.1 VEL 12.185 PTH 2.19 VHP 8.784 DPA -9.89 RAP 266.90 ECC 1.4461

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 11 51	1603.41	-1.57	5.67	162.51	118.28	11 38 34	1003.4	2.22	359.05
90.00	17 26 53	5617.64	28.11	263.46	171.09	93.54	19 0 31	5017.6	28.31	254.80
100.00	12 20 10	1382.91	-3.07	348.63	161.68	119.75	12 43 13	782.9	.92	342.11
100.00	19 1 14	5313.38	29.82	241.18	171.18	92.15	20 29 48	4713.4	29.80	232.37
110.00	13 0 35	1256.28	-6.75	336.75	159.39	123.59	13 21 31	656.3	-2.29	330.51
110.00	20 37 19	5012.78	34.15	218.38	171.21	88.52	22 0 52	4412.8	33.57	209.18

DIFFERENTIAL CORRECTIONS
TDE .8848 TRA 4.2456 TC3-2.9574 BAU 1.0725
RDE .2969 RRA -.3704 RC3 .1044 FAU .01678
FDE .4612 FRA 1.6721 FC3 -.5359 BSP 19369
BDE .9333 BRA 4.2618 BC3 2.9592 FSP -632

MID-COURSE EXECUTION ACCURACY
SGT 5933.6 SGR 554.2 SG3 181.5
RRT -.6623 RRF -.6409 RTF .9604
SGB 5959.4 R23 .0023 R13 -.9605
SG1 5945.0 SG2 414.4 THA 176.44

ORBIT DETERMINATION ACCURACY
ST 1785.0 SR 351.8 SS 589.7
CRT .1964 CRS -.3262 CST -.9906
LSA 1879.8 MSA 351.9 SSA 14.9
EL1 1786.4 EL2 344.7 ALF 2.30

LAUNCH DATE SEP 3 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 578.967

RL 150.91 LAL .00 LOL 340.09 VL 25.993 GAL 7.86 AZL 89.60 HCA 282.85 SMA 122.52 ECC .26719 INC .3961 V1 29.525
RP 108.69 LAP -.39 LOP 262.94 VP 36.861 GAP 14.11 AZP 89.91 TAL 157.08 TAP 79.93 RCA 89.78 APO 155.25 V2 34.864
RC 169.007 GL 1.86 GP 13.71 ZAL 43.54 ZAP 165.31 ETS 65.14 ZAE 124.58 ETE 170.54 ZAC 116.56 ETC 265.65 CLP-174.68

PLANETOCENTRIC CONIC

C3 30.075 VHL 5.484 DLA -19.01 RAL 298.23 RAD 6568.2 VEL 12.306 PTH 2.22 VHP 9.106 DPA -10.45 RAP 269.07 ECC 1.4950

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 5 26	1677.22	-3.94	9.80	165.34	118.06	11 33 23	1077.2	-.16	3.16
90.00	17 46 16	5595.70	28.19	261.86	174.25	92.74	19 19 32	4995.7	28.28	253.20
100.00	12 15 6	1452.39	-5.40	352.47	164.53	119.44	12 39 19	852.4	-1.44	345.92
100.00	19 49 17	5295.75	29.86	239.87	174.32	91.46	20 47 33	4695.8	29.74	231.07
110.00	12 58 3	1317.82	-9.06	340.03	162.29	123.10	13 20 1	717.8	-4.64	333.73
110.00	20 52 49	5003.09	34.14	217.62	174.30	88.07	22 16 13	4403.1	33.49	208.44

DIFFERENTIAL CORRECTIONS
TDE 1.0542 TRA 4.5818 TC3-2.6558 BAU 1.0684
RDE .3069 RRA -.3828 RC3 .0892 FAU .01505
FDE .4945 FRA 1.7120 FC3 -.4334 BSP 19531
BDE 1.0980 BRA 4.5977 BC3 2.6573 FSP -611

MID-COURSE EXECUTION ACCURACY
SGT 5944.2 SGR 539.7 SG3 174.4
RRT -.6463 RRF -.6254 RTF .9614
SGB 5968.7 R23 .0013 R13 -.9615
SG1 5954.5 SG2 411.1 THA 176.63

ORBIT DETERMINATION ACCURACY
ST 1878.3 SR 344.8 SS 603.9
CRT .2472 CRS -.3535 CST -.9935
LSA 1974.0 MSA 339.0 SSA 14.4
EL1 1880.3 EL2 333.8 ALF 2.68

LAUNCH DATE SEP 3 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 584.148

RL 150.91 LAL .00 LOL 340.09 VL 25.957 GAL 8.60 AZL 89.40 HCA 286.02 SMA 122.31 ECC .27539 INC .5955 V1 29.525
RP 108.72 LAP -.57 LOP 266.11 VP 36.827 GAP 14.69 AZP 89.84 TAL 155.70 TAP 81.73 RCA 88.63 APO 155.99 V2 34.855
RC 171.039 GL 2.64 GP 13.34 ZAL 41.95 ZAP 165.97 ETS 68.27 ZAE 124.46 ETE 170.79 ZAC 116.22 ETC 266.25 CLP-175.62

PLANETOCENTRIC CONIC

C3 33.476 VHL 5.786 DLA -17.93 RAL 299.75 RAD 6568.3 VEL 12.444 PTH 2.25 VHP 9.452 DPA -10.94 RAP 271.25 ECC 1.5509

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 0 11	1746.87	-6.16	13.72	168.22	117.69	11 29 17	1146.9	-2.41	7.05
90.00	18 3 42	5579.95	28.24	260.71	177.41	92.17	19 36 42	4980.0	28.24	252.05
100.00	12 10 56	1518.52	-7.60	356.15	167.44	119.00	12 36 15	918.5	-3.68	349.56
100.00	19 35 38	5283.53	29.88	238.96	177.46	90.98	21 3 41	4683.5	29.69	230.16
110.00	12 56 2	1377.25	-11.25	343.23	165.24	122.49	13 18 59	777.3	-6.88	336.86
110.00	21 7 2	4997.56	34.12	217.19	177.41	87.82	22 30 19	4397.6	33.44	208.01

DIFFERENTIAL CORRECTIONS
TDE 1.2282 TRA 4.9362 TC3-2.3704 BAU 1.0614
RDE .3176 RRA -.3946 RC3 .0756 FAU .01340
FDE .5255 FRA 1.7528 FC3 -.3464 BSP 19701
BDE 1.2686 BRA 4.9520 BC3 2.3716 FSP -591

MID-COURSE EXECUTION ACCURACY
SGT 5949.8 SGR 524.6 SG3 167.5
RRT -.6302 RRF -.6100 RTF .9626
SGB 5972.9 R23 .0006 R13 -.9626
SG1 5959.0 SG2 406.7 THA 176.80

ORBIT DETERMINATION ACCURACY
ST 1965.1 SR 337.8 SS 616.9
CRT .2899 CRS -.3771 CST -.9954
LSA 2061.4 MSA 326.7 SSA 13.9
EL1 1967.6 EL2 322.9 ALF 2.93

LAUNCH DATE SEP 3 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 589.224

RL 150.91 LAL .00 LOL 340.09 VL 25.922 GAL 9.40 AZL 89.20 HCA 289.19 SMA 122.10 ECC .28433 INC .8012 V1 29.525
RP 108.75 LAP -.76 LOP 269.28 VP 36.793 GAP 15.31 AZP 89.74 TAL 154.35 TAP 83.55 RCA 87.38 APO 156.82 V2 34.846
RC 173.056 GL 3.35 GP 13.01 ZAL 40.45 ZAP 166.56 ETS 71.75 ZAE 124.33 ETE 171.03 ZAC 115.89 ETC 266.84 CLP-176.57

PLANETOCENTRIC CONIC

C3 37.382 VHL 6.114 DLA -16.93 RAL 301.18 RAD 6568.5 VEL 12.600 PTH 2.29 VHP 9.826 DPA -11.37 RAP 273.45 ECC 1.6152

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 55 48	1813.10	-8.24	17.47	171.16	117.19	11 26 1	1213.1	-4.53	10.76
90.00	18 19 29	5569.46	28.27	259.95	180.56	91.78	19 52 19	4969.5	28.21	251.28
100.00	12 7 29	1581.82	-9.67	359.70	170.40	118.42	12 33 51	981.8	-5.80	353.06
100.00	19 50 30	5275.98	29.89	238.40	180.60	90.69	21 18 26	4676.0	29.66	229.60
110.00	12 54 25	1434.81	-13.34	346.39	168.23	121.77	13 18 19	834.8	-9.04	339.93
110.00	21 20 3	4995.75	34.12	217.05	180.53	87.73	22 43 19	4395.8	33.43	207.88

DIFFERENTIAL CORRECTIONS
TDE 1.4073 TRA 5.3103 TC3-2.1021 BAU 1.0510
RDE .3291 RRA -.4055 RC3 .0633 FAU .01180
FDE .5549 FRA 1.7947 FC3 -.2732 BSP 19880
BDE 1.4453 BRA 5.3257 BC3 2.1031 FSP -572

MID-COURSE EXECUTION ACCURACY
SGT 5950.1 SGR 508.8 SG3 161.0
RRT -.6138 RRF -.5946 RTF .9640
SGB 5971.8 R23 .0002 R13 -.9640
SG1 5958.3 SG2 401.1 THA 176.98

ORBIT DETERMINATION ACCURACY
ST 2044.6 SR 330.7 SS 628.9
CRT .3263 CRS -.3981 CST -.9968
LSA 2141.5 MSA 314.8 SSA 13.4
EL1 2047.5 EL2 312.1 ALF 3.09

LAUNCH DATE SEP 3 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 594.180

RL 150.91 LAL .00 LOL 340.09 VL 25.886 GAL 10.25 AZL 88.99 HCA 292.36 SMA 121.89 ECC .29412 INC 1.0147 V1 29.525
RP 108.78 LAP -.94 LOP 272.45 VP 36.760 GAP 15.98 AZP 89.61 TAL 153.03 TAP 85.39 RCA 86.04 APO 157.75 V2 34.837
RC 175.059 GL 4.00 GP 12.70 ZAL 39.06 ZAP 167.07 ETS 75.59 ZAE 124.19 ETE 171.26 ZAC 115.56 ETC 267.43 CLP-177.52

PLANETOCENTRIC CONIC

C3 41.880 VHL 6.471 DLA -15.99 RAL 302.52 RAD 6568.6 VEL 12.777 PTH 2.32 VHP 10.232 DPA -11.73 RAP 275.64 ECC 1.6892

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 52 8	1876.43	-10.19	21.10	174.14	116.56	11 23 25	1276.4	-6.54	14.32
90.00	18 33 49	5563.52	28.28	259.51	183.69	91.57	20 6 33	4963.5	28.20	250.85
100.00	12 4 35	1642.65	-11.62	3.17	173.39	117.73	12 31 58	1042.7	-7.82	356.44
100.00	20 4 3	5272.53	29.89	238.14	183.73	90.55	21 31 56	4672.5	29.64	229.35
110.00	12 53 7	1490.66	-15.31	349.51	171.26	120.94	13 17 57	890.7	-11.10	342.94
110.00	21 32 2	4997.29	34.12	217.17	183.65	87.80	22 55 19	4397.3	33.44	207.99

DIFFERENTIAL CORRECTIONS
TDE 1.5945 TRA 5.7079 TC3-1.8492 BAU 1.0358
RDE .3413 RRA -.4154 RC3 .0522 FAU .01022
FDE .5836 FRA 1.8389 FC3 -.2113 BSP 20028
BDE 1.6306 BRA 5.7230 BC3 1.8499 FSP -554

MID-COURSE EXECUTION ACCURACY
SGT 5946.2 SGR 492.2 SG3 154.8
RRT -.5967 RRF -.5787 RTF .9656
SGB 5966.5 R23 -.0000 R13 -.9656
SG1 5953.5 SG2 394.5 THA 177.16

ORBIT DETERMINATION ACCURACY
ST 2117.9 SR 323.2 SS 640.7
CRT .3585 CRS -.4174 CST -.9977
LSA 2215.4 MSA 303.3 SSA 13.0
EL1 2121.1 EL2 301.3 ALF 3.20

LAUNCH DATE SEP 3 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 598.994

RL 150.91 LAL .00 LOL 340.09 VL 25.852 GAL 11.16 AZL 88.76 HCA 295.52 SMA 121.69 ECC .30485 INC 1.2382 V1 29.525
RP 108.80 LAP -1.12 LOP 275.61 VP 36.728 GAP 16.71 AZP 89.47 TAL 151.75 TAP 87.27 RCA 84.60 APO 158.79 V2 34.829
RC 177.047 GL 4.58 GP 12.41 ZAL 37.76 ZAP 167.50 ETS 79.78 ZAE 124.02 ETE 171.47 ZAC 115.24 ETC 268.02 CLP-178.49

PLANETOCENTRIC CONIC

C3 47.072 VHL 6.861 DLA -15.12 RAL 303.77 RAD 6568.8 VEL 12.978 PTH 2.37 VHP 10.674 DPA -12.04 RAP 277.84 ECC 1.7747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 49 2	1937.19	-12.02	24.63	177.14	115.83	11 21 19	1337.2	-8.44	17.77
90.00	18 46 53	5561.55	28.28	259.37	186.81	91.49	20 19 34	4961.6	28.19	250.71
100.00	12 2 9	1701.26	-13.46	6.55	176.41	116.95	12 30 30	1101.3	-9.74	359.74
100.00	20 16 26	5272.72	29.89	238.16	186.84	90.56	21 44 19	4672.7	29.65	229.36
110.00	12 52 4	1544.91	-17.19	352.60	174.31	120.01	13 17 49	944.9	-13.07	345.91
110.00	21 43 1	5001.83	34.13	217.52	186.78	88.01	23 6 23	4401.8	33.48	208.34

DIFFERENTIAL CORRECTIONS
TDE 1.7902 TRA 6.1311 TC3-1.6122 BAU 1.0150
RDE .3541 RRA -.4241 RC3 .0422 FAU .00866
FDE .6121 FRA 1.8863 FC3 -.1592 BSP 20146
BDE 1.8249 BRA 6.1458 BC3 1.6128 FSP -535

MID-COURSE EXECUTION ACCURACY
SGT 5938.0 SGR 474.7 SG3 148.9
RRT -.5788 RRF -.5622 RTF .9674
SGB 5957.0 R23 -.0001 R13 -.9674
SG1 5944.4 SG2 386.7 THA 177.34

ORBIT DETERMINATION ACCURACY
ST 2184.3 SR 315.5 SS 652.7
CRT .3872 CRS -.4355 CST -.9984
LSA 2282.8 MSA 291.9 SSA 12.5
EL1 2187.8 EL2 290.5 ALF 3.26

LAUNCH DATE SEP 3 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 603.641

RL 150.91 LAL .00 LOL 340.09 VL 25.818 GAL 12.15 AZL 88.53 HCA 298.68 SMA 121.50 ECC .31666 INC 1.4736 V1 29.525
RP 108.83 LAP -1.29 LOP 278.78 VP 36.698 GAP 17.50 AZP 89.29 TAL 150.51 TAP 89.19 RCA 83.02 APO 159.97 V2 34.822
RC 179.021 GL 5.11 GP 12.15 ZAL 36.55 ZAP 167.84 ETS 84.34 ZAE 123.83 ETE 171.67 ZAC 114.92 ETC 268.61 CLP-179.48

PLANETOCENTRIC CONIC

C3 53.089 VHL 7.286 DLA -14.32 RAL 304.92 RAD 6568.9 VEL 13.208 PTH 2.41 VHP 11.156 DPA -12.29 RAP 280.02 ECC 1.8737

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 46 22	1995.60	-13.72	28.07	180.16	115.01	11 19 38	1395.6	-10.24	21.13
90.00	18 58 45	5563.10	28.28	259.48	189.91	91.55	20 31 28	4963.1	28.19	250.82
100.00	12 0 5	1757.80	-15.17	9.87	179.44	116.07	12 29 22	1157.8	-11.55	2.96
100.00	20 27 44	5276.13	29.89	238.41	189.95	90.69	21 55 40	4676.1	29.66	229.61
110.00	12 51 13	1597.61	-18.96	355.66	177.38	118.99	13 17 51	997.6	-14.94	348.84
110.00	21 53 5	5009.09	34.15	218.09	189.90	88.35	23 16 34	4409.1	33.54	208.90

DIFFERENTIAL CORRECTIONS
TDE 1.9969 TRA 6.5844 TC3-1.3898 BAU .9867
RDE .3676 RRA -.4311 RC3 .0332 FAU .00708
FDE .6411 FRA 1.9374 FC3 -.1154 BSP 20203
BDE 2.0305 BRA 6.5985 BC3 1.3902 FSP -515

MID-COURSE EXECUTION ACCURACY
SGT 5926.5 SGR 456.4 SG3 143.4
RRT -.5596 RRF -.5445 RTF .9693
SGB 5944.1 R23 -.0001 R13 -.9693
SG1 5932.0 SG2 377.9 THA 177.52

ORBIT DETERMINATION ACCURACY
ST 2244.9 SR 307.5 SS 665.5
CRT .4137 CRS -.4532 CST -.9989
LSA 2344.8 MSA 280.5 SSA 12.1
EL1 2248.6 EL2 279.5 ALF 3.29

LAUNCH DATE SEP 3 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 608.088

RL	150.91	LAL	.00	LOL	340.09	VL	25.784	GAL	13.21	AZL	88.28	HCA	301.84	SMA	121.31	ECC	.32969	INC	1.7236	V1	29.525
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.668	GAP	18.36	AZP	89.09	TAL	149.32	TAP	91.16	RCA	81.31	APO	161.30	V2	34.815
RC	180.980	GL	5.59	GP	11.91	ZAL	35.45	ZAP	168.08	ETS	89.23	ZAE	123.61	ETE	171.87	ZAC	114.60	ETC	269.18	CLP	179.51

PLANETOCENTRIC CONIC

C3	60.091	VHL	7.752	DLA	-13.58	RAL	305.99	RAD	6569.1	VEL	13.470	PTH	2.46	VHP	11.684	DPA	-12.48	RAP	282.19	ECC	1.9889

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 44 5	2051.81	-15.32	31.43	183.18	114.11	11 18 17	1451.8	-11.93	24.39
90.00	19 9 33	5567.75	28.27	259.82	192.98	91.72	20 42 21	4967.8	28.21	251.16
100.00	11 58 18	1812.37	-16.78	13.13	182.48	115.11	12 28 30	1212.4	-13.26	6.11
100.00	20 38 2	5282.42	29.88	238.88	193.02	90.94	22 6 4	4682.4	29.69	230.08
110.00	12 50 32	1648.79	-20.62	358.70	180.47	117.89	13 18 0	1048.8	-16.72	351.74
110.00	22 2 17	5018.77	34.16	218.85	193.01	88.80	23 25 56	4418.8	33.62	209.65

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.2177	TRA	7.0744	TC3	-1.1817	BAU	.9495	SGT	5914.5	SGR	437.2	SG3	138.2	ST	2300.9	SR	299.3	SS	679.5
RDE	.3819	RRA	-.4360	RC3	.0252	FAU	.00545	RRT	-.5386	RRF	-.5252	RTF	.9714	CRT	.4387	CRS	-.4707	CST	-.9992
FDE	.6714	FRA	1.9936	FC3	-.0786	BSP	20177	SGB	5930.6	R23	-.0000	R13	-.9714	LSA	2402.7	MSA	269.2	SSA	11.6
BDE	2.2503	BRA	7.0878	BC3	1.1820	FSP	-494	SG1	5919.2	SG2	368.1	THA	177.71	EL1	2304.7	EL2	268.5	ALF	3.31

LAUNCH DATE SEP 3 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 612.295

RL	150.91	LAL	.00	LOL	340.09	VL	25.752	GAL	14.38	AZL	88.01	HCA	305.00	SMA	121.12	ECC	.34410	INC	1.9913	V1	29.525
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.639	GAP	19.30	AZP	88.86	TAL	148.19	TAP	93.19	RCA	79.44	APO	162.80	V2	34.809
RC	182.925	GL	6.02	GP	11.69	ZAL	34.44	ZAP	168.22	ETS	94.41	ZAE	123.36	ETE	172.06	ZAC	114.29	ETC	269.75	CLP	178.48

PLANETOCENTRIC CONIC

C3	68.276	VHL	8.263	DLA	-12.91	RAL	306.97	RAD	6569.3	VEL	13.771	PTH	2.52	VHP	12.267	DPA	-12.62	RAP	284.33	ECC	2.1236

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 42 6	2105.85	-16.79	34.71	186.19	113.14	11 17 12	1505.8	-13.51	27.57
90.00	19 19 19	5575.17	28.25	260.37	196.00	91.99	20 52 15	4975.2	28.23	251.70
100.00	11 56 45	1864.98	-18.27	16.33	185.51	114.08	12 27 50	1265.0	-14.86	9.19
100.00	20 47 21	5291.28	29.87	239.54	196.05	91.28	22 15 32	4691.3	29.73	230.74
110.00	12 49 57	1698.39	-22.16	1.72	183.54	116.72	13 18 15	1098.4	-18.40	354.61
110.00	22 10 39	5030.63	34.18	219.77	196.08	89.34	23 34 30	4430.6	33.71	210.56

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.4537	TRA	7.5988	TC3	-.9879	BAU	.9019	SGT	5897.5	SGR	417.1	SG3	133.4	ST	2351.0	SR	290.8	SS	695.2
RDE	.3970	RRA	-.4385	RC3	.0183	FAU	.00377	RRT	-.5150	RRF	-.5036	RTF	.9737	CRT	.4631	CRS	-.4887	CST	-.9994
FDE	.7034	FRA	2.0554	FC3	-.0478	BSP	20060	SGB	5912.3	R23	.0003	R13	-.9737	LSA	2455.3	MSA	257.7	SSA	11.2
BDE	2.4856	BRA	7.6114	BC3	.9880	FSP	-472	SG1	5901.4	SG2	357.3	THA	177.91	EL1	2354.9	EL2	257.3	ALF	3.32

LAUNCH DATE SEP 3 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 616.212

RL	150.91	LAL	.00	LOL	340.09	VL	25.720	GAL	15.65	AZL	87.72	HCA	308.16	SMA	120.94	ECC	.36009	INC	2.2803	V1	29.525
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.612	GAP	20.35	AZP	88.59	TAL	147.15	TAP	95.30	RCA	77.39	APO	164.49	V2	34.804
RC	184.854	GL	6.41	GP	11.48	ZAL	33.53	ZAP	168.23	ETS	99.83	ZAE	123.07	ETE	172.25	ZAC	113.97	ETC	270.30	CLP	177.40

PLANETOCENTRIC CONIC

C3	77.897	VHL	8.826	DLA	-12.29	RAL	307.85	RAD	6569.5	VEL	14.115	PTH	2.57	VHP	12.911	DPA	-12.72	RAP	286.44	ECC	2.2820

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 40 21	2157.72	-18.15	37.91	189.17	112.12	11 16 18	1557.7	-14.99	30.66
90.00	19 28 7	5585.06	28.23	261.09	198.96	92.35	21 1 12	4985.1	28.26	252.42
100.00	11 55 23	1915.59	-19.65	19.45	188.51	112.99	12 27 19	1315.6	-16.36	12.20
100.00	20 55 45	5302.42	29.85	240.37	199.03	91.72	22 24 7	4702.4	29.77	231.56
110.00	12 49 26	1746.35	-23.60	4.70	186.60	115.48	13 18 32	1146.3	-19.97	357.44
110.00	22 18 12	5044.43	34.18	220.85	199.11	89.98	23 42 16	4444.4	33.80	211.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.7074	TRA	8.1691	TC3	-.8077	BAU	.8413	SGT	5880.5	SGR	396.2	SG3	128.8	ST	2396.3	SR	282.1	SS	713.0
RDE	.4132	RRA	-.4377	RC3	.0123	FAU	.00199	RRT	-.4883	RRF	-.4788	RTF	.9761	CRT	.4873	CRS	-.5075	CST	-.9996
FDE	.7376	FRA	2.1243	FC3	-.0221	BSP	19820	SGB	5893.9	R23	.0006	R13	-.9761	LSA	2503.9	MSA	246.2	SSA	10.7
BDE	2.7388	BRA	8.1808	BC3	.8078	FSP	-448	SG1	5883.7	SG2	345.6	THA	178.11	EL1	2400.3	EL2	245.9	ALF	3.32

LAUNCH DATE SEP 3 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 619.772

RL	150.91	LAL	.00	LOL	340.09	VL	25.689	GAL	17.04	AZL	87.40	HCA	311.31	SMA	120.77	ECC	.37790	INC	2.5955	V1	29.525
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.586	GAP	21.51	AZP	88.29	TAL	146.20	TAP	97.51	RCA	75.13	APO	166.41	V2	34.799
RC	186.768	GL	6.76	GP	11.29	ZAL	32.73	ZAP	168.12	ETS	105.42	ZAE	122.73	ETE	172.44	ZAC	113.66	ETC	270.84	CLP	176.28

PLANETOCENTRIC CONIC

C3	89.277	VHL	9.449	DLA	-11.73	RAL	308.63	RAD	6569.7	VEL	14.513	PTH	2.63	VHP	13.627	DPA	-12.77	RAP	288.50	ECC	2.4693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 38 47	2207.34	-19.39	41.02	192.09	111.05	11 15 34	1607.3	-16.36	33.66
90.00	19 35 56	5597.14	28.19	261.97	201.86	92.79	21 9 13	4997.1	28.28	253.31
100.00	11 54 10	1964.10	-20.91	22.51	191.46	111.86	12 26 54	1364.1	-17.76	15.13
100.00	21 3 13	5315.60	29.82	241.34	201.94	92.23	22 31 49	4715.6	29.81	232.54
110.00	12 48 57	1792.53	-24.92	7.64	189.61	114.19	13 18 50	1192.5	-21.44	.21
110.00	22 24 55	5059.95	34.18	222.06	202.07	90.70	23 49 15	4459.9	33.90	212.83

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.9815	TRA	8.7890	TC3	-.6411	BAU	.7653	SGT	5862.3	SGR	374.7	SG3	124.6	ST	2436.6	SR	273.4	SS	733.2
RDE	.4309	RRA	-.4330	RC3	.0073	FAU	.00008	RRT	-.4571	RRF	-.4496	RTF	.9786	CRT	.5119	CRS	-.5275	CST	-.9997
FDE	.7746	FRA	2.2012	FC3	-.0008	BSP	19450	SGB	5874.2	R23	.0009	R13	-.9786	LSA	2548.3	MSA	234.6	SSA	10.3
BDE	3.0125	BRA	8.7996	BC3	.6412	FSP	-423	SG1	5864.8	SG2	333.1	THA	178.32	EL1	2440.6	EL2	234.5	ALF	3.32

LAUNCH DATE SEP 4 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 13 1970

HELIOCENTRIC CONIC DISTANCE 168.262

RL	150.87	LAL	.00	LOL	341.06	VL	24.065	GAL	-2.79	AZL	91.50	HCA	70.72	SMA	112.45	ECC	.34471	INC	1.5008	V1	29.532
RP	108.07	LAP	-1.42	LOP	51.77	VP	35.720	GAP	-20.05	AZP	90.50	TAL	185.33	TAP	256.05	RCA	73.69	APO	151.22	V2	35.066
RC	40.238	GL	-6.47	GP	-9.82	ZAL	97.68	ZAP	12.31	ETS	124.29	ZAE	166.41	ETE	339.26	ZAC	91.05	ETC	259.78	CLP	7.47

PLANETOCENTRIC CONIC

C3	31.220	VHL	5.587	DLA	-27.17	RAL	239.91	RAD	6568.2	VEL	12.353	PTH	2.23	VHP	12.293	DPA	-28.43	RAP	234.25	ECC	1.5138

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 18 34	1232.70	10.20	344.79	112.67	116.56	9 39 7	632.7	13.69	337.85
90.00	11 40 0	770.94	22.37	316.43	117.83	107.82	11 52 51	170.9	24.60	308.46
100.00	10 3 51	1086.43	6.94	332.31	110.92	119.15	10 21 57	486.4	10.77	325.62
100.00	13 37 25	5680.48	25.91	267.64	118.99	105.45	15 12 5	5080.5	27.78	259.34
110.00	10 15 40	1049.31	1.13	325.91	107.34	124.17	10 33 9	449.3	5.60	319.69
110.00	15 42 5	5290.36	32.55	239.81	120.78	101.05	17 10 15	4690.4	33.73	230.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1683	TRA	-.6300	TC3	.1677	BAU	.0746	SGT	769.6	SGR	441.2	SG3	65.7	ST	278.0	SR	435.2	SS	146.4
RDE	-.4244	RRA	-.0202	RC3	-.0617	FAU	.02178	RRT	-.2095	RRF	.2331	RTF	-.6631	CRT	-.6083	CRS	-.6481	CST	.9902
FDE	-.0886	FRA	.2938	FC3	-.6039	BSP	1993	SGB	887.1	R23	-.0330	R13	.6692	LSA	489.7	MSA	219.3	SSA	16.7
BDE	.4565	BRA	.6303	BC3	.1787	FSP	-147	SG1	777.5	SG2	427.0	THA	170.16	EL1	475.3	EL2	202.1	ALF	116.35

LAUNCH DATE SEP 4 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 174.969

RL	150.87	LAL	.00	LOL	341.06	VL	24.393	GAL	-2.86	AZL	91.29	HCA	73.93	SMA	113.99	ECC	.32700	INC	1.2920	V1	29.532
RP	108.03	LAP	-1.24	LOP	54.98	VP	35.954	GAP	-18.86	AZP	90.36	TAL	185.91	TAP	259.84	RCA	76.71	APO	151.26	V2	35.079
RC	40.497	GL	-5.99	GP	-10.34	ZAL	98.65	ZAP	11.74	ETS	115.38	ZAE	163.72	ETE	339.07	ZAC	90.70	ETC	260.00	CLP	5.61

PLANETOCENTRIC CONIC

C3	27.688	VHL	5.262	DLA	-26.51	RAL	238.97	RAD	6568.1	VEL	12.209	PTH	2.19	VHP	11.635	DPA	-29.31	RAP	235.53	ECC	1.4557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 56 47	1262.62	9.29	346.51	109.06	116.87	9 17 50	662.6	12.82	339.62
90.00	11 54 15	680.92	24.12	310.41	115.01	105.30	12 5 36	80.9	25.99	302.24
100.00	9 47 54	1097.53	6.57	332.93	107.59	119.23	10 6 12	497.5	10.41	326.25
100.00	13 45 49	5609.28	27.11	262.69	115.84	103.10	15 19 19	5009.3	28.64	254.22
110.00	10 4 35	1045.21	1.28	325.70	104.33	124.16	10 22 0	445.2	5.76	319.47
110.00	15 45 38	5234.37	33.21	235.57	117.20	98.62	17 12 53	4634.4	34.04	226.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1688	TRA	-.6109	TC3	.2220	BAU	.0878	SGT	800.5	SGR	447.0	SG3	73.0	ST	289.1	SR	437.9	SS	144.9
RDE	-.4021	RRA	-.0184	RC3	-.0833	FAU	.02306	RRT	-.2356	RRF	.2621	RTF	-.6830	CRT	-.6241	CRS	-.6320	CST	.9908
FDE	-.0851	FRA	.2961	FC3	-.7211	BSP	2125	SGB	916.9	R23	-.0371	R13	.6899	LSA	496.8	MSA	221.8	SSA	17.4
BDE	.4361	BRA	.6111	BC3	.2371	FSP	-167	SG1	810.2	SG2	429.3	THA	169.54	EL1	483.1	EL2	204.7	ALF	117.80

LAUNCH DATE SEP 4 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 181.699

RL	150.87	LAL	.00	LOL	341.06	VL	24.694	GAL	-2.94	AZL	91.09	HCA	77.14	SMA	115.45	ECC	.31065	INC	1.0897	V1	29.532
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.172	GAP	-17.73	AZP	90.24	TAL	186.56	TAP	263.70	RCA	79.59	APO	151.32	V2	35.092
RC	40.930	GL	-5.42	GP	-10.91	ZAL	99.76	ZAP	11.52	ETS	105.60	ZAE	161.10	ETE	338.68	ZAC	90.27	ETC	260.23	CLP	3.71

PLANETOCENTRIC CONIC

C3	24.670	VHL	4.967	DLA	-25.72	RAL	237.90	RAD	6568.0	VEL	12.085	PTH	2.16	VHP	11.008	DPA	-30.23	RAP	236.78	ECC	1.4060

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 59	1293.28	8.34	348.27	105.47	117.16	8 56 32	693.3	11.92	341.42
90.00	12 7 34	5881.17	25.56	282.29	111.95	102.61	13 45 35	5281.2	27.05	273.94
100.00	9 30 37	1113.66	6.03	333.82	104.22	119.33	9 49 10	513.7	9.89	327.17
100.00	13 54 38	5536.01	28.13	257.48	112.54	100.55	15 26 54	4936.0	29.30	248.87
110.00	9 52 0	1046.54	1.23	325.77	101.25	124.16	10 9 27	446.5	5.71	319.54
110.00	15 49 44	5175.90	33.71	231.08	113.49	96.01	17 16 0	4575.9	34.18	221.87

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1678	TRA	-.5921	TC3	.2847	BAU	.1007	SGT	832.0	SGR	453.0	SG3	81.2	ST	298.8	SR	439.2	SS	141.5
RDE	-.3807	RRA	-.0169	RC3	-.1100	FAU	.02448	RRT	-.2640	RRF	.2942	RTF	-.7016	CRT	-.6367	CRS	-.6050	CST	.9891
FDE	-.0793	FRA	.2979	FC3	-.8591	BSP	2250	SGB	947.3	R23	-.0425	R13	.7093	LSA	501.7	MSA	223.9	SSA	18.3
BDE	.4160	BRA	.5924	BC3	.3052	FSP	-190	SG1	843.7	SG2	430.9	THA	168.89	EL1	489.3	EL2	206.8	ALF	119.10

LAUNCH DATE SEP 4 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 188.447

RL	150.87	LAL	.00	LOL	341.06	VL	24.969	GAL	-3.03	AZL	90.89	HCA	80.35	SMA	116.84	ECC	.29561	INC	.8925	V1	29.532
RP	107.95	LAP	-.88	LOP	61.41	VP	36.373	GAP	-16.65	AZP	90.15	TAL	187.28	TAP	267.63	RCA	82.30	APO	151.38	V2	35.105
RC	41.530	GL	-4.74	GP	-11.55	ZAL	101.00	ZAP	11.68	ETS	95.50	ZAE	158.58	ETE	338.13	ZAC	89.78	ETC	260.46	CLP	1.79

PLANETOCENTRIC CONIC

C3	22.097	VHL	4.701	DLA	-24.79	RAL	236.74	RAD	6567.9	VEL	11.978	PTH	2.13	VHP	10.412	DPA	-31.19	RAP	238.00	ECC	1.3637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 54	1326.03	7.32	350.13	101.94	117.43	8 35 0	726.0	10.94	343.32
90.00	12 20 21	5794.65	26.71	276.21	108.72	99.77	13 56 56	5194.7	27.79	267.71
100.00	9 12 10	1134.72	5.33	334.99	100.85	119.46	9 31 4	534.7	9.21	328.36
100.00	14 3 47	5461.20	28.95	252.07	109.11	97.81	15 34 48	4861.2	29.72	243.35
110.00	9 38 5	1053.41	.97	326.13	98.15	124.17	9 55 38	453.4	5.45	319.90
110.00	15 54 21	5115.27	34.05	226.38	109.69	93.25	17 19 36	4515.3	34.12	217.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.1652	TRA	-.5739	TC3	.3560	BAU	.1133	SGT	863.8	SGR	459.5	SG3	90.3	ST	306.7	SR	439.0	SS	135.8
RDE	-.3601	RRA	-.0158	RC3	-.1429	FAU	.02608	RRT	-.2949	RRF	.3301	RTF	-.7184	CRT	-.6458	CRS	-.5619	CST	.9829
FDE	-.0708	FRA	.2991	FC3	-1.0216	BSP	2374	SGB	978.4	R23	-.0496	R13	.7273	LSA	503.8	MSA	225.8	SSA	19.3
BDE	.3962	BRA	.5741	BC3	.3836	FSP	-215	SG1	877.9	SG2	432.0	THA	168.18	EL1	493.3	EL2	208.4	ALF	120.22

LAUNCH DATE SEP 4 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 195.208

RL	150.87	LAL	.00	LOL	341.06	VL	25.221	GAL	-3.14	AZL	90.70	HCA	83.57	SMA	118.16	ECC	.28181	INC	.6987
RP	107.91	LAP	-.69	LOP	64.62	VP	36.558	GAP	-15.61	AZP	90.08	TAL	188.06	TAP	271.62	RCA	84.86	APO	151.46
RC	42.291	GL	-3.95	GP	-12.25	ZAL	102.35	ZAP	12.25	ETS	85.76	ZAE	156.18	ETE	337.44	ZAC	89.21	ETC	260.68

V1	29.532	V2	35.117	CLP	-.18														

PLANETOCENTRIC CONIC

C3	19.908	VHL	4.462	DLA	-23.71	RAL	235.49	RAD	6567.8	VEL	11.887	PTH	2.11	VHP	9.846	DPA	-32.20	RAP	239.16
ECC	1.3276																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 29	1361.62	6.20	352.15	98.48	117.69	8 13 11	761.6	9.85	345.38
90.00	12 32 49	5708.99	27.55	270.09	105.36	96.81	14 7 58	5109.0	28.21	261.48
100.00	8 52 46	1160.60	4.46	336.42	97.53	119.59	9 12 7	560.6	8.37	329.81
100.00	14 13 14	5385.25	29.52	246.50	105.59	94.93	15 42 59	4785.3	29.89	237.71
110.00	9 22 59	1065.84	.50	326.78	95.06	124.18	9 40 45	465.8	4.98	320.56
110.00	15 59 30	5052.78	34.18	221.50	105.85	90.37	17 23 43	4452.8	33.85	212.27

DIFFERENTIAL CORRECTIONS

TDE	.1610	TRA	-.5550	TC3	.4363	BAU	.1259
RDE	-.3402	RRA	-.0149	RC3	-.1828	FAU	.02784
FDE	-.0589	FRA	.2997	FC3	-1.2107	BSP	2483
BDE	.3764	BRA	.5552	BC3	.4731	FSP	-243

MID-COURSE EXECUTION ACCURACY

SGT	894.6	SGR	466.8	SG3	100.4		
RRT	-.3296	RRF	.3698	RTF	-.7347		
SGB	1009.1	R23	-.0567	R13	.7448		
SG1	911.7	SG2	432.4	THA	167.35		

ORBIT DETERMINATION ACCURACY

ST	312.1	SR	436.9	SS	128.1		
CRT	-.6521	CRS	-.4924	CST	.9673		
LSA	502.7	MSA	227.1	SSA	20.4		
EL1	494.6	EL2	209.1	ALF	121.14		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 201.977

RL	150.87	LAL	.00	LOL	341.06	VL	25.451	GAL	-3.24	AZL	90.51	HCA	86.78	SMA	119.40	ECC	.26920	INC	.5073
RP	107.88	LAP	-.51	LOP	67.84	VP	36.728	GAP	-14.62	AZP	90.03	TAL	188.89	TAP	275.67	RCA	87.26	APO	151.54
RC	43.202	GL	-3.04	GP	-13.03	ZAL	103.81	ZAP	13.21	ETS	76.92	ZAE	153.94	ETE	336.60	ZAC	88.55	ETC	260.89

V1	29.532	V2	35.129	CLP	-2.20														

PLANETOCENTRIC CONIC

C3	18.053	VHL	4.249	DLA	-22.50	RAL	234.19	RAD	6567.7	VEL	11.808	PTH	2.09	VHP	9.307	DPA	-33.26	RAP	240.27
ECC	1.2971																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 48	1400.47	4.96	354.33	95.14	117.91	7 51 8	800.5	8.66	347.61
90.00	12 45 7	5624.04	28.09	263.93	101.93	93.77	14 18 51	5024.0	28.31	255.27
100.00	8 32 38	1191.20	3.43	338.11	94.30	119.71	8 52 29	591.2	7.36	331.53
100.00	14 22 58	5308.54	29.83	240.82	102.03	91.96	15 51 26	4708.5	29.79	232.01
110.00	9 6 54	1083.75	-.19	327.71	92.04	124.18	9 24 58	483.8	4.30	321.50
110.00	16 5 11	4988.75	34.10	216.50	102.00	87.41	17 28 20	4388.7	33.36	207.34

DIFFERENTIAL CORRECTIONS

TDE	.1529	TRA	-.5384	TC3	.5206	BAU	.1374
RDE	-.3207	RRA	-.0140	RC3	-.2307	FAU	.02980
FDE	-.0421	FRA	.3004	FC3	-1.4291	BSP	2579
BDE	.3553	BRA	.5386	BC3	.5694	FSP	-274

MID-COURSE EXECUTION ACCURACY

SGT	925.1	SGR	475.2	SG3	111.7		
RRT	-.3635	RRF	.4129	RTF	-.7473		
SGB	1040.0	R23	-.0693	R13	.7594		
SG1	945.5	SG2	433.1	THA	166.55		

ORBIT DETERMINATION ACCURACY

ST	313.5	SR	432.5	SS	118.9		
CRT	-.6475	CRS	-.3746	CST	.9322		
LSA	496.2	MSA	229.7	SSA	21.7		
EL1	491.0	EL2	210.4	ALF	121.59		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 208.752

RL	150.87	LAL	.00	LOL	341.06	VL	25.661	GAL	-3.35	AZL	90.32	HCA	90.00	SMA	120.56	ECC	.25772	INC	.3167
RP	107.84	LAP	-.32	LOP	71.06	VP	36.885	GAP	-13.68	AZP	90.00	TAL	189.76	TAP	279.76	RCA	89.49	APO	151.63
RC	44.254	GL	-2.00	GP	-13.90	ZAL	105.35	ZAP	14.53	ETS	69.27	ZAE	151.85	ETE	335.63	ZAC	87.80	ETC	261.10

V1	29.532	V2	35.141	CLP	-4.28														

PLANETOCENTRIC CONIC

C3	16.485	VHL	4.060	DLA	-21.13	RAL	232.85	RAD	6567.7	VEL	11.742	PTH	2.07	VHP	8.797	DPA	-34.38	RAP	241.30
ECC	1.2713																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 4 55	1442.77	3.61	356.71	91.96	118.10	7 28 58	842.8	7.34	350.01
90.00	12 57 22	5539.75	28.31	257.78	98.49	90.69	14 29 41	4939.7	28.11	249.12
100.00	8 11 58	1226.37	2.24	340.04	91.20	119.82	8 32 24	626.4	6.19	333.48
100.00	14 33 0	5231.38	29.88	235.08	98.49	88.94	16 0 11	4631.4	29.41	226.31
110.00	8 50 3	1107.01	-1.08	328.92	89.12	124.17	9 8 30	507.0	3.41	322.72
110.00	16 11 24	4923.51	33.78	211.44	98.22	84.43	17 33 27	4323.5	32.64	202.39

DIFFERENTIAL CORRECTIONS

TDE	.1413	TRA	-.5234	TC3	.6061	BAU	.1478
RDE	-.3013	RRA	-.0131	RC3	-.2870	FAU	.03193
FDE	-.0193	FRA	.3016	FC3	-1.6770	BSP	2620
BDE	.3328	BRA	.5236	BC3	.6706	FSP	-307

MID-COURSE EXECUTION ACCURACY

SGT	953.5	SGR	485.3	SG3	124.1		
RRT	-.3972	RRF	.4590	RTF	-.7571		
SGB	1069.9	R23	-.0861	R13	.7717		
SG1	977.8	SG2	434.3	THA	165.69		

ORBIT DETERMINATION ACCURACY

ST	310.5	SR	425.3	SS	110.5		
CRT	-.6321	CRS	-.1791	CST	.8540		
LSA	484.2	MSA	233.4	SSA	23.3		
EL1	481.8	EL2	212.4	ALF	121.58		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 215.526

RL	150.87	LAL	.00	LOL	341.06	VL	25.852	GAL	-3.46	AZL	90.13	HCA	93.22	SMA	121.65	ECC	.24730	INC	.1263
RP	107.81	LAP	-.13	LOP	74.28	VP	37.029	GAP	-12.77	AZP	89.99	TAL	190.67	TAP	283.89	RCA	91.56	APO	151.73
RC	45.436	GL	-.84	GP	-14.86	ZAL	106.95	ZAP	16.16	ETS	62.84	ZAE	149.94	ETE	334.49	ZAC	86.93	ETC	261.29

V1	29.532	V2	35.152	CLP	-6.42														

PLANETOCENTRIC CONIC

C3	15.167	VHL	3.895	DLA	-19.61	RAL	231.51	RAD	6567.6	VEL	11.686	PTH	2.06	VHP	8.313	DPA	-35.58	RAP	242.24
ECC	1.2496																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 41 56	1488.68	2.13	359.27	88.95	118.24	7 6 45	888.7	5.89	352.61
90.00	13 9 38	5456.08	28.23	251.66	95.10	87.63	14 40 34	4856.1	27.60	243.05
100.00	7 50 56	1266.01	.90	342.22	88.27	119.88	8 12 2	666.0	4.86	335.68
100.00	14 43 19	5153.98	29.64	229.34	95.01	85.93	16 9 13	4554.0	28.76	220.65
110.00	8 32 36	1135.43	-2.17	330.41	86.35	124.12	8 51 32	535.4	2.33	324.20
110.00	16 18 9	4857.32	33.23	206.35	94.55	81.47	17 39 6	4257.3	31.69	197.46

DIFFERENTIAL CORRECTIONS

TDE	.1404	TRA	-.4957	TC3	.7299	BAU	.1647
RDE	-.2829	RRA	-.0133	RC3	-.3563	FAU	.03460
FDE	.0040	FRA	.2962	FC3	-1.9751	BSP	2974
BDE	.3158	BRA	.4959	BC3	.8122	FSP	-357

MID-COURSE EXECUTION ACCURACY

SGT	982.5	SGR	500.7	SG3	138.8		
RRT	-.4627	RRF	.5158	RTF	-.7803		
SGB	1102.7	R23	-.0779	R13	.7957		
SG1	1015.7	SG2	429.4	THA	163.75		

ORBIT DETERMINATION ACCURACY

ST	311.3	SR	416.4	SS	105.1		
CRT	-.6532	CRS	.0476	CST	.6984		
LSA	478.1	MSA	228.3	SSA	24.9		
EL1	477.5	EL2	205.5	ALF	122.85		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 222.298

RL	150.87	LAL	.00	LOL	341.06	VL	26.025	GAL	-3.57	AZL	89.93	HCA	96.45	SMA	122.65	ECC	.23790	INC	.0641	V1	29.532
RP	107.77	LAP	.06	LOP	77.50	VP	37.160	GAP	-11.90	AZP	90.01	TAL	191.60	TAP	288.05	RCA	93.48	APO	151.83	V2	35.163
RC	46.738	GL	.45	GP	-15.94	ZAL	108.57	ZAP	18.08	ETS	57.54	ZAE	148.19	ETE	333.18	ZAC	85.95	ETC	261.46	CLP	-8.64

PLANETOCENTRIC CONIC

C3	14.067	VHL	3.751	DLA	-17.96	RAL	230.20	RAD	6567.6	VEL	11.638	PTH	2.04	VHP	7.857	DPA	-36.86	RAP	243.07	ECC	1.2315

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 19 3	1538.09	.54	2.03	86.18	118.31	6 44 41	938.1	4.32	355.39
90.00	13 22 3	5373.18	27.84	245.62	91.84	84.63	14 51 36	4773.2	26.81	237.11
100.00	7 29 48	1309.83	-.59	344.62	85.55	119.89	7 51 37	709.8	3.39	338.10
100.00	14 54 0	5076.68	29.13	223.65	91.68	82.98	16 18 37	4476.7	27.85	215.08
110.00	8 14 50	1168.71	-3.44	332.15	83.78	124.03	8 34 19	568.7	1.06	325.94
110.00	16 25 27	4790.56	32.44	201.30	91.05	78.58	17 45 17	4190.6	30.52	192.61

DIFFERENTIAL CORRECTIONS

TDE	.1282	TRA	-.4774	TC3	.8331	BAU	.1767
RDE	-.2635	RRA	-.0128	RC3	-.4349	FAU	.03736
FDE	.0385	FRA	.2944	FC3	-2.2994	BSP	3104
BDE	.2930	BRA	.4776	BC3	.9398	FSP	-404

MID-COURSE EXECUTION ACCURACY

SGT	1008.3	SGR	518.5	SG3	154.6		
RRT	-.5105	RRF	.5704	RTF	-.7919		
SGB	1133.8	R23	-.0890	R13	.8103		
SG1	1049.8	SG2	428.2	THA	162.24		

ORBIT DETERMINATION ACCURACY

ST	302.7	SR	402.7	SS	110.0
CRT	-.6367	CRS	.3683	CST	.4503
LSA	460.7	MSA	229.9	SSA	26.9
EL1	460.5	EL2	204.1	ALF	122.78

LAUNCH DATE SEP 4 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 229.064

RL	150.87	LAL	.00	LOL	341.06	VL	26.181	GAL	-3.67	AZL	89.74	HCA	99.67	SMA	123.59	ECC	.22943	INC	.2591	V1	29.532
RP	107.74	LAP	.26	LOP	80.73	VP	37.280	GAP	-11.06	AZP	90.04	TAL	192.54	TAP	292.21	RCA	95.23	APO	151.94	V2	35.174
RC	48.150	GL	1.87	GP	-17.13	ZAL	110.18	ZAP	20.25	ETS	53.17	ZAE	146.61	ETE	331.68	ZAC	84.83	ETC	261.62	CLP	-10.96

PLANETOCENTRIC CONIC

C3	13.155	VHL	3.627	DLA	-16.17	RAL	228.94	RAD	6567.5	VEL	11.599	PTH	2.03	VHP	7.427	DPA	-38.24	RAP	243.78	ECC	1.2165

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 56 23	1590.95	-1.17	4.98	83.66	118.29	6 22 53	990.9	2.62	358.35
90.00	13 34 41	5291.08	27.18	239.71	88.75	81.73	15 2 52	4691.1	25.76	231.33
100.00	7 8 41	1357.63	-2.21	347.25	83.08	119.82	7 31 19	757.6	1.77	340.72
100.00	15 5 4	4999.63	28.36	218.06	88.53	80.13	16 28 23	4399.6	26.70	209.65
110.00	7 56 55	1206.56	-4.87	334.13	81.43	123.88	8 17 1	606.6	-.39	327.91
110.00	16 33 20	4723.46	31.42	196.33	87.78	75.80	17 52 3	4123.5	29.15	187.86

DIFFERENTIAL CORRECTIONS

TDE	.1137	TRA	-.4599	TC3	.9340	BAU	.1885
RDE	-.2431	RRA	-.0121	RC3	-.5253	FAU	.04039
FDE	.0822	FRA	.2929	FC3	-2.6585	BSP	3237
BDE	.2684	BRA	.4601	BC3	1.0716	FSP	-457

MID-COURSE EXECUTION ACCURACY

SGT	1031.3	SGR	541.4	SG3	172.1		
RRT	-.5589	RRF	.6263	RTF	-.8021		
SGB	1164.7	R23	-.1016	R13	.8241		
SG1	1083.5	SG2	427.3	THA	160.50		

ORBIT DETERMINATION ACCURACY

ST	290.1	SR	384.3	SS	130.1
CRT	-.6085	CRS	.6426	CST	.1815
LSA	440.4	MSA	232.2	SSA	29.0
EL1	436.8	EL2	202.5	ALF	122.45

LAUNCH DATE SEP 4 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 235.821

RL	150.87	LAL	.00	LOL	341.06	VL	26.322	GAL	-3.77	AZL	89.54	HCA	102.90	SMA	124.45	ECC	.22185	INC	.4576	V1	29.532
RP	107.71	LAP	.45	LOP	83.96	VP	37.389	GAP	-10.26	AZP	90.10	TAL	193.47	TAP	296.37	RCA	96.84	APO	152.06	V2	35.184
RC	49.661	GL	3.42	GP	-18.47	ZAL	111.76	ZAP	22.66	ETS	49.56	ZAE	145.18	ETE	329.95	ZAC	83.57	ETC	261.74	CLP	-13.37

PLANETOCENTRIC CONIC

C3	12.407	VHL	3.522	DLA	-14.25	RAL	227.76	RAD	6567.5	VEL	11.567	PTH	2.02	VHP	7.025	DPA	-39.72	RAP	244.33	ECC	1.2042

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 34 1	1647.14	-2.98	8.12	81.43	118.17	6 1 28	1047.1	.81	1.49
90.00	13 47 38	5209.80	26.25	233.94	85.88	78.99	15 14 28	4609.8	24.47	225.73
100.00	6 47 46	1409.18	-3.95	350.08	80.89	119.65	7 11 16	809.2	.02	343.55
100.00	15 16 34	4922.99	27.34	212.59	85.63	77.42	16 38 37	4323.0	25.34	204.36
110.00	7 39 1	1248.67	-6.47	336.35	79.34	123.64	7 59 50	648.7	-2.00	330.11
110.00	16 41 49	4656.27	30.20	191.48	84.77	73.17	17 59 25	4056.3	27.60	183.25

DIFFERENTIAL CORRECTIONS

TDE	.0969	TRA	-.4432	TC3	1.0290	BAU	.2000
RDE	-.2213	RRA	-.0111	RC3	-.6284	FAU	.04373
FDE	.1366	FRA	.2917	FC3	-3.0510	BSP	3369
BDE	.2416	BRA	.4433	BC3	1.2057	FSP	-516

MID-COURSE EXECUTION ACCURACY

SGT	1050.5	SGR	570.9	SG3	191.4		
RRT	-.6066	RRF	.6818	RTF	-.8108		
SGB	1195.6	R23	-.1153	R13	.8374		
SG1	1116.8	SG2	426.9	THA	158.45		

ORBIT DETERMINATION ACCURACY

ST	274.1	SR	360.3	SS	166.3
CRT	-.5650	CRS	.8099	CST	-.0115
LSA	420.1	MSA	234.7	SSA	31.3
EL1	405.7	EL2	200.8	ALF	121.95

LAUNCH DATE SEP 4 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 242.566

RL	150.87	LAL	.00	LOL	341.06	VL	26.450	GAL	-3.86	AZL	89.34	HCA	106.13	SMA	125.24	ECC	.21508	INC	.6613	V1	29.532
RP	107.68	LAP	.64	LOP	87.19	VP	37.487	GAP	-9.48	AZP	90.18	TAL	194.40	TAP	300.53	RCA	98.30	APO	152.17	V2	35.193
RC	51.263	GL	5.09	GP	-19.96	ZAL	113.26	ZAP	25.31	ETS	46.55	ZAE	143.88	ETE	327.97	ZAC	82.14	ETC	261.84	CLP	-15.90

PLANETOCENTRIC CONIC

C3	11.805	VHL	3.436	DLA	-12.22	RAL	226.69	RAD	6567.4	VEL	11.541	PTH	2.01	VHP	6.649	DPA	-41.33	RAP	244.71	ECC	1.1943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 12 5	1706.54	-4.88	11.44	79.51	117.93	5 40 32	1106.5	-1.11	4.80
90.00	14 0 59	5129.37	25.08	228.34	83.29	76.41	15 26 28	4529.4	22.97	220.31
100.00	6 27 11	1464.27	-5.80	353.13	79.00	119.38	6 51 35	864.3	-1.84	346.58
100.00	15 28 35	4846.87	26.10	207.27	83.01	74.89	16 49 22	4246.9	23.77	199.25
110.00	7 21 18	1294.75	-8.20	338.80	77.53	123.30	7 42 53	694.7	-3.76	332.52
110.00	16 50 56	4589.16	28.78	186.77	82.07	70.71	18 7 25	3989.2	25.88	178.79

DIFFERENTIAL CORRECTIONS

TDE	.0784	TRA	-.4274	TC3	1.1136	BAU	.2114
RDE	-.1974	RRA	-.0097	RC3	-.7449	FAU	.04736
FDE	.2032	FRA	.2914	FC3	-3.4733	BSP	3493
BDE	.2124	BRA	.4275	BC3	1.3398	FSP	-581

MID-COURSE EXECUTION ACCURACY

SGT	1065.1	SGR	608.8	SG3	212.7		
RRT	-.6518	RRF	.7353	RTF	-.8181		
SGB	1226.8	R23	-.1296	R13	.8506		
SG1	1149.9	SG2	427.7	THA	156.05		

ORBIT DETERMINATION ACCURACY

ST	255.9	SR	329.6	SS	216.7
CRT	-.5015	CRS	.8947	CST	-.1039
LSA	405.4	MSA	235.8	SSA	33.4
EL1	366.8	EL2	198.9	ALF	121.49

LAUNCH DATE SEP 4 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 249.296

RL	150.87	LAL	.00	LOL	341.06	VL	26.563	GAL	-3.95	AZL	89.13	HCA	109.36	SMA	125.95	ECC	.20906	INC	.8717	V1	29.532
RP	107.65	LAP	.82	LOP	90.42	VP	37.576	GAP	-8.74	AZP	90.29	TAL	195.29	TAP	304.65	RCA	99.62	APO	152.28	V2	35.202
RC	52.948	GL	6.88	GP	-21.61	ZAL	114.67	ZAP	28.20	ETS	44.00	ZAE	142.69	ETE	325.71	ZAC	80.53	ETC	261.90	CLP	-18.57

PLANETOCENTRIC CONIC

C3	11.330	VHL	3.366	DLA	-10.09	RAL	225.74	RAD	6567.4	VEL	11.520	PTH	2.01	VHP	6.302	DPA	-43.06	RAP	244.87	ECC	1.1865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 50 38	1769.05	-6.86	14.97	77.92	117.54	5 20 7	1169.1	-3.12	8.29
90.00	14 14 51	5049.75	23.70	222.92	81.01	74.03	15 39 1	4449.7	21.28	215.08
100.00	6 6 59	1522.73	-7.74	356.38	77.44	118.96	6 32 22	922.7	-3.82	349.79
100.00	15 41 11	4771.30	24.66	202.12	80.70	72.54	17 0 42	4171.3	22.04	194.31
110.00	7 3 54	1344.54	-10.05	341.46	76.05	122.85	7 26 18	744.5	-5.65	335.13
110.00	17 0 46	4522.26	27.19	182.22	79.70	68.44	18 16 8	3922.3	24.02	174.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0585	TRA	-.4127	TC3	1.1823	BAU	.2228	SGT	1073.6	SGR	656.8	SG3	235.7	ST	237.3	SR	290.7	SS	279.3
RDE	-.1705	RRA	-.0077	RC3	-.8751	FAU	.05127	RRT	-.6925	RRF	.7849	RTF	-.8232	CRT	-.4125	CRS	.9357	CST	-.1135
FDE	.2842	FRA	.2922	FC3	-3.9175	BSP	3620	SGB	1258.6	R23	-.1443	R13	.8635	LSA	404.5	MSA	232.5	SSA	35.0
BDE	.1802	BRA	.4128	BC3	1.4709	FSP	-653	SG1	1182.8	SG2	430.1	THA	153.22	EL1	319.7	EL2	196.6	ALF	121.82

LAUNCH DATE SEP 4 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 256.011

RL	150.87	LAL	.00	LOL	341.06	VL	26.665	GAL	-4.03	AZL	88.91	HCA	112.59	SMA	126.60	ECC	.20373	INC	1.0908	V1	29.532
RP	107.63	LAP	1.01	LOP	93.65	VP	37.656	GAP	-8.02	AZP	90.42	TAL	196.15	TAP	308.74	RCA	100.81	APO	152.40	V2	35.210
RC	54.707	GL	8.79	GP	-23.45	ZAL	115.93	ZAP	31.32	ETS	41.79	ZAE	141.57	ETE	323.14	ZAC	78.73	ETC	261.92	CLP	-21.38

PLANETOCENTRIC CONIC

C3	10.970	VHL	3.312	DLA	-7.86	RAL	224.93	RAD	6567.4	VEL	11.505	PTH	2.00	VHP	5.983	DPA	-44.94	RAP	244.77	ECC	1.1805

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 29 43	1834.65	-8.91	18.70	76.68	116.99	5 0 18	1234.7	-5.22	11.97
90.00	14 29 20	4970.82	22.12	217.67	79.07	71.86	15 52 11	4370.8	19.44	210.03
100.00	5 47 16	1584.45	-9.76	359.85	76.23	118.39	6 13 41	984.5	-5.89	353.20
100.00	15 54 28	4696.25	23.03	197.14	78.73	70.40	17 12 44	4096.2	20.15	189.53
110.00	6 46 52	1397.84	-12.00	344.36	74.89	122.25	7 10 10	797.8	-7.66	337.95
110.00	17 11 22	4455.63	25.45	177.82	77.68	66.37	18 25 37	3855.6	22.03	170.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0373	TRA	-.4001	TC3	1.2291	BAU	.2341	SGT	1074.7	SGR	716.6	SG3	260.4	ST	220.7	SR	242.1	SS	353.3
RDE	-.1394	RRA	-.0045	RC3	-1.0186	FAU	.05538	RRT	-.7263	RRF	.8288	RTF	-.8261	CRT	-.2914	CRS	.9537	CST	-.0526
FDE	.3814	FRA	.2963	FC3	-4.3704	BSP	3734	SGB	1291.7	R23	-.1582	R13	.8764	LSA	425.3	MSA	223.6	SSA	35.5
BDE	.1444	BRA	.4001	BC3	1.5963	FSP	-729	SG1	1216.2	SG2	435.3	THA	149.92	EL1	264.6	EL2	193.2	ALF	126.16

LAUNCH DATE SEP 4 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 262.707

RL	150.87	LAL	.00	LOL	341.06	VL	26.755	GAL	-4.10	AZL	88.68	HCA	115.83	SMA	127.19	ECC	.19904	INC	1.3205	V1	29.532
RP	107.60	LAP	1.19	LOP	96.89	VP	37.727	GAP	-7.33	AZP	90.58	TAL	196.95	TAP	312.78	RCA	101.87	APO	152.50	V2	35.218
RC	56.533	GL	10.83	GP	-25.50	ZAL	117.03	ZAP	34.69	ETS	39.81	ZAE	140.50	ETE	320.22	ZAC	76.71	ETC	261.88	CLP	-24.36

PLANETOCENTRIC CONIC

C3	10.713	VHL	3.273	DLA	-5.54	RAL	224.28	RAD	6567.4	VEL	11.494	PTH	2.00	VHP	5.694	DPA	-46.98	RAP	244.36	ECC	1.1763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 9 18	1903.39	-11.01	22.66	75.81	116.26	4 41 2	1303.4	-7.39	15.85
90.00	14 44 36	4892.41	20.37	212.59	77.48	69.90	16 6 8	4292.4	17.45	205.13
100.00	5 28 2	1649.43	-11.84	3.56	75.38	117.65	5 55 31	1049.4	-8.04	356.82
100.00	16 8 34	4621.60	21.25	192.32	77.13	68.46	17 25 35	4021.6	18.13	184.90
110.00	6 30 16	1454.55	-14.04	347.49	74.10	121.49	6 54 31	854.5	-9.77	340.99
110.00	17 22 48	4389.25	23.57	173.58	76.04	64.49	18 35 57	3789.2	19.94	166.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0150	TRA	-.3897	TC3	1.2464	BAU	.2452	SGT	1065.8	SGR	789.3	SG3	286.2	ST	208.7	SR	181.5	SS	438.4
RDE	-.1028	RRA	.0002	RC3	-1.1740	FAU	.05956	RRT	-.7513	RRF	.8661	RTF	-.8257	CRT	-.1405	CRS	.9563	CST	.0671
FDE	.4977	FRA	.3049	FC3	-4.8133	BSP	3823	SGB	1326.3	R23	-.1700	R13	.8897	LSA	472.0	MSA	211.5	SSA	34.6
BDE	.1039	BRA	.3897	BC3	1.7122	FSP	-807	SG1	1249.7	SG2	444.3	THA	146.04	EL1	213.9	EL2	175.3	ALF	157.47

LAUNCH DATE SEP 4 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 269.383

RL	150.87	LAL	.00	LOL	341.06	VL	26.835	GAL	-4.16	AZL	88.44	HCA	119.06	SMA	127.71	ECC	.19492	INC	1.5632	V1	29.532
RP	107.58	LAP	1.37	LOP	100.13	VP	37.790	GAP	-6.67	AZP	90.76	TAL	197.70	TAP	316.76	RCA	102.81	APO	152.60	V2	35.225
RC	58.419	GL	12.99	GP	-27.75	ZAL	117.94	ZAP	38.30	ETS	37.96	ZAE	139.41	ETE	316.93	ZAC	74.46	ETC	261.77	CLP	-27.52

PLANETOCENTRIC CONIC

C3	10.554	VHL	3.249	DLA	-3.14	RAL	223.81	RAD	6567.4	VEL	11.487	PTH	2.00	VHP	5.437	DPA	-49.18	RAP	243.59	ECC	1.1737

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 49 22	1975.44	-13.14	26.88	75.33	115.31	4 22 17	1375.4	-9.62	19.96
90.00	15 0 47	4814.26	18.47	207.65	76.27	68.15	16 21 1	4214.3	15.34	200.37
100.00	5 9 14	1717.77	-13.96	7.52	74.92	116.70	5 37 52	1117.8	-10.27	.68
100.00	16 23 35	4547.16	19.31	187.63	75.90	66.73	17 39 22	3947.2	16.00	180.41
110.00	6 14 7	1514.66	-16.15	350.87	73.68	120.54	6 39 22	914.7	-11.98	344.25
110.00	17 35 11	4323.04	21.57	169.49	74.77	62.81	18 47 15	3723.0	17.75	162.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0094	TRA	-.3842	TC3	1.2224	BAU	.2556	SGT	1044.8	SGR	874.9	SG3	312.3	ST	205.6	SR	106.1	SS	536.4
RDE	-.0583	RRA	.0078	RC3	-1.3371	FAU	.06356	RRT	-.7633	RRF	.8965	RTF	-.8198	CRT	.0111	CRS	.9261	CST	.2381
FDE	.6376	FRA	.3225	FC3	-5.2135	BSP	3849	SGB	1362.7	R23	-.1786	R13	.9033	LSA	547.8	MSA	200.5	SSA	32.1
BDE	.0590	BRA	.3842	BC3	1.8116	FSP	-879	SG1	1282.5	SG2	460.5	THA	141.58	EL1	205.6	EL2	106.1	ALF	.45

LAUNCH DATE SEP 4 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 276.038

RL	150.87	LAL	.00	LOL	341.06	VL	26.904	GAL	-4.21	AZL	88.18	HCA	122.29	SMA	128.17	ECC	.19133	INC	1.8218	V1	29.532
RP	107.56	LAP	1.54	LOP	103.36	VP	37.846	GAP	-6.03	AZP	90.97	TAL	198.38	TAP	320.67	RCA	103.65	APO	152.69	V2	35.232
RC	60.358	GL	15.27	GP	-30.24	ZAL	118.64	ZAP	42.15	ETS	36.17	ZAE	138.25	ETE	313.25	ZAC	71.98	ETC	261.60	CLP	-30.90

PLANETOCENTRIC CONIC

C3	10.488	VHL	3.239	DLA	-.66	RAL	223.52	RAD	6567.4	VEL	11.484	PTH	2.00	VHP	5.213	DPA	-51.54	RAP	242.36	ECC	1.1726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 29 46	2051.20	-15.30	31.39	75.25	114.12	4 3 57	1451.2	-11.91	24.35
90.00	15 18 3	4735.99	16.42	202.82	75.45	66.60	16 36 59	4136.0	13.11	195.70
100.00	4 50 48	1789.80	-16.12	11.78	74.85	115.52	5 20 38	1189.8	-12.56	4.80
100.00	16 39 42	4472.62	17.25	183.06	75.06	65.20	17 54 14	3872.6	13.76	176.01
110.00	5 58 20	1578.37	-18.32	354.53	73.66	119.38	6 24 39	978.4	-14.26	347.76
110.00	17 48 38	4256.82	19.45	165.51	73.89	61.32	18 59 35	3656.8	15.48	158.65

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0193	TRA	-.3680	TC3	1.2116	BAU	.2730	SGT	1020.3	SGR	987.8	SG3	340.4	ST	199.7	SR	34.7	SS	627.1
RDE	-.0094	RRA	.0138	RC3	-1.5244	FAU	.06819	RRT	-.7840	RRF	.9227	RTF	-.8174	CRT	-.2252	CRS	.3781	CST	.3004
FDE	.7783	FRA	.3280	FC3	-5.6285	BSP	4187	SGB	1420.1	R23	-.1719	R13	.9191	LSA	630.4	MSA	189.9	SSA	29.6
BDE	.0214	BRA	.3683	BC3	1.9472	FSP	-988	SG1	1341.3	SG2	466.4	THA	136.18	EL1	199.8	EL2	33.8	ALF	177.69

LAUNCH DATE SEP 4 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 282.670

RL	150.87	LAL	.00	LOL	341.06	VL	26.965	GAL	-4.26	AZL	87.90	HCA	125.53	SMA	128.58	ECC	.18820	INC	2.0996	V1	29.532
RP	107.54	LAP	1.71	LOP	106.60	VP	37.894	GAP	-5.41	AZP	91.22	TAL	198.98	TAP	324.51	RCA	104.38	APO	152.77	V2	35.238
RC	62.346	GL	17.69	GP	-32.95	ZAL	119.09	ZAP	46.24	ETS	34.34	ZAE	136.95	ETE	309.20	ZAC	69.25	ETC	261.33	CLP	-34.49

PLANETOCENTRIC CONIC

C3	10.516	VHL	3.243	DLA	1.90	RAL	223.42	RAD	6567.4	VEL	11.485	PTH	2.00	VHP	5.026	DPA	-54.05	RAP	240.59	ECC	1.1731

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 10 24	2131.12	-17.46	36.27	75.60	112.65	3 45 55	1531.1	-14.24	29.07
90.00	15 36 39	4657.15	14.23	198.07	75.03	65.26	16 54 16	4057.2	10.77	191.09
100.00	4 32 38	1865.89	-18.30	16.38	75.22	114.06	5 3 43	1265.9	-14.89	9.24
100.00	16 57 6	4397.61	15.05	178.58	74.62	63.86	18 10 24	3797.6	11.41	171.67
110.00	5 42 54	1645.92	-20.52	358.53	74.07	117.96	6 10 20	1045.9	-16.62	351.58
110.00	18 3 19	4190.35	17.24	161.63	73.41	60.01	19 13 10	3590.3	13.12	154.94

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0321	TRA	-.3604	TC3	1.1373	BAU	.2885	SGT	976.3	SGR	1112.6	SG3	365.9	ST	200.6	SR	99.1	SS	731.9
RDE	.0523	RRA	.0251	RC3	-1.7082	FAU	.07196	RRT	-.7831	RRF	.9419	RTF	-.8036	CRT	-.4286	CRS	-.9623	CST	.3929
FDE	.9460	FRA	.3497	FC3	-5.9243	BSP	4375	SGB	1480.3	R23	-.1623	R13	.9339	LSA	742.6	MSA	183.4	SSA	26.2
BDE	.0614	BRA	.3613	BC3	2.0522	FSP	-1073	SG1	1399.3	SG2	482.8	THA	130.25	EL1	206.1	EL2	87.1	ALF	165.38

LAUNCH DATE SEP 4 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 289.279

RL	150.87	LAL	.00	LOL	341.06	VL	27.017	GAL	-4.29	AZL	87.60	HCA	128.77	SMA	128.93	ECC	.18550	INC	2.4009	V1	29.532
RP	107.53	LAP	1.87	LOP	109.85	VP	37.936	GAP	-4.82	AZP	91.50	TAL	199.50	TAP	328.26	RCA	105.01	APO	152.84	V2	35.243
RC	64.375	GL	20.24	GP	-35.88	ZAL	119.29	ZAP	50.54	ETS	32.39	ZAE	135.47	ETE	304.80	ZAC	66.29	ETC	260.96	CLP	-38.33

PLANETOCENTRIC CONIC

C3	10.643	VHL	3.262	DLA	4.55	RAL	223.53	RAD	6567.4	VEL	11.491	PTH	2.00	VHP	4.877	DPA	-56.68	RAP	238.15	ECC	1.1752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 51 3	2216.00	-19.60	41.57	76.41	110.85	3 27 59	1616.0	-16.59	34.19
90.00	15 56 52	4577.14	11.90	193.35	75.04	64.11	17 13 9	3977.1	8.32	186.49
100.00	4 14 32	1946.73	-20.46	21.41	76.05	112.28	4 46 59	1346.7	-17.26	14.07
100.00	17 16 4	4321.63	12.72	174.13	74.62	62.72	18 28 6	3721.6	8.97	167.36
110.00	5 27 41	1717.81	-22.75	2.92	74.94	116.23	5 56 19	1117.8	-19.04	355.75
110.00	18 19 25	4123.32	14.92	157.82	73.35	58.88	19 28 8	3523.3	10.68	151.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0386	TRA	-.3541	TC3	1.0252	BAU	.3060	SGT	917.2	SGR	1255.5	SG3	388.6	ST	200.1	SR	226.2	SS	839.8
RDE	.1265	RRA	.0406	RC3	-1.8907	FAU	.07506	RRT	-.7683	RRF	.9565	RTF	-.7793	CRT	-.4375	CRS	-.9946	CST	.4362
FDE	1.1270	FRA	.3788	FC3	-6.1058	BSP	4602	SGB	1554.9	R23	-.1442	R13	.9481	LSA	874.0	MSA	179.1	SSA	22.8
BDE	.1322	BRA	.3565	BC3	2.1508	FSP	-1150	SG1	1472.1	SG2	500.7	THA	123.72	EL1	257.2	EL2	158.2	ALF	127.14

LAUNCH DATE SEP 4 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 295.864

RL	150.87	LAL	.00	LOL	341.06	VL	27.061	GAL	-4.31	AZL	87.27	HCA	132.00	SMA	129.23	ECC	.18318	INC	2.7309	V1	29.532
RP	107.51	LAP	2.03	LOP	113.09	VP	37.972	GAP	-4.24	AZP	91.83	TAL	199.93	TAP	331.93	RCA	105.55	APO	152.90	V2	35.247
RC	66.441	GL	22.94	GP	-39.02	ZAL	119.23	ZAP	55.01	ETS	30.24	ZAE	133.73	ETE	300.09	ZAC	63.10	ETC	260.46	CLP	-42.43

PLANETOCENTRIC CONIC

C3	10.879	VHL	3.298	DLA	7.29	RAL	223.85	RAD	6567.4	VEL	11.501	PTH	2.00	VHP	4.772	DPA	-59.40	RAP	234.90	ECC	1.1790

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 31 26	2306.91	-21.70	47.42	77.72	108.66	3 9 53	1706.9	-18.95	39.82
90.00	16 19 2	4495.17	9.42	188.60	75.51	63.17	17 33 57	3895.2	5.74	181.85
100.00	3 56 17	2033.29	-22.59	26.95	77.38	110.11	4 30 10	1433.3	-19.65	19.39
100.00	17 36 53	4244.03	10.26	169.69	75.06	61.77	18 47 37	3644.0	6.41	163.02
110.00	5 12 30	1794.73	-24.96	7.78	76.32	114.13	5 42 25	1194.7	-21.51	.35
110.00	18 37 9	4055.34	12.49	154.05	73.74	57.92	19 44 44	3455.3	8.16	147.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0361	TRA	-.3490	TC3	.8733	BAU	.3256	SGT	842.3	SGR	1414.4	SG3	406.5	ST	194.6	SR	378.6	SS	948.6
RDE	.2159	RRA	.0617	RC3	-2.0609	FAU	.07708	RRT	-.7326	RRF	.9674	RTF	-.7369	CRT	-.4098	CRS	-.9984	CST	.4150
FDE	1.3167	FRA	.4163	FC3	-6.1338	BSP	4864	SGB	1646.2	R23	-.1189	R13	.9609	LSA	1024.4	MSA	176.5	SSA	19.6
BDE	.2189	BRA	.3544	BC3	2.2383	FSP	-1211	SG1	1562.2	SG2	519.1	THA	116.76	EL1	389.0	EL2	172.7	ALF	104.90

LAUNCH DATE SEP 4 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 302.424

RL	150.87	LAL	.00	LOL	341.06	VL	27.098	GAL	-4.33	AZL	86.90	HCA	135.24	SMA	129.48	ECC	.18120	INC	3.0964	V1	29.532
RP	107.50	LAP	2.18	LOP	116.33	VP	38.001	GAP	-3.69	AZP	92.20	TAL	200.28	TAP	335.51	RCA	106.02	APO	152.94	V2	35.251
RC	68.539	GL	25.81	GP	-42.36	ZAL	118.87	ZAP	59.61	ETS	27.80	ZAE	131.69	ETE	295.14	ZAC	59.70	ETC	259.82	CLP	-46.79

PLANETOCENTRIC CONIC

C3	11.243	VHL	3.353	DLA	10.13	RAL	224.40	RAD	6567.4	VEL	11.517	PTH	2.01	VHP	4.713	DPA	-62.14	RAP	230.65	ECC	1.1850

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 11 10	2405.36	-23.69	53.94	79.57	105.98	2 51 16	1805.4	-21.28	46.10
90.00	16 43 39	4410.24	6.77	183.76	76.49	62.44	17 57 9	3810.2	3.03	177.08
100.00	3 37 32	2126.84	-24.65	33.14	79.26	107.47	4 12 59	1526.8	-22.03	25.33
100.00	17 59 58	4163.99	7.65	165.18	76.01	61.02	19 9 22	3564.0	3.73	158.59
110.00	4 57 10	1877.66	-27.18	13.22	78.26	111.58	5 28 27	1277.7	-24.00	5.50
110.00	18 56 50	3985.94	9.95	150.28	74.62	57.13	20 3 16	3385.9	5.55	143.95

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0257	TRA	-.3488	TC3	.6678	BAU	.3444	SGT	754.4	SGR	1581.2	SG3	416.9	ST	187.3	SR	562.8	SS	1063.2
RDE	.3271	RRA	.0943	RC3	-2.1921	FAU	.07712	RRT	-.6555	RRF	.9752	RTF	-.6583	CRT	-.3226	CRS	-.9994	CST	.3278
FDE	1.5196	FRA	.4746	FC3	-5.9384	BSP	5035	SGB	1751.9	R23	-.0863	R13	.9717	LSA	1204.5	MSA	176.9	SSA	16.4
BDE	.3281	BRA	.3613	BC3	2.2916	FSP	-1223	SG1	1666.5	SG2	540.5	THA	109.50	EL1	566.4	EL2	176.2	ALF	96.79

LAUNCH DATE SEP 4 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 308.957

RL	150.87	LAL	.00	LOL	341.06	VL	27.129	GAL	-4.33	AZL	86.49	HCA	138.47	SMA	129.69	ECC	.17952	INC	3.5063	V1	29.532
RP	107.49	LAP	2.32	LOP	119.58	VP	38.026	GAP	-3.15	AZP	92.63	TAL	200.53	TAP	339.01	RCA	106.41	APO	152.97	V2	35.254
RC	70.666	GL	28.84	GP	-45.84	ZAL	118.23	ZAP	64.26	ETS	24.99	ZAE	129.32	ETE	290.01	ZAC	56.13	ETC	259.00	CLP	-51.44

PLANETOCENTRIC CONIC

C3	11.764	VHL	3.430	DLA	13.07	RAL	225.17	RAD	6567.4	VEL	11.539	PTH	2.01	VHP	4.707	DPA	-64.82	RAP	225.18	ECC	1.1936

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 49 38	2513.55	-25.52	61.34	82.02	102.70	2 31 31	1913.6	-23.52	53.24
90.00	17 11 20	4320.91	3.93	178.73	78.03	61.93	18 23 21	3720.9	.15	172.10
100.00	3 17 46	2229.31	-26.56	40.16	81.75	104.25	3 54 55	1629.3	-24.34	32.06
100.00	18 25 53	4080.38	4.87	160.53	77.51	60.47	19 33 53	3480.4	.90	154.00
110.00	4 41 18	1967.94	-29.29	19.40	80.84	108.47	5 14 6	1367.9	-26.48	11.34
110.00	19 18 50	3914.52	7.29	146.46	76.02	56.51	20 24 5	3314.5	2.84	140.20

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0153	TRA	-.3349	TC3	.4781	BAU	.3729	SGT	661.8	SGR	1771.9	SG3	420.8	ST	174.5	SR	749.8	SS	1145.7
RDE	.4463	RRA	.1247	RC3	-2.3225	FAU	.07699	RRT	-.5340	RRF	.9813	RTF	-.5279	CRT	.0577	CRS	-.9997	CST	-.0523
FDE	1.6779	FRA	.5061	FC3	-5.6661	BSP	5619	SGB	1891.5	R23	-.0607	R13	.9794	LSA	1369.2	MSA	174.2	SSA	14.3
BDE	.4465	BRA	.3573	BC3	2.3712	FSP	-1277	SG1	1810.5	SG2	547.7	THA	102.44	EL1	749.9	EL2	174.1	ALF	89.19

LAUNCH DATE SEP 4 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 315.465

RL	150.87	LAL	.00	LOL	341.06	VL	27.153	GAL	-4.32	AZL	86.03	HCA	141.71	SMA	129.85	ECC	.17812	INC	3.9720	V1	29.532
RP	107.48	LAP	2.46	LOP	122.83	VP	38.045	GAP	-2.64	AZP	93.12	TAL	200.70	TAP	342.40	RCA	106.72	APO	152.98	V2	35.256
RC	72.818	GL	32.06	GP	-49.44	ZAL	117.29	ZAP	68.88	ETS	21.76	ZAE	126.62	ETE	284.78	ZAC	52.43	ETC	257.97	CLP	-56.34

PLANETOCENTRIC CONIC

C3	12.487	VHL	3.534	DLA	16.14	RAL	226.19	RAD	6567.5	VEL	11.570	PTH	2.02	VHP	4.760	DPA	-67.34	RAP	218.26	ECC	1.2055

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 25 58	2634.67	-27.06	69.87	85.13	98.69	2 9 53	2034.7	-25.58	61.52
90.00	17 43 6	4224.99	.85	173.37	80.23	61.69	18 53 31	3625.0	-2.94	166.74
100.00	2 56 19	2343.30	-28.21	48.22	84.91	100.31	3 35 23	1743.3	-26.50	39.84
100.00	18 55 27	3991.58	1.87	155.65	79.66	60.16	20 1 58	3391.6	-2.11	149.12
110.00	4 24 32	2067.31	-31.22	26.49	84.14	104.69	4 58 59	1467.3	-28.89	18.07
110.00	19 43 43	3840.34	4.49	142.55	78.03	56.08	20 47 44	3240.3	.00	136.33

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0739	TRA	-.3243	TC3	.2439	BAU	.3991	SGT	586.2	SGR	1957.0	SG3	413.7	ST	203.3	SR	965.2	SS	1227.2
RDE	.5920	RRA	.1714	RC3	-2.3780	FAU	.07422	RRT	-.2903	RRF	.9855	RTF	-.2803	CRT	.5120	CRS	-.9999	CST	-.5087
FDE	1.8310	FRA	.5582	FC3	-5.1458	BSP	6067	SGB	2042.9	R23	-.0326	R13	.9850	LSA	1564.7	MSA	174.5	SSA	12.1
BDE	.5966	BRA	.3668	BC3	2.3905	FSP	-1263	SG1	1965.0	SG2	558.7	THA	95.41	EL1	971.0	EL2	173.6	ALF	83.64

LAUNCH DATE SEP 4 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 321.946

RL	150.87	LAL	.00	LOL	341.06	VL	27.171	GAL	-4.30	AZL	85.49	HCA	144.94	SMA	129.96	ECC	.17695	INC	4.5095	V1	29.532
RP	107.48	LAP	2.59	LOP	126.08	VP	38.060	GAP	-2.14	AZP	93.69	TAL	200.77	TAP	345.71	RCA	106.98	APO	152.98	V2	35.258
RC	74.992	GL	35.46	GP	-53.11	ZAL	116.05	ZAP	73.36	ETS	18.03	ZAE	123.60	ETE	279.48	ZAC	48.63	ETC	256.70	CLP	-61.51

PLANETOCENTRIC CONIC

C3	13.481	VHL	3.672	DLA	19.32	RAL	227.46	RAD	6567.5	VEL	11.613	PTH	2.03	VHP	4.880	DPA	-69.58	RAP	209.66	ECC	1.2219

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 58 40	2774.03	-28.09	79.93	88.93	93.75	1 44 54	2174.0	-27.27	71.36
90.00	18 20 35	4118.63	-2.59	167.44	83.25	61.79	19 29 14	3518.6	-6.34	160.77
100.00	2 32 1	2473.01	-29.43	57.66	88.81	95.49	3 13 14	1873.0	-28.36	49.02
100.00	19 29 55	3894.89	-1.41	150.34	82.60	60.14	20 34 50	3294.9	-5.37	143.80
110.00	4 6 12	2178.32	-32.84	34.74	88.26	100.06	4 42 31	1578.3	-31.11	25.95
110.00	20 12 13	3762.34	1.51	138.47	80.77	55.85	21 14 56	3162.3	-2.98	132.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1655	TRA	-.3071	TC3	.0060	BAU	[illegible]	SGT	569.8	SGR	2136.8	SG3	396.4	ST	299.9	SR	1189.8	SS	1288.6
RDE	.7582	RRA	.2300	RC3	-2.3670	FAU	.06970	RRT	.0862	RRF	.9885	RTF	.0995	CRT	.8078	CRS	-.9999	CST	-.8066
FDE	1.9477	FRA	.6081	FC3	-4.4763	BSP	6590	SGB	2211.4	R23	-.0079	R13	.9886	LSA	1770.6	MSA	175.4	SSA	10.2
BDE	.7761	BRA	.3837	BC3	2.3670	FSP	-1221	SG1	2137.4	SG2	567.5	THA	88.58	EL1	1214.8	EL2	173.1	ALF	78.25

LAUNCH DATE SEP 4 1970 FLIGHT TIME 118.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 328.399

RL	150.87	LAL	.00	LOL	341.06	VL	27.184	GAL	-4.27	AZL	84.86	HCA	148.17	SMA	130.07	ECC	.17600	INC	5.1411
RP	107.48	LAP	2.71	LOP	129.33	VP	38.070	GAP	-1.65	AZP	94.37	TAL	200.75	TAP	348.92	RCA	107.18	APO	152.96
RC	77.186	GL	39.07	GP	-56.84	ZAL	114.50	ZAP	77.61	ETS	13.76	ZAE	120.28	ETE	274.15	ZAC	44.77	ETC	255.13

V1	29.532	V2	35.259	CLP	-66.91														

PLANETOCENTRIC CONIC

C3	14.856	VHL	3.854	DLA	22.63	RAL	229.01	RAD	6567.6	VEL	11.672	PTH	2.05	VHP	5.081	DPA	-71.42	RAP	199.25
ECC	1.2445																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 36	2942.12	-28.22	92.21	93.37	87.61	1 13 38	2342.1	-28.26	83.55
90.00	19 7 3	3993.37	-6.58	160.41	87.34	62.40	20 13 36	3393.4	-10.23	153.62
100.00	2 2 42	2625.81	-29.89	68.99	93.42	89.55	2 46 28	2025.8	-29.63	60.19
100.00	20 11 38	3784.91	-5.12	144.29	86.54	60.51	21 14 43	3184.9	-9.01	137.66
110.00	3 45 20	2304.71	-33.93	44.44	93.25	94.42	4 23 45	1704.7	-32.95	35.34
110.00	20 45 29	3678.77	-1.68	134.11	84.40	55.85	21 46 48	3078.8	-6.15	127.87

DIFFERENTIAL CORRECTIONS

TDE	.3000	TRA	-.2803	TC3	-.2200	BAU	.4539
RDE	.9461	RRA	.3034	RC3	-2.2747	FAU	.06350
FDE	2.0225	FRA	.6537	FC3	-3.7001	BSP	7150
BDE	.9925	BRA	.4131	BC3	2.2853	FSP	-1149

MID-COURSE EXECUTION ACCURACY

SGT	656.8	SGR	2300.3	SG3	369.4		
RRT	.4660	RRF	.9907	RTF	.4805		
SGB	2392.2	R23	.0136	R13	.9908		
SG1	2321.9	SG2	575.7	THA	81.92		

ORBIT DETERMINATION ACCURACY

ST	466.1	SR	1415.0	SS	1327.7		
CRT	.9213	CRS	-1.0000	CST	-.9212		
LSA	1987.7	MSA	177.0	SSA	8.6		
EL1	1479.6	EL2	173.3	ALF	72.88		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 334.824

RL	150.87	LAL	.00	LOL	341.06	VL	27.192	GAL	-4.23	AZL	84.10	HCA	151.39	SMA	130.13	ECC	.17525	INC	5.8988
RP	107.48	LAP	2.82	LOP	132.58	VP	38.076	GAP	-1.18	AZP	95.18	TAL	200.65	TAP	352.04	RCA	107.32	APO	152.93
RC	79.396	GL	42.86	GP	-60.60	ZAL	112.67	ZAP	81.52	ETS	8.91	ZAE	116.69	ETE	268.79	ZAC	40.85	ETC	253.19

V1	29.532	V2	35.259	CLP	-72.52														

PLANETOCENTRIC CONIC

C3	16.788	VHL	4.097	DLA	26.05	RAL	230.87	RAD	6567.7	VEL	11.755	PTH	2.07	VHP	5.380	DPA	-72.73	RAP	187.09
ECC	1.2763																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 30 24	3169.51	-26.48	108.60	98.11	79.59	24 23 14	2569.5	-27.65	100.13
90.00	20 12 5	3821.36	-11.87	150.53	93.05	64.10	21 15 47	3221.4	-15.26	143.50
100.00	1 23 7	2818.84	-28.93	83.24	98.55	82.13	2 10 6	2218.8	-29.72	74.52
100.00	21 6 0	3647.27	-9.66	136.60	91.90	61.58	22 6 47	3047.3	-13.39	129.79
110.00	3 20 7	2452.76	-34.11	55.98	99.10	87.60	4 1 0	1852.8	-34.07	46.74
110.00	21 25 29	3586.11	-5.21	129.26	89.19	56.17	22 25 15	2986.1	-9.62	122.94

DIFFERENTIAL CORRECTIONS

TDE	.4916	TRA	-.2386	TC3	-.4148	BAU	.4793
RDE	1.1535	RRA	.3941	RC3	-2.0947	FAU	.05588
FDE	2.0485	FRA	.6908	FC3	-2.8817	BSP	7736
BDE	1.2538	BRA	.4607	BC3	2.1354	FSP	-1049

MID-COURSE EXECUTION ACCURACY

SGT	852.1	SGR	2434.0	SG3	333.9		
RRT	.7061	RRF	.9921	RTF	.7204		
SGB	2578.8	R23	.0325	R13	.9920		
SG1	2511.7	SG2	584.7	THA	75.30		

ORBIT DETERMINATION ACCURACY

ST	696.5	SR	1624.2	SS	1340.4		
CRT	.9625	CRS	-1.0000	CST	-.9630		
LSA	2210.8	MSA	179.5	SSA	7.3		
EL1	1758.6	EL2	174.5	ALF	67.34		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 341.220

RL	150.87	LAL	.00	LOL	341.06	VL	27.196	GAL	-4.17	AZL	83.17	HCA	154.61	SMA	130.15	ECC	.17466	INC	6.8311
RP	107.48	LAP	2.92	LOP	135.83	VP	38.077	GAP	-.73	AZP	96.18	TAL	200.45	TAP	355.07	RCA	107.42	APO	152.89
RC	81.621	GL	46.82	GP	-64.42	ZAL	110.57	ZAP	84.99	ETS	3.42	ZAE	112.85	ETE	263.31	ZAC	36.88	ETC	250.73

V1	29.532	V2	35.258	CLP	-78.34														

PLANETOCENTRIC CONIC

C3	19.574	VHL	4.424	DLA	29.57	RAL	233.05	RAD	6567.8	VEL	11.872	PTH	2.11	VHP	5.805	DPA	-73.42	RAP	173.54
ECC	1.3221																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.12	20 47 20	3765.73	-20.59	150.47	101.59	68.30	21 50 6	3165.7	-23.36	142.79
98.88	23 12 33	3296.84	-20.58	116.02	101.59	68.29	24 7 30	2696.8	-23.34	108.34
100.00	0 2 22	3150.04	-23.63	106.35	102.80	71.14	0 54 52	2550.0	-25.98	98.34
100.00	22 44 8	3387.76	-17.60	121.42	100.24	65.44	23 40 36	2787.8	-20.77	114.06
110.00	2 46 32	2635.57	-32.69	70.04	105.50	79.41	3 30 27	2035.6	-33.81	60.99
110.00	22 16 27	3475.00	-9.38	123.36	95.60	56.98	23 14 22	2875.0	-13.67	116.88

DIFFERENTIAL CORRECTIONS

TDE	.7610	TRA	-.1742	TC3	-.5580	BAU	.5006
RDE	1.3777	RRA	.5065	RC3	-1.8299	FAU	.04728
FDE	2.0264	FRA	.7180	FC3	-2.0912	BSP	8326
BDE	1.5739	BRA	.5356	BC3	1.9131	FSP	-928

MID-COURSE EXECUTION ACCURACY

SGT	1132.4	SGR	2524.7	SG3	292.4		
RRT	.8263	RRF	.9930	RTF	.8409		
SGB	2767.0	R23	.0496	R13	.9924		
SG1	2702.0	SG2	596.0	THA	68.57		

ORBIT DETERMINATION ACCURACY

ST	988.7	SR	1799.1	SS	1326.3		
CRT	.9790	CRS	-1.0000	CST	-.9800		
LSA	2437.2	MSA	183.4	SSA	6.2		
EL1	2045.2	EL2	177.2	ALF	61.49		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 347.583

RL	150.87	LAL	.00	LOL	341.06	VL	27.195	GAL	-4.11	AZL	81.99	HCA	157.82	SMA	130.15	ECC	.17422	INC	8.0137
RP	107.48	LAP	3.02	LOP	139.08	VP	38.076	GAP	-.30	AZP	97.43	TAL	200.17	TAP	358.00	RCA	107.47	APO	152.83
RC	83.861	GL	50.90	GP	-68.33	ZAL	108.21	ZAP	87.94	ETS	357.15	ZAE	108.76	ETE	257.56	ZAC	32.81	ETC	247.50

V1	29.532	V2	35.256	CLP	-84.40		

PLANETOCENTRIC CONIC

C3	23.742	VHL	4.873	DLA	33.11	RAL	235.58	RAD	6568.0	VEL	12.047	PTH	2.15	VHP	6.400	DPA	-73.44	RAP	159.22
ECC	1.3907																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.07	19 53 18	4014.46	-21.57	169.68	108.29	64.24	21 0 12	3414.5	-24.85	162.16
107.93	0 30 44	3141.17	-21.56	104.76	108.29	64.23	1 23 5	2541.2	-24.84	97.24
72.07	19 53 18	4014.46	-21.57	169.68	108.29	64.24	21 0 12	3414.5	-24.85	162.16
107.93	0 30 44	3141.17	-21.56	104.76	108.29	64.23	1 23 5	2541.2	-24.84	97.24
110.00	1 48 7	2903.51	-27.68	89.26	111.19	69.09	2 36 31	2303.5	-30.27	81.02
110.00	23 35 5	3300.12	-15.69	113.74	104.96	59.23	24 30 5	2700.1	-19.66	106.86

DIFFERENTIAL CORRECTIONS

TDE	1.1411	TRA	-.0739	TC3	-.6334	BAU	.5153
RDE	1.6089	RRA	.6441	RC3	-1.4948	FAU	.03821
FDE	1.9594	FRA	.7322	FC3	-1.3933	BSP	8914
BDE	1.9725	BRA	.6483	BC3	1.6235	FSP	-794

MID-COURSE EXECUTION ACCURACY

SGT	1480.6	SGR	2553.2	SG3	247.5		
RRT	.8846	RRF	.9933	RTF	.9012		
SGB	2951.4	R23	.0655	R13	.9923		
SG1	2887.6	SG2	610.6	THA	61.45		

ORBIT DETERMINATION ACCURACY

ST	1342.3	SR	1911.7	SS	1285.6		
CRT	.9863	CRS	-.9999	CST	-.9878		
LSA	2659.6	MSA	188.8	SSA	5.2		
EL1	2328.8	EL2	181.9	ALF	55.05		

LAUNCH DATE SEP 4 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 353.910

RL	150.87	LAL	.00	LOL	341.06	VL	27.191	GAL	-4.03	AZL	80.43	HCA	161.03	SMA	130.12	ECC	.17392	INC	9.5730	V1	29.532		
RP	107.49	LAP	3.10	LOP	142.33	VP	38.071	GAP	.12	AZP	99.06	TAL	199.80	TAP	.83	RCA	107.49	APO	152.75	V2	35.254		
RC	86.111	GL	55.03	GP	-72.43	ZAL	105.66	ZAP	90.28	ETS	349.75	ZAE	104.38	ETE	251.11	ZAC	28.57	ETC	242.97	CLP	-90.92		

PLANETOCENTRIC CONIC

C3	30.300	VHL	5.505	DLA	36.62	RAL	238.50	RAD	6568.2	VEL	12.316	PTH	2.22	VHP	7.241	DPA	-72.72	RAP	144.82	ECC	1.4987		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.75	19 28 9	4186.29	-21.63	183.24	116.27	59.71	20 37 55	3586.3	-25.48	176.01
114.25	1 19 10	3090.37	-21.62	100.80	116.26	59.70	2 10 41	2490.4	-25.47	93.57
65.75	19 28 9	4186.29	-21.63	183.24	116.27	59.71	20 37 55	3586.3	-25.48	176.01
114.25	1 19 10	3090.37	-21.62	100.80	116.26	59.70	2 10 41	2490.4	-25.47	93.57
65.75	19 28 9	4186.29	-21.63	183.24	116.27	59.71	20 37 55	3586.3	-25.48	176.01
114.25	1 19 10	3090.37	-21.62	100.80	116.26	59.70	2 10 41	2490.4	-25.47	93.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6901	TRA	.0873	TC3	-.6326	BAU	.5184	SGT	1895.4	SGR	2488.5	SG3	202.3	ST	1759.6	SR	1919.8	SS	1222.3
RDE	1.8190	RRA	.8116	RC3	-1.1125	FAU	.02913	RRT	.9123	RRF	.9927	RTF	.9342	CRT	.9893	CRS	-.9998	CST	-.9919
FDE	1.8566	FRA	.7345	FC3	-.8323	BSP	9487	SGB	3128.1	R23	.0809	R13	.9919	LSA	2870.1	MSA	196.6	SSA	4.5
BDE	2.4829	BRA	.8163	BC3	1.2798	FSP	-657	SG1	3063.9	SG2	630.5	THA	53.41	EL1	2597.3	EL2	189.4	ALF	47.52

LAUNCH DATE SEP 4 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 360.194

RL	150.87	LAL	.00	LOL	341.06	VL	27.183	GAL	-3.94	AZL	78.26	HCA	164.21	SMA	130.07	ECC	.17373	INC	11.7356	V1	29.532		
RP	107.50	LAP	3.17	LOP	145.58	VP	38.062	GAP	.53	AZP	101.30	TAL	199.34	TAP	3.55	RCA	107.47	APO	152.66	V2	35.251		
RC	88.372	GL	59.05	GP	-76.84	ZAL	102.95	ZAP	91.96	ETS	340.18	ZAE	99.63	ETE	242.87	ZAC	24.02	ETC	235.79	CLP	-98.64		

PLANETOCENTRIC CONIC

C3	41.365	VHL	6.432	DLA	39.91	RAL	241.82	RAD	6568.6	VEL	12.757	PTH	2.32	VHP	8.468	DPA	-71.18	RAP	130.90	ECC	1.6808		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.61	19 15 59	4338.41	-20.35	194.90	125.52	54.90	20 28 17	3738.4	-24.80	188.12
119.39	1 57 52	3095.30	-20.34	100.33	125.50	54.89	2 49 27	2495.3	-24.79	93.54
60.61	19 15 59	4338.41	-20.35	194.90	125.52	54.90	20 28 17	3738.4	-24.80	188.12
119.39	1 57 52	3095.30	-20.34	100.33	125.50	54.89	2 49 27	2495.3	-24.79	93.54
60.61	19 15 59	4338.41	-20.35	194.90	125.52	54.90	20 28 17	3738.4	-24.80	188.12
119.39	1 57 52	3095.30	-20.34	100.33	125.50	54.89	2 49 27	2495.3	-24.79	93.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.5216	TRA	.3673	TC3	-.5563	BAU	.5001	SGT	2395.9	SGR	2259.0	SG3	159.4	ST	2250.2	SR	1737.8	SS	1144.9
RDE	1.9103	RRA	1.0062	RC3	-.7130	FAU	.02040	RRT	.9197	RRF	.9890	RTF	.9554	CRT	.9893	CRS	-.9992	CST	-.9944
FDE	1.7332	FRA	.7294	FC3	-.4269	BSP	10019	SGB	3292.9	R23	.0961	R13	.9912	LSA	3057.9	MSA	208.4	SSA	3.7
BDE	3.1635	BRA	1.0711	BC3	.9043	FSP	-523	SG1	3226.4	SG2	658.6	THA	43.17	EL1	2836.0	EL2	201.1	ALF	37.60

LAUNCH DATE SEP 4 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 366.421

RL	150.87	LAL	.00	LOL	341.06	VL	27.172	GAL	-3.83	AZL	75.05	HCA	167.36	SMA	129.99	ECC	.17362	INC	14.9488	V1	29.532		
RP	107.51	LAP	3.24	LOP	148.83	VP	38.051	GAP	.91	AZP	104.60	TAL	198.78	TAP	6.14	RCA	107.42	APO	152.56	V2	35.247		
RC	90.641	GL	62.68	GP	-81.73	ZAL	100.16	ZAP	92.93	ETS	324.91	ZAE	94.28	ETE	229.16	ZAC	18.94	ETC	221.79	CLP	-110.84		

PLANETOCENTRIC CONIC

C3	61.961	VHL	7.872	DLA	42.73	RAL	245.52	RAD	6569.2	VEL	13.539	PTH	2.47	VHP	10.357	DPA	-68.63	RAP	117.84	ECC	2.0197		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.56	19 13 8	4487.52	-17.30	205.32	135.84	50.30	20 27 55	3887.5	-22.29	199.09
123.44	2 30 14	3146.92	-17.28	102.31	135.82	50.30	3 22 41	2546.9	-22.28	96.09
56.56	19 13 8	4487.52	-17.30	205.32	135.84	50.30	20 27 55	3887.5	-22.29	199.09
123.44	2 30 14	3146.92	-17.28	102.31	135.82	50.30	3 22 41	2546.9	-22.28	96.09
56.56	19 13 8	4487.52	-17.30	205.32	135.84	50.30	20 27 55	3887.5	-22.29	199.09
123.44	2 30 14	3146.92	-17.28	102.31	135.82	50.30	3 22 41	2546.9	-22.28	96.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.8523	TRA	.9247	TC3	-.4134	BAU	.4386	SGT	3020.9	SGR	1649.2	SG3	121.4	ST	2817.6	SR	1127.3	SS	1070.2
RDE	1.4758	RRA	1.1484	RC3	-.3308	FAU	.01224	RRT	.8819	RRF	.9593	RTF	.9736	CRT	.9780	CRS	-.9921	CST	-.9965
FDE	1.6159	FRA	.7271	FC3	-.1710	BSP	10480	SGB	3441.8	R23	.1106	R13	.9906	LSA	3209.9	MSA	225.9	SSA	3.0
BDE	4.1254	BRA	1.4744	BC3	.5295	FSP	-401	SG1	3370.5	SG2	696.9	THA	26.95	EL1	3026.8	EL2	218.8	ALF	21.49

LAUNCH DATE SEP 4 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 372.558

RL	150.87	LAL	.00	LOL	341.06	VL	27.159	GAL	-3.69	AZL	69.78	HCA	170.44	SMA	129.89	ECC	.17356	INC	20.2198	V1	29.532		
RP	107.53	LAP	3.29	LOP	152.08	VP	38.037	GAP	1.26	AZP	109.96	TAL	198.09	TAP	8.54	RCA	107.35	APO	152.44	V2	35.243		
RC	92.917	GL	65.31	GP	-86.56	ZAL	97.38	ZAP	93.18	ETS	288.30	ZAE	87.85	ETE	194.24	ZAC	12.87	ETC	183.42	CLP	-157.84		

PLANETOCENTRIC CONIC

C3	106.286	VHL	10.310	DLA	44.48	RAL	249.45	RAD	6570.0	VEL	15.087	PTH	2.71	VHP	13.530	DPA	-64.57	RAP	105.81	ECC	2.7492		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.15	19 19 10	4635.74	-12.26	214.02	146.68	46.90	20 36 26	4035.7	-17.65	208.32
125.85	2 55 29	3243.94	-12.24	106.42	146.66	46.90	3 49 33	2643.9	-17.63	100.71
54.15	19 19 10	4635.74	-12.26	214.02	146.68	46.90	20 36 26	4035.7	-17.65	208.32
125.85	2 55 29	3243.94	-12.24	106.42	146.66	46.90	3 49 33	2643.9	-17.63	100.71
54.15	19 19 10	4635.74	-12.26	214.02	146.68	46.90	20 36 26	4035.7	-17.65	208.32
125.85	2 55 29	3243.94	-12.24	106.42	146.66	46.90	3 49 33	2643.9	-17.63	100.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	5.4359	TRA	2.1181	TC3	-.1919	BAU	.2746	SGT	3464.8	SGR	840.4	SG3	90.6	ST	3061.3	SR	757.6	SS	1031.3
RDE	-1.3478	RRA	.4856	RC3	-.0229	FAU	.00428	RRT	-.5564	RRF	-.4787	RTF	.9942	CRT	-.9515	CRS	.9388	CST	-.9992
FDE	1.5554	FRA	.7552	FC3	-.0348	BSP	10833	SGB	3565.3	R23	-.1173	R13	-.9914	LSA	3309.8	MSA	233.4	SSA	2.1
BDE	5.6005	BRA	2.1731	BC3	.1932	FSP	-298	SG1	3497.5	SG2	691.8	THA	172.00	EL1	3145.5	EL2	226.9	ALF	166.68

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LAUNCH DATE  SEP  4 1970                          FLIGHT TIME 134.00                                ARRIVAL DATE  JAN 16 1971

  HELIOCENTRIC CONIC                                  DISTANCE 378.509
   RL  150.87 LAL     .00 LOL 341.06 VL  27.142 GAL  -3.52 AZL  59.74 HCA 173.38 SMA 129.78 ECC .17344 INC30.2570 V1  29.532
   RP  107.54 LAP    3.33 LOP 155.33 VP  38.020 GAP   1.56 AZP 120.09 TAL 197.20 TAP  10.58 RCA 107.27 APO 152.29 V2  35.238
   RC  95.197 GL    65.39 GP  -81.98 ZAL  94.74 ZAP  92.74 ETS 221.34 ZAE  79.05 ETE 128.94 ZAC   5.00 ETC  94.20 CLP 110.00
  PLANETOCENTRIC CONIC
   C3 225.440 VHL 15.015 DLA  43.72 RAL 253.06 RAD 6571.3 VEL 18.621 PTH   3.05 VHP 19.621 DPA -57.66 RAP  94.89 ECC 4.7102
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      55.18    19 37 36   4758.34      -5.91     219.07     156.86      46.60   20 56 54    4158.3      -11.37     213.57
     124.82     3  5 51   3387.87      -5.89     113.40     156.84      46.60    4  2 19    2787.9      -11.35     107.89
      55.18    19 37 36   4758.34      -5.91     219.07     156.86      46.60   20 56 54    4158.3      -11.37     213.57
     124.82     3  5 51   3387.87      -5.89     113.40     156.84      46.60    4  2 19    2787.9      -11.35     107.89
      55.18    19 37 36   4758.34      -5.91     219.07     156.86      46.60   20 56 54    4158.3      -11.37     213.57
     124.82     3  5 51   3387.87      -5.89     113.40     156.84      46.60    4  2 19    2787.9      -11.35     107.89
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 2.8214 TRA 2.2247 TC3  .0023 BAU  .2240      SGT 1593.4 SGR 3263.4 SG3   68.5            ST  1132.8 SR  2937.8 SS  1102.9
   RDE-7.6112 RRA-2.7861 RC3 -.0743 FAU-.00594      RRT -.9340 RRF -.9858 RTF  .9784            CRT -.9863 CRS  .9977 CST -.9952
   FDE 1.6644 FRA  .8902 FC3  .0228 BSP  11066      SGB 3631.6 R23 -.0948 R13 -.9944            LSA 3331.3 MSA  181.0 SSA    1.8
   BDE 8.1173 BRA 3.5653 BC3  .0743 FSP   -225      SG1 3594.6 SG2  516.9 THA 115.07            EL1 3143.8 EL2  174.4 ALF 110.89

LAUNCH DATE  SEP  4 1970                          FLIGHT TIME 136.00                                ARRIVAL DATE  JAN 18 1971

  HELIOCENTRIC CONIC                                  DISTANCE 383.917
   RL  150.87 LAL     .00 LOL 341.06 VL  27.123 GAL  -3.23 AZL  36.34 HCA 175.82 SMA 129.65 ECC .17288 INC53.6570 V1  29.532
   RP  107.56 LAP    3.36 LOP 158.58 VP  38.001 GAP   1.70 AZP 143.58 TAL 195.79 TAP  11.61 RCA 107.23 APO 152.06 V2  35.232
   RC  97.481 GL    58.20 GP  -67.13 ZAL  92.46 ZAP  91.75 ETS 192.89 ZAE  63.81 ETE 101.96 ZAC  11.43 ETC 300.12 CLP  94.51
  PLANETOCENTRIC CONIC
   C3 658.744 VHL 25.666 DLA  35.99 RAL 254.87 RAD 6572.6 VEL 27.929 PTH   3.41 VHP 33.373 DPA -43.79 RAP  85.24 ECC11.8413
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      66.80    20 39  8   4713.13      -.68     210.93     163.95      54.02   21 57 41    4113.1      -5.37      204.85
     113.20     2 18 49   3650.86      -.67     131.19     163.94      54.02    3 19 40    3050.9      -5.35      125.11
      66.80    20 39  8   4713.13      -.68     210.93     163.95      54.02   21 57 41    4113.1      -5.37      204.85
     113.20     2 18 49   3650.86      -.67     131.19     163.94      54.02    3 19 40    3050.9      -5.35      125.11
      66.80    20 39  8   4713.13      -.68     210.93     163.95      54.02   21 57 41    4113.1      -5.37      204.85
     113.20     2 18 49   3650.86      -.67     131.19     163.94      54.02    3 19 40    3050.9      -5.35      125.11
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-2.2289 TRA 1.0474 TC3 -.0470 BAU 1.9200      SGT  623.9 SGR 3446.7 SG3   56.7            ST   505.1 SR  2759.4 SS  1439.0
   RD-12.1110 RRA-6.6601 RC3 -.2129 FAU-.03189      RRT  .5013 RRF -.9974 RTF -.4438            CRT  .9310 CRS  .9994 CST  .9184
   FDE 2.1743 FRA 1.3999 FC3  .0419 BSP  10262      SGB 3502.7 R23 -.0793 R13 -.9964            LSA 3147.1 MSA  190.3 SSA    1.7
   BDE12.3144 BRA 6.7420 BC3  .2180 FSP   -175      SG1 3461.2 SG2  537.6 THA  84.69            EL1 2799.4 EL2  181.7 ALF  80.29

LAUNCH DATE  SEP  4 1970                          FLIGHT TIME 138.00                                ARRIVAL DATE  JAN 20 1971

  HELIOCENTRIC CONIC                                  DISTANCE 394.864
   RL  150.87 LAL     .00 LOL 341.06 VL  27.102 GAL  -4.02 AZL 167.19 HCA 183.47 SMA 129.50 ECC .17888 INC77.1922 V1  29.532
   RP  107.58 LAP    3.38 LOP 161.83 VP  37.980 GAP   3.36 AZP  12.83 TAL 199.03 TAP  22.50 RCA 106.34 APO 152.67 V2  35.226
   RC  99.767 GL   -48.19 GP   54.12 ZAL  92.39 ZAP  92.65 ETS 182.11 ZAE  57.63 ETE 270.88 ZAC 131.61 ETC 280.40 CLP  94.52
  PLANETOCENTRIC CONIC
   C31251.100 VHL 35.371 DLA -68.25 RAL 226.43 RAD 6573.1 VEL 37.046 PTH   3.54 VHP 45.577 DPA  74.61 RAP  45.85 ECC21.5899
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      24.89     4 25 59   2441.10      -.98      77.23     136.81     158.25    5  6 40    1841.1       6.45       74.68
     155.11    14 45  5    699.18      -.97     289.34     136.83     158.25   14 56 44      99.2       6.46      286.78
      24.89     4 25 59   2441.10      -.98      77.23     136.81     158.25    5  6 40    1841.1       6.45       74.68
     155.11    14 45  5    699.18      -.97     289.34     136.83     158.25   14 56 44      99.2       6.46      286.78
      24.89     4 25 59   2441.10      -.98      77.23     136.81     158.25    5  6 40    1841.1       6.45       74.68
     155.11    14 45  5    699.18      -.97     289.34     136.83     158.25   14 56 44      99.2       6.46      286.78
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 6.6090 TRA 1.1123 TC3 -.1088 BAU 4.0078      SGT 1405.2 SGR 2889.1 SG3   56.1            ST  1080.7 SR  2455.4 SS  2219.0
   RD-15.1507 RRA  .4716 RC3  .2135 FAU-.06538      RRT -.9088 RRF  .9994 RTF -.9066            CRT -.9871 CRS-1.0000 CST  .9873
   FDE-3.4772 FRA  .1032 FC3  .0452 BSP   9709      SGB 3212.7 R23 -.0808 R13  .9961            LSA 3477.6 MSA  164.0 SSA    2.4
   BDE16.5294 BRA 1.2082 BC3  .2396 FSP   -175      SG1 3167.9 SG2  534.8 THA 114.59            EL1 2678.0 EL2  158.5 ALF 113.57

LAUNCH DATE  SEP  4 1970                          FLIGHT TIME 140.00                                ARRIVAL DATE  JAN 22 1971

  HELIOCENTRIC CONIC                                  DISTANCE 399.535
   RL  150.87 LAL     .00 LOL 341.06 VL  27.078 GAL  -3.57 AZL 130.25 HCA 185.26 SMA 129.34 ECC .17742 INC40.2479 V1  29.532
   RP  107.60 LAP    3.39 LOP 165.07 VP  37.957 GAP   3.30 AZP  49.87 TAL 196.98 TAP  22.24 RCA 106.40 APO 152.29 V2  35.218
   RC 102.053 GL   -62.76 GP   74.98 ZAL  93.68 ZAP  94.66 ETS 175.47 ZAE  79.27 ETE 263.74 ZAC 152.10 ETC 282.54 CLP 108.29
  PLANETOCENTRIC CONIC
   C3 385.728 VHL 19.640 DLA -77.94 RAL 185.63 RAD 6572.1 VEL 22.517 PTH   3.26 VHP 25.245 DPA  80.48 RAP 284.17 ECC 7.3481
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      13.73     1 20  3   2390.07       4.03      82.00      94.76     167.91    1 59 53    1790.1      11.85       80.71
     166.27    12 25 27   5886.45       4.03     260.61      94.78     167.91   14  3 33    5286.5      11.85      259.32
      13.73     1 20  3   2390.07       4.03      82.00      94.76     167.91    1 59 53    1790.1      11.85       80.71
     166.27    12 25 27   5886.45       4.03     260.61      94.78     167.91   14  3 33    5286.5      11.85      259.32
      13.73     1 20  3   2390.07       4.03      82.00      94.76     167.91    1 59 53    1790.1      11.85       80.71
     166.27    12 25 27   5886.45       4.03     260.61      94.78     167.91   14  3 33    5286.5      11.85      259.32
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 1.5500 TRA  .7248 TC3 -.0587 BAU  .9711      SGT 1132.4 SGR 3674.6 SG3   66.7            ST   544.7 SR  2776.6 SS  1321.0
   RDE-9.1881 RRA-1.7279 RC3  .1789 FAU-.01364      RRT -.9173 RRF  .9985 RTF -.8984            CRT -.9468 CRS -.9998 CST  .9400
   FDE-2.0150 FRA -.3480 FC3  .0306 BSP  11889      SGB 3845.1 R23 -.0764 R13  .9965            LSA 3117.7 MSA  176.5 SSA    1.5
   BDE 9.3179 BRA 1.8737 BC3  .1883 FSP   -211      SG1 3820.6 SG2  433.7 THA 106.00            EL1 2824.3 EL2  172.3 ALF 100.56
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LAUNCH DATE SEP 4 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 405.217
RL 150.87 LAL .00 LOL 341.06 VL 27.053 GAL -3.32 AZL 115.12 HCA 188.01 SMA 129.17 ECC .17742 INC25.1243 V1 29.532
RP 107.63 LAP 3.39 LOP 168.32 VP 37.932 GAP 3.51 AZP 65.09 TAL 195.72 TAP 23.73 RCA 106.25 APO 152.09 V2 35.211
RC 104.339 GL -65.59 GP 81.61 ZAL 95.19 ZAP 97.75 ETS 125.62 ZAE 90.54 ETE 213.68 ZAC 160.94 ETC 249.49 CLP 157.52
PLANETOCENTRIC CONIC
C3 158.569 VHL 12.592 DLA -77.29 RAL 169.69 RAD 6570.7 VEL 16.730 PTH 2.90 VHP 16.186 DPA 70.15 RAP 259.22 ECC 3.6096

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.48	0 17 57	2267.54	12.07	80.24	76.91	166.99	0 55 45	1667.5	19.86	78.75
165.52	11 20 22	5766.27	12.08	259.58	76.93	166.99	12 56 28	5166.3	19.86	258.09
14.48	0 17 57	2267.54	12.07	80.24	76.91	166.99	0 55 45	1667.5	19.86	78.75
165.52	11 20 22	5766.27	12.08	259.58	76.93	166.99	12 56 28	5166.3	19.86	258.09
14.48	0 17 57	2267.54	12.07	80.24	76.91	166.99	0 55 45	1667.5	19.86	78.75
165.52	11 20 22	5766.27	12.08	259.58	76.93	166.99	12 56 28	5166.3	19.86	258.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-3.1435 TRA -.8893 TC3 -.0197 BAU .0418 SGT 2330.0 SGR 3320.1 SG3 87.0 ST 1533.0 SR 1656.3 SS 861.2
RDE-3.0488 RRA-1.4589 RC3 -.0005 FAU .00417 RRT .9734 RRF .9852 RTF .9971 CRT .9780 CRS -.9872 CST -.9988
FDE-1.2368 FRA -.4030 FC3 -.0228 BSP 12568 SGB 4056.1 R23 -.0916 R13 .9949 LSA 2403.5 MSA 241.2 SSA 1.6
BDE 4.3791 BRA 1.7085 BC3 .0197 FSP -278 SG1 4032.3 SG2 439.2 THA 55.19 EL1 2244.5 EL2 235.7 ALF 47.26

LAUNCH DATE SEP 4 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 411.161
RL 150.87 LAL .00 LOL 341.06 VL 27.026 GAL -3.11 AZL 107.95 HCA 191.03 SMA 128.99 ECC .17787 INC17.9512 V1 29.532
RP 107.65 LAP 3.38 LOP 171.56 VP 37.905 GAP 3.80 AZP 72.36 TAL 194.64 TAP 25.67 RCA 106.05 APO 151.93 V2 35.202
RC 106.624 GL -64.35 GP 77.97 ZAL 96.47 ZAP 101.41 ETS 62.67 ZAE 97.84 ETE 151.02 ZAC 163.69 ETC 209.51 CLP-161.70
PLANETOCENTRIC CONIC
C3 85.135 VHL 9.227 DLA -75.87 RAL 173.06 RAD 6569.7 VEL 14.369 PTH 2.61 VHP 11.914 DPA 62.43 RAP 251.25 ECC 2.4011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.10	0 34 39	2139.49	20.25	77.39	77.72	164.92	1 10 19	1539.5	27.96	75.46
163.90	11 30 35	5643.76	20.25	258.34	77.74	164.92	13 4 38	5043.8	27.96	256.41
16.10	0 34 39	2139.49	20.25	77.39	77.72	164.92	1 10 19	1539.5	27.96	75.46
163.90	11 30 35	5643.76	20.25	258.34	77.74	164.92	13 4 38	5043.8	27.96	256.41
16.10	0 34 39	2139.49	20.25	77.39	77.72	164.92	1 10 19	1539.5	27.96	75.46
163.90	11 30 35	5643.76	20.25	258.34	77.74	164.92	13 4 38	5043.8	27.96	256.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-3.1188 TRA-1.3773 TC3 -.3219 BAU .3738 SGT 4047.3 SGR 1035.1 SG3 116.2 ST 2203.6 SR 943.6 SS 890.8
RDE 1.5054 RRA .1682 RC3 .0655 FAU .01477 RRT -.8071 RRF -.8856 RTF .9865 CRT -.9356 CRS .9732 CST -.9917
FDE-1.3001 FRA -.4084 FC3 -.1502 BSP 13011 SGB 4177.6 R23 .1213 R13 -.9906 LSA 2537.8 MSA 315.2 SSA 2.4
BDE 3.4631 BRA 1.3876 BC3 .3285 FSP -375 SG1 4134.5 SG2 598.3 THA 168.08 EL1 2377.2 EL2 308.8 ALF 157.77

LAUNCH DATE SEP 4 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 417.188
RL 150.87 LAL .00 LOL 341.06 VL 26.998 GAL -2.91 AZL 103.87 HCA 194.15 SMA 128.80 ECC .17854 INC13.8692 V1 29.532
RP 107.68 LAP 3.36 LOP 174.80 VP 37.876 GAP 4.11 AZP 76.54 TAL 193.60 TAP 27.75 RCA 105.80 APO 151.79 V2 35.193
RC 108.906 GL -61.68 GP 72.11 ZAL 97.39 ZAP 105.43 ETS 50.80 ZAE 103.41 ETE 140.01 ZAC 162.59 ETC 218.63 CLP-150.01
PLANETOCENTRIC CONIC
C3 53.905 VHL 7.342 DLA -74.33 RAL 181.63 RAD 6568.9 VEL 13.239 PTH 2.42 VHP 9.576 DPA 55.91 RAP 246.48 ECC 1.8871

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.86	1 12 25	2027.61	27.16	74.02	83.35	162.33	1 46 12	1427.6	34.75	71.49
162.14	12 1 12	5538.63	27.16	256.73	83.37	162.33	13 33 30	4938.6	34.75	254.21
17.86	1 12 25	2027.61	27.16	74.02	83.35	162.33	1 46 12	1427.6	34.75	71.49
162.14	12 1 12	5538.63	27.16	256.73	83.37	162.33	13 33 30	4938.6	34.75	254.21
17.86	1 12 25	2027.61	27.16	74.02	83.35	162.33	1 46 12	1427.6	34.75	71.49
162.14	12 1 12	5538.63	27.16	256.73	83.37	162.33	13 33 30	4938.6	34.75	254.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.7360 TRA-1.0651 TC3 -.6808 BAU .5247 SGT 3877.2 SGR 1692.2 SG3 149.4 ST 2326.4 SR 1425.6 SS 1037.6
RDE 1.7959 RRA .3008 RC3 .2581 FAU .02343 RRT -.9216 RRF -.9793 RTF .9750 CRT -.9750 CRS .9965 CST -.9901
FDE-1.5497 FRA -.3823 FC3 -.3763 BSP 13013 SGB 4230.4 R23 .1492 R13 -.9857 LSA 2905.4 MSA 282.6 SSA 3.2
BDE 3.2727 BRA 1.1068 BC3 .7281 FSP -475 SG1 4186.5 SG2 608.1 THA 157.59 EL1 2714.9 EL2 271.7 ALF 148.80

LAUNCH DATE SEP 4 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 423.241
RL 150.87 LAL .00 LOL 341.06 VL 26.968 GAL -2.71 AZL 101.25 HCA 197.30 SMA 128.60 ECC .17936 INC11.2458 V1 29.532
RP 107.71 LAP 3.32 LOP 178.05 VP 37.846 GAP 4.42 AZP 79.25 TAL 192.56 TAP 29.87 RCA 105.53 APO 151.66 V2 35.184
RC 111.186 GL -58.48 GP 66.31 ZAL 97.92 ZAP 109.63 ETS 47.78 ZAE 107.94 ETE 138.40 ZAC 159.47 ETC 229.76 CLP-146.71
PLANETOCENTRIC CONIC
C3 37.982 VHL 6.163 DLA -72.57 RAL 191.07 RAD 6568.5 VEL 12.623 PTH 2.29 VHP 8.168 DPA 49.99 RAP 243.18 ECC 1.6251

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.90	1 54 16	1935.41	32.50	70.09	89.52	159.19	2 26 32	1335.4	39.92	66.81
160.10	12 34 41	5455.20	32.51	254.86	89.54	159.19	14 5 36	4855.2	39.93	251.58
19.90	1 54 16	1935.41	32.50	70.09	89.52	159.19	2 26 32	1335.4	39.92	66.81
160.10	12 34 41	5455.20	32.51	254.86	89.54	159.19	14 5 36	4855.2	39.93	251.58
19.90	1 54 16	1935.41	32.50	70.09	89.52	159.19	2 26 32	1335.4	39.92	66.81
160.10	12 34 41	5455.20	32.51	254.86	89.54	159.19	14 5 36	4855.2	39.93	251.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-2.6930 TRA -.8711 TC3-1.1306 BAU .6187 SGT 3939.1 SGR 1834.7 SG3 188.3 ST 2632.0 SR 1591.8 SS 1205.0
RDE 1.6947 RRA .2434 RC3 .4544 FAU .03191 RRT -.9362 RRF -.9874 RTF .9698 CRT -.9855 CRS .9990 CST -.9922
FDE-1.8041 FRA -.3431 FC3 -.7273 BSP 13593 SGB 4345.4 R23 .1665 R13 -.9818 LSA 3294.2 MSA 248.3 SSA 3.9
BDE 3.1819 BRA .9044 BC3 1.2185 FSP -611 SG1 4305.2 SG2 589.9 THA 155.96 EL1 3067.2 EL2 231.7 ALF 149.01

LAUNCH DATE SEP 4 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 429.300

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RL  150.87 LAL    .00 LOL 341.06 VL  26.937 GAL  -2.50 AZL  99.41 HCA 200.48 SMA 128.39 ECC .18031 INC 9.4147 V1  29.532
RP  107.74 LAP   3.28 LOP 181.28 VP  37.815 GAP   4.74 AZP  81.17 TAL 191.51 TAP  31.99 RCA 105.24 APO 151.54 V2  35.174
RC 113.462 GL  -55.08 GP   60.85 ZAL  98.03 ZAP 113.85 ETS  46.83 ZAE 111.71 ETE 139.32 ZAC 155.60 ETC 237.50 CLP-146.12
PLANETOCENTRIC CONIC
C3  28.825 VHL  5.369 DLA -70.58 RAL 200.03 RAD 6568.2 VEL 12.256 PTH   2.20 VHP  7.270 DPA  44.50 RAP 240.84 ECC 1.4744
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.19	2 34 49	1860.32	36.41	65.66	94.94	155.60	3 5 49	1260.3	43.61	61.52
157.81	13 5 34	5391.35	36.42	252.81	94.96	155.59	14 35 25	4791.3	43.62	248.67
22.19	2 34 49	1860.32	36.41	65.66	94.94	155.60	3 5 49	1260.3	43.61	61.52
157.81	13 5 34	5391.35	36.42	252.81	94.96	155.59	14 35 25	4791.3	43.62	248.67
22.19	2 34 49	1860.32	36.41	65.66	94.94	155.60	3 5 49	1260.3	43.61	61.52
157.81	13 5 34	5391.35	36.42	252.81	94.96	155.59	14 35 25	4791.3	43.62	248.67

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6504 TRA -.7077 TC3-1.6392 BAU  .6751   SGT 4031.9 SGR 1804.3 SG3  224.5   ST  2909.8 SR  1606.4 SS  1330.1
RDE 1.4984 RRA  .1581 RC3  .6184 FAU .03914   RRT -.9408 RRF -.9888 RTF  .9664   CRT -.9900 CRS  .9996 CST -.9935
FDE-1.9691 FRA -.2690 FC3-1.1756 BSP  13834   SGB 4417.2 R23  .1813 R13 -.9778   LSA 3573.1 MSA  222.4 SSA    4.8
BDE 3.0446 BRA  .7251 BC3 1.7519 FSP   -728   SG1 4381.2 SG2  562.9 THA 156.76   EL1 3317.8 EL2  198.8 ALF 151.23
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LAUNCH DATE SEP 4 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 435.354

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RL  150.87 LAL    .00 LOL 341.06 VL  26.905 GAL  -2.29 AZL  98.06 HCA 203.67 SMA 128.18 ECC .18139 INC 8.0592 V1  29.532
RP  107.77 LAP   3.23 LOP 184.52 VP  37.782 GAP   5.05 AZP  82.61 TAL 190.42 TAP  34.09 RCA 104.93 APO 151.42 V2  35.164
RC 115.736 GL  -51.64 GP   55.80 ZAL  97.75 ZAP 118.00 ETS  46.49 ZAE 114.81 ETE 141.22 ZAC 151.59 ETC 242.68 CLP-146.64
PLANETOCENTRIC CONIC
C3  23.101 VHL  4.806 DLA -68.43 RAL 208.15 RAD 6567.9 VEL 12.020 PTH   2.15 VHP  6.681 DPA  39.40 RAP 239.21 ECC 1.3802
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.69	3 12 36	1798.68	39.12	60.88	99.38	151.71	3 42 34	1198.7	46.05	55.85
155.31	13 32 34	5343.60	39.13	250.67	99.39	151.70	15 1 37	4743.6	46.05	245.63
24.69	3 12 36	1798.68	39.12	60.88	99.38	151.71	3 42 34	1198.7	46.05	55.85
155.31	13 32 34	5343.60	39.13	250.67	99.39	151.70	15 1 37	4743.6	46.05	245.63
24.69	3 12 36	1798.68	39.12	60.88	99.38	151.71	3 42 34	1198.7	46.05	55.85
155.31	13 32 34	5343.60	39.13	250.67	99.39	151.70	15 1 37	4743.6	46.05	245.63

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5759 TRA -.5635 TC3-2.1965 BAU  .7164   SGT 4150.2 SGR 1715.1 SG3  256.9   ST  3119.8 SR  1537.2 SS  1403.9
RDE 1.2876 RRA  .0823 RC3  .7461 FAU .04516   RRT -.9434 RRF -.9881 RTF  .9644   CRT -.9922 CRS  .9998 CST -.9942
FDE-2.0350 FRA -.1717 FC3-1.6922 BSP  14075   SGB 4490.6 R23  .1904 R13 -.9744   LSA 3745.1 MSA  203.2 SSA    5.7
BDE 2.8798 BRA  .5694 BC3 2.3197 FSP   -832   SG1 4459.3 SG2  529.6 THA 158.38   EL1 3473.7 EL2  171.7 ALF 153.88
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LAUNCH DATE SEP 4 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 441.398

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RL  150.87 LAL    .00 LOL 341.06 VL  26.872 GAL  -2.06 AZL  97.01 HCA 206.87 SMA 127.96 ECC .18257 INC 7.0106 V1  29.532
RP  107.80 LAP   3.16 LOP 187.75 VP  37.749 GAP   5.37 AZP  83.74 TAL 189.31 TAP  36.18 RCA 104.59 APO 151.32 V2  35.153
RC 118.005 GL  -48.24 GP   51.18 ZAL  97.09 ZAP 121.98 ETS  46.34 ZAE 117.35 ETE 143.52 ZAC 147.74 ETC 246.24 CLP-147.65
PLANETOCENTRIC CONIC
C3  19.306 VHL  4.394 DLA -66.17 RAL 215.45 RAD 6567.8 VEL 11.861 PTH   2.10 VHP  6.292 DPA  34.67 RAP 238.13 ECC 1.3177
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.32	3 47 35	1747.25	40.86	55.92	102.97	147.70	4 16 42	1147.2	47.46	50.02
152.68	13 55 51	5308.80	40.87	248.57	102.99	147.70	15 24 20	4708.8	47.47	242.68
27.32	3 47 35	1747.25	40.86	55.92	102.97	147.70	4 16 42	1147.2	47.46	50.02
152.68	13 55 51	5308.80	40.87	248.57	102.99	147.70	15 24 20	4708.8	47.47	242.68
27.32	3 47 35	1747.25	40.86	55.92	102.97	147.70	4 16 42	1147.2	47.46	50.02
152.68	13 55 51	5308.80	40.87	248.57	102.99	147.70	15 24 20	4708.8	47.47	242.68

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4747 TRA -.4286 TC3-2.7837 BAU  .7502   SGT 4279.1 SGR 1603.3 SG3  283.6   ST  3254.4 SR  1424.2 SS  1427.3
RDE 1.0920 RRA  .0205 RC3  .8353 FAU .04982   RRT -.9448 RRF -.9861 RTF  .9634   CRT -.9935 CRS  .9999 CST -.9944
FDE-2.0127 FRA -.0587 FC3-2.2338 BSP  14345   SGB 4569.6 R23  .1939 R13 -.9717   LSA 3823.8 MSA  188.7 SSA    6.8
BDE 2.7049 BRA  .4291 BC3 2.9064 FSP   -920   SG1 4542.8 SG2  494.8 THA 160.26   EL1 3549.3 EL2  148.7 ALF 156.46
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LAUNCH DATE SEP 4 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 447.429

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RL  150.87 LAL    .00 LOL 341.06 VL  26.838 GAL  -1.83 AZL  96.17 HCA 210.07 SMA 127.73 ECC .18388 INC 6.1710 V1  29.532
RP  107.84 LAP   3.09 LOP 190.98 VP  37.714 GAP   5.68 AZP  84.65 TAL 188.17 TAP  38.24 RCA 104.24 APO 151.22 V2  35.141
RC 120.271 GL  -44.91 GP   46.98 ZAL  96.07 ZAP 125.74 ETS  46.22 ZAE 119.39 ETE 145.97 ZAC 144.15 ETC 248.79 CLP-148.90
PLANETOCENTRIC CONIC
C3  16.683 VHL  4.084 DLA -63.84 RAL 222.06 RAD 6567.7 VEL 11.750 PTH   2.07 VHP  6.038 DPA  30.31 RAP 237.50 ECC 1.2746
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.05	4 20 15	1703.44	41.82	50.92	105.98	143.73	4 48 39	1103.4	48.07	44.26
149.95	14 15 57	5284.55	41.83	246.65	106.00	143.72	15 44 1	4684.5	48.07	239.99
30.05	4 20 15	1703.44	41.82	50.92	105.98	143.73	4 48 39	1103.4	48.07	44.26
149.95	14 15 57	5284.55	41.83	246.65	106.00	143.72	15 44 1	4684.5	48.07	239.99
30.05	4 20 15	1703.44	41.82	50.92	105.98	143.73	4 48 39	1103.4	48.07	44.26
149.95	14 15 57	5284.55	41.83	246.65	106.00	143.72	15 44 1	4684.5	48.07	239.99

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3556 TRA -.2963 TC3-3.3810 BAU  .7796   SGT 4408.6 SGR 1485.3 SG3  303.9   ST  3317.4 SR  1293.6 SS  1406.8
RDE  .9218 RRA -.0290 RC3  .8875 FAU .05310   RRT -.9450 RRF -.9830 RTF  .9627   CRT -.9943 CRS 1.0000 CST -.9942
FDE-1.9213 FRA  .0645 FC3-2.7556 BSP  14631   SGB 4652.1 R23  .1929 R13 -.9694   LSA 3824.4 MSA  178.1 SSA    7.9
BDE 2.5295 BRA  .2977 BC3 3.4956 FSP   -989   SG1 4629.0 SG2  462.6 THA 162.15   EL1 3558.4 EL2  128.9 ALF 158.78
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LAUNCH DATE SEP 4 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 453.745
RL 150.87 LAL .00 LOL 341.06 VL 26.803 GAL -1.59 AZL 95.48 HCA 213.28 SMA 127.50 ECC .18530 INC 5.4798 V1 29.532
RP 107.87 LAP 3.00 LOP 194.21 VP 37.679 GAP 5.99 AZP 85.41 TAL 187.00 TAP 40.28 RCA 103.88 APO 151.13 V2 35.130
RC 122.531 GL -41.66 GP 43.20 ZAL 94.71 ZAP 129.26 ETS 46.10 ZAE 120.99 ETE 148.42 ZAC 140.88 ETC 250.70 CLP-150.25
PLANETOCENTRIC CONIC
C3 14.819 VHL 3.850 DLA -61.48 RAL 228.12 RAD 6567.6 VEL 11.671 PTH 2.05 VHP 5.880 DPA 26.31 RAP 237.25 ECC 1.2439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.85	4 51 7	1665.27	42.15	46.00	108.63	139.90	5 18 52	1065.3	48.03	38.71
147.15	14 33 22	5269.09	42.16	244.99	108.65	139.89	16 1 11	4669.1	48.04	237.70
32.85	4 51 7	1665.27	42.15	46.00	108.63	139.90	5 18 52	1065.3	48.03	38.71
147.15	14 33 22	5269.09	42.16	244.99	108.65	139.89	16 1 11	4669.1	48.04	237.70
32.85	4 51 7	1665.27	42.15	46.00	108.63	139.90	5 18 52	1065.3	48.03	38.71
147.15	14 33 22	5269.09	42.16	244.99	108.65	139.89	16 1 11	4669.1	48.04	237.70

DIFFERENTIAL CORRECTIONS
TDE-2.2250 TRA -.1637 TC3-3.9677 BAU .8063
RDE .7789 RRA -.0683 RC3 .9072 FAU .05510
FDE-1.7812 FRA .1913 FC3-3.2188 BSP 14921
BDE 2.3574 BRA .1773 BC3 4.0701 FSP -1038

MID-COURSE EXECUTION ACCURACY
SGT 4534.2 SGR 1370.0 SG3 317.8
RRT -.9440 RRF -.9787 RTF .9622
SGB 4736.7 R23 .1876 R13 -.9676
SG1 4716.7 SG2 434.5 THA 163.94

ORBIT DETERMINATION ACCURACY
ST 3316.5 SR 1161.2 SS 1350.6
CRT -.9948 CRS .9999 CST -.9936
LSA 3760.7 MSA 170.1 SSA 9.1
EL1 3512.2 EL2 111.2 ALF 160.78

LAUNCH DATE SEP 4 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 459.444
RL 150.87 LAL .00 LOL 341.06 VL 26.768 GAL -1.33 AZL 94.90 HCA 216.48 SMA 127.27 ECC .18685 INC 4.8977 V1 29.532
RP 107.91 LAP 2.91 LOP 197.44 VP 37.642 GAP 6.30 AZP 86.06 TAL 185.81 TAP 42.29 RCA 103.49 APO 151.05 V2 35.118
RC 124.786 GL -38.49 GP 39.82 ZAL 93.06 ZAP 132.53 ETS 45.97 ZAE 122.23 ETE 150.78 ZAC 137.95 ETC 252.18 CLP-151.64
PLANETOCENTRIC CONIC
C3 13.475 VHL 3.671 DLA -59.09 RAL 233.71 RAD 6567.5 VEL 11.613 PTH 2.03 VHP 5.793 DPA 22.66 RAP 237.31 ECC 1.2218

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.70	5 20 34	1631.31	41.98	41.22	111.10	136.29	5 47 45	1031.3	47.49	33.46
144.30	14 48 34	5261.15	41.99	243.68	111.11	136.28	16 16 15	4661.1	47.50	235.91
35.70	5 20 34	1631.31	41.98	41.22	111.10	136.29	5 47 45	1031.3	47.49	33.46
144.30	14 48 34	5261.15	41.99	243.68	111.11	136.28	16 16 15	4661.1	47.50	235.91
35.70	5 20 34	1631.31	41.98	41.22	111.10	136.29	5 47 45	1031.3	47.49	33.46
144.30	14 48 34	5261.15	41.99	243.68	111.11	136.28	16 16 15	4661.1	47.50	235.91

DIFFERENTIAL CORRECTIONS
TDE-2.0881 TRA -.0289 TC3-4.5248 BAU .8311
RDE .6616 RRA -.0992 RC3 .8991 FAU .05592
FDE-1.6119 FRA .3164 FC3-3.5928 BSP 15204
BDE 2.1904 BRA .1034 BC3 4.6133 FSP -1067

MID-COURSE EXECUTION ACCURACY
SGT 4654.7 SGR 1262.2 SG3 325.7
RRT -.9416 RRF -.9729 RTF .9618
SGB 4822.8 R23 .1783 R13 -.9660
SG1 4805.2 SG2 411.6 THA 165.57

ORBIT DETERMINATION ACCURACY
ST 3260.9 SR 1036.8 SS 1268.1
CRT -.9954 CRS .9996 CST -.9925
LSA 3645.5 MSA 164.4 SSA 10.5
EL1 3420.5 EL2 94.9 ALF 162.42

LAUNCH DATE SEP 4 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 465.426
RL 150.87 LAL .00 LOL 341.06 VL 26.732 GAL -1.06 AZL 94.40 HCA 219.69 SMA 127.04 ECC .18852 INC 4.3979 V1 29.532
RP 107.95 LAP 2.81 LOP 200.66 VP 37.605 GAP 6.61 AZP 86.61 TAL 184.58 TAP 44.27 RCA 103.09 APO 150.98 V2 35.105
RC 127.036 GL -35.42 GP 36.79 ZAL 91.15 ZAP 135.54 ETS 45.86 ZAE 123.18 ETE 152.98 ZAC 135.34 ETC 253.37 CLP-153.03
PLANETOCENTRIC CONIC
C3 12.504 VHL 3.536 DLA -56.69 RAL 238.93 RAD 6567.5 VEL 11.571 PTH 2.02 VHP 5.757 DPA 19.32 RAP 237.64 ECC 1.2058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.59	5 49 2	1600.25	41.41	36.62	113.50	132.93	6 15 42	1000.2	46.56	28.51
141.41	15 1 45	5260.00	41.42	242.78	113.52	132.92	16 29 25	4660.0	46.57	234.68
38.59	5 49 2	1600.25	41.41	36.62	113.50	132.93	6 15 42	1000.2	46.56	28.51
141.41	15 1 45	5260.00	41.42	242.78	113.52	132.92	16 29 25	4660.0	46.57	234.68
38.59	5 49 2	1600.25	41.41	36.62	113.50	132.93	6 15 42	1000.2	46.56	28.51
141.41	15 1 45	5260.00	41.42	242.78	113.52	132.92	16 29 25	4660.0	46.57	234.68

DIFFERENTIAL CORRECTIONS
TDE-1.9471 TRA .1103 TC3-5.0380 BAU .8547
RDE .5668 RRA -.1243 RC3 .8718 FAU .05587
FDE-1.4281 FRA .4382 FC3-3.8680 BSP 15497
BDE 2.0280 BRA .1662 BC3 5.1129 FSP -1082

MID-COURSE EXECUTION ACCURACY
SGT 4770.2 SGR 1165.4 SG3 329.1
RRT -.9379 RRF -.9655 RTF .9614
SGB 4910.5 R23 .1662 R13 -.9646
SG1 4894.6 SG2 394.1 THA 167.01

ORBIT DETERMINATION ACCURACY
ST 3158.2 SR 925.1 SS 1167.7
CRT -.9960 CRS .9988 CST -.9909
LSA 3488.2 MSA 161.1 SSA 12.0
EL1 3290.0 EL2 79.3 ALF 163.73

LAUNCH DATE SEP 4 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 471.390
RL 150.87 LAL .00 LOL 341.06 VL 26.695 GAL -.78 AZL 93.96 HCA 222.90 SMA 126.80 ECC .19033 INC 3.9616 V1 29.532
RP 107.99 LAP 2.70 LOP 203.88 VP 37.567 GAP 6.93 AZP 87.10 TAL 183.34 TAP 46.23 RCA 102.66 APO 150.93 V2 35.093
RC 129.278 GL -32.44 GP 34.09 ZAL 89.00 ZAP 138.32 ETS 45.77 ZAE 123.89 ETE 155.02 ZAC 133.03 ETC 254.37 CLP-154.41
PLANETOCENTRIC CONIC
C3 11.816 VHL 3.437 DLA -54.29 RAL 243.83 RAD 6567.5 VEL 11.541 PTH 2.01 VHP 5.761 DPA 16.28 RAP 238.21 ECC 1.1945

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.54	6 16 47	1571.18	40.51	32.20	115.92	129.84	6 42 58	971.2	45.32	23.88
138.46	15 13 6	5265.13	40.52	242.33	115.93	129.83	16 40 51	4665.1	45.33	234.01
41.54	6 16 47	1571.18	40.51	32.20	115.92	129.84	6 42 58	971.2	45.32	23.88
138.46	15 13 6	5265.13	40.52	242.33	115.93	129.83	16 40 51	4665.1	45.33	234.01
41.54	6 16 47	1571.18	40.51	32.20	115.92	129.84	6 42 58	971.2	45.32	23.88
138.46	15 13 6	5265.13	40.52	242.33	115.93	129.83	16 40 51	4665.1	45.33	234.01

DIFFERENTIAL CORRECTIONS
TDE-1.8045 TRA .2519 TC3-5.4924 BAU .8775
RDE .4912 RRA -.1437 RC3 .8299 FAU .05509
FDE-1.2418 FRA .5498 FC3-4.0362 BSP 15822
BDE 1.8702 BRA .2900 BC3 5.5547 FSP -1088

MID-COURSE EXECUTION ACCURACY
SGT 4880.8 SGR 1079.0 SG3 328.4
RRT -.9327 RRF -.9563 RTF .9612
SGB 4998.6 R23 .1505 R13 -.9637
SG1 4984.1 SG2 381.0 THA 168.28

ORBIT DETERMINATION ACCURACY
ST 3017.6 SR 828.0 SS 1057.5
CRT -.9968 CRS .9971 CST -.9885
LSA 3299.2 MSA 159.0 SSA 13.6
EL1 3128.5 EL2 63.4 ALF 164.70

LAUNCH DATE SEP 4 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 477.333

RL	150.87	LAL	.00	LOL	341.06	VL	26.658	GAL	-.49	AZL	93.58	HCA	226.10	SMA	126.56	ECC	.19229	INC	3.5752	V1	29.532
RP	108.03	LAP	2.58	LOP	207.10	VP	37.529	GAP	7.24	AZP	87.52	TAL	182.07	TAP	48.17	RCA	102.22	APO	150.90	V2	35.080
RC	131.513	GL	-29.56	GP	31.69	ZAL	86.66	ZAP	140.88	ETS	45.72	ZAE	124.41	ETE	156.88	ZAC	130.99	ETC	255.22	CLP	-155.75

PLANETOCENTRIC CONIC

C3	11.351	VHL	3.369	DLA	-51.88	RAL	248.45	RAD	6567.4	VEL	11.521	PTH	2.01	VHP	5.797	DPA	13.51	RAP	238.98	ECC	1.1868

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.52	6 44 3	1543.24	39.36	27.95	118.39	127.03	7 9 46	943.2	43.85	19.51
135.48	15 22 41	5276.31	39.37	242.35	118.40	127.02	16 50 37	4676.3	43.86	233.91
44.52	6 44 3	1543.24	39.36	27.95	118.39	127.03	7 9 46	943.2	43.85	19.51
135.48	15 22 41	5276.31	39.37	242.35	118.40	127.02	16 50 37	4676.3	43.86	233.91
44.52	6 44 3	1543.24	39.36	27.95	118.39	127.03	7 9 46	943.2	43.85	19.51
135.48	15 22 41	5276.31	39.37	242.35	118.40	127.02	16 50 37	4676.3	43.86	233.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.6656	TRA	.3960	TC3	-5.8891	BAU	.9015	SGT	4996.1	SGR	1006.4	SG3	325.6	ST	2853.9	SR	748.3
RDE	.4331	RRA	-.1590	RC3	.7832	FAU	.05399	RRT	-.9265	RRF	-.9454	RTF	.9616	CRT	-.9979	CRS	.9935
FDE	-1.0669	FRA	.6504	FC3	-4.1180	BSP	16232	SG8	5096.4	R23	.1315	R13	-.9635	LSA	3095.1	MSA	158.4
BDE	1.7210	BRA	.4268	BC3	5.9410	FSP	-1093	SG1	5082.8	SG2	372.3	THA	169.37	EL1	2950.0	EL2	46.9

SS	948.8	CST	-.9851	SSA	15.3
ALF	165.33				

LAUNCH DATE SEP 4 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 483.259

RL	150.87	LAL	.00	LOL	341.06	VL	26.621	GAL	-.19	AZL	93.23	HCA	229.30	SMA	126.32	ECC	.19439	INC	3.2285	V1	29.532
RP	108.07	LAP	2.45	LOP	210.31	VP	37.491	GAP	7.55	AZP	87.89	TAL	180.78	TAP	50.08	RCA	101.77	APO	150.88	V2	35.067
RC	133.740	GL	-26.79	GP	29.55	ZAL	84.17	ZAP	143.23	ETS	45.73	ZAE	124.78	ETE	158.55	ZAC	129.19	ETC	255.98	CLP	-157.06

PLANETOCENTRIC CONIC

C3	11.069	VHL	3.327	DLA	-49.49	RAL	252.82	RAD	6567.4	VEL	11.509	PTH	2.00	VHP	5.858	DPA	10.98	RAP	239.92	ECC	1.1822

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.55	7 11 4	1515.71	37.99	23.85	120.95	124.49	7 36 19	915.7	42.20	15.36
132.45	15 30 33	5293.45	38.00	242.87	120.96	124.48	16 58 46	4693.5	42.21	234.38
47.55	7 11 4	1515.71	37.99	23.85	120.95	124.49	7 36 19	915.7	42.20	15.36
132.45	15 30 33	5293.45	38.00	242.87	120.96	124.48	16 58 46	4693.5	42.21	234.38
47.55	7 11 4	1515.71	37.99	23.85	120.95	124.49	7 36 19	915.7	42.20	15.36
132.45	15 30 33	5293.45	38.00	242.87	120.96	124.48	16 58 46	4693.5	42.21	234.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5117	TRA	.5579	TC3	-6.1562	BAU	.9171	SGT	5073.9	SGR	937.0	SG3	318.4	ST	2643.8	SR	674.8
RDE	.3833	RRA	-.1749	RC3	.7163	FAU	.05176	RRT	-.9164	RRF	-.9317	RTF	.9605	CRT	-.9989	CRS	.9856
FDE	-.8842	FRA	.7548	FC3	-4.0484	BSP	16279	SG8	5159.8	R23	.1170	R13	-.9620	LSA	2847.1	MSA	163.1
BDE	1.5595	BRA	.5847	BC3	6.1977	FSP	-1055	SG1	5146.5	SG2	369.8	THA	170.34	EL1	2728.4	EL2	30.3

SS	829.5	CST	-.9788	SSA	17.0
ALF	165.69				

LAUNCH DATE SEP 4 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 489.162

RL	150.87	LAL	.00	LOL	341.06	VL	26.583	GAL	.13	AZL	92.91	HCA	232.51	SMA	126.08	ECC	.19665	INC	2.9140	V1	29.532
RP	108.11	LAP	2.31	LOP	213.53	VP	37.452	GAP	7.87	AZP	88.23	TAL	179.47	TAP	51.97	RCA	101.29	APO	150.87	V2	35.054
RC	135.957	GL	-24.11	GP	27.64	ZAL	81.55	ZAP	145.41	ETS	45.81	ZAE	125.04	ETE	160.05	ZAC	127.61	ETC	256.67	CLP	-158.33

PLANETOCENTRIC CONIC

C3	10.945	VHL	3.308	DLA	-47.12	RAL	256.96	RAD	6567.4	VEL	11.504	PTH	2.00	VHP	5.941	DPA	8.66	RAP	241.02	ECC	1.1801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.63	7 38 1	1487.79	36.47	19.86	123.59	122.19	8 2 49	887.8	40.41	11.38
129.37	15 36 35	5316.76	36.48	243.90	123.60	122.18	17 5 12	4716.8	40.42	235.41
50.63	7 38 1	1487.79	36.47	19.86	123.59	122.19	8 2 49	887.8	40.41	11.38
129.37	15 36 35	5316.76	36.48	243.90	123.60	122.18	17 5 12	4716.8	40.42	235.41
50.63	7 38 1	1487.79	36.47	19.86	123.59	122.19	8 2 49	887.8	40.41	11.38
129.37	15 36 35	5316.76	36.48	243.90	123.60	122.18	17 5 12	4716.8	40.42	235.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3640	TRA	.7265	TC3	-6.3554	BAU	.9348	SGT	5165.4	SGR	883.8	SG3	311.8	ST	2429.8	SR	617.3
RDE	.3463	RRA	-.1906	RC3	.6521	FAU	.04947	RRT	-.9042	RRF	-.9170	RTF	.9588	CRT	-.9995	CRS	.9698
FDE	-.7217	FRA	.8572	FC3	-3.9128	BSP	16431	SG8	5240.5	R23	.1066	R13	-.9600	LSA	2604.0	MSA	173.5
BDE	1.4073	BRA	.7511	BC3	6.3887	FSP	-1016	SG1	5227.2	SG2	373.0	THA	171.16	EL1	2506.9	EL2	19.0

SS	725.2	CST	-.9686	SSA	18.6
ALF	165.75				

LAUNCH DATE SEP 4 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 495.043

RL	150.87	LAL	.00	LOL	341.06	VL	26.545	GAL	.46	AZL	92.63	HCA	235.71	SMA	125.84	ECC	.19909	INC	2.6255	V1	29.532
RP	108.15	LAP	2.17	LOP	216.73	VP	37.412	GAP	8.19	AZP	88.52	TAL	178.14	TAP	53.84	RCA	100.79	APO	150.89	V2	35.041
RC	138.166	GL	-21.55	GP	25.94	ZAL	78.86	ZAP	147.42	ETS	45.97	ZAE	125.21	ETE	161.39	ZAC	126.21	ETC	257.31	CLP	-159.56

PLANETOCENTRIC CONIC

C3	10.964	VHL	3.311	DLA	-44.77	RAL	260.87	RAD	6567.4	VEL	11.504	PTH	2.00	VHP	6.040	DPA	6.54	RAP	242.26	ECC	1.1804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.75	8 5 5	1458.82	34.83	15.92	126.32	120.13	8 29 23	858.8	38.53	7.49
126.25	15 40 45	5346.43	34.84	245.46	126.33	120.12	17 9 51	4746.4	38.54	237.02
53.75	8 5 5	1458.82	34.83	15.92	126.32	120.13	8 29 23	858.8	38.53	7.49
126.25	15 40 45	5346.43	34.84	245.46	126.33	120.12	17 9 51	4746.4	38.54	237.02
53.75	8 5 5	1458.82	34.83	15.92	126.32	120.13	8 29 23	858.8	38.53	7.49
126.25	15 40 45	5346.43	34.84	245.46	126.33	120.12	17 9 51	4746.4	38.54	237.02

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2237	TRA	.8825	TC3	-6.5131	BAU	.9587	SGT	5264.4	SGR	835.2	SG3	303.0	ST	2217.4	SR	570.8
RDE	.3190	RRA	-.1985	RC3	.6020	FAU	.04773	RRT	-.8935	RRF	-.9000	RTF	.9600	CRT	-.9986	CRS	.9429
FDE	-.5777	FRA	.9240	FC3	-3.7687	BSP	17001	SG8	5330.2	R23	.0842	R13	-.9609	LSA	2368.0	MSA	181.9
BDE	1.2646	BRA	.9045	BC3	6.5409	FSP	-1023	SG1	5317.2	SG2	371.3	THA	171.89	EL1	2289.5	EL2	29.7

SS	630.9	CST	-.9559	SSA	19.9
ALF	165.58				

LAUNCH DATE SEP 4 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 500.902

RL	150.87	LAL	.00	LOL	341.06	VL	26.507	GAL	.81	AZL	92.36	HCA	238.90	SMA	125.60	ECC	.20170	INC	2.3584	V1	29.532
RP	108.19	LAP	2.02	LOP	219.94	VP	37.373	GAP	8.51	AZP	88.78	TAL	176.79	TAP	55.69	RCA	100.26	APO	150.93	V2	35.028
RC	140.364	GL	-19.10	GP	24.41	ZAL	76.11	ZAP	149.28	ETS	46.23	ZAE	125.32	ETE	162.58	ZAC	124.99	ETC	257.91	CLP	-160.76

PLANETOCENTRIC CONIC

C3	11.115	VHL	3.334	DLA	-42.46	RAL	264.58	RAD	6567.4	VEL	11.511	PTH	2.01	VHP	6.156	DPA	4.59	RAP	243.62	ECC	1.1829

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.93	8 32 32	1427.88	33.10	11.98	129.13	118.27	8 56 20	827.9	36.59	3.62
123.07	15 42 53	5382.99	33.11	247.58	129.14	118.26	17 12 36	4783.0	36.60	239.21
56.93	8 32 32	1427.88	33.10	11.98	129.13	118.27	8 56 20	827.9	36.59	3.62
123.07	15 42 53	5382.99	33.11	247.58	129.14	118.26	17 12 36	4783.0	36.60	239.21
56.93	8 32 32	1427.88	33.10	11.98	129.13	118.27	8 56 20	827.9	36.59	3.62
123.07	15 42 53	5382.99	33.11	247.58	129.14	118.26	17 12 36	4783.0	36.60	239.21

DIFFERENTIAL CORRECTIONS

TDE	-1.0674	TRA	1.0674	TC3	-6.5192	BAU	.9720
RDE	.2953	RRA	-.2114	RC3	.5378	FAU	.04499
FDE	-.4328	FRA	1.0083	FC3	-3.5045	BSP	17084
BDE	1.1075	BRA	1.0881	BC3	6.5414	FSP	-983

MID-COURSE EXECUTION ACCURACY

SGT	5333.2	SGR	792.9	SG3	293.4		
RRT	-.8784	RRF	-.8810	RTF	.9587		
SGB	5391.8	R23	.0726	R13	-.9594		
SG1	5378.7	SG2	375.8	THA	172.52		

ORBIT DETERMINATION ACCURACY

ST	1984.5	SR	528.7	SS	546.2
CRT	-.9937	CRS	.8884	CST	-.9318
LSA	2115.3	MSA	202.9	SSA	20.9
EL1	2052.9	EL2	57.4	ALF	165.16

LAUNCH DATE SEP 4 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 506.737

RL	150.87	LAL	.00	LOL	341.06	VL	26.469	GAL	1.17	AZL	92.11	HCA	242.10	SMA	125.36	ECC	.20452	INC	2.1089	V1	29.532
RP	108.23	LAP	1.86	LOP	223.14	VP	37.333	GAP	8.84	AZP	89.01	TAL	175.42	TAP	57.52	RCA	99.72	APO	151.00	V2	35.014
RC	142.552	GL	-16.77	GP	23.05	ZAL	73.34	ZAP	151.02	ETS	46.60	ZAE	125.38	ETE	163.64	ZAC	123.90	ETC	258.50	CLP	-161.92

PLANETOCENTRIC CONIC

C3	11.394	VHL	3.376	DLA	-40.20	RAL	268.09	RAD	6567.4	VEL	11.523	PTH	2.01	VHP	6.285	DPA	2.80	RAP	245.09	ECC	1.1875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.18	9 0 39	1393.97	31.32	7.96	132.01	116.6.	9 23 53	794.0	34.62	359.68
119.82	15 42 46	5427.16	31.33	250.31	132.02	116.59	17 13 14	4827.2	34.62	242.02
60.18	9 0 39	1393.97	31.32	7.96	132.01	116.61	9 23 53	794.0	34.62	359.68
119.82	15 42 46	5427.16	31.33	250.31	132.02	116.59	17 13 14	4827.2	34.62	242.02
60.18	9 0 39	1393.97	31.32	7.96	132.01	116.61	9 23 53	794.0	34.62	359.68
119.82	15 42 46	5427.16	31.33	250.31	132.02	116.59	17 13 14	4827.2	34.62	242.02

DIFFERENTIAL CORRECTIONS

TDE	-.9180	TRA	1.2537	TC3	-6.4668	BAU	.9878
RDE	.2792	RRA	-.2225	RC3	.4829	FAU	.04254
FDE	-.3094	FRA	1.0797	FC3	-3.2319	BSP	17301
BDE	.9595	BRA	1.2733	BC3	6.4848	FSP	-953

MID-COURSE EXECUTION ACCURACY

SGT	5408.3	SGR	758.6	SG3	283.9		
RRT	-.8627	RRF	-.8614	RTF	.9584		
SGB	5461.3	R23	.0602	R13	-.9589		
SG1	5448.0	SG2	380.8	THA	173.07		

ORBIT DETERMINATION ACCURACY

ST	1773.0	SR	496.7	SS	485.2
CRT	-.9808	CRS	.8029	CST	-.9018
LSA	1890.3	MSA	228.6	SSA	21.4
EL1	1838.9	EL2	93.4	ALF	164.60

LAUNCH DATE SEP 4 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 512.547

RL	150.87	LAL	.00	LOL	341.06	VL	26.431	GAL	1.55	AZL	91.87	HCA	245.30	SMA	125.12	ECC	.20754	INC	1.8740	V1	29.532
RP	108.27	LAP	1.70	LOP	226.34	VP	37.294	GAP	9.17	AZP	89.22	TAL	174.04	TAP	59.34	RCA	99.15	APO	151.09	V2	35.001
RC	144.730	GL	-14.57	GP	21.82	ZAL	70.58	ZAP	152.63	ETS	47.08	ZAE	125.41	ETE	164.59	ZAC	122.94	ETC	259.07	CLP	-163.05

PLANETOCENTRIC CONIC

C3	11.801	VHL	3.435	DLA	-38.00	RAL	271.41	RAD	6567.4	VEL	11.541	PTH	2.01	VHP	6.427	DPA	1.15	RAP	246.66	ECC	1.1942

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.52	9 29 47	1355.88	29.52	3.76	134.96	115.11	9 52 22	755.9	32.64	355.57
116.48	15 40 7	5479.88	29.53	253.70	134.97	115.10	17 11 27	4879.9	32.65	245.50
63.52	9 29 47	1355.88	29.52	3.76	134.96	115.11	9 52 22	755.9	32.64	355.57
116.48	15 40 7	5479.88	29.53	253.70	134.97	115.10	17 11 27	4879.9	32.65	245.50
63.52	9 29 47	1355.88	29.52	3.76	134.96	115.11	9 52 22	755.9	32.64	355.57
116.48	15 40 7	5479.88	29.53	253.70	134.97	115.10	17 11 27	4879.9	32.65	245.50

DIFFERENTIAL CORRECTIONS

TDE	-.7693	TRA	1.4469	TC3	-6.3406	BAU	1.0026
RDE	.2679	RRA	-.2334	RC3	.4312	FAU	.04003
FDE	-.1990	FRA	1.1440	FC3	-2.9366	BSP	17531
BDE	.8146	BRA	1.4656	BC3	6.3553	FSP	-923

MID-COURSE EXECUTION ACCURACY

SGT	5477.5	SGR	728.9	SG3	273.8		
RRT	-.8457	RRF	-.8407	RTF	.9580		
SGB	5525.8	R23	.0495	R13	-.9585		
SG1	5512.3	SG2	386.6	THA	173.55		

ORBIT DETERMINATION ACCURACY

ST	1583.5	SR	470.8	SS	444.8
CRT	-.9531	CRS	.6802	CST	-.8683
LSA	1690.6	MSA	261.3	SSA	21.5
EL1	1646.3	EL2	137.0	ALF	164.07

LAUNCH DATE SEP 4 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 518.329

RL	150.87	LAL	.00	LOL	341.06	VL	26.392	GAL	1.95	AZL	91.65	HCA	248.49	SMA	124.88	ECC	.21079	INC	1.6509	V1	29.532
RP	108.31	LAP	1.54	LOP	229.54	VP	37.254	GAP	9.51	AZP	89.39	TAL	172.65	TAP	61.14	RCA	98.56	APO	151.20	V2	34.988
RC	146.899	GL	-12.50	GP	20.72	ZAL	67.85	ZAP	154.13	ETS	47.68	ZAE	125.41	ETE	165.43	ZAC	122.08	ETC	259.64	CLP	-164.15

PLANETOCENTRIC CONIC

C3	12.337	VHL	3.512	DLA	-35.88	RAL	274.55	RAD	6567.5	VEL	11.564	PTH	2.02	VHP	6.581	DPA	-.37	RAP	248.31	ECC	1.2030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.98	10 0 28	1311.76	27.71	359.25	137.96	113.76	10 22 19	711.8	30.67	351.15
113.02	15 34 27	5542.77	27.72	257.85	137.97	113.75	17 6 50	4942.8	30.68	249.75
66.98	10 0 28	1311.76	27.71	359.25	137.96	113.76	10 22 19	711.8	30.67	351.15
113.02	15 34 27	5542.77	27.72	257.85	137.97	113.75	17 6 50	4942.8	30.68	249.75
66.98	10 0 28	1311.76	27.71	359.25	137.96	113.76	10 22 19	711.8	30.67	351.15
113.02	15 34 27	5542.77	27.72	257.85	137.97	113.75	17 6 50	4942.8	30.68	249.75

DIFFERENTIAL CORRECTIONS

TDE	-.6199	TRA	1.6498	TC3	-6.1519	BAU	1.0167
RDE	.2603	RRA	-.2445	RC3	.3845	FAU	.03759
FDE	-.1002	FRA	1.2044	FC3	-2.6377	BSP	17752
BDE	.6723	BRA	1.6678	BC3	6.1639	FSP	-893

MID-COURSE EXECUTION ACCURACY

SGT	5543.5	SGR	704.0	SG3	264.0		
RRT	-.8281	RRF	-.8197	RTF	.9578		
SGB	5588.1	R23	.0402	R13	-.9581		
SG1	5574.3	SG2	392.5	THA	173.97		

ORBIT DETERMINATION ACCURACY

ST	1425.5	SR	449.6	SS	425.1
CRT	-.9011	CRS	.5274	CST	-.8419
LSA	1524.6	MSA	300.2	SSA	21.2
EL1	1482.9	EL2	187.4	ALF	163.87

LAUNCH DATE SEP 4 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 524.083

RL	150.87	LAL	.00	LOL	341.06	VL	26.354	GAL	2.37	AZL	91.44	HCA	251.68	SMA	124.64	ECC	.21429	INC	1.4376	V1	29.532		
RP	108.35	LAP	1.36	LOP	232.73	VP	37.215	GAP	9.86	AZP	89.55	TAL	171.25	TAP	62.93	RCA	97.93	APO	151.35	V2	34.975		
RC	149.057	GL	-10.55	GP	19.72	ZAL	65.17	ZAP	155.54	ETS	48.41	ZAE	125.39	ETE	166.18	ZAC	121.32	ETC	260.20	CLP	-165.23		

PLANETOCENTRIC CONIC

C3	13.009	VHL	3.607	DLA	-33.83	RAL	277.51	RAD	6567.5	VEL	11.593	PTH	2.03	VHP	6.748	DPA	-1.77	RAP	250.05	ECC	1.2141		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.66	10 33 37	1258.59	25.92	354.21	141.01	112.54	10 54 36	658.6	28.74	346.20
109.34	15 24 55	5618.65	25.93	262.97	141.01	112.53	16 58 34	5018.6	28.75	254.96
70.66	10 33 37	1258.59	25.92	354.21	141.01	112.54	10 54 36	658.6	28.74	346.20
109.34	15 24 55	5618.65	25.93	262.97	141.01	112.53	16 58 34	5018.6	28.75	254.96
110.00	14 51 47	5719.90	22.99	269.40	139.55	116.02	16 27 6	5119.9	26.29	261.80
110.00	16 5 56	5493.37	28.94	254.50	142.30	109.04	17 37 30	4893.4	31.26	246.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4705	TRA	1.8606	TC3	-5.9115	BAU	1.0299	SGT	5603.9	SGR	682.1	SG3	254.1	ST	1309.4	SR	432.2
RDE	.2559	RRA	-.2557	RC3	.3422	FAU	.03521	RRT	-.8100	RRF	-.7985	RTF	.9577	CRT	-.8152	CRS	.3643
FDE	-.0120	FRA	1.2589	FC3	-2.3428	BSP	17967	SGB	5645.3	R23	.0320	R13	-.9580	LSA	1401.0	MSA	340.9
BDE	.5356	BRA	1.8781	BC3	5.9214	FSP	-864	SG1	5631.2	SG2	398.0	THA	174.34	EL1	1357.5	EL2	241.5

SS	422.2
CST	-.8348
SSA	20.6
ALF	164.43

LAUNCH DATE SEP 4 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 529.803

RL	150.87	LAL	.00	LOL	341.06	VL	26.316	GAL	2.80	AZL	91.23	HCA	254.87	SMA	124.41	ECC	.21806	INC	1.2322	V1	29.532		
RP	108.39	LAP	1.19	LOP	235.92	VP	37.176	GAP	10.22	AZP	89.68	TAL	169.84	TAP	64.71	RCA	97.28	APO	151.53	V2	34.962		
RC	151.205	GL	-8.74	GP	18.82	ZAL	62.57	ZAP	156.85	ETS	49.30	ZAE	125.35	ETE	166.85	ZAC	120.63	ETC	260.76	CLP	-166.27		

PLANETOCENTRIC CONIC

C3	13.825	VHL	3.718	DLA	-31.87	RAL	280.30	RAD	6567.5	VEL	11.628	PTH	2.04	VHP	6.926	DPA	-3.05	RAP	251.86	ECC	1.2275		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.72	11 10 56	1190.76	24.17	348.22	144.09	111.44	11 30 47	590.8	26.86	340.28
105.28	15 9 52	5712.91	24.18	269.43	144.09	111.43	16 45 5	5112.9	26.87	261.50
74.72	11 10 56	1190.76	24.17	348.22	144.09	111.44	11 30 47	590.8	26.86	340.28
105.28	15 9 52	5712.91	24.18	269.43	144.09	111.43	16 45 5	5112.9	26.87	261.50
110.00	14 5 20	625.33	16.75	303.03	140.26	120.24	14 15 46	25.3	20.65	296.07
110.00	17 14 38	5326.34	32.05	242.49	146.82	102.57	18 43 25	4726.3	33.45	233.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3416	TRA	2.0603	TC3	-5.6891	BAU	1.0531	SGT	5670.3	SGR	664.4	SG3	244.1	ST	1245.4	SR	421.8
RDE	.2572	RRA	-.2644	RC3	.3128	FAU	.03361	RRT	-.7927	RRF	-.7783	RTF	.9593	CRT	-.7062	CRS	.2361
FDE	.0508	FRA	1.2957	FC3	-2.1047	BSP	18682	SGB	5709.1	R23	.0228	R13	-.9595	LSA	1331.1	MSA	371.4
BDE	.4276	BRA	2.0772	BC3	5.6977	FSP	-868	SG1	5694.8	SG2	403.3	THA	174.67	EL1	1282.5	EL2	290.0

SS	425.6
CST	-.8533
SSA	19.8
ALF	165.81

LAUNCH DATE SEP 4 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 535.494

RL	150.87	LAL	.00	LOL	341.06	VL	26.277	GAL	3.26	AZL	91.03	HCA	258.06	SMA	124.17	ECC	.22211	INC	1.0330	V1	29.532		
RP	108.43	LAP	1.01	LOP	239.11	VP	37.136	GAP	10.59	AZP	89.79	TAL	168.42	TAP	66.47	RCA	96.59	APO	151.75	V2	34.949		
RC	153.343	GL	-7.06	GP	18.00	ZAL	60.04	ZAP	158.09	ETS	50.33	ZAE	125.31	ETE	167.45	ZAC	120.01	ETC	261.33	CLP	-167.30		

PLANETOCENTRIC CONIC

C3	14.797	VHL	3.847	DLA	-30.00	RAL	282.94	RAD	6567.6	VEL	11.670	PTH	2.05	VHP	7.116	DPA	-4.24	RAP	253.73	ECC	1.2435		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.65	11 56 50	1093.97	22.46	340.23	147.20	110.43	12 15 4	494.0	25.04	332.37
100.35	14 45 1	5839.72	22.47	278.25	147.21	110.42	16 22 20	5239.7	25.05	270.39
79.65	11 56 50	1093.97	22.46	340.23	147.20	110.43	12 15 4	494.0	25.04	332.37
100.35	14 45 1	5839.72	22.47	278.25	147.21	110.42	16 22 20	5239.7	25.05	270.39
110.00	13 43 46	745.32	12.52	309.75	142.07	122.07	13 56 11	145.3	16.67	303.10
110.00	17 57 15	5236.37	33.19	235.72	150.35	98.71	19 24 31	4636.4	34.03	226.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1741	TRA	2.3084	TC3	-5.3264	BAU	1.0550	SGT	5711.6	SGR	646.4	SG3	235.0	ST	1225.2	SR	406.4
RDE	.2552	RRA	-.2788	RC3	.2706	FAU	.03073	RRT	-.7735	RRF	-.7571	RTF	.9579	CRT	-.5436	CRS	.0847
FDE	.1340	FRA	1.3568	FC3	-1.7980	BSP	18475	SGB	5748.0	R23	.0196	R13	-.9580	LSA	1306.2	MSA	401.1
BDE	.3089	BRA	2.3252	BC3	5.3332	FSP	-812	SG1	5733.5	SG2	408.1	THA	174.97	EL1	1246.5	EL2	335.3

SS	448.3
CST	-.8811
SSA	19.2
ALF	168.97

LAUNCH DATE SEP 4 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 541.147

RL	150.87	LAL	.00	LOL	341.06	VL	26.239	GAL	3.74	AZL	90.84	HCA	261.24	SMA	123.94	ECC	.22647	INC	.8386	V1	29.532		
RP	108.47	LAP	.83	LOP	242.29	VP	37.098	GAP	10.98	AZP	89.87	TAL	166.99	TAP	68.23	RCA	95.87	APO	152.01	V2	34.937		
RC	155.470	GL	-5.51	GP	17.26	ZAL	57.61	ZAP	159.25	ETS	51.54	ZAE	125.25	ETE	167.98	ZAC	119.45	ETC	261.89	CLP	-168.30		

PLANETOCENTRIC CONIC

C3	15.936	VHL	3.992	DLA	-28.23	RAL	285.42	RAD	6567.6	VEL	11.718	PTH	2.06	VHP	7.319	DPA	-5.32	RAP	255.66	ECC	1.2623		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	13 10 56	904.06	19.35	325.01	149.77	111.09	13 26 0	304.1	22.04	317.38
90.00	13 50 44	774.99	22.29	316.69	150.88	107.93	14 3 39	175.0	24.53	308.74
100.00	13 28 32	847.09	14.57	318.64	147.57	116.39	13 42 39	247.1	18.00	311.53
100.00	16 15 49	5595.23	27.32	261.70	152.40	102.62	17 49 4	4995.2	28.79	253.20
110.00	13 29 42	843.41	8.92	315.07	144.27	123.14	13 43 46	243.4	13.22	308.61
110.00	18 31 8	5171.68	33.74	230.75	153.61	95.82	19 57 19	4571.7	34.18	221.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0167	TRA	2.5558	TC3	-4.9765	BAU	1.0615	SGT	5755.0	SGR	630.6	SG3	226.0	ST	1254.9	SR	395.2
RDE	.2568	RRA	-.2919	RC3	.2371	FAU	.02833	RRT	-.7551	RRF	-.7370	RTF	.9575	CRT	-.3784	CRS	-.0268
FDE	.2007	FRA	1.4065	FC3	-1.5388	BSP	18533	SGB	5789.5	R23	.0157	R13	-.9576	LSA	1335.6	MSA	411.8
BDE	.2573	BRA	2.5724	BC3	4.9821	FSP	-777	SG1	5774.8	SG2	412.0	THA	175.25	EL1	1264.6	EL2	363.0

SS	471.9
CST	-.9141
SSA	18.5
ALF	172.59

LAUNCH DATE SEP 4 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 546.760

RL	150.87	LAL	.00	LOL	341.06	VL	26.201	GAL	4.25	AZL	90.65	HCA	264.42	SMA	123.71	ECC	.23119	INC	.6476	V1	29.532
RP	108.51	LAP	.64	LOP	245.48	VP	37.059	GAP	11.38	AZP	89.94	TAL	165.56	TAP	69.98	RCA	95.11	APO	152.31	V2	34.925
RC	157.587	GL	-4.08	GP	16.59	ZAL	55.28	ZAP	160.33	ETS	52.93	ZAE	125.19	ETE	168.46	ZAC	118.94	ETC	262.47	CLP	-169.29

PLANETOCENTRIC CONIC

C3	17.262	VHL	4.155	DLA	-26.55	RAL	287.76	RAD	6567.7	VEL	11.775	PTH	2.08	VHP	7.536	DPA	-6.32	RAP	257.65	ECC	1.2841

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 12 24	1145.44	12.81	339.71	150.80	115.47	12 31 30	545.4	16.14	332.61
90.00	15 7 56	5858.26	25.90	280.69	155.47	101.88	16 45 34	5258.3	27.27	272.30
100.00	13 3 14	981.26	10.37	326.40	149.54	118.19	13 19 36	381.3	14.06	319.55
100.00	16 59 47	5497.68	28.58	254.72	156.03	99.16	18 31 24	4897.7	29.55	246.05
110.00	13 19 39	929.75	5.68	319.65	146.70	123.76	13 35 9	329.8	10.08	313.32
110.00	18 59 52	5121.95	34.02	226.90	156.74	93.56	20 25 14	4521.9	34.14	217.65

DIFFERENTIAL CORRECTIONS

TDE	.1385	TRA	2.8107	TC3	-4.6251	BAU	1.0685
RDE	.2604	RRA	-.3048	RC3	.2083	FAU	.02613
FDE	.2585	FRA	1.4517	FC3	-1.3104	BSP	18674
BDE	.2949	BRA	2.8272	BC3	4.6298	FSP	-747

MID-COURSE EXECUTION ACCURACY

SGT	5794.9	SGR	616.1	SG3	217.2		
RRT	-.7372	RRF	-.7178	RTF	.9575		
SGB	5827.6	R23	.0122	R13	-.9575		
SG1	5812.8	SG2	415.0	THA	175.49		

ORBIT DETERMINATION ACCURACY

ST	1318.9	SR	385.8	SS	495.4
CRT	-.2265	CRS	-.1131	CST	-.9413
LSA	1402.0	MSA	409.5	SSA	17.8
EL1	1322.0	EL2	374.9	ALF	175.88

LAUNCH DATE SEP 4 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 552.328

RL	150.87	LAL	.00	LOL	341.06	VL	26.163	GAL	4.78	AZL	90.46	HCA	267.60	SMA	123.48	ECC	.23627	INC	.4588	V1	29.532
RP	108.54	LAP	.46	LOP	248.66	VP	37.021	GAP	11.80	AZP	89.98	TAL	164.12	TAP	71.73	RCA	94.30	APO	152.65	V2	34.913
RC	159.692	GL	-2.76	GP	15.98	ZAL	53.05	ZAP	161.35	ETS	54.52	ZAE	125.12	ETE	168.90	ZAC	118.47	ETC	263.04	CLP	-170.26

PLANETOCENTRIC CONIC

C3	18.794	VHL	4.335	DLA	-24.96	RAL	289.97	RAD	6567.8	VEL	11.840	PTH	2.10	VHP	7.767	DPA	-7.23	RAP	259.68	ECC	1.3093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 48 19	1276.75	8.85	347.32	152.92	117.01	12 9 36	676.8	12.40	340.45
90.00	15 49 36	5766.61	27.02	274.22	159.06	98.82	17 25 43	5166.6	27.96	265.68
100.00	12 46 59	1087.35	6.91	332.36	151.88	119.16	13 5 6	487.3	10.74	325.67
100.00	17 33 37	5431.25	29.20	249.88	159.40	96.69	19 4 9	4831.3	29.82	241.13
110.00	13 12 7	1008.50	2.69	323.78	149.27	124.09	13 28 56	408.5	7.14	317.53
110.00	19 24 58	5082.86	34.14	223.85	159.83	91.76	20 49 41	4482.9	34.01	214.61

DIFFERENTIAL CORRECTIONS

TDE	.2950	TRA	3.0770	TC3	-4.2710	BAU	1.0741
RDE	.2655	RRA	-.3178	RC3	.1826	FAU	.02402
FDE	.3100	FRA	1.4947	FC3	-1.1066	BSP	18821
BDE	.3969	BRA	3.0934	BC3	4.2749	FSP	-720

MID-COURSE EXECUTION ACCURACY

SGT	5829.8	SGR	602.4	SG3	208.7		
RRT	-.7198	RRF	-.6992	RTF	.9576		
SGB	5860.8	R23	.0093	R13	-.9577		
SG1	5846.0	SG2	417.0	THA	175.73		

ORBIT DETERMINATION ACCURACY

ST	1405.5	SR	377.5	SS	518.1
CRT	-.0956	CRS	-.1812	CST	-.9609
LSA	1492.0	MSA	399.8	SSA	17.2
EL1	1406.0	EL2	375.6	ALF	178.42

LAUNCH DATE SEP 4 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 557.847

RL	150.87	LAL	.00	LOL	341.06	VL	26.125	GAL	5.34	AZL	90.27	HCA	270.78	SMA	123.25	ECC	.24177	INC	.2710	V1	29.532
RP	108.58	LAP	.27	LOP	251.84	VP	36.984	GAP	12.24	AZP	90.00	TAL	162.69	TAP	73.47	RCA	93.45	APO	153.05	V2	34.901
RC	161.784	GL	-1.56	GP	15.42	ZAL	50.93	ZAP	162.30	ETS	56.33	ZAE	125.05	ETE	169.29	ZAC	118.03	ETC	263.63	CLP	-171.21

PLANETOCENTRIC CONIC

C3	20.557	VHL	4.534	DLA	-23.47	RAL	292.04	RAD	6567.8	VEL	11.914	PTH	2.12	VHP	8.013	DPA	-8.05	RAP	261.75	ECC	1.3383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 32 24	1382.17	5.54	353.30	155.36	117.81	11 55 26	782.2	9.22	346.56
90.00	16 22 5	5703.74	27.59	269.71	162.43	96.63	17 57 8	5103.7	28.22	261.10
100.00	12 35 15	1179.30	3.83	337.45	154.41	119.67	12 54 55	579.3	7.75	330.86
100.00	18 1 55	5381.84	29.54	246.25	162.65	94.80	19 31 37	4781.8	29.89	237.46
110.00	13 6 21	1081.81	-.12	327.61	151.95	124.18	13 24 22	481.8	4.37	321.40
110.00	19 47 19	5052.10	34.18	221.45	162.90	90.34	21 11 31	4452.1	33.85	212.22

DIFFERENTIAL CORRECTIONS

TDE	.4544	TRA	3.3570	TC3	-3.9185	BAU	1.0778
RDE	.2718	RRA	-.3310	RC3	.1594	FAU	.02199
FDE	.3572	FRA	1.5370	FC3	-.9262	BSP	18944
BDE	.5295	BRA	3.3732	BC3	3.9218	FSP	-693

MID-COURSE EXECUTION ACCURACY

SGT	5860.4	SGR	588.9	SG3	200.6		
RRT	-.7028	RRF	-.6815	RTF	.9579		
SGB	5890.0	R23	.0069	R13	-.9579		
SG1	5875.1	SG2	417.9	THA	175.94		

ORBIT DETERMINATION ACCURACY

ST	1505.4	SR	369.7	SS	539.8
CRT	.0125	CRS	-.2359	CST	-.9741
LSA	1595.1	MSA	386.7	SSA	16.5
EL1	1505.4	EL2	369.7	ALF	.19

LAUNCH DATE SEP 4 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 563.311

RL	150.87	LAL	.00	LOL	341.06	VL	26.088	GAL	5.93	AZL	90.08	HCA	273.96	SMA	123.03	ECC	.24772	INC	.0819	V1	29.532
RP	108.61	LAP	.08	LOP	255.01	VP	36.947	GAP	12.70	AZP	90.01	TAL	161.26	TAP	75.22	RCA	92.55	APO	153.51	V2	34.890
RC	163.865	GL	-.45	GP	14.91	ZAL	48.92	ZAP	163.19	ETS	58.38	ZAE	124.97	ETE	169.64	ZAC	117.62	ETC	264.21	CLP	-172.16

PLANETOCENTRIC CONIC

C3	22.580	VHL	4.752	DLA	-22.07	RAL	294.00	RAD	6567.9	VEL	11.998	PTH	2.14	VHP	8.276	DPA	-8.80	RAP	263.86	ECC	1.3716

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 20 44	1474.01	2.61	358.45	157.96	118.21	11 45 18	874.0	6.36	351.78
90.00	16 49 21	5657.16	27.91	266.34	165.70	94.97	18 23 38	5057.2	28.31	257.70
100.00	12 26 19	1262.34	1.02	342.02	157.08	119.88	12 47 21	662.3	4.99	335.48
100.00	18 26 27	5344.07	29.72	243.45	165.85	93.34	19 55 31	4744.1	29.87	234.65
110.00	13 1 50	1150.98	-2.76	331.22	154.72	124.09	13 21 1	551.0	1.73	325.01
110.00	20 7 25	5028.19	34.18	219.58	165.97	89.23	21 31 13	4428.2	33.69	210.37

DIFFERENTIAL CORRECTIONS

TDE	.6162	TRA	3.6501	TC3	-3.5735	BAU	1.0796
RDE	.2792	RRA	-.3442	RC3	.1385	FAU	.02003
FDE	.3996	FRA	1.5782	FC3	-.7680	BSP	19069
BDE	.6765	BRA	3.6663	BC3	3.5761	FSP	-667

MID-COURSE EXECUTION ACCURACY

SGT	5885.7	SGR	575.5	SG3	192.8		
RRT	-.6861	RRF	-.6645	RTF	.9583		
SGB	5913.7	R23	.0050	R13	-.9584		
SG1	5898.9	SG2	417.8	THA	176.14		

ORBIT DETERMINATION ACCURACY

ST	1610.1	SR	362.5	SS	559.5
CRT	.0998	CRS	-.2798	CST	-.9827
LSA	1702.3	MSA	372.5	SSA	15.9
EL1	1610.5	EL2	360.6	ALF	1.36

LAUNCH DATE SEP 4 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 568.714
RL 150.87 LAL .00 LOL 341.06 VL 26.050 GAL 6.56 AZL 89.89 HCA 277.13 SMA 122.81 ECC .25418 INC .1049 V1 29.532
RP 108.65 LAP -.11 LOP 258.19 VP 36.910 GAP 13.18 AZP 89.99 TAL 159.84 TAP 76.97 RCA 91.59 APO 154.02 V2 34.880
RC 165.932 GL .55 GP 14.45 ZAL 47.01 ZAP 164.02 ETS 60.68 ZAE 124.88 ETE 169.97 ZAC 117.23 ETC 264.80 CLP-173.10
PLANETOCENTRIC CONIC
C3 24.899 VHL 4.990 DLA -20.76 RAL 295.83 RAD 6568.0 VEL 12.094 PTH 2.16 VHP 8.558 DPA -9.48 RAP 266.00 ECC 1.4098

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 11 44	1557.14	-.08	3.09	160.69	118.32	11 37 41	957.1	3.71	356.46
90.00	17 13 1	5621.85	28.10	263.77	168.92	93.69	18 46 43	5021.9	28.31	255.11
100.00	12 19 18	1339.09	-1.58	346.23	159.85	119.85	12 41 37	739.1	2.40	339.71
100.00	18 48 8	5315.13	29.82	241.31	169.02	92.22	20 16 43	4715.1	29.81	232.50
110.00	12 58 18	1216.84	-5.26	334.67	157.56	123.82	13 18 35	616.8	-.79	328.45
110.00	20 25 37	5010.14	34.15	218.17	169.05	88.40	21 49 7	4410.1	33.55	208.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE .7808 TRA 3.9573 TC3-3.2408 BAU 1.0795 SGT 5905.8 SGR 562.0 SG3 185.3 ST 1714.2 SR 355.5 SS 577.2
RDE .2876 RRA -.3573 RC3 .1198 FAU .01817 RRT -.6697 RRF -.6480 RTF .9590 CRT .1703 CRS -.3159 CST -.9883
FDE .4384 FRA 1.6186 FC3 -.6319 BSP 19201 SGB 5932.5 R23 .0035 R13 -.9590 LSA 1808.1 MSA 358.6 SSA 15.4
BDE .8320 BRA 3.9734 BC3 3.2430 FSP -643 SG1 5917.8 SG2 416.5 THA 176.34 EL1 1715.3 EL2 350.1 ALF 2.11

LAUNCH DATE SEP 4 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 574.046
RL 150.87 LAL .00 LOL 341.06 VL 26.013 GAL 7.23 AZL 89.70 HCA 280.30 SMA 122.59 ECC .26119 INC .2975 V1 29.532
RP 108.68 LAP -.29 LOP 261.36 VP 36.874 GAP 13.70 AZP 89.95 TAL 158.43 TAP 78.73 RCA 90.57 APO 154.61 V2 34.869
RC 167.985 GL 1.46 GP 14.02 ZAL 45.21 ZAP 164.79 ETS 63.26 ZAE 124.79 ETE 170.27 ZAC 116.86 ETC 265.40 CLP-174.04
PLANETOCENTRIC CONIC
C3 27.554 VHL 5.249 DLA -19.54 RAL 297.56 RAD 6568.1 VEL 12.204 PTH 2.19 VHP 8.860 DPA -10.08 RAP 268.16 ECC 1.4535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 4 34	1634.03	-2.56	7.38	163.51	118.21	11 31 48	1034.0	1.24	.75
90.00	17 33 58	5595.14	28.20	261.82	172.11	92.72	19 7 13	4995.1	28.28	253.16
100.00	12 13 40	1411.08	-4.02	350.19	162.70	119.65	12 37 11	811.1	-.04	343.66
100.00	19 7 34	5293.33	29.86	239.69	172.18	91.37	20 35 47	4693.3	29.73	230.89
110.00	12 55 30	1279.98	-7.65	338.01	160.46	123.42	13 16 50	680.0	-3.20	331.75
110.00	20 42 13	4997.19	34.12	217.16	172.15	87.80	22 5 30	4397.2	33.44	207.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE .9484 TRA 4.2797 TC3-2.9227 BAU 1.0773 SGT 5920.8 SGR 548.1 SG3 178.1 ST 1814.2 SR 348.6 SS 593.0
RDE .2969 RRA -.3700 RC3 .1030 FAU .01639 RRT -.6535 RRF -.6321 RTF .9599 CRT .2276 CRS -.3460 CST -.9920
FDE .4739 FRA 1.6589 FC3 -.5151 BSP 19352 SGB 5946.1 R23 .0023 R13 -.9599 LSA 1909.2 MSA 345.3 SSA 14.8
BDE .9938 BRA 4.2956 BC3 2.9245 FSP -621 SG1 5931.6 SG2 414.1 THA 176.52 EL1 1816.0 EL2 339.2 ALF 2.60

LAUNCH DATE SEP 4 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 579.298
RL 150.87 LAL .00 LOL 341.06 VL 25.977 GAL 7.94 AZL 89.51 HCA 283.47 SMA 122.37 ECC .26881 INC .4932 V1 29.532
RP 108.71 LAP -.48 LOP 264.53 VP 36.839 GAP 14.24 AZP 89.88 TAL 157.03 TAP 80.50 RCA 89.48 APO 155.27 V2 34.859
RC 170.025 GL 2.30 GP 13.63 ZAL 43.52 ZAP 165.49 ETS 66.15 ZAE 124.68 ETE 170.54 ZAC 116.50 ETC 266.00 CLP-174.97
PLANETOCENTRIC CONIC
C3 30.597 VHL 5.531 DLA -18.40 RAL 299.19 RAD 6568.2 VEL 12.328 PTH 2.22 VHP 9.185 DPA -10.61 RAP 270.34 ECC 1.5036

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 46	1706.18	-4.87	11.42	166.40	117.93	11 27 12	1106.2	-1.09	4.78
90.00	17 52 44	5575.39	28.25	260.38	175.29	92.00	19 25 39	4975.4	28.23	251.72
100.00	12 9 5	1479.29	-6.30	353.96	165.61	119.28	12 33 44	879.3	-2.35	347.40
100.00	19 25 6	5277.51	29.88	238.51	175.34	90.75	20 53 4	4677.5	29.67	229.72
110.00	12 53 17	1340.81	-9.91	341.26	163.41	122.88	13 15 37	740.8	-5.51	334.94
110.00	20 57 24	4988.75	34.10	216.50	175.26	87.41	22 20 33	4388.8	33.36	207.34

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 1.1197 TRA 4.6183 TC3-2.6211 BAU 1.0728 SGT 5930.2 SGR 533.6 SG3 171.2 ST 1907.9 SR 341.8 SS 607.0
RDE .3071 RRA -.3822 RC3 .0879 FAU .01470 RRT -.6372 RRF -.6164 RTF .9609 CRT .2750 CRS -.3717 CST -.9945
FDE .5065 FRA 1.6992 FC3 -.4159 BSP 19512 SGB 5954.2 R23 .0014 R13 -.9610 LSA 2003.6 MSA 332.7 SSA 14.3
BDE 1.1611 BRA 4.6340 BC3 2.6226 FSP -601 SG1 5940.0 SG2 410.5 THA 176.70 EL1 1910.3 EL2 328.2 ALF 2.91

LAUNCH DATE SEP 4 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 584.458
RL 150.87 LAL .00 LOL 341.06 VL 25.941 GAL 8.69 AZL 89.31 HCA 286.64 SMA 122.16 ECC .27713 INC .6939 V1 29.532
RP 108.74 LAP -.66 LOP 267.70 VP 36.805 GAP 14.83 AZP 89.80 TAL 155.66 TAP 82.29 RCA 88.31 APO 156.02 V2 34.850
RC 172.049 GL 3.05 GP 13.27 ZAL 41.92 ZAP 166.12 ETS 69.36 ZAE 124.57 ETE 170.79 ZAC 116.15 ETC 266.59 CLP-175.91
PLANETOCENTRIC CONIC
C3 34.088 VHL 5.838 DLA -17.33 RAL 300.71 RAD 6568.3 VEL 12.468 PTH 2.26 VHP 9.536 DPA -11.07 RAP 272.53 ECC 1.5610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 54 0	1774.50	-7.03	15.28	169.34	117.50	11 23 34	1174.5	-3.29	8.59
90.00	18 9 40	5561.45	28.28	259.36	178.46	91.49	19 42 21	4961.4	28.19	250.70
100.00	12 5 19	1544.37	-8.45	357.59	168.57	118.78	12 31 3	944.4	-4.55	350.98
100.00	19 41 2	5266.82	29.89	237.72	178.49	90.33	21 8 49	4666.8	29.62	228.92
110.00	12 51 31	1399.62	-12.07	344.45	166.41	122.23	13 14 51	799.6	-7.72	338.05
110.00	21 11 19	4984.33	34.08	216.16	178.38	87.21	22 34 23	4384.3	33.32	207.00

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 1.2957 TRA 4.9754 TC3-2.3363 BAU 1.0652 SGT 5934.7 SGR 518.5 SG3 164.6 ST 1994.5 SR 335.0 SS 619.9
RDE .3181 RRA -.3938 RC3 .0743 FAU .01307 RRT -.6208 RRF -.6008 RTF .9622 CRT .3148 CRS -.3941 CST -.9961
FDE .5371 FRA 1.7405 FC3 -.3319 BSP 19683 SGB 5957.3 R23 .0007 R13 -.9622 LSA 2090.8 MSA 320.6 SSA 13.8
BDE 1.3342 BRA 4.9909 BC3 2.3374 FSP -581 SG1 5943.4 SG2 405.9 THA 176.88 EL1 1997.3 EL2 317.5 ALF 3.11

LAUNCH DATE SEP 4 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 589.511

RL 150.87 LAL .00 LOL 341.06 VL 25.905 GAL 9.49 AZL 89.10 HCA 289.80 SMA 121.95 ECC .28621 INC .9012 V1 29.532
RP 108.77 LAP -.85 LOP 270.86 VP 36.771 GAP 15.46 AZP 89.69 TAL 154.30 TAP 84.11 RCA 87.05 APO 156.86 V2 34.841
RC 174.060 GL 3.73 GP 12.94 ZAL 40.43 ZAP 166.69 ETS 72.91 ZAE 124.44 ETE 171.03 ZAC 115.82 ETC 267.19 CLP-176.85

PLANETOCENTRIC CONIC

C3 38.098 VHL 6.172 DLA -16.34 RAL 302.14 RAD 6568.5 VEL 12.628 PTH 2.29 VHP 9.915 DPA -11.47 RAP 274.74 ECC 1.6270

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 50 1	1839.65	-9.06	18.99	172.33	116.94	11 20 41	1239.7	-5.38	12.25
90.00	18 25 2	5552.50	28.30	258.71	181.62	91.16	19 57 34	4952.5	28.16	250.05
100.00	12 2 11	1606.78	-10.48	1.12	171.58	118.16	12 28 58	1006.8	-6.63	354.44
100.00	19 55 33	5260.60	29.89	237.26	181.64	90.08	21 23 13	4660.6	29.58	228.47
110.00	12 50 8	1456.62	-14.11	347.60	169.45	121.46	13 14 24	856.6	-9.85	341.10
110.00	21 24 6	4983.53	34.08	216.10	181.52	87.17	22 47 10	4383.5	33.31	206.94

DIFFERENTIAL CORRECTIONS
TDE 1.4776 TRA 5.3529 TC3-2.0685 BAU 1.0540
RDE .3298 RRA -.4044 RC3 .0620 FAU .01149
FDE .5663 FRA 1.7833 FC3 -.2610 BSP 19849
BDE 1.5140 BRA 5.3681 BC3 2.0694 FSP -563

MID-COURSE EXECUTION ACCURACY
SGT 5934.1 SGR 502.7 SG3 158.3
RRT -.6040 RRF -.5850 RTF .9637
SG8 5955.4 R23 .0003 R13 -.9637
SG1 5941.9 SG2 400.1 THA 177.06

ORBIT DETERMINATION ACCURACY
ST 2073.7 SR 327.9 SS 632.0
CRT .3492 CRS -.4141 CST -.9973
LSA 2170.6 MSA 309.1 SSA 13.4
EL1 2076.9 EL2 306.8 ALF 3.23

LAUNCH DATE SEP 4 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 594.441

RL 150.87 LAL .00 LOL 341.06 VL 25.869 GAL 10.36 AZL 88.88 HCA 292.97 SMA 121.75 ECC .29615 INC 1.1169 V1 29.532
RP 108.79 LAP -1.03 LOP 274.03 VP 36.739 GAP 16.14 AZP 89.56 TAL 152.98 TAP 85.94 RCA 85.69 APO 157.80 V2 34.833
RC 176.055 GL 4.35 GP 12.64 ZAL 39.04 ZAP 167.17 ETS 76.81 ZAE 124.29 ETE 171.25 ZAC 115.49 ETC 267.78 CLP-177.81

PLANETOCENTRIC CONIC

C3 42.719 VHL 6.536 DLA -15.42 RAL 303.47 RAD 6568.6 VEL 12.810 PTH 2.33 VHP 10.326 DPA -11.81 RAP 276.94 ECC 1.7030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 46 41	1902.05	-10.97	22.58	175.35	116.27	11 18 23	1302.0	-7.35	15.77
90.00	18 39 1	5547.90	28.30	258.37	184.77	90.99	20 11 29	4947.9	28.14	249.71
100.00	11 59 35	1666.84	-12.39	4.56	174.61	117.42	12 27 22	1066.8	-8.61	357.80
100.00	20 8 48	5258.34	29.89	237.09	184.79	90.00	21 36 26	4658.3	29.57	228.30
110.00	12 49 1	1511.97	-16.06	350.71	172.51	120.59	13 14 13	912.0	-11.88	344.10
110.00	21 35 51	4985.98	34.09	216.29	184.67	87.28	22 58 57	4386.0	33.34	207.13

DIFFERENTIAL CORRECTIONS
TDE 1.6674 TRA 5.7539 TC3-1.8165 BAU 1.0378
RDE .3422 RRA -.4140 RC3 .0510 FAU .00993
FDE .5950 FRA 1.8284 FC3 -.2012 BSP 19998
BDE 1.7022 BRA 5.7688 BC3 1.8172 FSP -545

MID-COURSE EXECUTION ACCURACY
SGT 5929.1 SGR 486.0 SG3 152.3
RRT -.5864 RRF -.5686 RTF .9653
SG8 5948.9 R23 .0001 R13 -.9654
SG1 5935.9 SG2 393.2 THA 177.24

ORBIT DETERMINATION ACCURACY
ST 2146.1 SR 320.6 SS 643.9
CRT .3795 CRS -.4328 CST -.9981
LSA 2243.7 MSA 297.7 SSA 12.9
EL1 2149.6 EL2 296.1 ALF 3.31

LAUNCH DATE SEP 4 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 599.224

RL 150.87 LAL .00 LOL 341.06 VL 25.835 GAL 11.29 AZL 88.66 HCA 296.13 SMA 121.55 ECC .30707 INC 1.3429 V1 29.532
RP 108.82 LAP -1.21 LOP 277.19 VP 36.707 GAP 16.87 AZP 89.41 TAL 151.69 TAP 87.82 RCA 84.22 APO 158.87 V2 34.825
RC 178.036 GL 4.91 GP 12.36 ZAL 37.74 ZAP 167.58 ETS 81.07 ZAE 124.13 ETE 171.46 ZAC 115.16 ETC 268.37 CLP-178.77

PLANETOCENTRIC CONIC

C3 48.057 VHL 6.932 DLA -14.57 RAL 304.72 RAD 6568.8 VEL 13.016 PTH 2.37 VHP 10.774 DPA -12.08 RAP 279.14 ECC 1.7909

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 43 52	1961.99	-12.75	26.09	178.39	115.50	11 16 34	1362.0	-9.21	19.19
90.00	18 51 45	5547.11	28.30	258.31	187.90	90.96	20 24 12	4947.1	28.14	249.65
100.00	11 57 23	1724.76	-14.18	7.93	177.67	116.59	12 26 8	1124.8	-10.49	1.07
100.00	20 20 55	5259.58	29.89	237.18	187.92	90.04	21 48 34	4659.6	29.58	228.39
110.00	12 48 9	1565.75	-17.89	353.80	175.61	119.62	13 14 15	965.7	-13.82	347.06
110.00	21 46 38	4991.35	34.10	216.71	187.81	87.53	23 9 49	4391.4	33.39	207.54

DIFFERENTIAL CORRECTIONS
TDE 1.8667 TRA 6.1814 TC3-1.5805 BAU 1.0158
RDE .3554 RRA -.4221 RC3 .0410 FAU .00838
FDE .6236 FRA 1.8765 FC3 -.1510 BSP 20111
BDE 1.9002 BRA 6.1958 BC3 1.5810 FSP -526

MID-COURSE EXECUTION ACCURACY
SGT 5920.1 SGR 468.4 SG3 146.6
RRT -.5677 RRF -.5515 RTF .9672
SG8 5938.6 R23 .0000 R13 -.9672
SG1 5926.1 SG2 385.2 THA 177.42

ORBIT DETERMINATION ACCURACY
ST 2211.9 SR 313.0 SS 656.1
CRT .4070 CRS -.4504 CST -.9986
LSA 2310.5 MSA 286.6 SSA 12.4
EL1 2215.6 EL2 285.4 ALF 3.35

LAUNCH DATE SEP 4 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 603.835

RL 150.87 LAL .00 LOL 341.06 VL 25.800 GAL 12.29 AZL 88.42 HCA 299.29 SMA 121.35 ECC .31908 INC 1.5813 V1 29.532
RP 108.84 LAP -1.38 LOP 280.36 VP 36.676 GAP 17.67 AZP 89.23 TAL 150.44 TAP 89.74 RCA 82.63 APO 160.07 V2 34.818
RC 180.002 GL 5.42 GP 12.11 ZAL 36.54 ZAP 167.89 ETS 85.68 ZAE 123.94 ETE 171.66 ZAC 114.83 ETC 268.96 CLP-179.75

PLANETOCENTRIC CONIC

C3 54.247 VHL 7.365 DLA -13.79 RAL 305.87 RAD 6569.0 VEL 13.252 PTH 2.42 VHP 11.263 DPA -12.30 RAP 281.33 ECC 1.8928

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 41 27	2019.66	-14.41	29.50	181.45	114.64	11 15 7	1419.7	-10.97	22.52
90.00	19 3 21	5549.71	28.30	258.50	191.01	91.06	20 35 51	4949.7	28.15	249.84
100.00	11 55 32	1780.67	-15.85	11.23	180.74	115.68	12 25 12	1180.7	-12.27	4.27
100.00	20 31 58	5263.94	29.89	237.51	191.03	90.22	21 59 42	4663.9	29.60	228.71
110.00	12 47 28	1618.01	-19.62	356.86	178.72	118.57	13 14 26	1018.0	-15.66	349.99
110.00	21 56 31	4999.37	34.13	217.33	190.95	87.90	23 19 50	4399.4	33.46	208.15

DIFFERENTIAL CORRECTIONS
TDE 2.0774 TRA 6.6394 TC3-1.3568 BAU .9842
RDE .3692 RRA -.4285 RC3 .0322 FAU .00680
FDE .6529 FRA 1.9289 FC3 -.1086 BSP 20157
BDE 2.1099 BRA 6.6532 BC3 1.3571 FSP -507

MID-COURSE EXECUTION ACCURACY
SGT 5906.6 SGR 450.1 SG3 141.2
RRT -.5477 RRF -.5331 RTF .9694
SG8 5923.8 R23 -.0001 R13 -.9694
SG1 5911.8 SG2 376.2 THA 177.60

ORBIT DETERMINATION ACCURACY
ST 2271.7 SR 305.1 SS 669.1
CRT .4325 CRS -.4677 CST -.9990
LSA 2371.8 MSA 275.4 SSA 12.0
EL1 2275.6 EL2 274.6 ALF 3.37

LAUNCH DATE SEP 4 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 608.239

RL	150.87	LAL	.00	LOL	341.06	VL	25.767	GAL	13.38	AZL	88.17	HCA	302.45	SMA	121.16	ECC	.33234	INC	1.8348	V1	29.532
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.647	GAP	18.55	AZP	89.02	TAL	149.26	TAP	91.71	RCA	80.89	APO	161.43	V2	34.812
RC	181.954	GL	5.88	GP	11.87	ZAL	35.44	ZAP	168.10	ETS	90.60	ZAE	123.72	ETE	171.86	ZAC	114.51	ETC	269.53	CLP	179.24

PLANETOCENTRIC CONIC

C3	61.457	VHL	7.839	DLA	-13.06	RAL	306.93	RAD	6569.1	VEL	13.521	PTH	2.47	VHP	11.800	DPA	-12.47	RAP	283.50	ECC	2.0114

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 39 23	2075.17	-15.96	32.84	184.50	113.70	11 13 58	1475.2	-12.62	25.76
90.00	19 13 53	5555.31	28.29	258.91	194.09	91.26	20 46 29	4955.3	28.17	250.25
100.00	11 53 56	1834.63	-17.42	14.48	183.81	114.68	12 24 31	1234.6	-13.94	7.41
100.00	20 42 1	5271.09	29.89	238.04	194.12	90.50	22 9 52	4671.1	29.64	229.24
110.00	12 46 54	1668.74	-21.25	359.91	181.83	117.43	13 14 43	1068.7	-17.40	352.89
110.00	22 5 33	5009.75	34.15	218.14	194.07	88.38	23 29 2	4409.7	33.55	208.95

DIFFERENTIAL CORRECTIONS

TDE	2.3019	TRA	7.1325	TC3	-1.1528	BAU	.9474
RDE	.3838	RRA	-.4328	RC3	.0243	FAU	.00519
FDE	.6836	FRA	1.9862	FC3	-.0731	BSP	20129
BDE	2.3337	BRA	7.1457	BC3	1.1531	FSP	-486

MID-COURSE EXECUTION ACCURACY

SGT	5893.7	SGR	430.8	SG3	136.2		
RRT	-.5256	RRF	-.5127	RTF	.9714		
SGB	5909.4	R23	.0002	R13	-.9714		
SG1	5898.1	SG2	366.2	THA	177.79		

ORBIT DETERMINATION ACCURACY

ST	2326.1	SR	297.0	SS	683.5
CRT	.4568	CRS	-.4852	CST	-.9993
LSA	2428.2	MSA	264.3	SSA	11.6
EL1	2330.1	EL2	263.7	ALF	3.38

LAUNCH DATE SEP 4 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 612.395

RL	150.87	LAL	.00	LOL	341.06	VL	25.734	GAL	14.56	AZL	87.89	HCA	305.61	SMA	120.98	ECC	.34702	INC	2.1067	V1	29.532
RP	108.87	LAP	-1.71	LOP	286.68	VP	36.618	GAP	19.51	AZP	88.77	TAL	148.14	TAP	93.75	RCA	78.99	APO	162.96	V2	34.806
RC	183.891	GL	6.29	GP	11.65	ZAL	34.44	ZAP	168.21	ETS	95.81	ZAE	123.46	ETE	172.05	ZAC	114.19	ETC	270.10	CLP	178.20

PLANETOCENTRIC CONIC

C3	69.894	VHL	8.360	DLA	-12.40	RAL	307.90	RAD	6569.3	VEL	13.829	PTH	2.53	VHP	12.392	DPA	-12.59	RAP	285.64	ECC	2.1503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 37 35	2128.55	-17.39	36.11	187.53	112.70	11 13 4	1528.5	-14.17	28.92
90.00	19 23 26	5563.59	28.28	259.52	197.12	91.57	20 56 9	4963.6	28.20	250.85
100.00	11 52 34	1886.65	-18.87	17.66	186.87	113.63	12 24 0	1286.6	-15.51	10.47
100.00	20 51 8	5280.72	29.88	238.75	197.16	90.87	22 19 9	4680.7	29.68	229.95
110.00	12 46 27	1717.89	-22.76	2.92	184.94	116.22	13 15 5	1117.9	-19.05	355.75
110.00	22 13 44	5022.24	34.17	219.12	197.15	88.96	23 37 27	4422.2	33.65	209.91

DIFFERENTIAL CORRECTIONS

TDE	2.5427	TRA	7.6652	TC3	-.9604	BAU	.8976
RDE	.3994	RRA	-.4343	RC3	.0174	FAU	.00350
FDE	.7161	FRA	2.0497	FC3	-.0434	BSP	19982
BDE	2.5738	BRA	7.6775	BC3	.9606	FSP	-464

MID-COURSE EXECUTION ACCURACY

SGT	5877.7	SGR	410.7	SG3	131.5		
RRT	-.5009	RRF	-.4899	RTF	.9738		
SGB	5892.0	R23	.0005	R13	-.9738		
SG1	5881.3	SG2	355.2	THA	177.99		

ORBIT DETERMINATION ACCURACY

ST	2375.4	SR	288.6	SS	699.7
CRT	.4805	CRS	-.5031	CST	-.9995
LSA	2480.2	MSA	253.0	SSA	11.1
EL1	2379.5	EL2	252.7	ALF	3.38

LAUNCH DATE SEP 4 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 616.250

RL	150.87	LAL	.00	LOL	341.06	VL	25.703	GAL	15.85	AZL	87.60	HCA	308.77	SMA	120.80	ECC	.36332	INC	2.4009	V1	29.532
RP	108.89	LAP	-1.87	LOP	289.85	VP	36.591	GAP	20.57	AZP	88.50	TAL	147.10	TAP	95.86	RCA	76.91	APO	164.68	V2	34.801
RC	185.813	GL	6.66	GP	11.45	ZAL	33.54	ZAP	168.20	ETS	101.24	ZAE	123.17	ETE	172.24	ZAC	113.87	ETC	270.65	CLP	177.12

PLANETOCENTRIC CONIC

C3	79.824	VHL	8.934	DLA	-11.80	RAL	308.78	RAD	6569.6	VEL	14.184	PTH	2.58	VHP	13.048	DPA	-12.66	RAP	287.75	ECC	2.3137

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 36 0	2179.76	-18.71	39.29	190.53	111.65	11 12 20	1579.8	-15.60	31.99
90.00	19 31 59	5574.25	28.25	260.30	200.09	91.96	21 4 53	4974.2	28.23	251.63
100.00	11 51 21	1936.66	-20.20	20.77	189.89	112.51	12 23 38	1336.7	-16.97	13.47
100.00	20 59 19	5292.58	29.87	239.63	200.14	91.34	22 27 32	4692.6	29.73	230.83
110.00	12 46 3	1765.37	-24.15	5.90	188.01	114.96	13 15 28	1165.4	-20.59	358.57
110.00	22 21 7	5036.63	34.18	220.24	200.18	89.62	23 45 4	4436.6	33.75	211.02

DIFFERENTIAL CORRECTIONS

TDE	2.8018	TRA	8.2426	TC3	-.7819	BAU	.8345
RDE	.4162	RRA	-.4325	RC3	.0115	FAU	.00172
FDE	.7511	FRA	2.1201	FC3	-.0186	BSP	19722
BDE	2.8326	BRA	8.2540	BC3	.7820	FSP	-441

MID-COURSE EXECUTION ACCURACY

SGT	5860.2	SGR	389.8	SG3	127.1		
RRT	-.4725	RRF	-.4635	RTF	.9762		
SGB	5873.1	R23	.0007	R13	-.9762		
SG1	5863.1	SG2	343.4	THA	178.19		

ORBIT DETERMINATION ACCURACY

ST	2419.6	SR	280.1	SS	718.0
CRT	.5043	CRS	-.5221	CST	-.9997
LSA	2527.9	MSA	241.7	SSA	10.7
EL1	2423.8	EL2	241.4	ALF	3.37

LAUNCH DATE SEP 4 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 619.736

RL	150.87	LAL	.00	LOL	341.06	VL	25.672	GAL	17.28	AZL	87.28	HCA	311.92	SMA	120.62	ECC	.38150	INC	2.7222	V1	29.532
RP	108.90	LAP	-2.03	LOP	293.01	VP	36.565	GAP	21.76	AZP	88.18	TAL	146.16	TAP	98.08	RCA	74.61	APO	166.64	V2	34.797
RC	187.719	GL	6.99	GP	11.26	ZAL	32.74	ZAP	168.06	ETS	106.80	ZAE	122.82	ETE	172.43	ZAC	113.54	ETC	271.19	CLP	176.00

PLANETOCENTRIC CONIC

C3	91.583	VHL	9.570	DLA	-11.26	RAL	309.55	RAD	6569.8	VEL	14.592	PTH	2.65	VHP	13.778	DPA	-12.69	RAP	289.80	ECC	2.5072

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 34 36	2228.70	-19.91	42.38	193.47	110.56	11 11 44	1628.7	-16.93	34.97
90.00	19 39 35	5587.04	28.22	261.23	202.98	92.43	21 12 42	4987.0	28.26	252.57
100.00	11 50 16	1984.56	-21.42	23.81	192.85	111.36	12 23 21	1384.6	-18.33	16.38
100.00	21 6 35	5306.41	29.84	240.66	203.05	91.88	22 35 2	4706.4	29.78	231.86
110.00	12 45 40	1811.05	-25.43	8.83	191.04	113.65	13 15 51	1211.1	-22.02	1.35
110.00	22 27 40	5052.69	34.18	221.50	203.15	90.36	23 51 53	4452.7	33.85	212.27

DIFFERENTIAL CORRECTIONS

TDE	3.0824	TRA	8.8710	TC3	-.6169	BAU	.7554
RDE	.4344	RRA	-.4265	RC3	.0067	FAU	-.00020
FDE	.7890	FRA	2.1989	FC3	.0019	BSP	19322
BDE	3.1129	BRA	8.8812	BC3	.6170	FSP	-416

MID-COURSE EXECUTION ACCURACY

SGT	5841.8	SGR	368.2	SG3	123.0		
RRT	-.4393	RRF	-.4323	RTF	.9788		
SGB	5853.4	R23	.0011	R13	-.9788		
SG1	5844.1	SG2	330.7	THA	178.11		

ORBIT DETERMINATION ACCURACY

ST	2458.9	SR	271.6	SS	739.0
CRT	.5288	CRS	-.5423	CST	-.9998
LSA	2571.6	MSA	230.2	SSA	10.2
EL1	2463.2	EL2	230.1	ALF	3.37

LAUNCH DATE SEP 5 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 14 1970

HELIOCENTRIC CONIC DISTANCE 169.154

RL	150.84	LAL	.00	LOL	342.03	VL	24.214	GAL	-3.16	AZL	91.40	HCA	71.36	SMA	113.10	ECC	.33763	INC	1.4033	V1	29.540
RP	108.05	LAP	-1.33	LOP	53.38	VP	35.821	GAP	-19.57	AZP	90.45	TAL	186.24	TAP	257.59	RCA	74.92	APO	151.29	V2	35.073
RC	40.345	GL	-6.21	GP	-10.06	ZAL	99.52	ZAP	12.08	ETS	120.68	ZAE	164.89	ETE	339.43	ZAC	90.91	ETC	259.92	CLP	6.72

PLANETOCENTRIC CONIC

C3	29.966	VHL	5.474	DLA	-26.74	RAL	239.02	RAD	6568.2	VEL	12.302	PTH	2.22	VHP	12.034	DPA	-28.91	RAP	235.08	ECC	1.4932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 58 54	1262.87	9.28	346.53	110.58	116.87	9 19 57	662.9	12.81	339.63
90.00	11 44 41	720.20	23.39	313.05	116.40	106.43	11 56 41	120.2	25.42	304.97
100.00	9 48 16	1103.39	6.37	333.25	109.02	119.27	10 6 40	503.4	10.23	326.58
100.00	13 37 59	5642.96	26.57	265.04	117.36	104.23	15 12 2	5043.0	28.26	256.65
110.00	10 3 22	1056.02	.87	326.26	105.62	124.17	10 20 58	456.0	5.35	320.04
110.00	15 39 24	5263.09	32.89	237.75	118.92	99.88	17 7 7	4663.1	33.91	228.66

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1696	TRA	-.6086	TC3	.1937	BAU	.0826	SGT	765.0	SGR	441.4	SG3	67.5	ST	278.1	SR	433.8	SS	138.2
RDE	-.4144	RRA	-.0233	RC3	-.0705	FAU	.02228	RRT	-.2188	RRF	.2415	RTF	-.6656	CRT	-.6238	CRS	-.6433	CST	.9901
FDE	-.0834	FRA	.2788	FC3	-.6435	BSP	2022	SGB	883.2	R23	-.0311	R13	.6721	LSA	488.3	MSA	214.3	SSA	17.0
BDE	.4478	BRA	.6091	BC3	.2061	FSP	-153	SG1	773.8	SG2	425.8	THA	169.64	EL1	475.7	EL2	198.3	ALF	116.82

LAUNCH DATE SEP 5 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 175.873

RL	150.84	LAL	.00	LOL	342.03	VL	24.534	GAL	-3.22	AZL	91.20	HCA	74.56	SMA	114.62	ECC	.32038	INC	1.1956	V1	29.540
RP	108.01	LAP	-1.15	LOP	56.59	VP	36.050	GAP	-18.40	AZP	90.32	TAL	186.87	TAP	261.44	RCA	77.90	APO	151.35	V2	35.086
RC	40.692	GL	-5.68	GP	-10.60	ZAL	100.58	ZAP	11.64	ETS	111.33	ZAE	162.24	ETE	339.11	ZAC	90.52	ETC	260.15	CLP	4.83

PLANETOCENTRIC CONIC

C3	26.632	VHL	5.161	DLA	-26.00	RAL	237.98	RAD	6568.1	VEL	12.166	PTH	2.18	VHP	11.385	DPA	-29.80	RAP	236.34	ECC	1.4383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 23	1291.82	8.38	348.18	106.97	117.15	8 58 55	691.8	11.96	341.33
90.00	11 57 57	632.39	24.95	307.10	113.40	103.84	12 8 29	32.4	26.61	298.82
100.00	9 31 34	1116.82	5.92	334.00	105.64	119.35	9 50 11	516.8	9.79	327.35
100.00	13 46 27	5570.66	27.68	259.96	114.09	101.77	15 19 17	4970.7	29.02	251.41
110.00	9 51 22	1054.72	.92	326.20	102.53	124.17	10 8 57	454.7	5.40	319.97
110.00	15 43 9	5205.52	33.48	233.36	115.23	97.34	17 9 54	4605.5	34.13	224.18

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1692	TRA	-.5898	TC3	.2512	BAU	.0955	SGT	795.8	SGR	447.5	SG3	75.1	ST	288.3	SR	436.0	SS	135.4
RDE	-.3927	RRA	-.0219	RC3	-.0941	FAU	.02362	RRT	-.2452	RRF	.2716	RTF	-.6851	CRT	-.6375	CRS	-.6210	CST	.9892
FDE	-.0786	FRA	.2799	FC3	-.7680	BSP	2151	SGB	913.0	R23	-.0361	R13	.6924	LSA	494.3	MSA	216.6	SSA	17.9
BDE	.4276	BRA	.5902	BC3	.2682	FSP	-174	SG1	806.4	SG2	428.1	THA	169.02	EL1	482.7	EL2	200.7	ALF	118.14

LAUNCH DATE SEP 5 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 182.613

RL	150.84	LAL	.00	LOL	342.03	VL	24.826	GAL	-3.29	AZL	90.99	HCA	77.78	SMA	116.07	ECC	.30448	INC	.9941	V1	29.540
RP	107.97	LAP	-.97	LOP	59.80	VP	36.262	GAP	-17.28	AZP	90.21	TAL	187.58	TAP	265.36	RCA	80.73	APO	151.41	V2	35.098
RC	41.209	GL	-5.06	GP	-11.20	ZAL	101.79	ZAP	11.57	ETS	101.30	ZAE	159.68	ETE	338.62	ZAC	90.07	ETC	260.37	CLP	2.91

PLANETOCENTRIC CONIC

C3	23.790	VHL	4.878	DLA	-25.13	RAL	236.84	RAD	6568.0	VEL	12.049	PTH	2.15	VHP	10.767	DPA	-30.73	RAP	237.57	ECC	1.3915

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 15 35	1322.67	7.42	349.94	103.39	117.41	8 37 37	722.7	11.04	343.13
90.00	12 10 37	5833.96	26.22	278.99	110.21	101.08	13 47 51	5234.0	27.49	270.55
100.00	9 13 38	1135.26	5.31	335.02	102.24	119.46	9 32 33	535.3	9.19	328.39
100.00	13 55 15	5496.61	28.59	254.64	110.68	99.12	15 26 52	4896.6	29.56	245.97
110.00	9 37 58	1058.92	.76	326.41	99.41	124.18	9 55 36	458.9	5.24	320.19
110.00	15 47 25	5145.70	33.90	228.74	111.43	94.64	17 13 11	4545.7	34.18	219.51

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1677	TRA	-.5708	TC3	.3178	BAU	.1084	SGT	826.7	SGR	453.8	SG3	83.6	ST	297.1	SR	436.8	SS	130.4
RDE	-.3718	RRA	-.0210	RC3	-.1231	FAU	.02513	RRT	-.2749	RRF	.3051	RTF	-.7035	CRT	-.6492	CRS	-.5852	CST	.9847
FDE	-.0714	FRA	.2802	FC3	-.9146	BSP	2278	SGB	943.0	R23	-.0415	R13	.7118	LSA	498.1	MSA	218.3	SSA	18.8
BDE	.4079	BRA	.5712	BC3	.3408	FSP	-197	SG1	839.5	SG2	429.7	THA	168.32	EL1	488.0	EL2	202.3	ALF	119.33

LAUNCH DATE SEP 5 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 189.368

RL	150.84	LAL	.00	LOL	342.03	VL	25.094	GAL	-3.38	AZL	90.80	HCA	80.99	SMA	117.44	ECC	.28989	INC	.7972	V1	29.540
RP	107.93	LAP	-.79	LOP	63.01	VP	36.458	GAP	-16.22	AZP	90.13	TAL	188.35	TAP	269.34	RCA	83.40	APO	151.49	V2	35.111
RC	41.891	GL	-4.32	GP	-11.86	ZAL	103.12	ZAP	11.90	ETS	91.23	ZAE	157.24	ETE	337.99	ZAC	89.55	ETC	260.60	CLP	.95

PLANETOCENTRIC CONIC

C3	21.374	VHL	4.623	DLA	-24.13	RAL	235.60	RAD	6567.9	VEL	11.948	PTH	2.13	VHP	10.180	DPA	-31.70	RAP	238.75	ECC	1.3518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 25	1356.23	6.37	351.84	99.87	117.65	8 16 1	756.2	10.02	345.07
90.00	12 22 56	5748.39	27.20	272.92	106.86	98.19	13 58 44	5148.4	28.05	264.36
100.00	8 54 38	1158.58	4.53	336.31	98.86	119.58	9 13 57	558.6	8.43	329.70
100.00	14 4 23	5421.28	29.28	249.15	107.16	96.31	15 34 44	4821.3	29.84	240.39
110.00	9 23 19	1068.67	.39	326.92	96.29	124.18	9 41 7	468.7	4.87	320.71
110.00	15 52 12	5083.95	34.14	223.94	107.57	91.81	17 16 56	4484.0	34.01	214.69

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1647	TRA	-.5527	TC3	.3917	BAU	.1208	SGT	858.0	SGR	460.7	SG3	93.0	ST	304.1	SR	436.0	SS	123.2
RDE	-.3517	RRA	-.0202	RC3	-.1585	FAU	.02681	RRT	-.3072	RRF	.3423	RTF	-.7195	CRT	-.6574	CRS	-.5263	CST	.9726
FDE	-.0610	FRA	.2799	FC3	-1.0859	BSP	2396	SGB	973.8	R23	-.0488	R13	.7291	LSA	499.0	MSA	219.7	SSA	20.0
BDE	.3883	BRA	.5531	BC3	.4226	FSP	-223	SG1	873.4	SG2	430.6	THA	167.56	EL1	491.1	EL2	203.4	ALF	120.38

LAUNCH DATE SEP 5 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 196.135

RL	150.84	LAL	.00	LOL	342.03	VL	25.338	GAL	-3.47	AZL	90.60	HCA	84.21	SMA	118.74	ECC	.27654	INC	.6036	V1	29.540
RP	107.89	LAP	-.60	LOP	66.23	VP	36.638	GAP	-15.20	AZP	90.06	TAL	189.18	TAP	273.39	RCA	85.90	APO	151.57	V2	35.123
RC	42.728	GL	-3.48	GP	-12.60	ZAL	104.56	ZAP	12.64	ETS	81.78	ZAE	154.93	ETE	337.22	ZAC	88.94	ETC	260.81	CLP	-1.05

PLANETOCENTRIC CONIC

C3	19.326	VHL	4.396	DLA	-22.97	RAL	234.30	RAD	6567.8	VEL	11.862	PTH	2.10	VHP	9.622	DPA	-32.72	RAP	239.88	ECC	1.3181

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 55	1392.97	5.20	353.91	96.46	117.87	7 54 8	793.0	8.89	347.18
90.00	12 35 1	5663.55	27.87	266.80	103.42	95.20	14 9 25	5063.6	28.30	258.16
100.00	8 34 50	1186.66	3.58	337.86	95.56	119.70	8 54 36	586.7	7.51	331.27
100.00	14 13 47	5345.09	29.72	243.53	103.58	93.38	15 42 52	4745.1	29.87	234.73
110.00	9 7 36	1083.91	-.20	327.72	93.21	124.18	9 25 40	483.9	4.29	321.51
110.00	15 57 30	5020.61	34.17	218.99	103.68	88.88	17 21 11	4420.6	33.63	209.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1594	TRA	-.5329	TC3	.4766	BAU	.1337	SGT	887.7	SGR	468.6	SG3	103.6	ST	307.5	SR	433.1	SS	114.4
RDE	-.3322	RRA	-.0198	RC3	-.2014	FAU	.02870	RRT	-.3438	RRF	.3837	RTF	-.7369	CRT	-.6617	CRS	-.4318	CST	.9446
FDE	-.0470	FRA	.2788	FC3	-1.2855	BSP	2535	SGB	1003.8	R23	-.0554	R13	.7478	LSA	496.1	MSA	220.5	SSA	21.2
BDE	.3685	BRA	.5333	BC3	.5174	FSP	-253	SG1	906.6	SG2	430.9	THA	166.64	EL1	490.6	EL2	203.5	ALF	121.09

LAUNCH DATE SEP 5 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 202.909

RL	150.84	LAL	.00	LOL	342.03	VL	25.561	GAL	-3.57	AZL	90.41	HCA	87.42	SMA	119.96	ECC	.26437	INC	.4122	V1	29.540
RP	107.86	LAP	-.41	LOP	69.45	VP	36.804	GAP	-14.22	AZP	90.02	TAL	190.06	TAP	277.48	RCA	88.24	APO	151.67	V2	35.135
RC	43.711	GL	-2.51	GP	-13.41	ZAL	106.10	ZAP	13.76	ETS	73.38	ZAE	152.78	ETE	336.32	ZAC	88.24	ETC	261.02	CLP	-3.11

PLANETOCENTRIC CONIC

C3	17.595	VHL	4.195	DLA	-21.68	RAL	232.95	RAD	6567.7	VEL	11.789	PTH	2.08	VHP	9.092	DPA	-33.80	RAP	240.94	ECC	1.2896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 8 10	1433.13	3.92	356.17	93.18	118.07	7 32 3	833.1	7.64	349.47
90.00	12 47 1	5579.41	28.24	260.67	99.95	92.15	14 20 1	4979.4	28.24	252.01
100.00	8 14 24	1219.38	2.48	339.66	92.38	119.80	8 34 44	619.4	6.42	333.10
100.00	14 23 28	5268.40	29.89	237.84	99.99	90.39	15 51 17	4668.4	29.62	229.04
110.00	8 51 2	1104.54	-.98	328.79	90.22	124.17	9 9 27	504.5	3.50	322.59
110.00	16 3 20	4956.00	33.97	213.96	99.84	85.91	17 25 56	4356.0	33.03	204.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1518	TRA	-.5150	TC3	.5657	BAU	.1457	SGT	917.2	SGR	478.0	SG3	115.3	ST	307.9	SR	427.8	SS	104.9
RDE	-.3131	RRA	-.0195	RC3	-.2523	FAU	.03078	RRT	-.3818	RRF	.4288	RTF	-.7508	CRT	-.6592	CRS	-.2726	CST	.8810
FDE	-.0281	FRA	.2770	FC3	-1.5144	BSP	2643	SGB	1034.3	R23	-.0655	R13	.7636	LSA	489.0	MSA	221.8	SSA	22.7
BDE	.3480	BRA	.5154	BC3	.6194	FSP	-287	SG1	940.2	SG2	431.0	THA	165.68	EL1	486.1	EL2	203.7	ALF	121.53

LAUNCH DATE SEP 5 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 209.686

RL	150.84	LAL	.00	LOL	342.03	VL	25.764	GAL	-3.67	AZL	90.22	HCA	90.64	SMA	121.09	ECC	.25333	INC	.2214	V1	29.540
RP	107.82	LAP	-.22	LOP	72.67	VP	36.956	GAP	-13.28	AZP	90.00	TAL	190.97	TAP	281.62	RCA	90.42	APO	151.77	V2	35.146
RC	44.829	GL	-1.42	GP	-14.31	ZAL	107.69	ZAP	15.22	ETS	66.23	ZAE	150.80	ETE	335.27	ZAC	87.44	ETC	261.22	CLP	-5.23

PLANETOCENTRIC CONIC

C3	16.138	VHL	4.017	DLA	-20.23	RAL	231.59	RAD	6567.6	VEL	11.727	PTH	2.07	VHP	8.590	DPA	-34.95	RAP	241.92	ECC	1.2656

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 45 19	1476.81	2.52	358.61	90.08	118.21	7 9 56	876.8	6.27	351.94
90.00	12 59 1	5496.00	28.30	254.58	96.51	89.09	14 30 37	4896.0	27.88	245.94
100.00	7 53 35	1256.54	1.22	341.70	89.35	119.87	8 14 31	656.5	5.18	335.16
100.00	14 33 27	5191.50	29.79	232.12	96.46	87.39	15 59 58	4591.5	29.11	223.38
110.00	8 33 51	1130.33	-1.97	330.14	87.36	124.13	8 52 41	530.3	2.52	323.94
110.00	16 9 40	4890.47	33.53	208.89	96.09	82.94	17 31 10	4290.5	32.19	199.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1408	TRA	-.4983	TC3	.6567	BAU	.1569	SGT	944.7	SGR	489.5	SG3	128.4	ST	303.7	SR	419.5	SS	98.5
RDE	-.2940	RRA	-.0193	RC3	-.3122	FAU	.03308	RRT	-.4204	RRF	.4771	RTF	-.7624	CRT	-.6465	CRS	-.0162	CST	.7447
FDE	-.0028	FRA	.2754	FC3	-1.7744	BSP	2728	SGB	1063.9	R23	-.0789	R13	.7777	LSA	476.6	MSA	223.9	SSA	24.3
BDE	.3260	BRA	.4986	BC3	.7271	FSP	-323	SG1	972.6	SG2	431.4	THA	164.61	EL1	475.9	EL2	204.2	ALF	121.53

LAUNCH DATE SEP 5 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 216.462

RL	150.84	LAL	.00	LOL	342.03	VL	25.948	GAL	-3.77	AZL	90.03	HCA	93.87	SMA	122.16	ECC	.24334	INC	.0288	V1	29.540
RP	107.79	LAP	-.03	LOP	75.89	VP	37.096	GAP	-12.39	AZP	90.00	TAL	191.92	TAP	285.78	RCA	92.43	APO	151.88	V2	35.158
RC	46.073	GL	-.21	GP	-15.32	ZAL	109.32	ZAP	16.98	ETS	60.27	ZAE	148.98	ETE	334.05	ZAC	86.53	ETC	261.40	CLP	-7.42

PLANETOCENTRIC CONIC

C3	14.919	VHL	3.863	DLA	-18.65	RAL	230.25	RAD	6567.6	VEL	11.675	PTH	2.05	VHP	8.116	DPA	-36.17	RAP	242.80	ECC	1.2455

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 22 30	1523.98	.99	1.24	87.19	118.30	6 47 54	924.0	4.77	354.60
90.00	13 11 6	5413.40	28.07	248.55	93.16	86.08	14 41 19	4813.4	27.23	239.98
100.00	7 32 34	1297.93	-.19	343.97	86.53	119.89	7 54 11	697.9	3.79	337.44
100.00	14 43 44	5114.69	29.41	226.44	93.04	84.42	16 8 58	4514.7	28.33	217.81
110.00	8 16 15	1161.03	-3.14	331.74	84.68	124.06	8 35 36	561.0	1.35	325.54
110.00	16 16 32	4824.34	32.87	203.84	92.49	80.02	17 36 56	4224.3	31.14	195.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1256	TRA	-.4839	TC3	.7452	BAU	.1670	SGT	969.5	SGR	503.4	SG3	142.8	ST	294.3	SR	407.3	SS	101.6
RDE	-.2744	RRA	-.0188	RC3	-.3816	FAU	.03559	RRT	-.4574	RRF	.5276	RTF	-.7710	CRT	-.6170	CRS	.3270	CST	.5070
FDE	.0308	FRA	.2745	FC3	-2.0651	BSP	2767	SGB	1092.4	R23	-.0974	R13	.7897	LSA	458.5	MSA	227.8	SSA	26.3
BDE	.3018	BRA	.4842	BC3	.8372	FSP	-362	SG1	1003.1	SG2	432.7	THA	163.48	EL1	458.4	EL2	205.8	ALF	120.91

LAUNCH DATE SEP 5 1970 FLIGHT TIME 86.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 223.233

RL	150.84	LAL	.00	LOL	342.03	VL	26.115	GAL	-3.87	AZL	89.84	HCA	97.09	SMA	123.14	ECC	.23433	INC	.1612	V1	29.540
RP	107.76	LAP	.16	LOP	79.12	VP	37.223	GAP	-11.53	AZP	90.02	TAL	192.88	TAP	289.97	RCA	94.28	APO	152.00	V2	35.168
RC	47.431	GL	1.13	GP	-16.44	ZAL	110.96	ZAP	19.02	ETS	55.35	ZAE	147.34	ETE	332.65	ZAC	85.50	ETC	261.56	CLP	-9.70

PLANETOCENTRIC CONIC

C3	13.907	VHL	3.729	DLA	-16.94	RAL	228.94	RAD	6567.5	VEL	11.632	PTH	2.04	VHP	7.669	DPA	-37.48	RAP	243.57	ECC	1.2289

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 59 50	1574.60	-.64	4.07	84.53	118.31	6 26 4	974.6	3.15	357.44
90.00	13 23 20	5331.64	27.54	242.62	89.97	83.15	14 52 12	4731.6	26.31	234.17
100.00	7 11 30	1343.34	-1.73	346.46	83.93	119.85	7 33 53	743.3	2.26	339.94
100.00	14 54 21	5038.13	28.78	220.84	89.78	81.54	16 18 19	4438.1	27.31	212.35
110.00	7 58 25	1196.38	-4.49	333.60	82.21	123.92	8 18 21	596.4	-.00	327.38
110.00	16 23 56	4757.86	31.97	198.86	89.08	77.20	17 43 13	4157.9	29.88	190.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1200	TRA	-.4581	TC3	.8657	BAU	.1827	SGT	996.0	SGR	524.8	SG3	159.7	ST	288.3	SR	392.8	SS	114.1
RDE	-.2555	RRA	-.0195	RC3	-.4652	FAU	.03868	RRT	-.5229	RRF	.5873	RTF	-.7905	CRT	-.6228	CRS	.5973	CST	.2159
FDE	.0659	FRA	.2666	FC3	-2.4077	BSP	3084	SGB	1125.8	R23	-.0934	R13	.8110	LSA	446.8	MSA	223.5	SSA	28.4
BDE	.2823	BRA	.4585	BC3	.9827	FSP	-420	SG1	1041.4	SG2	427.8	THA	161.33	EL1	444.6	EL2	199.2	ALF	121.61

LAUNCH DATE SEP 5 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 229.997

RL	150.84	LAL	.00	LOL	342.03	VL	26.266	GAL	-3.97	AZL	89.64	HCA	100.32	SMA	124.05	ECC	.22625	INC	.3568	V1	29.540
RP	107.72	LAP	.35	LOP	82.34	VP	37.338	GAP	-10.70	AZP	90.06	TAL	193.84	TAP	294.16	RCA	95.98	APO	152.12	V2	35.179
RC	48.893	GL	2.59	GP	-17.68	ZAL	112.58	ZAP	21.30	ETS	51.31	ZAE	145.85	ETE	331.05	ZAC	84.33	ETC	261.70	CLP	-12.08

PLANETOCENTRIC CONIC

C3	13.073	VHL	3.616	DLA	-15.10	RAL	227.70	RAD	6567.5	VEL	11.596	PTH	2.03	VHP	7.249	DPA	-38.89	RAP	244.20	ECC	1.2151

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 37 29	1628.46	-2.38	7.07	82.16	118.23	6 4 37	1028.5	1.42	.44
90.00	13 35 49	5250.87	26.75	236.84	86.98	80.36	15 3 20	4650.9	25.15	228.54
100.00	6 50 37	1392.46	-3.39	349.16	81.60	119.72	7 13 50	792.5	.59	342.64
100.00	15 5 22	4962.10	27.89	215.37	86.75	78.79	16 28 4	4362.1	26.06	207.04
110.00	7 40 35	1235.98	-5.99	335.68	79.99	123.72	8 1 11	636.0	-1.52	329.45
110.00	16 31 54	4691.35	30.86	194.00	85.94	74.52	17 50 5	4091.3	28.43	185.64

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1044	TRA	-.4410	TC3	.9604	BAU	.1942	SGT	1016.7	SGR	549.7	SG3	177.9	ST	273.7	SR	372.1	SS	145.1
RDE	-.2346	RRA	-.0193	RC3	-.5583	FAU	.04186	RRT	-.5707	RRF	.6432	RTF	-.8000	CRT	-.5858	CRS	.7926	CST	-.0126
FDE	.1151	FRA	.2630	FC3	-2.7721	BSP	3210	SGB	1155.8	R23	-.1067	R13	.8248	LSA	427.6	MSA	224.9	SSA	30.7
BDE	.2568	BRA	.4414	BC3	1.1109	FSP	-474	SG1	1073.9	SG2	427.4	THA	159.45	EL1	417.5	EL2	197.7	ALF	120.99

LAUNCH DATE SEP 5 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 236.751

RL	150.84	LAL	.00	LOL	342.03	VL	26.401	GAL	-4.06	AZL	89.44	HCA	103.55	SMA	124.88	ECC	.21904	INC	.5564	V1	29.540
RP	107.69	LAP	.54	LOP	85.57	VP	37.443	GAP	-9.91	AZP	90.13	TAL	194.80	TAP	298.34	RCA	97.53	APO	152.24	V2	35.188
RC	50.451	GL	4.17	GP	-19.07	ZAL	114.13	ZAP	23.83	ETS	47.95	ZAE	144.51	ETE	329.21	ZAC	83.00	ETC	261.81	CLP	-14.56

PLANETOCENTRIC CONIC

C3	12.395	VHL	3.521	DLA	-13.15	RAL	226.56	RAD	6567.5	VEL	11.566	PTH	2.02	VHP	6.856	DPA	-40.41	RAP	244.66	ECC	1.2040

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 15 32	1685.44	-4.21	10.26	80.09	118.03	5 43 38	1085.4	-.42	3.62
90.00	13 48 39	5171.09	25.72	231.23	84.25	77.73	15 14 50	4571.1	23.77	223.10
100.00	6 30 2	1445.06	-5.16	352.06	79.56	119.48	6 54 7	845.1	-1.19	345.52
100.00	15 16 50	4886.69	26.78	210.04	83.98	76.19	16 38 17	4286.7	24.61	201.91
110.00	7 22 54	1279.52	-7.63	337.98	78.04	123.42	7 44 13	679.5	-3.18	331.72
110.00	16 40 28	4625.00	29.56	189.27	83.08	72.00	17 57 33	4025.0	26.82	181.16

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0870	TRA	-.4247	TC3	1.0480	BAU	.2056	SGT	1033.6	SGR	582.0	SG3	197.9	ST	256.7	SR	345.5	SS	190.1
RDE	-.2120	RRA	-.0188	RC3	-.6641	FAU	.04536	RRT	-.6177	RRF	.6984	RTF	-.8083	CRT	-.5318	CRS	.8915	CST	-.1366
FDE	.1755	FRA	.2595	FC3	-3.1682	BSP	3339	SGB	1186.2	R23	-.1206	R13	.8384	LSA	411.6	MSA	225.6	SSA	33.1
BDE	.2292	BRA	.4251	BC3	1.2406	FSP	-536	SG1	1106.5	SG2	427.5	THA	157.24	EL1	383.2	EL2	196.0	ALF	120.22

LAUNCH DATE SEP 5 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 243.491

RL	150.84	LAL	.00	LOL	342.03	VL	26.523	GAL	-4.14	AZL	89.24	HCA	106.78	SMA	125.65	ECC	.21262	INC	.7615	V1	29.540
RP	107.67	LAP	.73	LOP	88.80	VP	37.538	GAP	-9.14	AZP	90.22	TAL	195.73	TAP	302.50	RCA	98.93	APO	152.36	V2	35.198
RC	52.096	GL	5.86	GP	-20.62	ZAL	115.59	ZAP	26.59	ETS	45.13	ZAE	143.30	ETE	327.10	ZAC	81.51	ETC	261.89	CLP	-17.17

PLANETOCENTRIC CONIC

C3	11.855	VHL	3.443	DLA	-11.09	RAL	225.53	RAD	6567.5	VEL	11.543	PTH	2.01	VHP	6.490	DPA	-42.05	RAP	244.93	ECC	1.1951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 54 5	1745.39	-6.11	13.63	78.33	117.70	5 23 11	1145.4	-2.36	6.97
90.00	14 1 55	5092.29	24.47	225.80	81.82	75.28	15 26 47	4492.3	22.21	217.86
100.00	6 9 52	1500.92	-7.02	355.16	77.84	119.13	6 34 53	900.9	-3.08	348.59
100.00	15 28 50	4811.99	25.46	204.88	81.51	73.78	16 49 2	4212.0	22.99	196.95
110.00	7 5 30	1326.71	-9.39	340.50	76.40	123.02	7 27 36	726.7	-4.97	334.20
110.00	16 49 41	4558.96	28.09	184.70	80.54	69.66	18 5 40	3959.0	25.06	176.83

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0681	TRA	-.4094	TC3	1.1220	BAU	.2168	SGT	1044.9	SGR	623.1	SG3	219.8	ST	238.3	SR	311.8	SS	246.9
RDE	-.1870	RRA	-.0179	RC3	-.7826	FAU	.04915	RRT	-.6613	RRF	.7508	RTF	-.8146	CRT	-.4544	CRS	.9383	CST	-.1716
FDE	.2488	FRA	.2567	FC3	-3.5893	BSP	3457	SGB	1216.6	R23	-.1351	R13	.8516	LSA	404.6	MSA	223.6	SSA	35.1
BDE	.1990	BRA	.4098	BC3	1.3680	FSP	-603	SG1	1138.4	SG2	429.0	THA	154.63	EL1	341.1	EL2	194.0	ALF	119.54

LAUNCH DATE SEP 5 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 250.216

RL	150.84	LAL	.00	LOL	342.03	VL	26.632	GAL	-4.22	AZL	89.03	HCA	110.01	SMA	126.34	ECC	.20692	INC	.9738	V1	29.540
RP	107.64	LAP	.92	LOP	92.04	VP	37.623	GAP	-8.41	AZP	90.33	TAL	196.62	TAP	306.63	RCA	100.20	APO	152.48	V2	35.206
RC	53.818	GL	7.67	GP	-22.34	ZAL	116.93	ZAP	29.58	ETS	42.72	ZAE	142.18	ETE	324.70	ZAC	79.83	ETC	261.93	CLP	-19.92

PLANETOCENTRIC CONIC

C3	11.435	VHL	3.382	DLA	-8.95	RAL	224.64	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	6.153	DPA	-43.83	RAP	244.96	ECC	1.1882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 33 12	1808.23	-8.09	17.19	76.92	117.23	5 3 20	1208.2	-4.37	10.48
90.00	14 15 43	5014.41	23.02	220.55	79.70	73.04	15 39 17	4414.4	20.48	212.80
100.00	5 50 10	1559.88	-8.96	358.47	76.45	118.64	6 16 10	959.9	-5.07	351.84
100.00	15 41 25	4737.99	23.96	199.90	79.38	71.57	17 0 23	4138.0	21.22	192.17
110.00	6 48 29	1377.31	-11.25	343.24	75.08	122.49	7 11 26	777.3	-6.89	336.86
110.00	16 59 36	4493.33	26.45	180.29	78.35	67.52	18 14 29	3893.3	23.17	172.67

DIFFERENTIAL CORRECTIONS

TDE	.0480	TRA	-.3956	TC3	1.1783	BAU	.2280
RDE	-.1585	RRA	-.0164	RC3	-.9142	FAU	.05320
FDE	.3374	FRA	.2557	FC3	-4.0274	BSP	3580
BDE	.1656	BRA	.3960	BC3	1.4914	FSP	-677

MID-COURSE EXECUTION ACCURACY

SGT	1049.8	SGR	674.7	SG3	243.4		
RRT	-.6995	RRF	.7987	RTF	-.8187		
SGB	1247.9	R23	-.1495	R13	.8648		
SG1	1170.6	SG2	432.4	THA	151.57		

ORBIT DETERMINATION ACCURACY

ST	220.5	SR	269.4	SS	314.9
CRT	-.3464	CRS	.9599	CST	-.1361
LSA	414.5	MSA	217.3	SSA	36.3
EL1	290.5	EL2	191.8	ALF	119.91

LAUNCH DATE SEP 5 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 256.924

RL	150.84	LAL	.00	LOL	342.03	VL	26.729	GAL	-4.29	AZL	88.80	HCA	113.24	SMA	126.96	ECC	.20190	INC	1.1953	V1	29.540
RP	107.61	LAP	1.10	LOP	95.27	VP	37.699	GAP	-7.70	AZP	90.47	TAL	197.47	TAP	310.71	RCA	101.33	APO	152.60	V2	35.214
RC	55.612	GL	9.60	GP	-24.25	ZAL	118.12	ZAP	32.82	ETS	40.59	ZAE	141.13	ETE	321.96	ZAC	77.95	ETC	261.92	CLP	-22.82

PLANETOCENTRIC CONIC

C3	11.125	VHL	3.335	DLA	-6.72	RAL	223.91	RAD	6567.4	VEL	11.511	PTH	2.01	VHP	5.846	DPA	-45.75	RAP	244.71	ECC	1.1831

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 12 51	1873.94	-10.11	20.96	75.86	116.59	4 44 5	1273.9	-6.46	14.18
90.00	14 30 10	4937.31	21.40	215.48	77.94	71.00	15 52 28	4337.3	18.61	207.92
100.00	5 31 0	1621.87	-10.96	1.98	75.42	117.98	5 58 2	1021.9	-7.13	355.28
100.00	15 54 43	4664.62	22.30	195.08	77.59	69.56	17 12 28	4064.6	19.31	187.56
110.00	6 31 55	1431.13	-13.20	346.19	74.10	121.82	6 55 46	831.1	-8.90	339.73
110.00	17 10 12	4428.12	24.69	176.05	76.51	65.57	18 24 5	3828.1	21.18	168.66

DIFFERENTIAL CORRECTIONS

TDE	.0275	TRA	-.3834	TC3	1.2124	BAU	.2394
RDE	-.1256	RRA	-.0139	RC3	-1.0588	FAU	.05746
FDE	.4424	FRA	.2572	FC3	-4.4712	BSP	3699
BDE	.1286	BRA	.3837	BC3	1.6097	FSP	-756

MID-COURSE EXECUTION ACCURACY

SGT	1047.0	SGR	738.9	SG3	268.7		
RRT	-.7309	RRF	.8407	RTF	-.8204		
SGB	1281.5	R23	-.1622	R13	.8784		
SG1	1204.1	SG2	438.5	THA	147.97		

ORBIT DETERMINATION ACCURACY

ST	205.9	SR	216.9	SS	392.3
CRT	-.2076	CRS	.9676	CST	-.0450
LSA	446.1	MSA	207.5	SSA	36.3
EL1	233.0	EL2	187.5	ALF	127.99

LAUNCH DATE SEP 5 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 263.613

RL	150.84	LAL	.00	LOL	342.03	VL	26.814	GAL	-4.36	AZL	88.57	HCA	116.47	SMA	127.52	ECC	.19749	INC	1.4277	V1	29.540
RP	107.59	LAP	1.28	LOP	98.51	VP	37.767	GAP	-7.02	AZP	90.64	TAL	198.27	TAP	314.74	RCA	102.34	APO	152.71	V2	35.222
RC	57.469	GL	11.63	GP	-26.36	ZAL	119.12	ZAP	36.29	ETS	38.66	ZAE	140.09	ETE	318.86	ZAC	75.85	ETC	261.85	CLP	-25.91

PLANETOCENTRIC CONIC

C3	10.914	VHL	3.304	DLA	-4.41	RAL	223.34	RAD	6567.4	VEL	11.502	PTH	2.00	VHP	5.569	DPA	-47.83	RAP	244.13	ECC	1.1796

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 53 3	1942.62	-12.18	24.95	75.18	115.76	4 25 26	1342.6	-8.61	18.08
90.00	14 45 26	4860.76	19.62	210.57	76.53	69.16	16 6 26	4260.8	16.61	203.19
100.00	5 12 20	1686.90	-13.01	5.72	74.75	117.15	5 40 27	1086.9	-9.27	358.93
100.00	16 8 50	4591.72	20.49	190.42	76.16	67.74	17 25 22	3991.7	17.29	183.09
110.00	6 15 50	1488.11	-15.22	349.36	73.48	120.98	6 40 38	888.1	-11.01	342.80
110.00	17 21 50	4363.27	22.80	171.96	75.05	63.81	18 34 33	3763.3	19.09	164.78

DIFFERENTIAL CORRECTIONS

TDE	.0067	TRA	-.3736	TC3	1.2174	BAU	.2509
RDE	-.0866	RRA	-.0099	RC3	-1.2149	FAU	.06177
FDE	.5665	FRA	.2633	FC3	-4.9002	BSP	3805
BDE	.0868	BRA	.3737	BC3	1.7199	FSP	-837

MID-COURSE EXECUTION ACCURACY

SGT	1034.1	SGR	816.8	SG3	295.0		
RRT	-.7531	RRF	.8761	RTF	-.8186		
SGB	1317.8	R23	-.1716	R13	.8924		
SG1	1239.2	SG2	448.4	THA	143.77		

ORBIT DETERMINATION ACCURACY

ST	196.8	SR	152.2	SS	479.6
CRT	-.0435	CRS	.9619	CST	.0907
LSA	501.9	MSA	197.0	SSA	34.7
EL1	197.1	EL2	151.8	ALF	175.24

LAUNCH DATE SEP 5 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 270.281

RL	150.84	LAL	.00	LOL	342.03	VL	26.890	GAL	-4.41	AZL	88.33	HCA	119.71	SMA	128.02	ECC	.19363	INC	1.6738	V1	29.540
RP	107.57	LAP	1.45	LOP	101.74	VP	37.826	GAP	-6.37	AZP	90.83	TAL	198.99	TAP	318.70	RCA	103.23	APO	152.81	V2	35.229
RC	59.382	GL	13.79	GP	-28.69	ZAL	119.92	ZAP	40.01	ETS	36.82	ZAE	139.02	ETE	315.39	ZAC	73.53	ETC	261.71	CLP	-29.19

PLANETOCENTRIC CONIC

C3	10.796	VHL	3.286	DLA	-2.03	RAL	222.95	RAD	6567.4	VEL	11.497	PTH	2.00	VHP	5.324	DPA	-50.07	RAP	243.15	ECC	1.1777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 33 44	2014.47	-14.26	29.19	74.88	114.72	4 7 18	1414.5	-10.81	22.22
90.00	15 1 38	4784.48	17.70	205.80	75.50	67.53	16 21 22	4184.5	14.50	198.58
100.00	4 54 8	1755.13	-15.09	9.71	74.47	116.11	5 23 23	1155.1	-11.46	2.81
100.00	16 23 55	4519.05	18.55	185.90	75.12	66.13	17 39 14	3919.1	15.17	178.74
110.00	6 0 12	1548.29	-17.30	352.79	73.24	119.95	6 26 0	948.3	-13.19	346.09
110.00	17 34 20	4298.65	20.80	168.01	73.96	62.24	18 45 59	3698.7	16.92	161.03

DIFFERENTIAL CORRECTIONS

TDE	-.0147	TRA	-.3677	TC3	1.1836	BAU	.2622
RDE	-.0394	RRA	-.0032	RC3	-1.3785	FAU	.06589
FDE	.7128	FRA	.2778	FC3	-5.2833	BSP	3869
BDE	.0420	BRA	.3678	BC3	1.8169	FSP	-913

MID-COURSE EXECUTION ACCURACY

SGT	1008.6	SGR	908.5	SG3	321.4		
RRT	-.7631	RRF	.9047	RTF	-.8112		
SGB	1357.4	R23	-.1759	R13	.9069		
SG1	1275.6	SG2	464.3	THA	138.91		

ORBIT DETERMINATION ACCURACY

ST	195.6	SR	73.8	SS	577.6
CRT	.1002	CRS	.8922	CST	.2535
LSA	583.7	MSA	188.8	SSA	31.7
EL1	195.8	EL2	73.4	ALF	2.52

LAUNCH DATE SEP 5 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 276.927

RL	150.84	LAL	.00	LOL	342.03	VL	26.955	GAL	-4.46	AZL	88.06	HCA	122.94	SMA	128.46	ECC	.19028	INC	1.9363	V1	29.540
RP	107.55	LAP	1.62	LOP	104.98	VP	37.879	GAP	-5.73	AZP	91.05	TAL	199.65	TAP	322.59	RCA	104.01	APO	152.90	V2	35.235
RC	61.346	GL	16.06	GP	-31.24	ZAL	120.49	ZAP	43.97	ETS	35.00	ZAE	137.86	ETE	311.52	ZAC	70.97	ETC	261.49	CLP	-32.68

PLANETOCENTRIC CONIC

C3	10.770	VHL	3.282	DLA	.42	RAL	222.74	RAD	6567.4	VEL	11.496	PTH	2.00	VHP	5.114	DPA	-52.46	RAP	241.68	ECC	1.1772

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 14 44	2089.94	-16.36	33.74	74.98	113.44	3 49 34	1489.9	-13.05	26.63
90.00	15 18 59	4708.02	15.65	201.12	74.85	66.10	16 37 27	4108.0	12.29	194.06
100.00	4 36 17	1826.93	-17.20	14.01	74.59	114.83	5 6 43	1226.9	-13.71	6.96
100.00	16 40 7	4446.26	16.49	181.47	74.45	64.71	17 54 14	3846.3	12.94	174.47
110.00	5 44 58	1611.93	-19.43	356.50	73.40	118.70	6 11 50	1011.9	-15.45	349.65
110.00	17 47 55	4234.03	18.70	164.17	73.26	60.85	18 58 29	3634.0	14.68	157.37

DIFFERENTIAL CORRECTIONS

TDE	-.0241	TRA	-.3549	TC3	1.1482	BAU	.2790
RDE	.0138	RRA	.0027	RC3	-1.5609	FAU	.07036
FDE	.8635	FRA	.2846	FC3	-5.6555	BSP	4161
BDE	.0278	BRA	.3549	BC3	1.9377	FSP	-1016

MID-COURSE EXECUTION ACCURACY

SGT	976.5	SGR	1024.8	SG3	348.8		
RRT	-.7755	RRF	.9286	RTF	-.8038		
SGB	1415.6	R23	-.1682	R13	.9228		
SG1	1334.0	SG2	473.7	THA	133.22		

ORBIT DETERMINATION ACCURACY

ST	191.9	SR	39.1	SS	671.1
CRT	-.2636	CRS	-.6731	CST	.3214
LSA	674.7	MSA	180.9	SSA	28.8
EL1	192.2	EL2	37.6	ALF	176.81

LAUNCH DATE SEP 5 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 283.549

RL	150.84	LAL	.00	LOL	342.03	VL	27.012	GAL	-4.49	AZL	87.78	HCA	126.18	SMA	128.84	ECC	.18737	INC	2.2189	V1	29.540
RP	107.53	LAP	1.79	LOP	108.23	VP	37.924	GAP	-5.13	AZP	91.31	TAL	200.22	TAP	326.40	RCA	104.70	APO	152.98	V2	35.240
RC	63.355	GL	18.47	GP	-34.01	ZAL	120.81	ZAP	48.16	ETS	33.10	ZAE	136.54	ETE	307.28	ZAC	68.18	ETC	261.18	CLP	-36.42

PLANETOCENTRIC CONIC

C3	10.836	VHL	3.292	DLA	2.95	RAL	222.73	RAD	6567.4	VEL	11.499	PTH	2.00	VHP	4.940	DPA	-54.98	RAP	239.62	ECC	1.1783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 55 57	2169.56	-18.45	38.65	75.51	111.87	3 32 7	1569.6	-15.32	31.37
90.00	15 37 42	4630.89	13.47	196.51	74.61	64.86	16 54 53	4030.9	9.97	189.58
100.00	4 18 40	1902.76	-19.30	18.66	75.14	113.28	4 50 23	1302.8	-15.99	11.43
100.00	16 57 40	4372.93	14.30	177.12	74.19	63.47	18 10 33	3772.9	10.63	170.26
110.00	5 30 4	1679.29	-21.58	.55	73.99	117.18	5 58 3	1079.3	-17.76	353.50
110.00	18 2 46	4169.16	16.51	160.42	72.95	59.64	19 12 15	3569.2	12.36	153.77

DIFFERENTIAL CORRECTIONS

TDE	-.0335	TRA	-.3488	TC3	1.0582	BAU	.2951
RDE	.0798	RRA	.0138	RC3	-1.7403	FAU	.07399
FDE	1.0373	FRA	.3061	FC3	-5.9116	BSP	4359
BDE	.0865	BRA	.3490	BC3	2.0368	FSP	-1099

MID-COURSE EXECUTION ACCURACY

SGT	926.4	SGR	1154.4	SG3	373.5		
RRT	-.7676	RRF	.9463	RTF	-.7842		
SGB	1480.2	R23	-.1545	R13	.9379		
SG1	1396.4	SG2	490.9	THA	126.94		

ORBIT DETERMINATION ACCURACY

ST	192.6	SR	143.2	SS	775.3
CRT	-.3672	CRS	-.9835	CST	.3914
LSA	791.7	MSA	176.5	SSA	25.3
EL1	204.7	EL2	125.3	ALF	154.66

LAUNCH DATE SEP 5 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 290.148

RL	150.84	LAL	.00	LOL	342.03	VL	27.060	GAL	-4.52	AZL	87.47	HCA	129.41	SMA	129.17	ECC	.18486	INC	2.5260	V1	29.540
RP	107.52	LAP	1.95	LOP	111.47	VP	37.963	GAP	-4.54	AZP	91.60	TAL	200.70	TAP	330.12	RCA	105.29	APO	153.04	V2	35.245
RC	65.403	GL	21.01	GP	-36.99	ZAL	120.88	ZAP	52.54	ETS	31.05	ZAE	135.01	ETE	302.70	ZAC	65.15	ETC	260.76	CLP	-40.40

PLANETOCENTRIC CONIC

C3	11.001	VHL	3.317	DLA	5.55	RAL	222.93	RAD	6567.4	VEL	11.506	PTH	2.00	VHP	4.807	DPA	-57.61	RAP	236.84	ECC	1.1810

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 37 7	2254.21	-20.51	44.01	76.50	109.96	3 14 42	1654.2	-17.61	36.54
90.00	15 58 5	4552.43	11.16	191.91	74.79	63.80	17 13 58	3952.4	7.55	185.09
100.00	4 1 5	1983.38	-21.39	23.73	76.14	111.39	4 34 9	1383.4	-18.30	16.31
100.00	17 16 48	4298.49	12.00	172.80	74.36	62.41	18 28 27	3698.5	8.21	166.06
110.00	5 15 21	1750.99	-23.74	4.99	75.05	115.35	5 44 32	1151.0	-20.12	357.71
110.00	18 19 2	4103.65	14.22	156.72	73.07	58.58	19 27 26	3503.7	9.96	150.21

DIFFERENTIAL CORRECTIONS

TDE	-.0350	TRA	-.3439	TC3	.9314	BAU	.3133
RDE	.1586	RRA	.0290	RC3	-1.9156	FAU	.07682
FDE	1.2215	FRA	.3352	FC3	-6.0453	BSP	4601
BDE	.1625	BRA	.3451	BC3	2.1300	FSP	-1172

MID-COURSE EXECUTION ACCURACY

SGT	861.1	SGR	1300.9	SG3	394.7		
RRT	-.7424	RRF	.9596	RTF	-.7504		
SGB	1560.1	R23	-.1328	R13	.9521		
SG1	1474.8	SG2	508.9	THA	120.12		

ORBIT DETERMINATION ACCURACY

ST	189.9	SR	277.1	SS	880.8
CRT	-.3796	CRS	-.9963	CST	.3998
LSA	926.3	MSA	173.7	SSA	22.0
EL1	291.4	EL2	167.0	ALF	112.22

LAUNCH DATE SEP 5 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 296.722

RL	150.84	LAL	.00	LOL	342.03	VL	27.101	GAL	-4.53	AZL	87.14	HCA	132.65	SMA	129.45	ECC	.18271	INC	2.8631	V1	29.540
RP	107.51	LAP	2.11	LOP	114.71	VP	37.996	GAP	-3.97	AZP	91.94	TAL	201.10	TAP	333.75	RCA	105.79	APO	153.10	V2	35.249
RC	67.486	GL	23.69	GP	-40.17	ZAL	120.67	ZAP	57.07	ETS	28.76	ZAE	133.20	ETE	297.83	ZAC	-61.92	ETC	260.20	CLP	-44.65

PLANETOCENTRIC CONIC

C3	11.277	VHL	3.358	DLA	8.25	RAL	223.34	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	4.718	DPA	-60.29	RAP	233.20	ECC	1.1856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 17 57	2345.06	-22.51	49.92	77.99	107.65	2 57 2	1745.1	-19.88	42.23
90.00	16 20 31	4471.80	8.70	187.26	75.43	62.95	17 35 3	3871.8	5.00	180.53
100.00	3 43 17	2069.83	-23.43	29.34	77.65	109.11	4 17 47	1469.8	-20.61	21.69
100.00	17 37 52	4222.26	9.56	168.46	74.98	61.54	18 48 15	3622.3	5.68	161.81
110.00	5 0 38	1827.77	-25.89	9.92	76.61	113.15	5 31 6	1227.8	-22.53	2.38
110.00	18 37 1	4037.09	11.83	153.05	73.62	57.69	19 44 18	3437.1	7.48	146.65

DIFFERENTIAL CORRECTIONS

TDE	-.0259	TRA	-.3398	TC3	.7681	BAU	.3338
RDE	.2531	RRA	.0502	RC3	-2.0762	FAU	.07847
FDE	1.4108	FRA	.3731	FC3	-6.0237	BSP	4890
BDE	.2544	BRA	.3434	BC3	2.2137	FSP	-1228

MID-COURSE EXECUTION ACCURACY

SGT	781.8	SGR	1462.3	SG3	410.5		
RRT	-.6902	RRF	.9695	RTF	.6919		
SGB	1658.2	R23	-.1050	R13	.9644		
SG1	1572.5	SG2	526.0	THA	112.97		

ORBIT DETERMINATION ACCURACY

ST	181.8	SR	434.6	SS	985.5
CRT	-.3069	CRS	-.9987	CST	.3229
LSA	1078.5	MSA	172.1	SSA	18.9
EL1	438.8	EL2	171.4	ALF	98.65

LAUNCH DATE SEP 5 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 303.271

RL 150.84 LAL .00 LOL 342.03 VL 27.135 GAL -4.54 AZL 86.76 HCA 135.89 SMA 129.68 ECC .18088 INC 3.2373 V1 29.540
RP 107.50 LAP 2.25 LOP 117.96 VP 38.023 GAP -3.42 AZP 92.33 TAL 201.41 TAP 337.29 RCA 106.22 APO 153.13 V2 35.253
RC 69.600 GL 26.54 GP -43.51 ZAL 120.17 ZAP 61.69 ETS 26.15 ZAE 131.08 ETE 292.75 ZAC 58.50 ETC 259.49 CLP -49.17

PLANETOCENTRIC CONIC

C3 11.685 VHL 3.418 DLA 11.05 RAL 223.97 RAD 6567.4 VEL 11.536 PTH 2.01 VHP 4.676 DPA -62.95 RAP 228.50 ECC 1.1923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 58 1	2443.74	-24.39	56.54	80.02	104.85	2 38 44	1843.7	-22.11	48.61
90.00	16 45 30	4387.91	6.07	182.50	76.58	62.29	17 58 38	3787.9	2.31	175.83
100.00	3 24 54	2163.53	-25.38	35.63	79.72	106.35	4 0 57	1563.5	-22.89	27.71
100.00	18 1 18	4143.35	6.97	164.03	76.09	60.86	19 10 22	3543.4	3.03	157.45
110.00	4 45 42	1910.69	-27.98	15.45	78.74	110.48	5 17 32	1310.7	-24.94	7.60
110.00	18 57 0	3968.96	9.32	149.36	74.66	56.96	20 3 9	3369.0	4.91	143.06

DIFFERENTIAL CORRECTIONS
TDE -.0048 TRA -.3386 TC3 .5609 BAU .3546
RDE .3678 RRA .0817 RC3-2.1995 FAU .07822
FDE 1.6041 FRA .4282 FC3-5.7950 BSP 5138
BDE .3679 BRA .3484 BC3 2.2699 FSP -1242

MID-COURSE EXECUTION ACCURACY
SGT 693.9 SGR 1631.2 SG3 418.5
RRT -.5851 RRF .9768 RTF -.5843
SGB 1772.7 R23 -.0722 R13 .9742
SG1 1687.1 SG2 544.1 THA 105.65

ORBIT DETERMINATION ACCURACY
ST 174.1 SR 619.6 SS 1091.0
CRT -.1186 CRS -.9995 CST .1303
LSA 1254.7 MSA 172.7 SSA 15.9
EL1 620.0 EL2 172.7 ALF 92.07

LAUNCH DATE SEP 5 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 309.793

RL 150.84 LAL .00 LOL 342.03 VL 27.162 GAL -4.53 AZL 86.34 HCA 139.12 SMA 129.86 ECC .17935 INC 3.6579 V1 29.540
RP 107.49 LAP 2.39 LOP 121.20 VP 38.045 GAP -2.90 AZP 92.77 TAL 201.62 TAP 340.74 RCA 106.57 APO 153.15 V2 35.255
RC 71.740 GL 29.56 GP -46.99 ZAL 119.38 ZAP 66.34 ETS 23.15 ZAE 128.63 ETE 287.52 ZAC 54.92 ETC 258.59 CLP -53.97

PLANETOCENTRIC CONIC

C3 12.259 VHL 3.501 DLA 13.95 RAL 224.83 RAD 6567.5 VEL 11.561 PTH 2.02 VHP 4.688 DPA -65.52 RAP 222.55 ECC 1.2017

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 36 39	2552.64	-26.08	64.06	82.65	101.44	2 19 12	1952.6	-24.24	55.88
90.00	17 13 44	4299.18	3.24	177.52	78.31	61.85	18 25 23	3699.2	-.55	170.89
100.00	3 5 23	2266.50	-27.15	42.76	82.38	103.00	3 43 9	1666.5	-25.09	34.56
100.00	18 27 41	4060.54	4.20	159.44	77.77	60.38	19 35 22	3460.5	.22	152.91
110.00	4 30 10	2001.18	-29.98	21.74	81.52	107.25	5 3 31	1401.2	-27.33	13.55
110.00	19 19 23	3898.63	6.69	145.62	76.23	56.40	20 24 22	3298.6	2.23	139.37

DIFFERENTIAL CORRECTIONS
TDE .0445 TRA -.3276 TC3 .3569 BAU .3827
RDE .4932 RRA .1142 RC3-2.3079 FAU .07731
FDE 1.7580 FRA .4656 FC3-5.4599 BSP 5685
BDE .4952 BRA .3469 BC3 2.3353 FSP -1276

MID-COURSE EXECUTION ACCURACY
SGT 610.7 SGR 1816.6 SG3 418.9
RRT -.4069 RRF .9822 RTF -.3984
SGB 1916.5 R23 -.0459 R13 .9811
SG1 1835.3 SG2 552.2 THA 98.57

ORBIT DETERMINATION ACCURACY
ST 181.2 SR 810.6 SS 1170.2
CRT .3328 CRS -.9997 CST -.3243
LSA 1424.7 MSA 171.2 SSA 13.8
EL1 812.9 EL2 170.4 ALF 85.55

LAUNCH DATE SEP 5 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 316.289

RL 150.84 LAL .00 LOL 342.03 VL 27.183 GAL -4.52 AZL 85.86 HCA 142.35 SMA 130.01 ECC .17806 INC 4.1373 V1 29.540
RP 107.48 LAP 2.53 LOP 124.45 VP 38.062 GAP -2.39 AZP 93.28 TAL 201.74 TAP 344.10 RCA 106.86 APO 153.16 V2 35.257
RC 73.903 GL 32.77 GP -50.55 ZAL 118.29 ZAP 70.91 ETS 19.70 ZAE 125.86 ETE 282.21 ZAC 51.24 ETC 257.49 CLP -59.03

PLANETOCENTRIC CONIC

C3 13.046 VHL 3.612 DLA 16.98 RAL 225.94 RAD 6567.5 VEL 11.594 PTH 2.03 VHP 4.761 DPA -67.88 RAP 215.13 ECC 1.2147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 12 55	2675.26	-27.44	72.78	85.92	97.28	1 57 31	2075.3	-26.15	64.35
90.00	17 46 18	4203.18	.14	172.16	80.71	61.68	18 56 21	3603.2	-3.65	165.52
100.00	2 43 59	2381.63	-28.65	50.99	85.73	98.92	3 23 40	1781.6	-27.12	42.52
100.00	18 57 56	3972.03	1.21	154.57	80.12	60.13	20 4 8	3372.0	-2.78	148.05
110.00	4 13 38	2101.13	-31.78	28.97	85.02	103.32	4 48 39	1501.1	-29.62	20.43
110.00	19 44 46	3825.29	3.91	141.76	78.43	56.01	20 48 31	3225.3	-.57	135.55

DIFFERENTIAL CORRECTIONS
TDE .1165 TRA -.3171 TC3 .1223 BAU .4094
RDE .6426 RRA .1618 RC3-2.3444 FAU .07395
FDE 1.8974 FRA .5190 FC3-4.9076 BSP 6158
BDE .6531 BRA .3560 BC3 2.3476 FSP -1254

MID-COURSE EXECUTION ACCURACY
SGT 564.4 SGR 1994.8 SG3 408.6
RRT -.0909 RRF .9861 RTF -.0786
SGB 2073.1 R23 -.0189 R13 .9860
SG1 1995.5 SG2 561.9 THA 91.60

ORBIT DETERMINATION ACCURACY
ST 243.0 SR 1023.8 SS 1243.4
CRT .7056 CRS -.9999 CST -.7014
LSA 1619.8 MSA 171.9 SSA 11.7
EL1 1038.5 EL2 169.8 ALF 80.23

LAUNCH DATE SEP 5 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 322.758

RL 150.84 LAL .00 LOL 342.03 VL 27.199 GAL -4.49 AZL 85.31 HCA 145.59 SMA 130.12 ECC .17700 INC 4.6924 V1 29.540
RP 107.48 LAP 2.65 LOP 127.70 VP 38.074 GAP -1.89 AZP 93.87 TAL 201.77 TAP 347.36 RCA 107.09 APO 153.15 V2 35.258
RC 76.087 GL 36.17 GP -54.17 ZAL 116.90 ZAP 75.31 ETS 15.75 ZAE 122.77 ETE 276.86 ZAC 47.48 ETC 256.13 CLP -64.33

PLANETOCENTRIC CONIC

C3 14.124 VHL 3.758 DLA 20.13 RAL 227.30 RAD 6567.6 VEL 11.641 PTH 2.04 VHP 4.903 DPA -69.92 RAP 206.10 ECC 1.2324

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 45 6	2817.62	-28.24	83.11	89.88	92.17	1 32 3	2217.6	-27.64	74.50
90.00	18 25 2	4095.45	-3.33	166.14	83.96	61.86	19 33 18	3495.4	-7.07	159.46
100.00	2 19 24	2513.55	-29.66	60.66	89.79	93.93	3 1 17	1913.5	-28.80	51.96
100.00	19 33 26	3874.75	-2.09	149.24	83.27	60.17	20 38 0	3274.8	-6.04	142.68
110.00	3 55 22	2213.29	-33.23	37.39	89.33	98.53	4 32 15	1613.3	-31.69	28.50
110.00	20 13 57	3747.78	.96	137.71	81.37	55.83	21 16 24	3147.8	-3.53	131.50

DIFFERENTIAL CORRECTIONS
TDE .2240 TRA -.2997 TC3 -.1115 BAU .4370
RDE .8118 RRA .2219 RC3-2.3114 FAU .06883
FDE 1.9991 FRA .5711 FC3-4.2192 BSP 6681
BDE .8421 BRA .3729 BC3 2.3141 FSP -1200

MID-COURSE EXECUTION ACCURACY
SGT 600.3 SGR 2163.3 SG3 388.4
RRT .3026 RRF .9888 RTF .3170
SGB 2245.1 R23 .0047 R13 .9890
SG1 2171.5 SG2 570.0 THA 84.84

ORBIT DETERMINATION ACCURACY
ST 371.4 SR 1243.4 SS 1297.2
CRT .8813 CRS -.9999 CST -.8798
LSA 1826.6 MSA 173.2 SSA 9.9
EL1 1286.6 EL2 169.6 ALF 74.98

LAUNCH DATE SEP 5 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 329.198

RL	150.84	LAL	.00	LOL	342.03	VL	27.209	GAL	-4.45	AZL	84.65	HCA	148.81	SMA	130.19	ECC	.17614	INC	5.3473	V1	29.540		
RP	107.48	LAP	2.77	LOP	130.95	VP	38.082	GAP	-1.42	AZP	94.58	TAL	201.71	TAP	350.52	RCA	107.26	APO	153.12	V2	35.259		
RC	78.289	GL	39.77	GP	-57.83	ZAL	115.22	ZAP	79.44	ETS	11.26	ZAE	119.40	ETE	271.50	ZAC	43.67	ETC	254.47	CLP	-69.86		

PLANETOCENTRIC CONIC

C3	15.615	VHL	3.952	DLA	23.40	RAL	228.95	RAD	6567.6	VEL	11.705	PTH	2.06	VHP	5.128	DPA	-71.53	RAP	195.41	ECC	1.2570		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 27	2992.16	-28.03	95.86	94.42	85.79	0 59 19	2392.2	-28.32	87.21
90.00	19 13 50	3965.69	-7.45	158.84	88.34	62.60	20 19 56	3365.7	-11.07	152.02
100.00	1 49 8	2670.76	-29.82	72.33	94.53	87.80	2 33 39	2070.8	-29.81	63.52
100.00	20 16 51	3762.33	-5.87	143.03	87.48	60.64	21 19 33	3162.3	-9.74	136.38
110.00	3 34 18	2341.75	-34.09	47.32	94.51	92.73	4 13 20	1741.7	-33.33	38.16
110.00	20 48 10	3664.10	-2.24	133.34	85.23	55.88	21 49 14	3064.1	-6.71	127.10

DIFFERENTIAL CORRECTIONS

TOE	.3783	TRA	-.2712	TC3	-.3264	BAU	.4640
RDE	.9994	RRA	.2967	RC3	-2.1987	FAU	.06215
FDE	2.0551	FRA	.6178	FC3	-3.4461	BSP	7252
BDE	1.0686	BRA	.4019	BC3	2.2228	FSP	-1120

MID-COURSE EXECUTION ACCURACY

SGT	742.3	SGR	2310.6	SG3	358.8		
RRT	.6077	RRF	.9908	RTF	.6224		
SGB	2426.9	R23	.0249	R13	.9908		
SG1	2357.1	SG2	577.9	THA	78.24		

ORBIT DETERMINATION ACCURACY

ST	563.5	SR	1456.8	SS	1327.2		
CRT	.9468	CRS	-1.0000	CST	-.9466		
LSA	2042.2	MSA	175.1	SSA	8.4		
EL1	1552.7	EL2	170.1	ALF	69.63		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 335.610

RL	150.84	LAL	.00	LOL	342.03	VL	27.215	GAL	-4.41	AZL	83.86	HCA	152.04	SMA	130.23	ECC	.17547	INC	6.1368	V1	29.540		
RP	107.48	LAP	2.87	LOP	134.20	VP	38.086	GAP	-.95	AZP	95.43	TAL	201.56	TAP	353.59	RCA	107.38	APO	153.08	V2	35.258		
RC	80.507	GL	43.57	GP	-61.53	ZAL	113.24	ZAP	83.18	ETS	6.19	ZAE	115.77	ETE	266.10	ZAC	39.81	ETC	252.42	CLP	-75.58		

PLANETOCENTRIC CONIC

C3	17.714	VHL	4.209	DLA	26.79	RAL	230.91	RAD	6567.7	VEL	11.794	PTH	2.09	VHP	5.455	DPA	-72.62	RAP	183.22	ECC	1.2915		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 8 52	3241.50	-25.50	113.64	99.04	77.25	24 2 54	2641.5	-27.00	105.29
90.00	20 26 5	3774.20	-13.26	147.76	94.58	64.75	21 28 59	3174.2	-16.55	140.64
100.00	1 6 35	2874.71	-28.34	87.29	99.67	80.08	1 54 29	2274.7	-29.42	78.65
100.00	21 14 59	3616.22	-10.67	134.83	93.25	61.91	22 15 15	3016.2	-14.34	127.97
110.00	3 8 23	2493.57	-33.95	59.16	100.49	85.73	3 49 57	1893.6	-34.17	49.92
110.00	21 29 40	3570.12	-5.82	128.41	90.32	56.26	22 29 10	2970.1	-10.21	122.08

DIFFERENTIAL CORRECTIONS

TOE	.5940	TRA	-.2266	TC3	-.5038	BAU	.4886
RDE	1.2042	RRA	.3895	RC3	-2.0008	FAU	.05420
FDE	2.0638	FRA	.6568	FC3	-2.6487	BSP	7837
BDE	1.3428	BRA	.4506	BC3	2.0632	FSP	-1015

MID-COURSE EXECUTION ACCURACY

SGT	976.2	SGR	2424.2	SG3	321.7		
RRT	.7752	RRF	.9920	RTF	.7898		
SGB	2613.4	R23	.0429	R13	.9917		
SG1	2546.6	SG2	587.1	THA	71.65		

ORBIT DETERMINATION ACCURACY

ST	815.3	SR	1649.8	SS	1332.2		
CRT	.9722	CRS	-1.0000	CST	-.9727		
LSA	2264.8	MSA	178.0	SSA	7.1		
EL1	1832.2	EL2	171.8	ALF	64.09		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 341.992

RL	150.84	LAL	.00	LOL	342.03	VL	27.216	GAL	-4.34	AZL	82.89	HCA	155.26	SMA	130.24	ECC	.17495	INC	7.1134	V1	29.540		
RP	107.48	LAP	2.97	LOP	137.45	VP	38.086	GAP	-.51	AZP	96.47	TAL	201.32	TAP	356.57	RCA	107.45	APO	153.02	V2	35.257		
RC	82.739	GL	47.53	GP	-65.28	ZAL	110.99	ZAP	86.46	ETS	.47	ZAE	111.91	ETE	260.58	ZAC	35.89	ETC	249.82	CLP	-81.51		

PLANETOCENTRIC CONIC

C3	20.758	VHL	4.556	DLA	30.27	RAL	233.19	RAD	6567.8	VEL	11.922	PTH	2.12	VHP	5.915	DPA	-73.12	RAP	169.92	ECC	1.3416		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.82	20 26 27	3835.75	-20.70	155.72	102.89	67.40	21 30 22	3235.7	-23.58	148.08
101.18	23 26 45	3254.81	-20.68	112.94	102.88	67.39	24 21 0	2654.8	-23.57	105.30
78.82	20 26 27	3835.75	-20.70	155.72	102.89	67.40	21 30 22	3235.7	-23.58	148.08
101.18	23 26 45	3254.81	-20.68	112.94	102.88	67.39	24 21 0	2654.8	-23.57	105.30
110.00	2 32 45	2684.47	-32.02	73.70	106.89	77.34	3 17 29	2084.5	-33.43	64.75
110.00	22 23 33	3454.09	-10.16	122.23	97.16	57.18	23 21 7	2854.1	-14.41	115.71

DIFFERENTIAL CORRECTIONS

TOE	.8933	TRA	-.1570	TC3	-.6249	BAU	.5088
RDE	1.4209	RRA	.5033	RC3	-1.7238	FAU	.04543
FDE	2.0256	FRA	.6846	FC3	-1.8947	BSP	8432
BDE	1.6784	BRA	.5272	BC3	1.8336	FSP	-892

MID-COURSE EXECUTION ACCURACY

SGT	1280.1	SGR	2489.5	SG3	279.5		
RRT	.8580	RRF	.9927	RTF	.8735		
SGB	2799.3	R23	.0592	R13	.9919		
SG1	2734.6	SG2	598.5	THA	64.91		

ORBIT DETERMINATION ACCURACY

ST	1125.7	SR	1801.0	SS	1310.9		
CRT	.9832	CRS	-1.0000	CST	-.9842		
LSA	2489.2	MSA	182.1	SSA	6.1		
EL1	2116.7	EL2	175.0	ALF	58.19		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 348.341

RL	150.84	LAL	.00	LOL	342.03	VL	27.214	GAL	-4.27	AZL	81.64	HCA	158.47	SMA	130.22	ECC	.17457	INC	8.3610	V1	29.540		
RP	107.49	LAP	3.06	LOP	140.70	VP	38.082	GAP	-.08	AZP	97.79	TAL	200.99	TAP	359.46	RCA	107.49	APO	152.95	V2	35.255		
RC	84.985	GL	51.61	GP	-69.16	ZAL	108.50	ZAP	89.19	ETS	353.94	ZAE	107.79	ETE	254.74	ZAC	31.85	ETC	246.38	CLP	-87.71		

PLANETOCENTRIC CONIC

C3	25.346	VHL	5.034	DLA	33.79	RAL	235.85	RAD	6568.0	VEL	12.113	PTH	2.17	VHP	6.555	DPA	-72.98	RAP	156.04	ECC	1.4171		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.75	19 42 12	4055.80	-21.48	172.84	109.83	63.28	20 49 48	3455.8	-24.89	165.38
109.25	0 36 6	3131.95	-21.47	104.00	109.82	63.27	1 28 18	2532.0	-24.88	96.55
70.75	19 42 12	4055.80	-21.48	172.84	109.83	63.28	20 49 48	3455.8	-24.89	165.38
109.25	0 36 6	3131.95	-21.47	104.00	109.82	63.27	1 28 18	2532.0	-24.88	96.55
110.00	1 20 9	2997.36	-25.25	95.46	111.76	66.15	2 10 6	2397.4	-28.25	87.57
110.00	0 1 16	3238.39	-17.81	110.20	107.74	60.33	0 55 14	2638.4	-21.62	103.15

DIFFERENTIAL CORRECTIONS

TOE	1.3131	TRA	-.0476	TC3	-.6750	BAU	.5212
RDE	1.6374	RRA	.6433	RC3	-1.3822	FAU	.03630
FDE	1.9463	FRA	.7009	FC3	-1.2398	BSP	9004
BDE	2.0989	BRA	.6450	BC3	1.5382	FSP	-757

MID-COURSE EXECUTION ACCURACY

SGT	1642.9	SGR	2487.0	SG3	234.8		
RRT	.8990	RRF	.9928	RTF	.9173		
SGB	2980.7	R23	.0747	R13	.9916		
SG1	2916.8	SG2	613.6	THA	57.69		

ORBIT DETERMINATION ACCURACY

ST	1494.6	SR	1882.6	SS	1265.3		
CRT	.9881	CRS	-.9999	CST	-.9899		
LSA	2709.9	MSA	187.9	SSA	5.1		
EL1	2397.0	EL2	180.2	ALF	51.63		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 354.653

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RL  150.84 LAL    .00 LOL 342.03 VL  27.207 GAL  -4.19 AZL  79.98 HCA 161.67 SMA 130.17 ECC .17431 INC10.0209 V1  29.540
RP  107.50 LAP   3.14 LOP 143.95 VP  38.075 GAP    .33 AZP  99.52 TAL 200.57 TAP   2.24 RCA 107.48 APO 152.87 V2  35.253
RC  87.241 GL   55.73 GP  -73.25 ZAL 105.81 ZAP  91.29 ETS 346.15 ZAE 103.38 ETE 248.04 ZAC  27.61 ETC 241.47 CLP -94.48
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PLANETOCENTRIC CONIC

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C3  32.648 VHL  5.714 DLA  37.23 RAL 238.90 RAD 6568.3 VEL 12.410 PTH   2.24 VHP  7.464 DPA -72.14 RAP 142.13 ECC 1.5373
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.74	19 20 32	4220.59	-21.30	185.81	118.05	58.71	20 30 53	3620.6	-25.28	178.67
115.26	1 22 7	3093.60	-21.28	100.85	118.04	58.70	2 13 41	2493.6	-25.27	93.71
64.74	19 20 32	4220.59	-21.30	185.81	118.05	58.71	20 30 53	3620.6	-25.28	178.67
115.26	1 22 7	3093.60	-21.28	100.85	118.04	58.70	2 13 41	2493.6	-25.27	93.71
64.74	19 20 32	4220.59	-21.30	185.81	118.05	58.71	20 30 53	3620.6	-25.28	178.67
115.26	1 22 7	3093.60	-21.28	100.85	118.04	58.70	2 13 41	2493.6	-25.27	93.71

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.9182 TRA  .1304 TC3 -.6483 BAU  .5206   SGT 2067.8 SGR 2380.5 SG3  190.5     ST  1924.3 SR  1845.9 SS  1199.3
 RDE 1.8149 RRA  .8119 RC3-1.0012 FAU .02728   RRT  .9175 RRF  .9916 RTF  .9430     CRT  .9900 CRS -.9997 CST -.9930
 FDE 1.8354 FRA  .7053 FC3 -.7233 BSP   9566   SGB 3153.2 R23  .0897 R13  .9910     LSA 2917.2 MSA  196.3 SSA    4.4
 BDE 2.6407 BRA  .8223 BC3 1.1928 FSP   -621   SG1 3088.8 SG2  633.9 THA  49.38     EL1 2659.8 EL2  188.4 ALF  43.80
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 360.920

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RL  150.84 LAL    .00 LOL 342.03 VL  27.197 GAL  -4.09 AZL  77.65 HCA 164.84 SMA 130.11 ECC .17416 INC12.3509 V1  29.540
RP  107.51 LAP   3.21 LOP 147.20 VP  38.065 GAP    .73 AZP 101.93 TAL 200.07 TAP   4.91 RCA 107.45 APO 152.77 V2  35.249
RC  89.506 GL   59.70 GP  -77.68 ZAL 102.97 ZAP  92.72 ETS 335.78 ZAE  98.54 ETE 239.11 ZAC  23.02 ETC 233.44 CLP-102.86
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PLANETOCENTRIC CONIC

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C3  45.167 VHL  6.721 DLA  40.45 RAL 242.37 RAD 6568.7 VEL 12.905 PTH   2.35 VHP  8.797 DPA -70.49 RAP 128.63 ECC 1.7433
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.82	19 10 38	4370.66	-19.70	197.15	127.54	53.93	20 23 28	3770.7	-24.27	190.48
120.18	1 59 42	3107.34	-19.69	100.86	127.53	53.93	2 51 29	2507.3	-24.26	94.19
59.82	19 10 38	4370.66	-19.70	197.15	127.54	53.93	20 23 28	3770.7	-24.27	190.48
120.18	1 59 42	3107.34	-19.69	100.86	127.53	53.93	2 51 29	2507.3	-24.26	94.19
59.82	19 10 38	4370.66	-19.70	197.15	127.54	53.93	20 23 28	3770.7	-24.27	190.48
120.18	1 59 42	3107.34	-19.69	100.86	127.53	53.93	2 51 29	2507.3	-24.26	94.19

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.8359 TRA  .4453 TC3 -.5483 BAU  .4958   SGT 2576.3 SGR 2083.0 SG3  149.1     ST  2422.4 SR  1588.4 SS  1122.3
 RDE 1.8207 RRA  .9999 RC3 -.6112 FAU .01871   RRT  .9163 RRF  .9852 RTF  .9609     CRT  .9885 CRS -.9986 CST -.9951
 FDE 1.7095 FRA  .7036 FC3 -.3586 BSP  10081   SGB 3313.0 R23  .1045 R13  .9904     LSA 3099.5 MSA  208.6 SSA    3.6
 BDE 3.3700 BRA 1.0946 BC3  .8211 FSP   -491   SG1 3246.2 SG2  662.3 THA  38.42     EL1 2889.7 EL2  201.0 ALF  33.13
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 367.125

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RL  150.84 LAL    .00 LOL 342.03 VL  27.184 GAL  -3.97 AZL  74.13 HCA 167.98 SMA 130.02 ECC .17408 INC15.8716 V1  29.540
RP  107.52 LAP   3.26 LOP 150.45 VP  38.052 GAP   1.10 AZP 105.54 TAL 199.46 TAP   7.44 RCA 107.38 APO 152.65 V2  35.245
RC  91.778 GL   63.21 GP  -82.61 ZAL 100.06 ZAP  93.44 ETS 318.19 ZAE  93.05 ETE 223.16 ZAC  17.80 ETC 216.94 CLP-117.81
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PLANETOCENTRIC CONIC

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C3  69.026 VHL  8.308 DLA  43.10 RAL 246.22 RAD 6569.3 VEL 13.798 PTH   2.52 VHP 10.879 DPA -67.75 RAP 115.87 ECC 2.1360
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.04	19 9 52	4519.10	-16.28	207.23	138.05	49.53	20 25 11	3919.1	-21.37	201.12
123.96	2 31 12	3167.12	-16.27	103.21	138.03	49.52	3 23 59	2567.1	-21.35	97.10
56.04	19 9 52	4519.10	-16.28	207.23	138.05	49.53	20 25 11	3919.1	-21.37	201.12
123.96	2 31 12	3167.12	-16.27	103.21	138.03	49.52	3 23 59	2567.1	-21.35	97.10
56.04	19 9 52	4519.10	-16.28	207.23	138.05	49.53	20 25 11	3919.1	-21.37	201.12
123.96	2 31 12	3167.12	-16.27	103.21	138.03	49.52	3 23 59	2567.1	-21.35	97.10

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.2757 TRA 1.0871 TC3 -.3839 BAU  .4209   SGT 3186.8 SGR 1335.9 SG3  113.1     ST  2964.7 SR   816.9 SS  1053.3
 RDE 1.0979 RRA 1.0817 RC3 -.2463 FAU .01071   RRT  .8322 RRF  .9206 RTF  .9783     CRT  .9609 CRS -.9791 CST -.9971
 FDE 1.5985 FRA  .7080 FC3 -.1343 BSP  10547   SGB 3455.4 R23  .1178 R13  .9900     LSA 3242.7 MSA  225.9 SSA    2.8
 BDE 4.4144 BRA 1.5336 BC3  .4561 FSP   -375   SG1 3384.3 SG2  697.5 THA  20.12     EL1 3067.4 EL2  218.7 ALF  14.91
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 373.229

```
RL  150.84 LAL    .00 LOL 342.03 VL  27.169 GAL  -3.82 AZL  68.21 HCA 171.05 SMA 129.91 ECC .17402 INC21.7930 V1  29.540
RP  107.53 LAP   3.31 LOP 153.70 VP  38.036 GAP   1.44 AZP 111.55 TAL 198.71 TAP   9.76 RCA 107.30 APO 152.52 V2  35.240
RC  94.056 GL   65.53 GP  -86.55 ZAL  97.18 ZAP  93.44 ETS 274.32 ZAE  86.31 ETE 181.01 ZAC  11.41 ETC 170.57 CLP 176.05
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PLANETOCENTRIC CONIC

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C3 122.258 VHL 11.057 DLA  44.51 RAL 250.27 RAD 6570.3 VEL 15.607 PTH   2.78 VHP 14.454 DPA -63.32 RAP 104.09 ECC 3.0120
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.11	19 18 22	4664.63	-10.94	215.39	148.95	46.58	20 36 6	4064.6	-16.37	209.76
125.89	2 54 59	3272.03	-10.92	107.71	148.93	46.58	3 49 31	2672.0	-16.35	102.08
54.11	19 18 22	4664.63	-10.94	215.39	148.95	46.58	20 36 6	4064.6	-16.37	209.76
125.89	2 54 59	3272.03	-10.92	107.71	148.93	46.58	3 49 31	2672.0	-16.35	102.08
54.11	19 18 22	4664.63	-10.94	215.39	148.95	46.58	20 36 6	4064.6	-16.37	209.76
125.89	2 54 59	3272.03	-10.92	107.71	148.93	46.58	3 49 31	2672.0	-16.35	102.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.4672 TRA 2.3135 TC3 -.1356 BAU  .2221   SGT 3307.8 SGR 1339.5 SG3   84.4     ST  2877.5 SR  1339.4 SS  1030.8
 RDE-2.5847 RRA  .0065 RC3  .0085 FAU .00268   RRT -.8559 RRF -.8269 RTF  .9972     CRT -.9843 CRS  .9799 CST -.9997
 FDE 1.5613 FRA  .7508 FC3 -.0190 BSP  10928   SGB 3568.7 R23 -.1180 R13 -.9915     LSA 3329.8 MSA  221.2 SSA    1.9
 BDE 6.0474 BRA 2.3135 BC3  .1359 FSP   -280   SG1 3508.4 SG2  653.2 THA 160.17     EL1 3166.7 EL2  214.6 ALF 155.26
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 379.108

RL	150.84	LAL	.00	LOL	342.03	VL	27.150	GAL	-3.63	AZL	56.50	HCA	173.93	SMA	129.78	ECC	.17384	INC	33.4990	V1	29.540		
RP	107.55	LAP	3.35	LOP	156.95	VP	38.018	GAP	1.72	AZP	123.35	TAL	197.74	TAP	11.66	RCA	107.22	APO	152.34	V2	35.235		
RC	96.339	GL	64.73	GP	-79.73	ZAL	94.47	ZAP	92.76	ETS	213.16	ZAE	76.70	ETE	121.51	ZAC	3.21	ETC	67.30	CLP	105.68		

PLANETOCENTRIC CONIC

C3	273.497	VHL	16.538	DLA	42.87	RAL	253.86	RAD	6571.6	VEL	19.870	PTH	3.13	VHP	21.545	DPA	-55.53	RAP	93.42	ECC	5.5011		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.35	19 41 37	4771.86	-4.61	219.06	158.89	47.33	21 1 9	4171.9	-10.00	213.51
123.65	3 0 24	3426.76	-4.59	115.65	158.88	47.33	3 57 30	2826.8	-9.98	110.11
56.35	19 41 37	4771.86	-4.61	219.06	158.89	47.33	21 1 9	4171.9	-10.00	213.51
123.65	3 0 24	3426.76	-4.59	115.65	158.88	47.33	3 57 30	2826.8	-9.98	110.11
56.35	19 41 37	4771.86	-4.61	219.06	158.89	47.33	21 1 9	4171.9	-10.00	213.51
123.65	3 0 24	3426.76	-4.59	115.65	158.88	47.33	3 57 30	2826.8	-9.98	110.11

DIFFERENTIAL CORRECTIONS

TOE	1.9183	TRA	2.0023	TC3	.0014	BAU	.4089																
RDE	-8.6800	RRA	-3.3894	RC3	-.1118	FAU	-.00891																
FDE	1.7325	FRA	.9310	FC3	.0282	BSP	10962																
BOE	8.8894	BRA	3.9367	BC3	.1118	FSP	-211																

MID-COURSE EXECUTION ACCURACY

SGT	1156.6	SGR	3427.5	SG3	64.8						
RRT	-.8872	RRF	-.9898	RTF	.9405						
SGB	3617.4	R23	-.0918	R13	-.9947						
SG1	3581.1	SG2	510.8	THA	107.02						

ORBIT DETERMINATION ACCURACY

ST	722.7	SR	3045.4	SS	1144.0						
CRT	-.9701	CRS	.9983	CST	-.9825						
LSA	3327.8	MSA	177.8	SSA	1.8						
EL1	3125.3	EL2	171.0	ALF	103.00						

LAUNCH DATE SEP 5 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 384.285

RL	150.84	LAL	.00	LOL	342.03	VL	27.130	GAL	-3.29	AZL	28.35	HCA	176.16	SMA	129.64	ECC	.17304	INC	61.6519	V1	29.540		
RP	107.57	LAP	3.37	LOP	160.20	VP	37.998	GAP	1.80	AZP	151.60	TAL	196.10	TAP	12.27	RCA	107.21	APO	152.07	V2	35.229		
RC	98.624	GL	54.96	GP	-62.55	ZAL	92.22	ZAP	91.64	ETS	190.52	ZAE	59.20	ETE	100.34	ZAC	15.70	ETC	292.32	CLP	93.55		

PLANETOCENTRIC CONIC

C3	847.566	VHL	29.113	DLA	32.63	RAL	255.30	RAD	6572.8	VEL	31.126	PTH	3.47	VHP	37.775	DPA	-39.27	RAP	84.24	ECC	14.9488		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.07	21 14 28	4613.57	-.08	202.74	165.19	57.37	22 31 22	4013.6	-4.38	196.41
106.93	1 39 3	3780.05	-.06	140.87	165.18	57.37	2 42 3	3180.1	-4.37	134.54
73.07	21 14 28	4613.57	-.08	202.74	165.19	57.37	22 31 22	4013.6	-4.38	196.41
106.93	1 39 3	3780.05	-.06	140.87	165.18	57.37	2 42 3	3180.1	-4.37	134.54
110.00	3 16 5	3481.01	-9.16	123.68	171.06	56.92	4 14 6	2881.0	-13.45	117.21
110.00	0 40 32	3960.61	9.01	148.91	159.31	56.89	1 46 33	3360.6	4.59	142.62

DIFFERENTIAL CORRECTIONS

TOE	-3.1777	TRA	.8623	TC3	-.0595	BAU	2.5763																
RDE	-12.7284	RRA	-7.4950	RC3	-.2194	FAU	-.04227																
FDE	2.3287	FRA	1.5745	FC3	.0432	BSP	9879																
BOE	13.1190	BRA	7.5444	BC3	.2274	FSP	-169																

MID-COURSE EXECUTION ACCURACY

SGT	742.8	SGR	3312.9	SG3	55.2						
RRT	.6731	RRF	-.9981	RTF	-.6309						
SGB	3395.1	R23	-.0803	R13	-.9964						
SG1	3351.4	SG2	543.0	THA	81.18						

ORBIT DETERMINATION ACCURACY

ST	628.4	SR	2559.8	SS	1538.8						
CRT	.9544	CRS	.9996	CST	.9452						
LSA	3046.0	MSA	192.5	SSA	1.6						
EL1	2629.5	EL2	182.6	ALF	76.75						

LAUNCH DATE SEP 5 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 395.074

RL	150.84	LAL	.00	LOL	342.03	VL	27.107	GAL	-4.05	AZL	157.24	HCA	183.68	SMA	129.48	ECC	.17898	INC	67.2370	V1	29.540		
RP	107.59	LAP	3.39	LOP	163.45	VP	37.975	GAP	3.41	AZP	22.81	TAL	199.17	TAP	22.85	RCA	106.31	APO	152.66	V2	35.222		
RC	100.910	GL	-52.50	GP	59.53	ZAL	92.71	ZAP	93.02	ETS	181.55	ZAE	63.15	ETE	269.76	ZAC	136.88	ETC	280.78	CLP	95.97		

PLANETOCENTRIC CONIC

C3	987.714	VHL	31.428	DLA	-72.13	RAL	220.84	RAD	6572.9	VEL	33.302	PTH	3.50	VHP	40.491	DPA	79.85	RAP	35.93	ECC	17.2553		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.40	3 50 7	2443.27	-.36	79.36	130.94	162.13	4 30 50	1843.3	7.25	77.31
159.60	14 28 25	677.39	-.36	286.75	130.96	162.13	14 39 42	77.4	7.26	284.70
20.40	3 50 7	2443.27	-.36	79.36	130.94	162.13	4 30 50	1843.3	7.25	77.31
159.60	14 28 25	677.39	-.36	286.75	130.96	162.13	14 39 42	77.4	7.26	284.70
20.40	3 50 7	2443.27	-.36	79.36	130.94	162.13	4 30 50	1843.3	7.25	77.31
159.60	14 28 25	677.39	-.36	286.75	130.96	162.13	14 39 42	77.4	7.26	284.70

DIFFERENTIAL CORRECTIONS

TOE	5.9866	TRA	1.0649	TC3	-.1028	BAU	3.1867																
RDE	-15.0930	RRA	-.2838	RC3	.2183	FAU	-.04971																
FDE	-3.3121	FRA	-.0564	FC3	.0436	BSP	10504																
BOE	16.2369	BRA	1.1021	BC3	.2413	FSP	-182																

MID-COURSE EXECUTION ACCURACY

SGT	1417.5	SGR	3079.4	SG3	57.4						
RRT	-.9157	RRF	.9993	RTF	-.9110						
SGB	3390.0	R23	-.0778	R13	.9963						
SG1	3349.2	SG2	523.9	THA	113.46						

ORBIT DETERMINATION ACCURACY

ST	1107.9	SR	2752.4	SS	2112.9						
CRT	-.9882	CRS	-1.0000	CST	.9879						
LSA	3638.8	MSA	162.6	SSA	2.3						
EL1	2962.8	EL2	157.7	ALF	111.76						

LAUNCH DATE SEP 5 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 400.064

RL	150.84	LAL	.00	LOL	342.03	VL	27.082	GAL	-3.66	AZL	126.07	HCA	185.77	SMA	129.31	ECC	.17793	INC	36.0721	V1	29.540		
RP	107.61	LAP	3.39	LOP	166.70	VP	37.950	GAP	3.44	AZP	54.07	TAL	197.37	TAP	23.14	RCA	106.31	APO	152.32	V2	35.215		
RC	103.196	GL	-63.89	GP	77.27	ZAL	94.29	ZAP	95.38	ETS	170.68	ZAE	82.09	ETE	258.49	ZAC	154.48	ETC	280.24	CLP	115.18		

PLANETOCENTRIC CONIC

C3	314.090	VHL	17.723	DLA	-78.25	RAL	180.21	RAD	6571.8	VEL	20.866	PTH	3.18	VHP	22.800	DPA	78.20	RAP	273.07	ECC	6.1691		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.38	0 53 49	2368.46	5.51	81.98	89.05	168.19	1 33 18	1768.5	13.34	80.72
166.62	12 0 36	5863.79	5.51	260.24	89.07	168.19	13 38 20	5263.8	13.34	258.98
13.38	0 53 49	2368.46	5.51	81.98	89.05	168.19	1 33 18	1768.5	13.34	80.72
166.62	12 0 36	5863.79	5.51	260.24	89.07	168.19	13 38 20	5263.8	13.34	258.98
13.38	0 53 49	2368.46	5.51	81.98	89.05	168.19	1 33 18	1768.5	13.34	80.72
166.62	12 0 36	5863.79	5.51	260.24	89.07	168.19	13 38 20	5263.8	13.34	258.98

DIFFERENTIAL CORRECTIONS

TOE	.4247	TRA	.5220	TC3	-.0393	BAU	.6576																
RDE	-7.5976	RRA	-1.7915	RC3	.1516	FAU	-.00849																
FDE	-1.7161	FRA	-.3629	FC3	.0234	BSP	12041																
BOE	7.6094	BRA	1.8660	BC3	.1566	FSP	-221																

MID-COURSE EXECUTION ACCURACY

SGT	851.4	SGR	3795.9	SG3	69.5						
RRT	-.8566	RRF	.9978	RTF	-.8254						
SGB	3890.2	R23	-.0786	R13	.9963						
SG1	3866.2	SG2	431.3	THA	101.01						

ORBIT DETERMINATION ACCURACY

ST	284.0	SR	2600.2	SS	1144.7						
CRT	-.7439	CRS	-.9995	CST	.7219						
LSA	2848.7	MSA	193.4	SSA	1.5						
EL1	2608.8	EL2	189.2	ALF	94.67						

LAUNCH DATE SEP 5 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 405.819

RL 150.84 LAL .00 LOL 342.03 VL 27.056 GAL -3.42 AZL 113.26 HCA 188.61 SMA 129.13 ECC .17804 INC23.2641 V1 29.540
RP 107.64 LAP 3.39 LOP 169.94 VP 37.924 GAP 3.67 AZP 66.97 TAL 196.15 TAP 24.75 RCA 106.14 APO 152.12 V2 35.207
RC -105.482 GL -65.46 GP 81.17 ZAL 95.79 ZAP 98.68 ETS 105.26 ZAE 92.24 ETE 192.99 ZAC 161.81 ETC 233.27 CLP 169.31

PLANETOCENTRIC CONIC

C3 137.515 VHL 11.727 DLA -77.07 RAL 170.01 RAD 6570.5 VEL 16.089 PTH 2.83 VHP 15.111 DPA 68.34 RAP 256.45 ECC 3.2631

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.72	0 15 47	2241.25	13.78	79.76	76.77	166.68	0 53 9	1641.3	21.55	78.20
165.28	11 17 13	5740.79	13.78	259.35	76.79	166.68	12 52 54	5140.8	21.56	257.79
14.72	0 15 47	2241.25	13.78	79.76	76.77	166.68	0 53 9	1641.3	21.55	78.20
165.28	11 17 13	5740.79	13.78	259.35	76.79	166.68	12 52 54	5140.8	21.56	257.79
14.72	0 15 47	2241.25	13.78	79.76	76.77	166.68	0 53 9	1641.3	21.55	78.20
165.28	11 17 13	5740.79	13.78	259.35	76.79	166.68	12 52 54	5140.8	21.56	257.79

DIFFERENTIAL CORRECTIONS
TDE-3.7477 TRA-1.3217 TC3 -.0706 BAU .1395
RDE-1.3645 RRA -.9813 RC3 -.0278 FAU .00688
FDE-1.1941 FRA -.4048 FC3 -.0433 BSP 12878
BDE 3.9884 BRA 1.6462 BC3 .0759 FSP -299

MID-COURSE EXECUTION ACCURACY
SGT 3422.2 SGR 2245.3 SG3 91.9
RRT .9653 RRF .9586 RTF .9987
SGB 4093.0 R23 -.0993 R13 .9940
SG1 4063.1 SG2 493.9 THA 32.89

ORBIT DETERMINATION ACCURACY
ST 2025.5 SR 926.2 SS 836.7
CRT .9475 CRS -.9426 CST -.9999
LSA 2363.1 MSA 276.7 SSA 1.8
EL1 2210.7 EL2 271.4 ALF 23.80

LAUNCH DATE SEP 5 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 411.783

RL 150.84 LAL .00 LOL 342.03 VL 27.027 GAL -3.21 AZL 106.93 HCA 191.65 SMA 128.94 ECC .17852 INC16.9288 V1 29.540
RP 107.66 LAP 3.37 LOP 173.18 VP 37.896 GAP 3.96 AZP 73.40 TAL 195.06 TAP 26.71 RCA 105.92 APO 151.96 V2 35.198
RC 107.765 GL -63.75 GP 76.58 ZAL 97.10 ZAP 102.49 ETS 59.46 ZAE 99.10 ETE 147.63 ZAC 163.60 ETC 210.79 CLP-158.74

PLANETOCENTRIC CONIC

C3 76.761 VHL 8.761 DLA -75.55 RAL 175.13 RAD 6569.5 VEL 14.075 PTH 2.57 VHP 11.363 DPA 60.87 RAP 249.76 ECC 2.2633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.47	0 39 44	2115.19	21.77	76.73	79.22	164.41	1 15 0	1515.2	29.46	74.69
163.53	11 34 10	5620.80	21.77	258.05	79.24	164.41	13 7 51	5020.8	29.46	256.00
16.47	0 39 44	2115.19	21.77	76.73	79.22	164.41	1 15 0	1515.2	29.46	74.69
163.53	11 34 10	5620.80	21.77	258.05	79.24	164.41	13 7 51	5020.8	29.46	256.00
16.47	0 39 44	2115.19	21.77	76.73	79.22	164.41	1 15 0	1515.2	29.46	74.69
163.53	11 34 10	5620.80	21.77	258.05	79.24	164.41	13 7 51	5020.8	29.46	256.00

DIFFERENTIAL CORRECTIONS
TDE-2.9391 TRA-1.2961 TC3 -.3893 BAU .4114
RDE 1.5685 RRA .2122 RC3 .0960 FAU .01640
FDE-1.3108 FRA -.3952 FC3 -.1849 BSP 12578
BDE 3.3314 BRA 1.3134 BC3 .4009 FSP -375

MID-COURSE EXECUTION ACCURACY
SGT 3961.8 SGR 1178.8 SG3 119.5
RRT -.8511 RRF -.9261 RTF .9831
SGB 4133.5 R23 .1328 R13 -.9889
SG1 4089.8 SG2 599.5 THA 165.47

ORBIT DETERMINATION ACCURACY
ST 2175.6 SR 1039.2 SS 895.2
CRT -.9472 CRS .9826 CST -.9902
LSA 2553.0 MSA 310.5 SSA 2.5
EL1 2391.9 EL2 303.0 ALF 155.23

LAUNCH DATE SEP 5 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 417.807

RL 150.84 LAL .00 LOL 342.03 VL 26.998 GAL -3.01 AZL 103.22 HCA 194.77 SMA 128.74 ECC .17922 INC13.2184 V1 29.540
RP 107.69 LAP 3.34 LOP 176.43 VP 37.866 GAP 4.27 AZP 77.20 TAL 194.01 TAP 28.79 RCA 105.67 APO 151.82 V2 35.189
RC 110.046 GL -60.87 GP 70.67 ZAL 98.04 ZAP 106.61 ETS 50.66 ZAE 104.43 ETE 139.85 ZAC 161.93 ETC 221.65 CLP-149.70

PLANETOCENTRIC CONIC

C3 49.807 VHL 7.057 DLA -73.89 RAL 184.08 RAD 6568.8 VEL 13.083 PTH 2.39 VHP 9.264 DPA 54.44 RAP 245.52 ECC 1.8197

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.38	1 19 19	2006.92	28.36	73.14	85.10	161.61	1 52 45	1406.9	35.92	70.45
161.62	12 6 0	5520.05	28.37	256.38	85.12	161.61	13 38 0	4920.1	35.92	253.69
18.38	1 19 19	2006.92	28.36	73.14	85.10	161.61	1 52 45	1406.9	35.92	70.45
161.62	12 6 0	5520.05	28.37	256.38	85.12	161.61	13 38 0	4920.1	35.92	253.69
18.38	1 19 19	2006.92	28.36	73.14	85.10	161.61	1 52 45	1406.9	35.92	70.45
161.62	12 6 0	5520.05	28.37	256.38	85.12	161.61	13 38 0	4920.1	35.92	253.69

DIFFERENTIAL CORRECTIONS
TDE-2.7273 TRA-1.0574 TC3 -.7978 BAU .5696
RDE 1.7425 RRA .3016 RC3 .3085 FAU .02602
FDE-1.5870 FRA -.3915 FC3 -.4523 BSP 13792
BDE 3.2364 BRA 1.0996 BC3 .8554 FSP -529

MID-COURSE EXECUTION ACCURACY
SGT 3966.9 SGR 1723.2 SG3 158.8
RRT -.9292 RRF -.9822 RTF .9755
SGB 4325.0 R23 .1493 R13 -.9856
SG1 4284.6 SG2 589.8 THA 157.57

ORBIT DETERMINATION ACCURACY
ST 2400.9 SR 1439.3 SS 1067.4
CRT -.9776 CRS .9971 CST -.9907
LSA 2983.4 MSA 272.9 SSA 3.3
EL1 2787.1 EL2 260.8 ALF 149.33

LAUNCH DATE SEP 5 1970 FLIGHT TIME 148.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 423.858

RL 150.84 LAL .00 LOL 342.03 VL 26.967 GAL -2.80 AZL 100.79 HCA 197.94 SMA 128.53 ECC .18005 INC10.7877 V1 29.540
RP 107.72 LAP 3.30 LOP 179.66 VP 37.835 GAP 4.58 AZP 79.73 TAL 192.95 TAP 30.89 RCA 105.39 APO 151.68 V2 35.179
RC 112.324 GL -57.57 GP 64.92 ZAL 98.55 ZAP 110.85 ETS 48.18 ZAE 108.79 ETE 138.92 ZAC 158.57 ETC 231.97 CLP-147.12

PLANETOCENTRIC CONIC

C3 35.679 VHL 5.973 DLA -72.00 RAL 193.44 RAD 6568.4 VEL 12.532 PTH 2.27 VHP 7.982 DPA 48.57 RAP 242.57 ECC 1.5872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.55	2 1 7	1918.09	33.38	69.00	91.06	158.28	2 33 5	1318.1	40.76	65.52
159.45	12 38 50	5440.91	33.39	254.44	91.09	158.28	14 9 31	4840.9	40.76	250.96
20.55	2 1 7	1918.09	33.38	69.00	91.06	158.28	2 33 5	1318.1	40.76	65.52
159.45	12 38 50	5440.91	33.39	254.44	91.09	158.28	14 9 31	4840.9	40.76	250.96
20.55	2 1 7	1918.09	33.38	69.00	91.06	158.28	2 33 5	1318.1	40.76	65.52
159.45	12 38 50	5440.91	33.39	254.44	91.09	158.28	14 9 31	4840.9	40.76	250.96

DIFFERENTIAL CORRECTIONS
TDE-2.6680 TRA -.8514 TC3-1.2489 BAU .6388
RDE 1.6002 RRA .2207 RC3 .4834 FAU .03345
FDE-1.8011 FRA -.3308 FC3 -.8118 BSP 13613
BDE 3.1111 BRA .8795 BC3 1.3391 FSP -626

MID-COURSE EXECUTION ACCURACY
SGT 3970.1 SGR 1777.3 SG3 192.8
RRT -.9354 RRF -.9872 RTF .9688
SGB 4349.8 R23 .1732 R13 -.9803
SG1 4311.2 SG2 578.6 THA 156.84

ORBIT DETERMINATION ACCURACY
ST 2679.6 SR 1548.7 SS 1210.5
CRT -.9860 CRS .9990 CST -.9923
LSA 3314.4 MSA 242.4 SSA 4.1
EL1 3086.8 EL2 224.1 ALF 150.15

LAUNCH DATE SEP 5 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 429.910

RL	150.84	LAL	.00	LOL	342.03	VL	26.935	GAL	-2.59	AZL	99.07	HCA	201.12	SMA	128.32	ECC	.18102	INC	9.0684
RP	107.75	LAP	3.26	LOP	182.90	VP	37.803	GAP	4.89	AZP	81.53	TAL	191.87	TAP	32.99	RCA	105.09	APO	151.55
RC	114.599	GL	-54.11	GP	59.54	ZAL	98.65	ZAP	115.09	ETS	47.33	ZAE	112.41	ETE	140.05	ZAC	154.64	ETC	239.01

V1	29.540	V2	35.169	CLP	-146.79														

PLANETOCENTRIC CONIC

C3	27.402	VHL	5.235	DLA	-69.92	RAL	202.16	RAD	6568.1	VEL	12.197	PTH	2.19	VHP	7.160	DPA	43.13	RAP	240.49

ECC	1.4510																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.95	2 41 1	1845.67	37.01	64.39	96.15	154.53	3 11 46	1245.7	44.14	60.02
157.05	13 8 31	5380.74	37.02	252.33	96.17	154.53	14 38 12	4780.7	44.15	247.97
22.95	2 41 1	1845.67	37.01	64.39	96.15	154.53	3 11 46	1245.7	44.14	60.02
157.05	13 8 31	5380.74	37.02	252.33	96.17	154.53	14 38 12	4780.7	44.15	247.97
22.95	2 41 1	1845.67	37.01	64.39	96.15	154.53	3 11 46	1245.7	44.14	60.02
157.05	13 8 31	5380.74	37.02	252.33	96.17	154.53	14 38 12	4780.7	44.15	247.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6151	TRA	-.6945	TC3	-1.7753	BAU	.6912	SGT	4068.2	SGR	1736.0	SG3	227.6	ST	2938.9	SR	1544.3
RDE	1.4054	RRA	.1402	RC3	.6392	FAU	.04037	RRT	-.9396	RRF	-.9881	RTF	.9654	CRT	-.9900	CRS	.9996
FDE	-1.9382	FRA	-.2537	FC3	-1.2754	BSP	13868	SGB	4423.1	R23	.1869	R13	-.9763	LSA	3566.4	MSA	218.3
BDE	2.9688	BRA	.7085	BC3	1.8869	FSP	-740	SG1	4388.7	SG2	550.6	THA	157.78	EL1	3314.3	EL2	192.7

SS	1321.1	CST	-.9935	SSA	5.0
ALF	152.41				

LAUNCH DATE SEP 5 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 435.956

RL	150.84	LAL	.00	LOL	342.03	VL	26.902	GAL	-2.37	AZL	97.78	HCA	204.31	SMA	128.10	ECC	.18210	INC	7.7831
RP	107.79	LAP	3.20	LOP	186.14	VP	37.769	GAP	5.20	AZP	82.90	TAL	190.76	TAP	35.07	RCA	104.77	APO	151.43
RC	116.871	GL	-50.65	GP	54.58	ZAL	98.35	ZAP	119.22	ETS	46.98	ZAE	115.39	ETE	142.01	ZAC	150.65	ETC	243.73

V1	29.540	V2	35.158	CLP	-147.38														

PLANETOCENTRIC CONIC

C3	22.159	VHL	4.707	DLA	-67.70	RAL	210.03	RAD	6567.9	VEL	11.981	PTH	2.14	VHP	6.618	DPA	38.09	RAP	239.06

ECC	1.3647																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.54	3 18 2	1786.02	39.48	59.48	100.27	150.55	3 47 48	1186.0	46.32	54.21
154.46	13 34 18	5336.02	39.49	250.17	100.29	150.54	15 3 14	4736.0	46.33	244.90
25.54	3 18 2	1786.02	39.48	59.48	100.27	150.55	3 47 48	1186.0	46.32	54.21
154.46	13 34 18	5336.02	39.49	250.17	100.29	150.54	15 3 14	4736.0	46.33	244.90
25.54	3 18 2	1786.02	39.48	59.48	100.27	150.55	3 47 48	1186.0	46.32	54.21
154.46	13 34 18	5336.02	39.49	250.17	100.29	150.54	15 3 14	4736.0	46.33	244.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5312	TRA	-.5535	TC3	-2.3461	BAU	.7304	SGT	4185.9	SGR	1645.0	SG3	258.0	ST	3127.3	SR	1467.2
RDE	1.2040	RRA	.0692	RC3	.7577	FAU	.04600	RRT	-.9418	RRF	-.9872	RTF	.9634	CRT	-.9921	CRS	.9998
FDE	-1.9797	FRA	-.1545	FC3	-1.7971	BSP	14097	SGB	4497.6	R23	.1953	R13	-.9728	LSA	3714.7	MSA	200.6
BDE	2.8030	BRA	.5578	BC3	2.4655	FSP	-836	SG1	4467.6	SG2	518.1	THA	159.40	EL1	3450.3	EL2	167.0

SS	1380.8	CST	-.9940	SSA	6.0
ALF	154.98				

LAUNCH DATE SEP 5 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 441.992

RL	150.84	LAL	.00	LOL	342.03	VL	26.868	GAL	-2.14	AZL	96.78	HCA	207.51	SMA	127.87	ECC	.18330	INC	6.7812
RP	107.82	LAP	3.13	LOP	189.37	VP	37.735	GAP	5.51	AZP	83.98	TAL	189.62	TAP	37.13	RCA	104.43	APO	151.31
RC	119.138	GL	-47.23	GP	50.06	ZAL	97.65	ZAP	123.15	ETS	46.79	ZAE	117.81	ETE	144.32	ZAC	146.85	ETC	247.01

V1	29.540	V2	35.147	CLP	-148.41														

PLANETOCENTRIC CONIC

C3	18.650	VHL	4.319	DLA	-65.39	RAL	217.12	RAD	6567.8	VEL	11.834	PTH	2.10	VHP	6.261	DPA	33.42	RAP	238.16

ECC	1.3069																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.23	3 52 25	1735.96	41.02	54.43	103.63	146.49	4 21 21	1136.0	47.52	48.31
151.77	13 56 31	5303.79	41.03	248.09	103.64	146.49	15 24 54	4703.8	47.53	241.98
28.23	3 52 25	1735.96	41.02	54.43	103.63	146.49	4 21 21	1136.0	47.52	48.31
151.77	13 56 31	5303.79	41.03	248.09	103.64	146.49	15 24 54	4703.8	47.53	241.98
28.23	3 52 25	1735.96	41.02	54.43	103.63	146.49	4 21 21	1136.0	47.52	48.31
151.77	13 56 31	5303.79	41.03	248.09	103.64	146.49	15 24 54	4703.8	47.53	241.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4230	TRA	-.4194	TC3	-2.9413	BAU	.7626	SGT	4309.7	SGR	1535.2	SG3	282.6	ST	3240.5	SR	1353.6
RDE	1.0201	RRA	.0115	RC3	.8381	FAU	.05026	RRT	-.9429	RRF	-.9849	RTF	.9623	CRT	-.9933	CRS	.9999
FDE	-1.9389	FRA	-.0408	FC3	-2.3330	BSP	14354	SGB	4575.0	R23	.1979	R13	-.9701	LSA	3773.1	MSA	187.1
BDE	2.6290	BRA	.4196	BC3	3.0584	FSP	-917	SG1	4549.3	SG2	484.4	THA	161.21	EL1	3508.8	EL2	144.9

SS	1392.2	CST	-.9941	SSA	7.0
ALF	157.43				

LAUNCH DATE SEP 5 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 448.013

RL	150.84	LAL	.00	LOL	342.03	VL	26.833	GAL	-1.90	AZL	95.97	HCA	210.71	SMA	127.64	ECC	.18461	INC	5.9741
RP	107.86	LAP	3.05	LOP	192.60	VP	37.699	GAP	5.82	AZP	84.86	TAL	188.46	TAP	39.17	RCA	104.08	APO	151.21
RC	121.402	GL	-43.89	GP	45.96	ZAL	96.58	ZAP	126.86	ETS	46.62	ZAE	119.74	ETE	146.74	ZAC	143.34	ETC	249.39

V1	29.540	V2	35.136	CLP	-149.65														

PLANETOCENTRIC CONIC

C3	16.208	VHL	4.026	DLA	-63.03	RAL	223.57	RAD	6567.6	VEL	11.730	PTH	2.07	VHP	6.030	DPA	29.14	RAP	237.67

ECC	1.2667																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.01	4 24 35	1693.12	41.81	49.39	106.47	142.52	4 52 48	1093.1	47.95	42.54
148.99	14 15 45	5281.67	41.82	246.21	106.49	142.51	15 43 47	4681.7	47.96	239.36
31.01	4 24 35	1693.12	41.81	49.39	106.47	142.52	4 52 48	1093.1	47.95	42.54
148.99	14 15 45	5281.67	41.82	246.21	106.49	142.51	15 43 47	4681.7	47.96	239.36
31.01	4 24 35	1693.12	41.81	49.39	106.47	142.52	4 52 48	1093.1	47.95	42.54
148.99	14 15 45	5281.67	41.82	246.21	106.49	142.51	15 43 47	4681.7	47.96	239.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3008	TRA	-.2883	TC3	-3.5440	BAU	.7914	SGT	4436.5	SGR	1422.2	SG3	300.9	ST	3286.7	SR	1227.4
RDE	.8620	RRA	-.0346	RC3	.8833	FAU	.05319	RRT	-.9427	RRF	-.9814	RTF	.9615	CRT	-.9940	CRS	1.0000
FDE	-1.8369	FRA	.0810	FC3	-2.8412	BSP	14650	SGB	4658.9	R23	.1960	R13	-.9678	LSA	3759.7	MSA	177.2
BDE	2.4569	BRA	.2904	BC3	3.6524	FSP	-980	SG1	4636.7	SG2	454.0	THA	163.02	EL1	3506.1	EL2	125.8

SS	1363.1	CST	-.9938	SSA	8.2
ALF	159.61				

LAUNCH DATE SEP 5 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 454.020

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RL  150.84 LAL    .00 LOL 342.03 VL  26.797 GAL  -1.65 AZL  95.31 HCA 213.91 SMA 127.41 ECC .18604 INC 5.3064 V1  29.540
RP  107.89 LAP   2.96 LOP 195.83 VP  37.663 GAP   6.13 AZP  85.59 TAL 187.27 TAP  41.19 RCA 103.71 APO 151.11 V2  35.124
RC 123.660 GL  -40.64 GP   42.28 ZAL  95.19 ZAP 130.31 ETS  46.47 ZAE 121.27 ETE 149.14 ZAC 140.16 ETC 251.18 CLP-150.97
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PLANETOCENTRIC CONIC

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C3  14.466 VHL  3.803 DLA -60.64 RAL 229.49 RAD 6567.6 VEL 11.656 PTH   2.05 VHP  5.889 DPA  25.21 RAP 237.55 ECC 1.2381
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.84	4 55 6	1655.55	42.01	44.45	109.03	138.71	5 22 41	1055.6	47.77	37.01
146.16	14 32 28	5268.08	42.02	244.63	109.04	138.70	16 0 16	4668.1	47.78	237.20
33.84	4 55 6	1655.55	42.01	44.45	109.03	138.71	5 22 41	1055.6	47.77	37.01
146.16	14 32 28	5268.08	42.02	244.63	109.04	138.70	16 0 16	4668.1	47.78	237.20
33.84	4 55 6	1655.55	42.01	44.45	109.03	138.71	5 22 41	1055.6	47.77	37.01
146.16	14 32 28	5268.08	42.02	244.63	109.04	138.70	16 0 16	4668.1	47.78	237.20

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1690 TRA -.1563 TC3-4.1329 BAU  .8179   SGT 4559.7 SGR 1313.2 SG3  313.3      ST  3272.0 SR  1102.1 SS  1301.6
RDE  .7302 RRA -.0711 RC3  .8982 FAU .05491   RRT -.9415 RRF -.9766 RTF  .9610      CRT -.9946 CRS  .9998 CST -.9931
FDE-1.6928 FRA  .2048 FC3-3.2864 BSP  14944   SGB 4745.0 R23  .1894 R13 -.9660      LSA 3686.0 MSA  169.6 SSA    9.4
BDE 2.2886 BRA  .1717 BC3 4.2294 FSP  -1024   SG1 4725.8 SG2  427.2 THA 164.70      EL1 3451.0 EL2  108.5 ALF 161.46
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 460.010

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RL  150.84 LAL    .00 LOL 342.03 VL  26.761 GAL  -1.39 AZL  94.74 HCA 217.12 SMA 127.17 ECC .18760 INC 4.7418 V1  29.540
RP  107.93 LAP   2.86 LOP 199.05 VP  37.626 GAP   6.44 AZP  86.22 TAL 186.05 TAP  43.17 RCA 103.31 APO 151.03 V2  35.112
RC 125.912 GL  -37.49 GP   38.99 ZAL  93.49 ZAP 133.50 ETS  46.31 ZAE 122.44 ETE 151.43 ZAC 137.31 ETC 252.59 CLP-152.33
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PLANETOCENTRIC CONIC

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C3  13.207 VHL  3.634 DLA -58.24 RAL 234.98 RAD 6567.5 VEL 11.601 PTH   2.03 VHP  5.813 DPA  21.63 RAP 237.72 ECC 1.2173
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.72	5 24 21	1621.87	41.73	39.68	111.45	135.14	5 51 23	1021.9	47.12	31.80
143.28	14 47 3	5261.86	41.74	243.43	111.47	135.13	16 14 45	4661.9	47.13	235.55
36.72	5 24 21	1621.87	41.73	39.68	111.45	135.14	5 51 23	1021.9	47.12	31.80
143.28	14 47 3	5261.86	41.74	243.43	111.47	135.13	16 14 45	4661.9	47.13	235.55
36.72	5 24 21	1621.87	41.73	39.68	111.45	135.14	5 51 23	1021.9	47.12	31.80
143.28	14 47 3	5261.86	41.74	243.43	111.47	135.13	16 14 45	4661.9	47.13	235.55

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0318 TRA -.0213 TC3-4.6863 BAU  .8421   SGT 4676.3 SGR 1211.7 SG3  320.0      ST  3205.1 SR   985.6 SS  1216.4
RDE  .6224 RRA -.1004 RC3  .8861 FAU .05548   RRT -.9386 RRF -.9703 RTF  .9605      CRT -.9952 CRS  .9995 CST -.9918
FDE-1.5240 FRA  .3274 FC3-3.6367 BSP  15227   SGB 4830.7 R23  .1795 R13 -.9644      LSA 3563.2 MSA  164.4 SSA   10.9
BDE 2.1250 BRA  .1026 BC3 4.7693 FSP  -1050   SG1 4813.6 SG2  406.2 THA 166.23      EL1 3352.0 EL2   92.6 ALF 162.97
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 465.982

```
RL  150.84 LAL    .00 LOL 342.03 VL  26.724 GAL  -1.12 AZL  94.26 HCA 220.33 SMA 126.93 ECC .18929 INC 4.2553 V1  29.540
RP  107.97 LAP   2.75 LOP 202.27 VP  37.588 GAP   6.75 AZP  86.75 TAL 184.81 TAP  45.14 RCA 102.91 APO 150.96 V2  35.099
RC 128.158 GL  -34.43 GP   36.05 ZAL  91.53 ZAP 136.45 ETS  46.18 ZAE 123.34 ETE 153.57 ZAC 134.78 ETC 253.73 CLP-153.69
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PLANETOCENTRIC CONIC

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C3  12.299 VHL  3.507 DLA -55.83 RAL 240.13 RAD 6567.5 VEL 11.562 PTH   2.02 VHP  5.786 DPA  18.37 RAP 238.15 ECC 1.2024
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.64	5 52 44	1590.87	41.07	35.09	113.85	131.85	6 19 15	990.9	46.10	26.91
140.36	14 59 43	5262.33	41.08	242.65	113.86	131.83	16 27 25	4662.3	46.11	234.46
39.64	5 52 44	1590.87	41.07	35.09	113.85	131.85	6 19 15	990.9	46.10	26.91
140.36	14 59 43	5262.33	41.08	242.65	113.86	131.83	16 27 25	4662.3	46.11	234.46
39.64	5 52 44	1590.87	41.07	35.09	113.85	131.85	6 19 15	990.9	46.10	26.91
140.36	14 59 43	5262.33	41.08	242.65	113.86	131.83	16 27 25	4662.3	46.11	234.46

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.8925 TRA  .1166 TC3-5.1949 BAU  .8657   SGT 4790.8 SGR 1121.3 SG3  322.6      ST  3095.6 SR   882.5 SS  1116.8
RDE  .5360 RRA -.1234 RC3  .8574 FAU .05527   RRT -.9346 RRF -.9623 RTF  .9603      CRT -.9959 CRS  .9985 CST -.9900
FDE-1.3458 FRA  .4434 FC3-3.8908 BSP  15542   SGB 4920.2 R23  .1655 R13 -.9633      LSA 3403.3 MSA  160.7 SSA   12.4
BDE 1.9670 BRA  .1698 BC3 5.2651 FSP  -1064   SG1 4904.8 SG2  389.6 THA 167.58      EL1 3218.0 EL2   76.8 ALF 164.14
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 471.936

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RL  150.84 LAL    .00 LOL 342.03 VL  26.687 GAL   -.84 AZL  93.83 HCA 223.53 SMA 126.69 ECC .19111 INC 3.8293 V1  29.540
RP  108.01 LAP   2.64 LOP 205.49 VP  37.550 GAP   7.06 AZP  87.22 TAL 183.55 TAP  47.08 RCA 102.48 APO 150.90 V2  35.086
RC 130.397 GL  -31.46 GP   33.43 ZAL  89.33 ZAP 139.16 ETS  46.08 ZAE 124.00 ETE 155.54 ZAC 132.54 ETC 254.69 CLP-155.03
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PLANETOCENTRIC CONIC

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C3  11.658 VHL  3.414 DLA -53.42 RAL 244.97 RAD 6567.4 VEL 11.535 PTH   2.01 VHP  5.797 DPA  15.40 RAP 238.80 ECC 1.1919
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.60	6 20 29	1561.64	40.10	30.69	116.28	128.83	6 46 30	961.6	44.79	22.32
137.40	15 10 36	5269.04	40.11	242.32	116.30	128.81	16 38 25	4669.0	44.80	233.95
42.60	6 20 29	1561.64	40.10	30.69	116.28	128.83	6 46 30	961.6	44.79	22.32
137.40	15 10 36	5269.04	40.11	242.32	116.30	128.81	16 38 25	4669.0	44.80	233.95
42.60	6 20 29	1561.64	40.10	30.69	116.28	128.83	6 46 30	961.6	44.79	22.32
137.40	15 10 36	5269.04	40.11	242.32	116.30	128.81	16 38 25	4669.0	44.80	233.95

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7496 TRA  .2604 TC3-5.6378 BAU  .8878   SGT 4896.9 SGR 1040.6 SG3  321.4      ST  2946.4 SR   792.0 SS  1006.9
RDE  .4664 RRA -.1427 RC3  .8140 FAU .05433   RRT -.9287 RRF -.9524 RTF  .9598      CRT -.9968 CRS  .9964 CST -.9872
FDE-1.1640 FRA  .5541 FC3-4.0348 BSP  15841   SGB 5006.2 R23  .1500 R13 -.9622      LSA 3208.9 MSA  159.4 SSA   14.1
BDE 1.8107 BRA  .2969 BC3 5.6962 FSP  -1065   SG1 4991.9 SG2  378.6 THA 168.77      EL1 3050.4 EL2   61.2 ALF 164.99
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 477.871

RL	150.84	LAL	.00	LOL	342.03	VL	26.649	GAL	-.54	AZL	93.45	HCA	226.73	SMA	126.45	ECC	.19307	INC	3.4510	V1	29.540
RP	108.05	LAP	2.51	LOP	208.71	VP	37.511	GAP	7.37	AZP	87.63	TAL	182.26	TAP	48.99	RCA	102.03	APO	150.86	V2	35.074
RC	132.627	GL	-28.60	GP	31.10	ZAL	86.95	ZAP	141.66	ETS	46.03	ZAE	124.50	ETE	157.33	ZAC	130.57	ETC	255.52	CLP	-156.34

PLANETOCENTRIC CONIC

C3	11.230	VHL	3.351	DLA	-51.02	RAL	249.55	RAD	6567.4	VEL	11.516	PTH	2.01	VHP	5.838	DPA	12.69	RAP	239.64	ECC	1.1848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.61	6 47 52	1533.28	38.88	26.46	118.79	126.08	7 13 25	933.3	43.27	17.99
134.39	15 19 44	5281.86	38.89	242.49	118.80	126.07	16 47 46	4681.9	43.28	234.02
45.61	6 47 52	1533.28	38.88	26.46	118.79	126.08	7 13 25	933.3	43.27	17.99
134.39	15 19 44	5281.86	38.89	242.49	118.80	126.07	16 47 46	4681.9	43.28	234.02
45.61	6 47 52	1533.28	38.88	26.46	118.79	126.08	7 13 25	933.3	43.27	17.99
134.39	15 19 44	5281.86	38.89	242.49	118.80	126.07	16 47 46	4681.9	43.28	234.02

DIFFERENTIAL CORRECTIONS

TDE	-1.6068	TRA	.4083	TC3	-6.0080	BAU	.9093
RDE	.4118	RRA	-.1582	RC3	.7630	FAU	.05293
FDE	-.9899	FRA	.6550	FC3	-4.0803	BSP	16164
BDE	1.6588	BRA	.4379	BC3	6.0562	FSP	-1060

MID-COURSE EXECUTION ACCURACY

SGT	4999.4	SGR	970.7	SG3	317.6		
RRT	-.9213	RRF	-.9405	RTF	.9597		
SGB	5092.7	R23	.1321	R13	-.9616		
SG1	5079.2	SG2	371.6	THA	169.80		

ORBIT DETERMINATION ACCURACY

ST	2770.0	SR	716.0	SS	896.1
CRT	-.9979	CRS	.9920	CST	-.9830
LSA	2993.8	MSA	159.8	SSA	15.9
EL1	2860.7	EL2	44.7	ALF	165.53

LAUNCH DATE SEP 5 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 483.787

RL	150.84	LAL	.00	LOL	342.03	VL	26.611	GAL	-.23	AZL	93.11	HCA	229.94	SMA	126.21	ECC	.19519	INC	3.1108	V1	29.540
RP	108.09	LAP	2.38	LOP	211.92	VP	37.472	GAP	7.68	AZP	88.00	TAL	180.95	TAP	50.89	RCA	101.57	APO	150.84	V2	35.061
RC	134.850	GL	-25.84	GP	29.03	ZAL	84.41	ZAP	143.95	ETS	46.04	ZAE	124.85	ETE	158.95	ZAC	128.83	ETC	256.26	CLP	-157.62

PLANETOCENTRIC CONIC

C3	10.980	VHL	3.314	DLA	-48.63	RAL	253.88	RAD	6567.4	VEL	11.505	PTH	2.00	VHP	5.903	DPA	10.21	RAP	240.65	ECC	1.1807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.66	7 15 3	1505.15	37.47	22.36	121.39	123.61	7 40 8	905.2	41.58	13.86
131.34	15 27 9	5300.70	37.49	243.15	121.40	123.59	16 55 30	4700.7	41.59	234.65
48.66	7 15 3	1505.15	37.47	22.36	121.39	123.61	7 40 8	905.2	41.58	13.86
131.34	15 27 9	5300.70	37.49	243.15	121.40	123.59	16 55 30	4700.7	41.59	234.65
48.66	7 15 3	1505.15	37.47	22.36	121.39	123.61	7 40 8	905.2	41.58	13.86
131.34	15 27 9	5300.70	37.49	243.15	121.40	123.59	16 55 30	4700.7	41.59	234.65

DIFFERENTIAL CORRECTIONS

TDE	-1.4573	TRA	.5683	TC3	-6.2735	BAU	.9266
RDE	.3676	RRA	-.1731	RC3	.7011	FAU	.05086
FDE	-.8195	FRA	.7537	FC3	-4.0098	BSP	16333
BDE	1.5030	BRA	.5941	BC3	6.3125	FSP	-1035

MID-COURSE EXECUTION ACCURACY

SGT	5083.8	SGR	908.3	SG3	311.0		
RRT	-.9110	RRF	-.9262	RTF	.9590		
SGB	5164.3	R23	.1160	R13	-.9605		
SG1	5151.1	SG2	369.6	THA	170.71		

ORBIT DETERMINATION ACCURACY

ST	2562.1	SR	650.2	SS	784.2
CRT	-.9990	CRS	.9825	CST	-.9759
LSA	2752.2	MSA	164.3	SSA	17.6
EL1	2643.1	EL2	28.1	ALF	165.77

LAUNCH DATE SEP 5 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 489.680

RL	150.84	LAL	.00	LOL	342.03	VL	26.573	GAL	.09	AZL	92.80	HCA	233.14	SMA	125.96	ECC	.19747	INC	2.8015	V1	29.540
RP	108.13	LAP	2.24	LOP	215.13	VP	37.432	GAP	7.99	AZP	88.32	TAL	179.62	TAP	52.76	RCA	101.09	APO	150.84	V2	35.047
RC	137.063	GL	-23.18	GP	27.17	ZAL	81.76	ZAP	146.08	ETS	46.14	ZAE	125.10	ETE	160.39	ZAC	127.30	ETC	256.94	CLP	-158.86

PLANETOCENTRIC CONIC

C3	10.883	VHL	3.299	DLA	-46.25	RAL	258.00	RAD	6567.4	VEL	11.501	PTH	2.00	VHP	5.988	DPA	7.95	RAP	241.81	ECC	1.1791

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.76	7 42 16	1476.38	35.92	18.35	124.09	121.37	8 6 53	876.4	39.76	9.87
128.24	15 32 44	5325.85	35.93	244.34	124.10	121.36	17 1 29	4725.8	39.77	235.86
51.76	7 42 16	1476.38	35.92	18.35	124.09	121.37	8 6 53	876.4	39.76	9.87
128.24	15 32 44	5325.85	35.93	244.34	124.10	121.36	17 1 29	4725.8	39.77	235.86
51.76	7 42 16	1476.38	35.92	18.35	124.09	121.37	8 6 53	876.4	39.76	9.87
128.24	15 32 44	5325.85	35.93	244.34	124.10	121.36	17 1 29	4725.8	39.77	235.86

DIFFERENTIAL CORRECTIONS

TDE	-1.3068	TRA	.7352	TC3	-6.4560	BAU	.9439
RDE	.3319	RRA	-.1873	RC3	.6367	FAU	.04847
FDE	-.6559	FRA	.8486	FC3	-3.8554	BSP	16445
BDE	1.3483	BRA	.7587	BC3	6.4874	FSP	-994

MID-COURSE EXECUTION ACCURACY

SGT	5167.8	SGR	854.5	SG3	303.2		
RRT	-.8983	RRF	-.9099	RTF	.9572		
SGB	5238.0	R23	.1038	R13	-.9584		
SG1	5224.8	SG2	371.4	THA	171.51		

ORBIT DETERMINATION ACCURACY

ST	2339.8	SR	593.6	SS	677.0
CRT	-.9994	CRS	.9628	CST	-.9633
LSA	2500.9	MSA	175.4	SSA	19.2
EL1	2413.8	EL2	19.2	ALF	165.77

LAUNCH DATE SEP 5 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 495.552

RL	150.84	LAL	.00	LOL	342.03	VL	26.535	GAL	.43	AZL	92.52	HCA	236.34	SMA	125.72	ECC	.19993	INC	2.5173	V1	29.540
RP	108.17	LAP	2.09	LOP	218.34	VP	37.393	GAP	8.31	AZP	88.60	TAL	178.27	TAP	54.61	RCA	100.58	APO	150.85	V2	35.034
RC	139.266	GL	-20.64	GP	25.52	ZAL	79.02	ZAP	148.04	ETS	46.32	ZAE	125.26	ETE	161.69	ZAC	125.95	ETC	257.58	CLP	-160.07

PLANETOCENTRIC CONIC

C3	10.926	VHL	3.305	DLA	-43.91	RAL	261.89	RAD	6567.4	VEL	11.503	PTH	2.00	VHP	6.091	DPA	5.87	RAP	243.10	ECC	1.1798

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.92	8 9 44	1446.23	34.25	14.37	126.87	119.36	8 33 50	846.2	37.86	5.95
125.08	15 36 22	5357.62	34.26	246.07	126.88	119.35	17 5 39	4757.6	37.87	237.65
54.92	8 9 44	1446.23	34.25	14.37	126.87	119.36	8 33 50	846.2	37.86	5.95
125.08	15 36 22	5357.62	34.26	246.07	126.88	119.35	17 5 39	4757.6	37.87	237.65
54.92	8 9 44	1446.23	34.25	14.37	126.87	119.36	8 33 50	846.2	37.86	5.95
125.08	15 36 22	5357.62	34.26	246.07	126.88	119.35	17 5 39	4757.6	37.87	237.65

DIFFERENTIAL CORRECTIONS

TDE	-1.1684	TRA	.8963	TC3	-6.5962	BAU	.9674
RDE	.3083	RRA	-.1970	RC3	.5889	FAU	.04676
FDE	-.5230	FRA	.9208	FC3	-3.7052	BSP	17016
BDE	1.2084	BRA	.9177	BC3	6.6225	FSP	-1002

MID-COURSE EXECUTION ACCURACY

SGT	5269.6	SGR	813.6	SG3	295.9		
RRT	-.8869	RRF	-.8930	RTF	.9583		
SGB	5332.0	R23	.0841	R13	-.9592		
SG1	5319.0	SG2	372.3	THA	172.16		

ORBIT DETERMINATION ACCURACY

ST	2130.0	SR	553.1	SS	592.8
CRT	-.9980	CRS	.9306	CST	-.9484
LSA	2271.5	MSA	185.9	SSA	20.6
EL1	2200.4	EL2	34.0	ALF	165.47

LAUNCH DATE SEP 5 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 501.402

RL 150.84 LAL .00 LOL 342.03 VL 26.496 GAL .78 AZL 92.25 HCA 239.53 SMA 125.47 ECC .20256 INC 2.2536 VI 29.540
RP 108.21 LAP 1.94 LOP 221.54 VP 37.353 GAP 8.63 AZP 88.86 TAL 176.91 TAP 56.44 RCA 100.06 APO 150.89 V2 35.021
RC 141.459 GL -18.22 GP 24.04 ZAL 76.24 ZAP 149.86 ETS 46.60 ZAE 125.37 ETE 162.84 ZAC 124.76 ETC 258.19 CLP-161.25

PLANETOCENTRIC CONIC

C3 11.100 VHL 3.332 DLA -41.61 RAL 265.59 RAD 6567.4 VEL 11.510 PTH 2.00 VHP 6.208 DPA 3.97 RAP 244.51 ECC 1.1827

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.13	8 37 41	1413.74	32.50	10.36	129.73	117.56	9 1 15	813.7	35.90	2.02
121.87	15 37 54	5396.59	32.52	248.39	129.74	117.54	17 7 50	4796.6	35.91	240.05
58.13	8 37 41	1413.74	32.50	10.36	129.73	117.56	9 1 15	813.7	35.90	2.02
121.87	15 37 54	5396.59	32.52	248.39	129.74	117.54	17 7 50	4796.6	35.91	240.05
58.13	8 37 41	1413.74	32.50	10.36	129.73	117.56	9 1 15	813.7	35.90	2.02
121.87	15 37 54	5396.59	32.52	248.39	129.74	117.54	17 7 50	4796.6	35.91	240.05

DIFFERENTIAL CORRECTIONS
TDE -1.0146 TRA 1.0803 TC3 -6.5884 BAU .9808
RDE .2875 RRA -.2093 RC3 .5278 FAU .04412
FDE -.3874 FRA 1.0003 FC3 -3.4413 BSP 17082
BDE 1.0545 BRA 1.1004 BC3 6.6095 FSP -958

MID-COURSE EXECUTION ACCURACY
SGT 5337.8 SGR 774.6 SG3 286.5
RRT -.8715 RRF -.8736 RTF .9574
SGB 5393.7 R23 .0714 R13 -.9581
SG1 5380.5 SG2 376.9 THA 172.76

ORBIT DETERMINATION ACCURACY
ST 1901.9 SR 515.2 SS 515.9
CRT -.9917 CRS .8675 CST -.9217
LSA 2026.2 MSA 207.2 SSA 21.4
EL1 1969.4 EL2 64.0 ALF 164.95

LAUNCH DATE SEP 5 1970 FLIGHT TIME 176.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 507.227

RL 150.84 LAL .00 LOL 342.03 VL 26.457 GAL 1.15 AZL 92.01 HCA 242.73 SMA 125.23 ECC .20540 INC 2.0069 VI 29.540
RP 108.25 LAP 1.78 LOP 224.74 VP 37.313 GAP 8.96 AZP 89.08 TAL 175.53 TAP 58.26 RCA 99.51 APO 150.95 V2 35.008
RC 143.643 GL -15.92 GP 22.71 ZAL 73.44 ZAP 151.54 ETS 46.99 ZAE 125.43 ETE 163.86 ZAC 123.71 ETC 258.77 CLP-162.39

PLANETOCENTRIC CONIC

C3 11.402 VHL 3.377 DLA -39.36 RAL 269.09 RAD 6567.4 VEL 11.523 PTH 2.01 VHP 6.339 DPA 2.22 RAP 246.02 ECC 1.1876

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.43	9 6 28	1377.78	30.72	6.24	132.67	115.94	9 29 25	777.8	33.93	357.98
118.57	15 37 2	5443.63	30.72	251.34	132.68	115.92	17 7 46	4843.6	33.93	243.09
61.43	9 6 28	1377.78	30.72	6.24	132.67	115.94	9 29 25	777.8	33.93	357.98
118.57	15 37 2	5443.63	30.72	251.34	132.68	115.92	17 7 46	4843.6	33.93	243.09
61.43	9 6 28	1377.78	30.72	6.24	132.67	115.94	9 29 25	777.8	33.93	357.98
118.57	15 37 2	5443.63	30.72	251.34	132.68	115.92	17 7 46	4843.6	33.93	243.09

DIFFERENTIAL CORRECTIONS
TDE -.8655 TRA 1.2673 TC3 -6.5209 BAU .9966
RDE .2730 RRA -.2205 RC3 .4746 FAU .04171
FDE -.2695 FRA 1.0695 FC3 -3.1671 BSP 17308
BDE .9075 BRA 1.2864 BC3 6.5382 FSP -930

MID-COURSE EXECUTION ACCURACY
SGT 5411.7 SGR 742.7 SG3 277.2
RRT -.8554 RRF -.8534 RTF .9572
SGB 5462.4 R23 .0589 R13 -.9577
SG1 5449.0 SG2 382.1 THA 173.27

ORBIT DETERMINATION ACCURACY
ST 1694.3 SR 485.6 SS 461.2
CRT -.9758 CRS .7696 CST -.8885
LSA 1806.5 MSA 234.7 SSA 21.9
EL1 1759.5 EL2 102.3 ALF 164.32

LAUNCH DATE SEP 5 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 513.027

RL 150.84 LAL .00 LOL 342.03 VL 26.418 GAL 1.54 AZL 91.77 HCA 245.92 SMA 124.99 ECC .20845 INC 1.7742 VI 29.540
RP 108.29 LAP 1.62 LOP 227.94 VP 37.273 GAP 9.29 AZP 89.28 TAL 174.13 TAP 60.06 RCA 98.94 APO 151.04 V2 34.995
RC 145.816 GL -13.75 GP 21.52 ZAL 70.65 ZAP 153.12 ETS 47.49 ZAE 125.46 ETE 164.77 ZAC 122.78 ETC 259.35 CLP-163.50

PLANETOCENTRIC CONIC

C3 11.830 VHL 3.440 DLA -37.18 RAL 272.40 RAD 6567.5 VEL 11.542 PTH 2.01 VHP 6.483 DPA .61 RAP 247.63 ECC 1.1947

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.83	9 36 27	1336.98	28.90	1.89	135.67	114.48	9 58 44	737.0	31.94	353.72
115.17	15 33 28	5499.84	28.92	255.00	135.67	114.46	17 5 8	4899.8	31.96	246.83
64.83	9 36 27	1336.98	28.90	1.89	135.67	114.48	9 58 44	737.0	31.94	353.72
115.17	15 33 28	5499.84	28.92	255.00	135.67	114.46	17 5 8	4899.8	31.96	246.83
64.83	9 36 27	1336.98	28.90	1.89	135.67	114.48	9 58 44	737.0	31.94	353.72
115.17	15 33 28	5499.84	28.92	255.00	135.67	114.46	17 5 8	4899.8	31.96	246.83

DIFFERENTIAL CORRECTIONS
TDE -.7165 TRA 1.4619 TC3 -6.3806 BAU 1.0114
RDE .2629 RRA -.2316 RC3 .4248 FAU .03927
FDE -.1635 FRA 1.1331 FC3 -2.8736 BSP 17539
BDE .7631 BRA 1.4802 BC3 6.3947 FSP -902

MID-COURSE EXECUTION ACCURACY
SGT 5480.2 SGR 715.3 SG3 267.6
RRT -.8381 RRF -.8324 RTF .9569
SGB 5526.6 R23 .0483 R13 -.9573
SG1 5513.0 SG2 387.9 THA 173.73

ORBIT DETERMINATION ACCURACY
ST 1510.8 SR 461.4 SS 427.6
CRT -.9424 CRS .6332 CST -.8537
LSA 1614.0 MSA 269.8 SSA 21.9
EL1 1572.7 EL2 148.3 ALF 163.79

LAUNCH DATE SEP 5 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 518.800

RL 150.84 LAL .00 LOL 342.03 VL 26.379 GAL 1.94 AZL 91.55 HCA 249.12 SMA 124.75 ECC .21173 INC 1.5529 VI 29.540
RP 108.33 LAP 1.45 LOP 231.13 VP 37.233 GAP 9.63 AZP 89.45 TAL 172.73 TAP 61.84 RCA 98.33 APO 151.16 V2 34.982
RC 147.979 GL -11.71 GP 20.45 ZAL 67.90 ZAP 154.59 ETS 48.12 ZAE 125.46 ETE 165.58 ZAC 121.95 ETC 259.92 CLP-164.58

PLANETOCENTRIC CONIC

C3 12.390 VHL 3.520 DLA -35.07 RAL 275.53 RAD 6567.5 VEL 11.566 PTH 2.02 VHP 6.638 DPA -.87 RAP 249.33 ECC 1.2039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.40	10 8 22	1288.88	27.10	357.14	138.72	113.16	10 29 51	688.9	29.99	349.06
111.60	15 26 31	5567.46	27.11	259.51	138.72	113.15	16 59 18	4967.5	30.00	251.43
68.40	10 8 22	1288.88	27.10	357.14	138.72	113.16	10 29 51	688.9	29.99	349.06
111.60	15 26 31	5567.46	27.11	259.51	138.72	113.15	16 59 18	4967.5	30.00	251.43
68.40	10 8 22	1288.88	27.10	357.14	138.72	113.16	10 29 51	688.9	29.99	349.06
111.60	15 26 31	5567.46	27.11	259.51	138.72	113.15	16 59 18	4967.5	30.00	251.43

DIFFERENTIAL CORRECTIONS
TDE -.5672 TRA 1.6652 TC3 -6.1777 BAU 1.0252
RDE .2564 RRA -.2428 RC3 .3792 FAU .03686
FDE -.0692 FRA 1.1915 FC3 -2.5757 BSP 17750
BDE .6225 BRA 1.6828 BC3 6.1893 FSP -873

MID-COURSE EXECUTION ACCURACY
SGT 5543.7 SGR 691.8 SG3 258.0
RRT -.8201 RRF -.8110 RTF .9567
SGB 5586.7 R23 .0391 R13 -.9571
SG1 5572.8 SG2 393.8 THA 174.13

ORBIT DETERMINATION ACCURACY
ST 1362.5 SR 441.8 SS 414.0
CRT -.8809 CRS .4717 CST -.8311
LSA 1458.2 MSA 310.2 SSA 21.5
EL1 1418.2 EL2 200.9 ALF 163.72

LAUNCH DATE SEP 5 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 524.543

```
RL  150.84 LAL    .00 LOL 342.03 VL  26.341 GAL   2.37 AZL  91.34 HCA 252.31 SMA 124.51 ECC .21526 INC 1.3411 V1  29.540
RP  108.37 LAP   1.28 LOP 234.33 VP  37.193 GAP   9.98 AZP  89.59 TAL 171.31 TAP  63.61 RCA  97.71 APO 151.31 V2  34.969
RC 150.132 GL   -9.80 GP   19.48 ZAL  65.21 ZAP 155.96 ETS  48.90 ZAE 125.44 ETE 166.31 ZAC 121.20 ETC 260.49 CLP-165.63
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PLANETOCENTRIC CONIC

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C3  13.087 VHL  3.618 DLA -33.03 RAL 278.49 RAD 6567.5 VEL 11.596 PTH   2.03 VHP  6.806 DPA  -2.23 RAP 251.10 ECC 1.2154
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.23	10 43 22	1229.80	25.31	351.70	141.81	111.97	11 3 52	629.8	28.06	343.71
107.77	15 15 6	5649.98	25.32	265.12	141.81	111.96	16 49 16	5050.0	28.07	257.12
72.23	10 43 22	1229.80	25.31	351.70	141.81	111.97	11 3 52	629.8	28.06	343.71
107.77	15 15 6	5649.98	25.32	265.12	141.81	111.96	16 49 16	5050.0	28.07	257.12
110.00	14 21 54	5813.60	20.08	275.11	139.15	118.26	15 58 48	5213.6	23.69	267.83
110.00	16 35 45	5402.22	30.79	248.05	143.92	105.63	18 5 47	4802.2	32.63	239.31

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.4169 TRA 1.8782 TC3-5.9219 BAU 1.0377   SGT 5602.2 SGR  671.4 SG3  248.4     ST  1259.3 SR   425.5 SS   416.7
 RDE  .2527 RRA -.2544 RC3  .3374 FAU .03448   RRT -.8017 RRF -.7896 RTF  .9566     CRT -.7815 CRS  .3057 CST -.8313
 FDE  .0158 FRA 1.2463 FC3-2.2809 BSP  17957   SGB 5642.3 R23  .0315 R13 -.9568     LSA 1347.7 MSA  351.5 SSA   20.9
 BDE  .4875 BRA 1.8954 BC3 5.9315 FSP   -844   SG1 5628.1 SG2  399.4 THA 174.48     EL1 1304.3 EL2  256.3 ALF 164.60
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 530.253

```
RL  150.84 LAL    .00 LOL 342.03 VL  26.302 GAL   2.81 AZL  91.14 HCA 255.49 SMA 124.27 ECC .21906 INC 1.1367 V1  29.540
RP  108.41 LAP   1.10 LOP 237.52 VP  37.154 GAP  10.34 AZP  89.72 TAL 169.88 TAP  65.38 RCA  97.05 APO 151.49 V2  34.956
RC 152.275 GL   -8.03 GP   18.60 ZAL  62.59 ZAP 157.25 ETS  49.82 ZAE 125.41 ETE 166.95 ZAC 120.53 ETC 261.06 CLP-166.66
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PLANETOCENTRIC CONIC

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C3  13.929 VHL  3.732 DLA -31.09 RAL 281.27 RAD 6567.5 VEL 11.632 PTH   2.04 VHP  6.986 DPA  -3.48 RAP 252.94 ECC 1.2292
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.60	11 23 52	1151.65	23.56	345.00	144.93	110.89	11 43 4	551.6	26.19	337.09
103.40	14 56 51	5755.29	23.57	272.38	144.94	110.88	16 32 46	5155.3	26.20	264.47
76.60	11 23 52	1151.65	23.56	345.00	144.93	110.89	11 43 4	551.6	26.19	337.09
103.40	14 56 51	5755.29	23.57	272.38	144.94	110.88	16 32 46	5155.3	26.20	264.47
110.00	13 50 40	674.30	15.06	305.81	140.55	121.06	14 1 55	74.3	19.06	298.98
110.00	17 29 13	5280.64	32.68	239.08	147.85	100.64	18 57 14	4680.6	33.80	230.02

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.2848 TRA 2.0821 TC3-5.6813 BAU 1.0595   SGT 5666.3 SGR  654.7 SG3  238.8     ST  1208.8 SR   415.2 SS   424.2
 RDE  .2542 RRA -.2638 RC3  .3076 FAU .03283   RRT -.7843 RRF -.7693 RTF  .9580     CRT -.6581 CRS  .1765 CST -.8558
 FDE  .0782 FRA 1.2847 FC3-2.0405 BSP  18612   SGB 5704.0 R23  .0228 R13 -.9582     LSA 1291.4 MSA  381.3 SSA   20.0
 BDE  .3817 BRA 2.0988 BC3 5.6896 FSP   -844   SG1 5689.6 SG2  404.5 THA 174.80     EL1 1241.4 EL2  304.5 ALF 166.43
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 535.933

```
RL  150.84 LAL    .00 LOL 342.03 VL  26.263 GAL   3.27 AZL  90.94 HCA 258.68 SMA 124.03 ECC .22316 INC  .9384 V1  29.540
RP  108.45 LAP    .92 LOP 240.70 VP  37.115 GAP  10.71 AZP  89.82 TAL 168.45 TAP  67.13 RCA  96.35 APO 151.71 V2  34.943
RC 154.408 GL   -6.38 GP   17.81 ZAL  60.05 ZAP 158.45 ETS  50.89 ZAE 125.37 ETE 167.53 ZAC 119.92 ETC 261.63 CLP-167.67
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PLANETOCENTRIC CONIC

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C3  14.928 VHL  3.864 DLA -29.24 RAL 283.91 RAD 6567.6 VEL 11.675 PTH   2.05 VHP  7.177 DPA  -4.63 RAP 254.84 ECC 1.2457
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.40	12 18 7	1027.65	21.86	335.08	148.09	109.91	12 35 14	427.6	24.38	327.24
97.60	14 23 37	621.96	21.87	305.32	148.10	109.90	14 33 59	22.0	24.39	297.47
100.00	13 49 42	730.76	17.97	311.68	146.41	114.30	14 1 53	130.8	21.10	304.28
100.00	15 34 43	5682.13	25.88	267.75	149.50	105.50	17 9 25	5082.1	27.76	259.45
110.00	13 32 51	783.84	11.12	311.86	142.59	122.53	13 45 55	183.8	15.33	305.29
110.00	18 8 4	5201.81	33.51	233.08	151.26	97.18	19 34 45	4601.8	34.14	223.89

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1183 TRA 2.3299 TC3-5.3138 BAU 1.0619   SGT 5707.0 SGR  637.7 SG3  230.0     ST  1207.0 SR   401.1 SS   449.4
 RDE  .2530 RRA -.2781 RC3  .2668 FAU .03005   RRT -.7650 RRF -.7482 RTF  .9567     CRT -.4854 CRS  .0346 CST -.8893
 FDE  .1570 FRA 1.3439 FC3-1.7427 BSP  18443   SGB 5742.5 R23  .0194 R13 -.9569     LSA 1286.4 MSA  405.8 SSA   19.3
 BDE  .2793 BRA 2.3464 BC3 5.3205 FSP   -793   SG1 5727.9 SG2  409.2 THA 175.09     EL1 1224.0 EL2  345.8 ALF 170.03
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 541.575

```
RL  150.84 LAL    .00 LOL 342.03 VL  26.224 GAL   3.76 AZL  90.74 HCA 261.86 SMA 123.80 ECC .22757 INC  .7444 V1  29.540
RP  108.49 LAP    .74 LOP 243.89 VP  37.076 GAP  11.10 AZP  89.89 TAL 167.01 TAP  68.87 RCA  95.63 APO 151.97 V2  34.931
RC 156.530 GL   -4.86 GP   17.09 ZAL  57.61 ZAP 159.58 ETS  52.14 ZAE 125.32 ETE 168.05 ZAC 119.37 ETC 262.20 CLP-168.66
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PLANETOCENTRIC CONIC

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C3  16.100 VHL  4.012 DLA -27.48 RAL 286.39 RAD 6567.6 VEL 11.725 PTH   2.07 VHP  7.382 DPA  -5.68 RAP 256.80 ECC 1.2650
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 30 23	1038.61	15.84	333.33	149.47	113.78	12 47 42	438.6	18.93	326.01
90.00	14 31 9	645.08	24.74	307.97	152.73	104.23	14 41 54	45.1	26.46	299.72
100.00	13 11 35	905.49	12.78	322.05	147.96	117.26	13 26 40	305.5	16.33	315.06
100.00	16 32 39	5541.47	28.06	257.87	153.55	100.74	18 5 0	4941.5	29.26	249.27
110.00	13 20 43	876.78	7.68	316.85	144.93	123.41	13 35 20	276.8	12.02	310.45
110.00	18 40 0	5142.94	33.92	228.53	154.47	94.52	20 5 42	4542.9	34.17	219.29

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0396 TRA 2.5783 TC3-4.9576 BAU 1.0683   SGT 5749.1 SGR  622.6 SG3  221.2     ST  1251.9 SR   390.4 SS   474.5
 RDE  .2550 RRA -.2912 RC3  .2342 FAU .02771   RRT -.7466 RRF -.7280 RTF  .9564     CRT -.3174 CRS -.0698 CST -.9228
 FDE  .2213 FRA 1.3928 FC3-1.4903 BSP  18505   SGB 5782.7 R23  .0154 R13 -.9565     LSA 1332.4 MSA  411.6 SSA   18.6
 BDE  .2581 BRA 2.5947 BC3 4.9631 FSP   -759   SG1 5768.0 SG2  412.9 THA 175.35     EL1 1258.6 EL2  368.2 ALF 173.82
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LAUNCH DATE SEP 5 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 547.176

RL	150.84	LAL	.00	LOL	342.03	VL	26.186	GAL	4.27	AZL	90.55	HCA	265.04	SMA	123.57	ECC	.23233	INC	.5539
RP	108.53	LAP	.55	LOP	247.07	VP	37.037	GAP	11.50	AZP	89.95	TAL	165.57	TAP	70.61	RCA	94.86	APO	152.28
RC	158.641	GL	-3.46	GP	16.44	ZAL	55.27	ZAP	160.64	ETS	53.58	ZAE	125.27	ETE	168.52	ZAC	118.87	ETC	262.78

PLANETOCENTRIC CONIC

C3	17.461	VHL	4.179	DLA	-25.82	RAL	288.73	RAD	6567.7	VEL	11.783	PTH	2.08	VHP	7.600	DPA	-6.65	RAP	258.81

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 55 55	1203.36	11.09	343.10	151.28	116.22	12 15 59	603.4	14.53	336.10
90.00	15 24 16	5805.64	26.58	276.99	156.64	100.14	17 1 2	5205.6	27.71	268.51
100.00	12 51 3	1025.34	8.95	328.89	150.15	118.64	13 8 9	425.3	12.70	322.11
100.00	17 11 49	5458.89	28.97	251.90	157.06	97.72	18 42 48	4858.9	29.73	243.18
110.00	13 11 53	959.98	4.53	321.24	147.45	123.92	13 27 53	360.0	8.96	314.95
110.00	19 7 29	5097.02	34.11	224.96	157.59	92.41	20 32 26	4497.0	34.07	215.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1952	TRA	2.8343	TC3	-4.6017	BAU	1.0753	SGT	5787.9	SGR	608.8	SG3	212.7	ST	1327.6	SR	381.6	SS	498.5
RDE	.2591	RRA	-.3042	RC3	.2060	FAU	.02557	RRT	-.7287	RRF	-.7088	RTF	.9565	CRT	-.1689	CRS	-.1493	CST	-.9485
FDE	.2766	FRA	1.4376	FC3	-1.2680	BSP	18660	SGB	5819.8	R23	.0120	R13	-.9566	LSA	1411.2	MSA	405.8	SSA	17.9
BDE	.3244	BRA	2.8505	BC3	4.6063	FSP	-732	SG1	5805.0	SG2	415.7	THA	175.59	EL1	1329.2	EL2	375.6	ALF	176.98

LAUNCH DATE SEP 5 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 552.731

RL	150.84	LAL	.00	LOL	342.03	VL	26.148	GAL	4.81	AZL	90.37	HCA	268.22	SMA	123.34	ECC	.23748	INC	.3650
RP	108.56	LAP	.37	LOP	250.25	VP	36.999	GAP	11.92	AZP	89.99	TAL	164.12	TAP	72.35	RCA	94.05	APO	152.63
RC	160.740	GL	-2.18	GP	15.84	ZAL	53.03	ZAP	161.64	ETS	55.23	ZAE	125.20	ETE	168.94	ZAC	118.40	ETC	263.36

PLANETOCENTRIC CONIC

C3	19.032	VHL	4.363	DLA	-24.25	RAL	290.93	RAD	6567.8	VEL	11.850	PTH	2.10	VHP	7.833	DPA	-7.52	RAP	260.87

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 36 10	1321.42	7.46	349.87	153.60	117.40	11 58 12	721.4	11.07	343.05
90.00	16 1 35	5727.88	27.39	271.45	160.12	97.48	17 37 3	5127.9	28.14	262.86
100.00	12 37 3	1124.89	5.65	334.45	152.61	119.40	12 55 48	524.9	9.53	327.80
100.00	17 43 23	5399.64	29.43	247.56	160.38	95.48	19 13 23	4799.6	29.88	238.78
110.00	13 5 13	1036.56	1.61	325.25	150.11	124.15	13 22 30	436.6	6.08	319.01
110.00	19 31 43	5060.73	34.18	222.12	160.68	90.74	20 56 4	4460.7	33.90	212.89

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3425	TRA	3.0922	TC3	-4.2645	BAU	1.0861	SGT	5821.3	SGR	595.7	SG3	204.2	ST	1414.4	SR	374.8	SS	517.3
RDE	.2657	RRA	-.3163	RC3	.1830	FAU	.02380	RRT	-.7113	RRF	-.6906	RTF	.9572	CRT	-.8495	CRS	-.2080	CST	-.9659
FDE	.3205	FRA	1.4751	FC3	-1.0824	BSP	19049	SGB	5851.7	R23	.0087	R13	-.9573	LSA	1500.7	MSA	395.0	SSA	17.1
BDE	.4335	BRA	3.1084	BC3	4.2684	FSP	-718	SG1	5836.8	SG2	417.6	THA	175.82	EL1	1414.5	EL2	374.3	ALF	179.19

LAUNCH DATE SEP 5 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 558.238

RL	150.84	LAL	.00	LOL	342.03	VL	26.110	GAL	5.38	AZL	90.18	HCA	271.40	SMA	123.11	ECC	.24305	INC	.1765
RP	108.60	LAP	.18	LOP	253.42	VP	36.962	GAP	12.36	AZP	90.00	TAL	162.68	TAP	74.08	RCA	93.19	APO	153.03
RC	162.826	GL	-1.01	GP	15.30	ZAL	50.91	ZAP	162.57	ETS	57.09	ZAE	125.14	ETE	169.32	ZAC	117.96	ETC	263.95

PLANETOCENTRIC CONIC

C3	20.840	VHL	4.565	DLA	-22.78	RAL	293.01	RAD	6567.8	VEL	11.926	PTH	2.12	VHP	8.081	DPA	-8.32	RAP	262.96

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 22 24	1420.51	4.32	355.46	156.15	118.01	11 46 5	820.5	8.04	348.75
90.00	16 31 54	5671.96	27.82	267.41	163.45	95.50	18 6 26	5072.0	28.29	258.78
100.00	12 26 43	1212.97	2.69	339.31	155.25	119.78	12 46 55	613.0	6.64	332.74
100.00	18 10 18	5354.73	29.68	244.24	163.62	93.75	19 39 32	4754.7	29.88	235.45
110.00	13 0 6	1108.30	-1.13	328.99	152.86	124.17	13 18 34	508.3	3.36	322.78
110.00	19 53 24	5032.17	34.18	219.89	163.77	89.42	21 17 16	4432.2	33.72	210.68

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5137	TRA	3.3844	TC3	-3.8863	BAU	1.0837	SGT	5850.7	SGR	582.3	SG3	196.7	ST	1528.8	SR	366.1	SS	543.4
RDE	.2711	RRA	-.3307	RC3	.1575	FAU	.02150	RRT	-.6941	RRF	-.6726	RTF	.9571	CRT	.0577	CRS	-.2628	CST	-.9778
FDE	.3722	FRA	1.5231	FC3	-.8932	BSP	18915	SGB	5879.6	R23	.0068	R13	-.9571	LSA	1619.2	MSA	380.0	SSA	16.5
BDE	.5808	BRA	3.4005	BC3	3.8895	FSP	-679	SG1	5864.7	SG2	418.2	THA	176.03	EL1	1529.0	EL2	365.5	ALF	.84

LAUNCH DATE SEP 5 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 563.688

RL	150.84	LAL	.00	LOL	342.03	VL	26.072	GAL	5.98	AZL	89.99	HCA	274.57	SMA	122.88	ECC	.24908	INC	.0000
RP	108.63	LAP	-.01	LOP	256.60	VP	36.925	GAP	12.82	AZP	90.00	TAL	161.24	TAP	75.82	RCA	92.28	APO	153.49
RC	164.900	GL	.06	GP	14.80	ZAL	48.89	ZAP	163.44	ETS	59.20	ZAE	125.06	ETE	169.67	ZAC	117.55	ETC	264.54

PLANETOCENTRIC CONIC

C3	22.915	VHL	4.787	DLA	-21.40	RAL	294.96	RAD	6567.9	VEL	12.012	PTH	2.14	VHP	8.347	DPA	-9.04	RAP	265.09

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 12 5	1508.51	1.49	.38	158.85	118.28	11 37 13	908.5	5.26	353.73
90.00	16 57 49	5629.82	28.06	264.35	166.71	93.98	18 31 39	5029.8	28.32	255.70
100.00	12 18 44	1293.39	-.03	343.72	158.00	119.89	12 40 17	693.4	3.94	337.19
100.00	18 33 51	5320.17	29.80	241.68	166.82	92.41	20 2 31	4720.2	29.82	232.88
110.00	12 56 6	1176.24	-3.72	332.54	155.70	124.00	13 15 42	576.2	.77	326.33
110.00	20 12 58	5010.09	34.15	218.17	166.86	88.40	21 36 28	4410.1	33.55	208.98

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6770	TRA	3.6795	TC3	-3.5393	BAU	1.0851	SGT	5874.8	SGR	569.1	SG3	189.1	ST	1637.3	SR	359.0	SS	563.1
RDE	.2787	RRA	-.3439	RC3	.1368	FAU	.01958	RRT	-.6773	RRF	-.6555	RTF	.9576	CRT	.1390	CRS	-.3036	CST	-.9853
FDE	.4137	FRA	1.5645	FC3	-.7398	BSP	19040	SGB	5902.3	R23	.0050	R13	-.9576	LSA	1730.0	MSA	365.6	SSA	15.9
BDE	.7321	BRA	3.6956	BC3	3.5420	FSP	-654	SG1	5887.5	SG2	417.8	THA	176.23	EL1	1638.1	EL2	355.4	ALF	1.83

LAUNCH DATE SEP 5 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 569.075

RL	150.84	LAL	.00	LOL	342.03	VL	26.034	GAL	6.62	AZL	89.80	HCA	277.75	SMA	122.66	ECC	.25562	INC	.2006
RP	108.66	LAP	-.20	LOP	259.77	VP	36.888	GAP	13.31	AZP	89.97	TAL	159.81	TAP	77.56	RCA	91.31	APO	154.02
RC	166.961	GL	1.03	GP	14.35	ZAL	46.99	ZAP	164.24	ETS	61.57	ZAE	124.98	ETE	169.99	ZAC	117.16	ETC	265.14

PLANETOCENTRIC CONIC

C3	25.292	VHL	5.029	DLA	-20.11	RAL	296.80	RAD	6568.0	VEL	12.111	PTH	2.17	VHP	8.632	DPA	-9.68	RAP	267.24

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 4 1	1589.00	-1.10	4.87	161.65	118.30	11 30 30	989.0	2.69	358.24
90.00	17 20 32	5597.72	28.19	262.01	169.93	92.81	18 53 50	4997.7	28.28	253.35
100.00	12 12 25	1368.23	-2.57	347.83	160.84	119.79	12 35 13	768.2	1.41	341.31
100.00	18 54 49	5293.72	29.86	239.72	170.00	91.38	20 23 3	4693.7	29.74	230.92
110.00	12 52 59	1241.13	-6.18	335.95	158.60	123.69	13 13 40	641.1	-1.71	329.72
110.00	20 30 45	4993.58	34.11	216.88	169.96	87.63	21 53 58	4393.6	33.41	207.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8429	TRA	3.9891	TC3	-3.2052	BAU	1.0845	SGT	5894.0	SGR	555.8	SG3	181.9	ST	1743.5	SR	352.3	SS	580.7
RDE	.2874	RRA	-.3569	RC3	.1182	FAU	.01775	RRT	-.6608	RRF	-.6391	RTF	.9583	CRT	.2043	CRS	-.3369	CST	-.9901
FDE	.4514	FRA	1.6055	FC3	-.6077	BSP	19173	SGB	5920.1	R23	.0035	R13	-.9584	LSA	1837.6	MSA	351.8	SSA	15.3
BDE	.8906	BRA	4.0051	BC3	3.2074	FSP	-631	SG1	5905.5	SG2	416.3	THA	176.42	EL1	1745.0	EL2	344.5	ALF	2.46

LAUNCH DATE SEP 5 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 574.390

RL	150.84	LAL	.00	LOL	342.03	VL	25.997	GAL	7.29	AZL	89.61	HCA	280.92	SMA	122.44	ECC	.26272	INC	.3933
RP	108.69	LAP	-.39	LOP	262.94	VP	36.852	GAP	13.83	AZP	89.93	TAL	158.39	TAP	79.31	RCA	90.27	APO	154.61
RC	169.007	GL	1.92	GP	13.93	ZAL	45.19	ZAP	164.98	ETS	64.22	ZAE	124.89	ETE	170.28	ZAC	116.79	ETC	265.74

PLANETOCENTRIC CONIC

C3	28.016	VHL	5.293	DLA	-18.90	RAL	298.52	RAD	6568.1	VEL	12.223	PTH	2.20	VHP	8.937	DPA	-10.25	RAP	269.42

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 57 33	1663.96	-3.52	9.06	164.53	118.12	11 25 17	1064.0	.27	2.42
90.00	17 40 47	5573.49	28.26	260.24	173.14	91.93	19 13 40	4973.5	28.23	251.58
100.00	12 7 21	1438.75	-4.95	351.71	163.74	119.52	12 31 19	838.8	-.98	345.17
100.00	19 13 40	5273.93	29.89	238.25	173.18	90.61	20 41 34	4673.9	29.65	229.45
110.00	12 50 31	1303.46	-8.52	339.26	161.55	123.23	13 12 15	703.5	-4.09	332.98
110.00	20 46 59	4981.99	34.07	215.98	173.08	87.10	22 10 1	4382.0	33.30	206.82

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0124	TRA	4.3138	TC3	-2.8869	BAU	1.0819	SGT	5907.9	SGR	541.9	SG3	174.9	ST	1844.5	SR	345.6	SS	596.3
RDE	.2970	RRA	-.3696	RC3	.1015	FAU	.01601	RRT	-.6444	RRF	-.6230	RTF	.9593	CRT	.2575	CRS	-.3651	CST	-.9932
FDE	.4862	FRA	1.6460	FC3	-.4946	BSP	19320	SGB	5932.7	R23	.0023	R13	-.9593	LSA	1939.6	MSA	338.7	SSA	14.8
BDE	1.0551	BRA	4.3296	BC3	2.8886	FSP	-609	SG1	5918.2	SG2	413.7	THA	176.60	EL1	1846.7	EL2	333.5	ALF	2.86

LAUNCH DATE SEP 5 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 579.624

RL	150.84	LAL	.00	LOL	342.03	VL	25.960	GAL	8.01	AZL	89.41	HCA	284.09	SMA	122.23	ECC	.27046	INC	.5902
RP	108.72	LAP	-.57	LOP	266.11	VP	36.817	GAP	14.38	AZP	89.86	TAL	156.99	TAP	81.07	RCA	89.17	APO	155.28
RC	171.039	GL	2.72	GP	13.55	ZAL	43.49	ZAP	165.66	ETS	67.17	ZAE	124.78	ETE	170.55	ZAC	116.43	ETC	266.34

PLANETOCENTRIC CONIC

C3	31.137	VHL	5.580	DLA	-17.78	RAL	300.15	RAD	6568.2	VEL	12.349	PTH	2.23	VHP	9.265	DPA	-10.75	RAP	271.61

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 52 18	1734.59	-5.77	13.02	167.48	117.77	11 21 13	1134.6	-2.01	6.36
90.00	17 58 58	5555.75	28.29	258.95	176.33	91.28	19 31 34	4955.8	28.17	250.28
100.00	12 3 13	1505.78	-7.18	355.44	166.71	119.09	12 28 18	905.8	-3.25	348.86
100.00	19 30 45	5259.80	29.89	237.20	176.35	90.05	20 58 25	4659.8	29.58	228.41
110.00	12 48 35	1363.60	-10.75	342.49	164.55	122.65	13 11 19	763.6	-6.37	336.14
110.00	21 1 52	4974.74	34.05	215.41	176.21	86.77	22 24 46	4374.7	33.23	206.27

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1855	TRA	4.6550	TC3	-2.5855	BAU	1.0769	SGT	5916.3	SGR	527.5	SG3	168.2	ST	1938.2	SR	338.9	SS	610.2
RDE	.3074	RRA	-.3816	RC3	.0865	FAU	.01434	RRT	-.6279	RRF	-.6071	RTF	.9604	CRT	.3015	CRS	-.3892	CST	-.9953
FDE	.5182	FRA	1.6869	FC3	-.3988	BSP	19483	SGB	5939.7	R23	.0014	R13	-.9605	LSA	2034.0	MSA	326.4	SSA	14.3
BDE	1.2247	BRA	4.6706	BC3	2.5870	FSP	-590	SG1	5925.6	SG2	409.9	THA	176.78	EL1	1941.0	EL2	322.7	ALF	3.10

LAUNCH DATE SEP 5 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 584.763

RL	150.84	LAL	.00	LOL	342.03	VL	25.924	GAL	8.78	AZL	89.21	HCA	287.25	SMA	122.02	ECC	.27889	INC	.7924
RP	108.75	LAP	-.76	LOP	269.28	VP	36.783	GAP	14.97	AZP	89.76	TAL	155.60	TAP	82.86	RCA	87.99	APO	156.04
RC	173.056	GL	3.45	GP	13.20	ZAL	41.90	ZAP	166.27	ETS	70.45	ZAE	124.67	ETE	170.80	ZAC	116.08	ETC	266.94

PLANETOCENTRIC CONIC

C3	34.719	VHL	5.892	DLA	-16.73	RAL	301.67	RAD	6568.4	VEL	12.494	PTH	2.26	VHP	9.620	DPA	-11.19	RAP	273.82

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 47 58	1801.71	-7.88	16.82	170.47	117.28	11 18 0	1201.7	-4.17	10.12
90.00	18 15 27	5543.51	28.31	258.05	179.51	90.83	19 47 50	4943.5	28.12	249.39
100.00	11 59 49	1569.89	-9.29	359.03	169.72	118.54	12 25 59	969.9	-5.40	352.39
100.00	19 46 17	5250.56	29.89	236.51	179.52	89.69	21 13 48	4650.6	29.53	227.72
110.00	12 47 5	1421.81	-12.87	345.67	167.59	121.94	13 10 47	821.8	-8.55	339.23
110.00	21 15 31	4971.40	34.04	215.15	179.36	86.61	22 38 22	4371.4	33.19	206.01

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3639	TRA	5.0148	TC3	-2.3013	BAU	1.0687	SGT	5919.6	SGR	512.4	SG3	161.8	ST	2024.6	SR	332.2	SS	623.0
RDE	.3186	RRA	-.3929	RC3	.0729	FAU	.01274	RRT	-.6111	RRF	-.5912	RTF	.9618	CRT	.3389	CRS	-.4105	CST	-.9967
FDE	.5485	FRA	1.7287	FC3	-.3176	BSP	19653	SGB	5941.7	R23	.0008	R13	-.9618	LSA	2120.9	MSA	314.7	SSA	13.8
BDE	1.4006	BRA	5.0302	BC3	2.3024	FSP	-571	SG1	5927.9	SG2	405.0	THA	176.96	EL1	2027.8	EL2	312.0	ALF	3.26

LAUNCH DATE SEP 5 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 589.792

RL	150.84	LAL	.00	LOL	342.03	VL	25.888	GAL	9.60	AZL	89.00	HCA	290.42	SMA	121.81	ECC	.28811
RP	108.78	LAP	-.94	LOP	272.45	VP	36.750	GAP	15.61	AZP	89.65	TAL	154.24	TAP	84.66	RCA	86.71
RC	175.059	GL	4.11	GP	12.88	ZAL	40.41	ZAP	166.81	ETS	74.07	ZAE	124.54	ETE	171.03	ZAC	115.74

INC	1.0015	V1	29.540	APO	156.90	V2	34.837	ETC	267.54	CLP	-177.14						

PLANETOCENTRIC CONIC

C3	38.837	VHL	6.232	DLA	-15.76	RAL	303.09	RAD	6568.5	VEL	12.657	PTH	2.30	VHP	10.004	DPA	-11.56
RAP	276.03	ECC	1.6392														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 44 22	1865.84	-9.87	20.49	173.51	116.68	11 15 28	1265.8	-6.21	13.72
90.00	18 30 25	5536.02	28.31	257.50	182.68	90.56	20 2 41	4936.0	28.09	248.84
100.00	11 57 0	1631.47	-11.27	2.53	172.77	117.87	12 24 12	1031.5	-7.45	355.82
100.00	20 0 28	5245.62	29.89	236.14	182.69	89.50	21 27 54	4645.6	29.50	227.36
110.00	12 45 54	1478.29	-14.88	348.81	170.67	121.14	13 10 33	878.3	-10.65	342.27
110.00	21 28 4	4971.57	34.04	215.17	182.52	86.62	22 50 55	4371.6	33.19	206.03

DIFFERENTIAL CORRECTIONS

TDE	1.5483	TRA	5.3957	TC3	-2.0339	BAU	1.0565
RDE	.3306	RRA	-.4032	RC3	.0607	FAU	.01117
FDE	.5775	FRA	1.7722	FC3	-.2491	BSP	19816
BDE	1.5832	BRA	5.4107	BC3	2.0348	FSP	-553

MID-COURSE EXECUTION ACCURACY

SGT	5917.9	SGR	496.5	SG3	155.6		
RRT	-.5938	RRF	-.5750	RTF	.9634		
SGB	5938.7	R23	.0004	R13	-.9634		
SG1	5925.2	SG2	399.0	THA	177.14		

ORBIT DETERMINATION ACCURACY

ST	2103.2	SR	325.2	SS	635.1		
CRT	.3711	CRS	-.4297	CST	-.9977		
LSA	2200.0	MSA	303.4	SSA	13.3		
EL1	2106.7	EL2	301.5	ALF	3.35		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 594.694

RL	150.84	LAL	.00	LOL	342.03	VL	25.852	GAL	10.47	AZL	88.78	HCA	293.58	SMA	121.60	ECC	.29822
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.717	GAP	16.30	AZP	89.51	TAL	152.91	TAP	86.50	RCA	85.34
RC	177.047	GL	4.70	GP	12.58	ZAL	39.02	ZAP	167.27	ETS	78.04	ZAE	124.40	ETE	171.25	ZAC	115.40

INC	1.2193	V1	29.540	APO	157.86	V2	34.829
ETC	268.13	CLP	-178.08				

PLANETOCENTRIC CONIC

C3	43.584	VHL	6.602	DLA	-14.86	RAL	304.42	RAD	6568.7	VEL	12.843	PTH	2.34	VHP	10.420	DPA	-11.87
RAP	278.24	ECC	1.7173														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 41 21	1927.36	-11.72	24.06	176.57	115.96	11 13 28	1327.4	-8.14	17.21
90.00	18 44 4	5532.69	28.31	257.26	185.85	90.44	20 16 17	4932.7	28.07	248.60
100.00	11 54 40	1690.79	-13.13	5.95	175.85	117.10	12 22 51	1090.8	-9.40	359.15
100.00	20 13 26	5244.49	29.89	236.06	185.85	89.45	21 40 50	4644.5	29.49	227.28
110.00	12 45 0	1533.14	-16.79	351.92	173.78	120.22	13 10 33	933.1	-12.65	345.26
110.00	21 39 36	4974.90	34.05	215.43	185.68	86.77	23 2 30	4374.9	33.23	206.28

DIFFERENTIAL CORRECTIONS

TDE	1.7410	TRA	5.8004	TC3	-1.7833	BAU	1.0395
RDE	.3433	RRA	-.4124	RC3	.0497	FAU	.00964
FDE	.6062	FRA	1.8182	FC3	-.1914	BSP	19958
BDE	1.7745	BRA	5.8151	BC3	1.7840	FSP	-536

MID-COURSE EXECUTION ACCURACY

SGT	5912.1	SGR	479.8	SG3	149.8		
RRT	-.5756	RRF	-.5582	RTF	.9651		
SGB	5931.5	R23	.0002	R13	-.9651		
SG1	5918.6	SG2	391.9	THA	177.31		

ORBIT DETERMINATION ACCURACY

ST	2174.7	SR	318.0	SS	647.2		
CRT	.3998	CRS	-.4477	CST	-.9984		
LSA	2272.4	MSA	292.3	SSA	12.8		
EL1	2178.5	EL2	291.0	ALF	3.41		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 599.446

RL	150.84	LAL	.00	LOL	342.03	VL	25.817	GAL	11.42	AZL	88.55	HCA	296.74	SMA	121.40	ECC	.30931
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.686	GAP	17.04	AZP	89.35	TAL	151.62	TAP	88.37	RCA	83.85
RC	179.021	GL	5.24	GP	12.31	ZAL	37.73	ZAP	167.65	ETS	82.36	ZAE	124.23	ETE	171.46	ZAC	115.07

INC	1.4477	V1	29.540	APO	158.95	V2	34.822
ETC	268.72	CLP	-179.05				

PLANETOCENTRIC CONIC

C3	49.072	VHL	7.005	DLA	-14.02	RAL	305.66	RAD	6568.8	VEL	13.055	PTH	2.38	VHP	10.875	DPA	-12.12
RAP	280.45	ECC	1.8076														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 38 47	1986.52	-13.46	27.53	179.65	115.15	11 11 54	1386.5	-9.96	20.60
90.00	18 56 31	5533.03	28.31	257.28	188.99	90.45	20 28 44	4933.0	28.08	248.63
100.00	11 52 42	1748.05	-14.88	9.30	178.95	116.23	12 21 50	1148.0	-11.24	2.40
100.00	20 25 17	5246.74	29.89	236.23	188.99	89.54	21 52 44	4646.7	29.51	227.44
110.00	12 44 17	1586.47	-18.59	355.01	176.92	119.22	13 10 44	986.5	-14.55	348.22
110.00	21 50 11	4981.09	34.07	215.91	188.85	87.06	23 13 12	4381.1	33.29	206.75

DIFFERENTIAL CORRECTIONS

TDE	1.9432	TRA	6.2319	TC3	-1.5484	BAU	1.0162
RDE	.3568	RRA	-.4200	RC3	.0399	FAU	.00810
FDE	.6349	FRA	1.8673	FC3	-.1429	BSP	20062
BDE	1.9756	BRA	6.2461	BC3	1.5489	FSP	-518

MID-COURSE EXECUTION ACCURACY

SGT	5902.0	SGR	462.2	SG3	144.3		
RRT	-.5563	RRF	-.5404	RTF	.9671		
SGB	5920.1	R23	.0001	R13	-.9671		
SG1	5907.7	SG2	383.7	THA	177.49		

ORBIT DETERMINATION ACCURACY

ST	2239.3	SR	310.5	SS	659.5		
CRT	.4260	CRS	-.4650	CST	-.9989		
LSA	2338.0	MSA	281.4	SSA	12.4		
EL1	2243.2	EL2	280.4	ALF	3.43		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 604.020

RL	150.84	LAL	.00	LOL	342.03	VL	25.783	GAL	12.44	AZL	88.31	HCA	299.90	SMA	121.20	ECC	.32153
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.655	GAP	17.85	AZP	89.16	TAL	150.38	TAP	90.28	RCA	82.23
RC	180.980	GL	5.72	GP	12.06	ZAL	36.53	ZAP	167.94	ETS	87.02	ZAE	124.04	ETE	171.66	ZAC	114.74

INC	1.6892	V1	29.540	APO	160.18	V2	34.815
ETC	269.31	CLP	179.97				

PLANETOCENTRIC CONIC

C3	55.442	VHL	7.446	DLA	-13.25	RAL	306.81	RAD	6569.0	VEL	13.297	PTH	2.43	VHP	11.372	DPA	-12.31
RAP	282.64	ECC	1.9124														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 36 37	2043.48	-15.08	30.93	182.74	114.25	11 10 41	1443.5	-11.68	23.90
90.00	19 7 51	5536.64	28.31	257.55	192.11	90.58	20 40 7	4936.6	28.09	248.89
100.00	11 51 3	1803.34	-16.52	12.59	182.06	115.27	12 21 6	1203.3	-12.98	5.58
100.00	20 36 6	5252.01	29.89	236.62	192.12	89.75	22 3 38	4652.0	29.54	227.83
110.00	12 43 45	1638.28	-20.28	358.07	180.06	118.13	13 11 3	1038.3	-16.36	351.14
110.00	21 59 53	4989.84	34.10	216.59	192.00	87.46	23 23 3	4389.8	33.37	207.42

DIFFERENTIAL CORRECTIONS

TDE	2.0984	TRA	6.6953	TC3	-1.3283	BAU	.9848
RDE	.3702	RRA	-.4258	RC3	.0311	FAU	.00654
FDE	.6638	FRA	1.9209	FC3	-.1021	BSP	20086
BDE	2.1308	BRA	6.7089	BC3	1.3287	FSP	-499

MID-COURSE EXECUTION ACCURACY

SGT	5876.7	SGR	443.4	SG3	139.0		
RRT	-.5424	RRF	-.5223	RTF	.9689		
SGB	5893.4	R23	-.0063	R13	-.9688		
SG1	5881.7	SG2	372.2	THA	177.65		

ORBIT DETERMINATION ACCURACY

ST	2265.4	SR	302.2	SS	672.5		
CRT	.4375	CRS	-.4810	CST	-.9986		
LSA	2366.7	MSA	272.6	SSA	12.0		
EL1	2269.3	EL2	271.3	ALF	3.39		

LAUNCH DATE SEP 5 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 608.380

RL	150.84	LAL	.00	LOL	342.03	VL	25.750	GAL	13.54	AZL	88.05	HCA	303.06	SMA	121.01	ECC	.33503	INC	1.9464
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.626	GAP	18.74	AZP	88.94	TAL	149.19	TAP	92.26	RCA	80.47	APO	161.56
RC	182.925	GL	6.16	GP	11.83	ZAL	35.43	ZAP	168.12	ETS	91.99	ZAE	123.82	ETE	171.85	ZAC	114.41	ETC	269.88

V1	29.540	V2	34.809	CLP	178.96														

PLANETOCENTRIC CONIC

C3	62.867	VHL	7.929	DLA	-12.55	RAL	307.87	RAD	6569.2	VEL	13.573	PTH	2.48	VHP	11.918	DPA	-12.45	RAP	284.81
ECC	2.0346																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 34 45	2098.32	-16.59	34.25	185.83	113.28	11 9 44	1498.3	-13.30	27.12
90.00	19 18 8	5543.15	28.31	258.02	195.20	90.82	20 50 31	4943.1	28.12	249.36
100.00	11 49 38	1856.71	-18.04	15.82	185.16	114.25	12 20 35	1256.7	-14.61	8.70
100.00	20 45 56	5259.99	29.89	237.21	195.21	90.06	22 13 36	4660.0	29.58	228.42
110.00	12 43 20	1688.57	-21.86	1.12	183.21	116.96	13 11 28	1088.6	-18.07	354.04
110.00	22 8 44	5000.90	34.13	217.45	195.13	87.97	23 32 5	4400.9	33.47	208.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.3865	TRA	7.1933	TC3	-1.1239	BAU	.9448	SGT	5874.4	SGR	424.4	SG3	134.2	ST	2351.4	SR	294.8	SS	687.6
RDE	.3860	RRA	-.4292	RC3	.0233	FAU	.00493	RRT	-.5122	RRF	-.4998	RTF	.9715	CRT	.4742	CRS	-.4994	CST	-.9994
FDE	.6957	FRA	1.9794	FC3	-.0678	BSP	20058	SGB	5889.7	R23	.0003	R13	-.9715	LSA	2453.8	MSA	259.5	SSA	11.5
BDE	2.4175	BRA	7.2061	BC3	1.1241	FSP	-478	SG1	5878.4	SG2	364.3	THA	177.87	EL1	2355.6	EL2	259.1	ALF	3.44

LAUNCH DATE SEP 5 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 612.484

RL	150.84	LAL	.00	LOL	342.03	VL	25.717	GAL	14.75	AZL	87.78	HCA	306.22	SMA	120.83	ECC	.34999	INC	2.2226
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.598	GAP	19.72	AZP	88.69	TAL	148.08	TAP	94.30	RCA	78.54	APO	163.12
RC	184.854	GL	6.55	GP	11.62	ZAL	34.44	ZAP	168.20	ETS	97.21	ZAE	123.57	ETE	172.04	ZAC	114.08	ETC	270.45

V1	29.540	V2	34.804	CLP	177.92														

PLANETOCENTRIC CONIC

C3	71.566	VHL	8.460	DLA	-11.90	RAL	308.83	RAD	6569.4	VEL	13.889	PTH	2.54	VHP	12.520	DPA	-12.54	RAP	286.95
ECC	2.1778																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 33 8	2151.04	-17.98	37.50	188.89	112.25	11 8 59	1551.0	-14.80	30.26
90.00	19 27 27	5552.25	28.30	258.69	198.23	91.15	20 59 59	4952.2	28.16	250.03
100.00	11 48 26	1908.14	-19.45	18.99	188.24	113.16	12 20 14	1308.1	-16.15	11.75
100.00	20 54 50	5270.38	29.89	237.98	198.26	90.47	22 22 41	4670.4	29.63	229.19
110.00	12 42 59	1737.27	-23.33	4.13	186.34	115.72	13 11 57	1137.3	-19.68	356.90
110.00	22 16 46	5014.02	34.16	218.47	198.22	88.58	23 40 20	4414.0	33.58	209.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.6325	TRA	7.7326	TC3	-.9329	BAU	.8927	SGT	5858.1	SGR	404.3	SG3	129.6	ST	2399.9	SR	286.6	SS	704.3
RDE	.4020	RRA	-.4298	RC3	.0165	FAU	.00324	RRT	-.4860	RRF	-.4756	RTF	.9739	CRT	.4975	CRS	-.5174	CST	-.9996
FDE	.7289	FRA	2.0443	FC3	-.0392	BSP	19896	SGB	5872.0	R23	.0006	R13	-.9739	LSA	2505.1	MSA	248.4	SSA	11.0
BDE	2.6630	BRA	7.7446	BC3	.9331	FSP	-457	SG1	5861.4	SG2	353.1	THA	178.07	EL1	2404.1	EL2	248.1	ALF	3.44

LAUNCH DATE SEP 5 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 616.276

RL	150.84	LAL	.00	LOL	342.03	VL	25.685	GAL	16.07	AZL	87.48	HCA	309.37	SMA	120.65	ECC	.36662	INC	2.5220
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.571	GAP	20.80	AZP	88.40	TAL	147.05	TAP	96.42	RCA	76.42	APO	164.88
RC	186.768	GL	6.90	GP	11.42	ZAL	33.54	ZAP	168.16	ETS	102.64	ZAE	123.26	ETE	172.23	ZAC	113.75	ETC	270.99

V1	29.540	V2	34.799	CLP	176.84														

PLANETOCENTRIC CONIC

C3	81.816	VHL	9.045	DLA	-11.32	RAL	309.70	RAD	6569.6	VEL	14.254	PTH	2.59	VHP	13.188	DPA	-12.59	RAP	289.05
ECC	2.3465																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 31 43	2201.60	-19.25	40.66	191.91	111.18	11 8 25	1601.6	-16.20	33.31
90.00	19 35 47	5563.66	28.28	259.52	201.21	91.57	21 8 30	4963.7	28.20	250.86
100.00	11 47 22	1957.56	-20.74	22.09	191.28	112.02	12 19 59	1357.6	-17.57	14.73
100.00	21 2 50	5282.93	29.88	238.92	201.25	90.96	22 30 52	4682.9	29.69	230.12
110.00	12 42 42	1784.28	-24.69	7.11	189.44	114.43	13 12 26	1184.3	-21.18	359.71
110.00	22 23 59	5028.98	34.18	219.64	201.26	89.27	23 47 48	4429.0	33.70	210.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.8970	TRA	8.3170	TC3	-.7561	BAU	.8271	SGT	5840.0	SGR	383.4	SG3	125.3	ST	2442.8	SR	278.2	SS	723.1
RDE	.4194	RRA	-.4269	RC3	.0108	FAU	.00144	RRT	-.4559	RRF	-.4475	RTF	.9764	CRT	.5210	CRS	-.5364	CST	-.9997
FDE	.7645	FRA	2.1164	FC3	-.0153	BSP	19619	SGB	5852.6	R23	.0009	R13	-.9764	LSA	2551.7	MSA	237.2	SSA	10.6
BDE	2.9272	BRA	8.3280	BC3	.7562	FSP	-433	SG1	5842.6	SG2	341.1	THA	178.28	EL1	2447.1	EL2	237.1	ALF	3.43

LAUNCH DATE SEP 5 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 619.684

RL	150.84	LAL	.00	LOL	342.03	VL	25.655	GAL	17.52	AZL	87.15	HCA	312.53	SMA	120.48	ECC	.38516	INC	2.8497
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.545	GAP	22.01	AZP	88.07	TAL	146.12	TAP	98.64	RCA	74.07	APO	166.88
RC	188.667	GL	7.21	GP	11.24	ZAL	32.76	ZAP	167.98	ETS	108.18	ZAE	122.91	ETE	172.42	ZAC	113.42	ETC	271.53

V1	29.540	V2	34.795	CLP	175.71														

PLANETOCENTRIC CONIC

C3	93.969	VHL	9.694	DLA	-10.80	RAL	310.47	RAD	6569.8	VEL	14.674	PTH	2.66	VHP	13.933	DPA	-12.60	RAP	291.11
ECC	2.5465																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 30 28	2249.88	-20.41	43.73	194.86	110.07	11 7 58	1649.9	-17.49	36.27
90.00	19 43 9	5577.14	28.25	260.51	204.10	92.06	21 16 6	4977.1	28.24	251.84
100.00	11 46 25	2004.85	-21.92	25.11	194.26	110.85	12 19 49	1404.9	-18.89	17.63
100.00	21 9 54	5297.40	29.86	239.99	204.15	91.52	22 38 11	4697.4	29.75	231.19
110.00	12 42 25	1829.45	-25.93	10.03	192.49	113.10	13 12 55	1229.5	-22.58	2.48
110.00	22 30 22	5045.56	34.18	220.94	204.22	90.03	23 54 28	4445.6	33.81	211.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.1833	TRA	8.9532	TC3	-.5930	BAU	.7451	SGT	5821.0	SGR	361.9	SG3	121.4	ST	2480.6	SR	269.9	SS	744.7
RDE	.4383	RRA	-.4195	RC3	.0061	FAU	-.00049	RRT	-.4206	RRF	-.4142	RTF	.9790	CRT	.5452	CRS	-.5568	CST	-.9998
FDE	.8033	FRA	2.1970	FC3	.0045	BSP	19204	SGB	5832.2	R23	.0013	R13	-.9790	LSA	2594.1	MSA	226.0	SSA	10.1
BDE	3.2134	BRA	8.9630	BC3	.5931	FSP	-409	SG1	5823.0	SG2	328.2	THA	178.50	EL1	2485.0	EL2	225.9	ALF	3.42

LAUNCH DATE SEP 6 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 15 1970

HELIOCENTRIC CONIC DISTANCE 170.053

RL	150.80	LAL	.00	LOL	343.00	VL	24.364	GAL	-3.52	AZL	91.31	HCA	71.99	SMA	113.76	ECC	.33069	INC	1.3056	V1	29.547
RP	108.03	LAP	-1.24	LOP	54.98	VP	35.922	GAP	-19.10	AZP	90.40	TAL	187.19	TAP	259.18	RCA	76.14	APO	151.38	V2	35.079
RC	40.497	GL	-5.92	GP	-10.32	ZAL	101.43	ZAP	11.89	ETS	116.85	ZAE	163.40	ETE	339.51	ZAC	90.75	ETC	260.06	CLP	5.94

PLANETOCENTRIC CONIC

C3	28.822	VHL	5.369	DLA	-26.26	RAL	238.05	RAD	6568.2	VEL	12.255	PTH	2.20	VHP	11.777	DPA	-29.39	RAP	235.90	ECC	1.4743

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 29	1292.12	8.38	348.20	108.50	117.15	9 1 1	692.1	11.95	341.35
90.00	11 48 33	671.46	24.29	309.77	114.86	105.02	11 59 44	71.5	26.12	301.57
100.00	9 32 12	1121.87	5.76	334.28	107.08	119.38	9 50 53	521.9	9.63	327.63
100.00	13 38 31	5604.97	27.18	262.38	115.66	102.96	15 11 56	5005.0	28.69	253.91
110.00	9 50 26	1064.62	.54	326.71	103.85	124.18	10 8 11	464.6	5.02	320.49
110.00	15 36 46	5234.99	33.20	235.62	116.99	98.65	17 4 1	4635.0	34.04	226.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1690	TRA	-.5889	TC3	.2190	BAU	.0898	SGT	761.0	SGR	441.7	SG3	69.4	ST	277.1	SR	432.2	SS	129.2
RDE	-.4048	RRA	-.0268	RC3	-.0799	FAU	.02279	RRT	-.2255	RRF	.2500	RTF	-.6664	CRT	-.6342	CRS	-.6337	CST	.9888
FDE	-.0772	FRA	.2634	FC3	-.6847	BSP	2023	SGB	879.8	R23	-.0322	R13	.6735	LSA	485.8	MSA	209.8	SSA	17.5
BDE	.4387	BRA	.5895	BC3	.2332	FSP	-158	SG1	770.4	SG2	425.0	THA	169.23	EL1	474.9	EL2	195.0	ALF	117.05

LAUNCH DATE SEP 6 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 176.783

RL	150.80	LAL	.00	LOL	343.00	VL	24.674	GAL	-3.58	AZL	91.10	HCA	75.20	SMA	115.27	ECC	.31390	INC	1.0989	V1	29.547
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.146	GAP	-17.95	AZP	90.28	TAL	187.88	TAP	263.08	RCA	79.08	APO	151.45	V2	35.092
RC	40.930	GL	-5.35	GP	-10.88	ZAL	102.60	ZAP	11.59	ETS	107.11	ZAE	160.81	ETE	339.08	ZAC	90.34	ETC	260.29	CLP	4.03

PLANETOCENTRIC CONIC

C3	25.677	VHL	5.067	DLA	-25.45	RAL	236.93	RAD	6568.0	VEL	12.127	PTH	2.17	VHP	11.137	DPA	-30.29	RAP	237.13	ECC	1.4226

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 0	1321.03	7.47	349.85	104.88	117.39	8 40 1	721.0	11.09	343.03
90.00	12 1 6	5873.15	25.68	281.73	111.71	102.36	13 38 59	5273.1	27.13	273.36
100.00	9 14 48	1137.64	5.23	335.15	103.66	119.47	9 33 45	537.6	9.12	328.52
100.00	13 46 59	5531.77	28.18	257.18	112.28	100.39	15 19 11	4931.8	29.33	248.56
110.00	9 37 35	1066.17	.48	326.79	100.71	124.18	9 55 21	466.2	4.96	320.57
110.00	15 40 42	5176.00	33.71	231.09	113.20	96.02	17 6 58	4576.0	34.18	221.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1680	TRA	-.5701	TC3	.2801	BAU	.1027	SGT	791.4	SGR	447.9	SG3	77.3	ST	286.4	SR	433.9	SS	124.8
RDE	-.3836	RRA	-.0258	RC3	-.1054	FAU	.02421	RRT	-.2528	RRF	.2809	RTF	-.6859	CRT	-.6465	CRS	-.6024	CST	.9858
FDE	-.0709	FRA	.2632	FC3	-.8164	BSP	2149	SGB	909.4	R23	-.0372	R13	.6938	LSA	490.6	MSA	211.8	SSA	18.4
BDE	.4188	BRA	.5707	BC3	.2993	FSP	-179	SG1	802.8	SG2	427.2	THA	168.58	EL1	481.1	EL2	197.0	ALF	118.26

LAUNCH DATE SEP 6 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 183.532

RL	150.80	LAL	.00	LOL	343.00	VL	24.958	GAL	-3.64	AZL	90.90	HCA	78.41	SMA	116.70	ECC	.29848	INC	.8981	V1	29.547
RP	107.95	LAP	-.88	LOP	61.41	VP	36.353	GAP	-16.84	AZP	90.18	TAL	188.65	TAP	267.06	RCA	81.86	APO	151.53	V2	35.105
RC	41.530	GL	-4.67	GP	-11.50	ZAL	103.90	ZAP	11.69	ETS	96.94	ZAE	158.32	ETE	338.51	ZAC	89.85	ETC	260.51	CLP	2.08

PLANETOCENTRIC CONIC

C3	23.005	VHL	4.796	DLA	-24.50	RAL	235.71	RAD	6567.9	VEL	12.016	PTH	2.14	VHP	10.528	DPA	-31.22	RAP	238.33	ECC	1.3786

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 7	1352.55	6.48	351.63	101.31	117.63	8 18 39	752.6	10.13	344.86
90.00	12 13 15	5787.70	26.79	275.72	108.39	99.54	13 49 43	5187.7	27.83	267.21
100.00	8 56 16	1158.36	4.53	336.30	100.24	119.58	9 15 34	558.4	8.44	329.69
100.00	13 55 47	5457.12	28.98	251.77	108.76	97.66	15 26 44	4857.1	29.74	243.05
110.00	9 23 24	1073.24	.21	327.16	97.55	124.18	9 41 18	473.2	4.70	320.95
110.00	15 45 8	5115.00	34.05	226.36	109.33	93.24	17 10 23	4515.0	34.12	217.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1657	TRA	-.5508	TC3	.3491	BAU	.1153	SGT	821.1	SGR	454.6	SG3	86.0	ST	293.9	SR	434.1	SS	118.4
RDE	-.3633	RRA	-.0253	RC3	-.1368	FAU	.02580	RRT	-.2835	RRF	.3159	RTF	-.7037	CRT	-.6569	CRS	-.5540	CST	.9769
FDE	-.0621	FRA	.2619	FC3	-.9710	BSP	2281	SGB	938.5	R23	-.0431	R13	.7128	LSA	493.0	MSA	213.0	SSA	19.5
BDE	.3993	BRA	.5514	BC3	.3749	FSP	-204	SG1	834.9	SG2	428.7	THA	167.82	EL1	485.3	EL2	198.2	ALF	119.33

LAUNCH DATE SEP 6 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 190.294

RL	150.80	LAL	.00	LOL	343.00	VL	25.218	GAL	-3.72	AZL	90.70	HCA	81.63	SMA	118.05	ECC	.28435	INC	.7017	V1	29.547
RP	107.91	LAP	-.69	LOP	64.62	VP	36.543	GAP	-15.79	AZP	90.10	TAL	189.47	TAP	271.10	RCA	84.48	APO	151.61	V2	35.117
RC	42.291	GL	-3.88	GP	-12.19	ZAL	105.32	ZAP	12.19	ETS	87.01	ZAE	155.96	ETE	337.81	ZAC	89.30	ETC	260.73	CLP	.09

PLANETOCENTRIC CONIC

C3	20.740	VHL	4.554	DLA	-23.42	RAL	234.42	RAD	6567.8	VEL	11.921	PTH	2.12	VHP	9.949	DPA	-32.21	RAP	239.48	ECC	1.3413

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 51	1387.19	5.38	353.59	97.83	117.84	7 56 58	787.2	9.07	346.85
90.00	12 25 10	5702.97	27.60	269.65	104.95	96.60	14 0 13	5103.0	28.23	261.04
100.00	8 36 49	1183.92	3.67	337.71	96.88	119.69	8 56 33	583.9	7.60	331.12
100.00	14 4 53	5381.48	29.54	246.22	105.17	94.79	15 34 34	4781.5	29.89	237.43
110.00	9 8 6	1085.82	-.27	327.82	94.43	124.18	9 26 12	485.8	4.22	321.61
110.00	15 50 5	5052.34	34.18	221.47	105.42	90.35	17 14 17	4452.3	33.85	212.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1629	TRA	-.5317	TC3	.4277	BAU	.1281	SGT	851.6	SGR	462.0	SG3	95.8	ST	300.0	SR	432.5	SS	109.9
RDE	-.3436	RRA	-.0251	RC3	-.1747	FAU	.02758	RRT	-.3191	RRF	.3546	RTF	-.7211	CRT	-.6661	CRS	-.4723	CST	.9541
FDE	-.0498	FRA	.2600	FC3	-1.1513	BSP	2409	SGB	968.8	R23	-.0483	R13	.7313	LSA	493.0	MSA	213.6	SSA	20.7
BDE	.3803	BRA	.5323	BC3	.4620	FSP	-232	SG1	868.5	SG2	429.3	THA	166.93	EL1	487.4	EL2	198.5	ALF	120.34

LAUNCH DATE SEP 6 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 197.067

RL	150.80	LAL	.00	LOL	343.00	VL	25.455	GAL	-3.81	AZL	90.51	HCA	84.84	SMA	119.32	ECC	.27146	INC	.5086
RP	107.88	LAP	-.51	LOP	67.84	VP	36.719	GAP	-14.78	AZP	90.05	TAL	190.35	TAP	275.20	RCA	86.93	APO	151.71
RC	43.202	GL	-2.98	GP	-12.95	ZAL	106.83	ZAP	13.10	ETS	77.92	ZAE	153.74	ETE	336.97	ZAC	88.65	ETC	260.94

V1 29.547 V2 35.129 CLP -1.96

PLANETOCENTRIC CONIC

C3	18.826	VHL	4.339	DLA	-22.18	RAL	233.06	RAD	6567.8	VEL	11.841	PTH	2.10	VHP	9.400	DPA	-33.25	RAP	240.56

ECC 1.3098

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 11 17	1425.20	4.17	355.72	94.47	118.03	7 35 2	825.2	7.89	349.02
90.00	12 36 56	5618.96	28.11	263.56	101.46	93.59	14 10 35	5019.0	28.31	254.90
100.00	8 16 41	1214.15	2.65	339.37	93.63	119.79	8 36 55	614.1	6.60	332.80
100.00	14 14 14	5305.25	29.84	240.57	101.56	91.83	15 42 39	4705.2	29.78	231.77
110.00	8 51 53	1103.81	-.96	328.76	91.37	124.17	9 10 16	503.8	3.53	322.55
110.00	15 55 31	4988.35	34.10	216.47	101.52	87.39	17 18 40	4388.4	33.36	207.31

DIFFERENTIAL CORRECTIONS

TDE	.1559	TRA	-.5127	TC3	.5133	BAU	.1406
RDE	-.3245	RRA	-.0251	RC3	-.2202	FAU	.02956
FDE	-.0332	FRA	.2571	FC3	-1.3596	BSP	2535
BDE	.3600	BRA	.5134	BC3	.5585	FSP	-263

MID-COURSE EXECUTION ACCURACY

SGT	880.6	SGR	470.5	SG3	106.8		
RRT	-.3551	RRF	.3973	RTF	-.7373		
SGB	998.4	R23	-.0569	R13	.7492		
SG1	901.2	SG2	429.8	THA	166.01		

ORBIT DETERMINATION ACCURACY

ST	301.1	SR	428.7	SS	100.4		
CRT	-.6656	CRS	-.3360	CST	.9036		
LSA	487.8	MSA	214.5	SSA	22.1		
EL1	484.7	EL2	198.7	ALF	120.77		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 203.844

RL	150.80	LAL	.00	LOL	343.00	VL	25.670	GAL	-3.90	AZL	90.32	HCA	88.06	SMA	120.52	ECC	.25974	INC	.3171
RP	107.84	LAP	-.32	LOP	71.06	VP	36.880	GAP	-13.82	AZP	90.01	TAL	191.28	TAP	279.34	RCA	89.21	APO	151.82
RC	44.254	GL	-1.96	GP	-13.80	ZAL	108.43	ZAP	14.37	ETS	70.01	ZAE	151.69	ETE	335.99	ZAC	87.91	ETC	261.14

V1 29.547 V2 35.141 CLP -4.05

PLANETOCENTRIC CONIC

C3	17.214	VHL	4.149	DLA	-20.81	RAL	231.69	RAD	6567.7	VEL	11.773	PTH	2.08	VHP	8.879	DPA	-34.34	RAP	241.58

ECC 1.2833

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 48 33	1466.71	2.84	358.05	91.27	118.19	7 13 0	866.7	6.59	351.37
90.00	12 48 40	5535.71	28.31	257.48	97.97	90.55	14 20 56	4935.7	28.09	248.82
100.00	7 56 3	1248.88	1.48	341.28	90.51	119.86	8 16 52	648.9	5.44	334.73
100.00	14 23 51	5228.78	29.87	234.89	97.97	88.84	15 51 0	4628.8	29.39	226.12
110.00	8 34 56	1127.01	-1.84	329.97	88.43	124.14	8 53 43	527.0	2.65	323.76
110.00	16 1 28	4923.41	33.78	211.43	97.69	84.42	17 23 31	4323.4	32.64	202.38

DIFFERENTIAL CORRECTIONS

TDE	.1477	TRA	-.4940	TC3	.6045	BAU	.1528
RDE	-.3056	RRA	-.0253	RC3	-.2741	FAU	.03178
FDE	-.0112	FRA	.2533	FC3	-1.5984	BSP	2661
BDE	.3394	BRA	.4947	BC3	.6638	FSP	-299

MID-COURSE EXECUTION ACCURACY

SGT	908.8	SGR	480.9	SG3	119.1		
RRT	-.3956	RRF	.4440	RTF	-.7517		
SGB	1028.2	R23	-.0659	R13	.7657		
SG1	934.1	SG2	429.7	THA	164.91		

ORBIT DETERMINATION ACCURACY

ST	299.7	SR	422.2	SS	92.1		
CRT	-.6619	CRS	-.1096	CST	.7875		
LSA	479.3	MSA	215.0	SSA	23.7		
EL1	478.3	EL2	198.3	ALF	121.08		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 210.623

RL	150.80	LAL	.00	LOL	343.00	VL	25.866	GAL	-3.99	AZL	90.13	HCA	91.29	SMA	121.63	ECC	.24912	INC	.1259
RP	107.81	LAP	-.13	LOP	74.28	VP	37.027	GAP	-12.89	AZP	90.00	TAL	192.23	TAP	283.52	RCA	91.33	APO	151.93
RC	45.436	GL	-.82	GP	-14.74	ZAL	110.07	ZAP	15.97	ETS	63.34	ZAE	149.80	ETE	334.86	ZAC	87.07	ETC	261.33

V1 29.547 V2 35.152 CLP -6.22

PLANETOCENTRIC CONIC

C3	15.864	VHL	3.983	DLA	-19.30	RAL	230.31	RAD	6567.6	VEL	11.715	PTH	2.06	VHP	8.387	DPA	-35.51	RAP	242.50

ECC 1.2611

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 25 49	1511.70	1.39	.56	88.26	118.29	6 51 0	911.7	5.16	353.91
90.00	13 0 26	5453.32	28.22	251.46	94.56	87.53	14 31 20	4853.3	27.58	242.85
100.00	7 35 10	1287.88	.15	343.42	87.57	119.89	7 56 38	687.9	4.13	336.89
100.00	14 33 46	5152.37	29.63	229.22	94.46	85.87	15 59 39	4552.4	28.74	220.53
110.00	8 17 31	1155.19	-2.92	331.44	85.66	124.07	8 36 46	555.2	1.57	325.23
110.00	16 7 55	4857.83	33.23	206.39	94.00	81.49	17 28 53	4257.8	31.70	197.50

DIFFERENTIAL CORRECTIONS

TDE	.1368	TRA	-.4762	TC3	.6980	BAU	.1644
RDE	-.2867	RRA	-.0256	RC3	-.3372	FAU	.03424
FDE	.0171	FRA	.2489	FC3	-1.8686	BSP	2771
BDE	.3176	BRA	.4769	BC3	.7751	FSP	-338

MID-COURSE EXECUTION ACCURACY

SGT	935.2	SGR	493.7	SG3	132.7		
RRT	-.4378	RRF	.4942	RTF	-.7643		
SGB	1057.5	R23	-.0774	R13	.7808		
SG1	966.4	SG2	429.6	THA	163.68		

ORBIT DETERMINATION ACCURACY

ST	294.0	SR	412.6	SS	90.4		
CRT	-.6491	CRS	.2160	CST	.5643		
LSA	466.4	MSA	216.0	SSA	25.6		
EL1	466.4	EL2	197.8	ALF	120.98		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 217.400

RL	150.80	LAL	.00	LOL	343.00	VL	26.044	GAL	-4.08	AZL	89.94	HCA	94.51	SMA	122.67	ECC	.23955	INC	.0622
RP	107.77	LAP	.06	LOP	77.50	VP	37.162	GAP	-12.01	AZP	90.01	TAL	193.21	TAP	287.72	RCA	93.28	APO	152.05
RC	46.738	GL	.44	GP	-15.79	ZAL	111.72	ZAP	17.86	ETS	57.82	ZAE	148.09	ETE	333.56	ZAC	86.11	ETC	261.50

V1 29.547 V2 35.163 CLP -8.47

PLANETOCENTRIC CONIC

C3	14.739	VHL	3.839	DLA	-17.66	RAL	228.96	RAD	6567.6	VEL	11.667	PTH	2.05	VHP	7.921	DPA	-36.76	RAP	243.32

ECC 1.2426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 3 12	1560.07	-.17	3.26	85.49	118.32	6 29 12	960.1	3.62	356.62
90.00	13 12 20	5371.89	27.84	245.53	91.27	84.58	14 41 52	4771.9	26.79	237.02
100.00	7 14 13	1330.90	-1.31	345.78	84.86	119.87	7 36 24	730.9	2.68	339.26
100.00	14 44 0	5076.30	29.13	223.63	91.11	82.96	16 8 36	4476.3	27.85	215.06
110.00	7 59 49	1188.01	-4.17	333.16	83.08	123.96	8 19 37	588.0	.32	326.95
110.00	16 14 52	4791.95	32.46	201.40	90.48	78.63	17 34 44	4191.9	30.55	192.71

DIFFERENTIAL CORRECTIONS

TDE	.1225	TRA	-.4602	TC3	.7888	BAU	.1752
RDE	-.2672	RRA	-.0258	RC3	-.4098	FAU	.03693
FDE	.0537	FRA	.2450	FC3	-2.1693	BSP	2851
BDE	.2939	BRA	.4609	BC3	.8889	FSP	-381

MID-COURSE EXECUTION ACCURACY

SGT	959.0	SGR	509.6	SG3	147.8		
RRT	-.4795	RRF	.5466	RTF	-.7744		
SGB	1086.0	R23	-.0924	R13	.7944		
SG1	997.2	SG2	430.0	THA	162.31		

ORBIT DETERMINATION ACCURACY

ST	283.7	SR	399.1	SS	101.9		
CRT	-.6222	CRS	.5536	CST	.2637		
LSA	449.3	MSA	218.0	SSA	27.7		
EL1	447.9	EL2	197.9	ALF	120.40		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 224.171

RL	150.80	LAL	.00	LOL	343.00	VL	26.205	GAL	-4.17	AZL	89.74	HCA	97.73	SMA	123.63	ECC	.23096	INC	.2576	V1	29.547
RP	107.74	LAP	.26	LOP	80.73	VP	37.284	GAP	-11.16	AZP	90.03	TAL	194.20	TAP	291.93	RCA	95.08	APO	152.18	V2	35.174
RC	48.150	GL	1.82	GP	-16.95	ZAL	113.36	ZAP	20.02	ETS	53.28	ZAE	146.55	ETE	332.07	ZAC	85.03	ETC	261.65	CLP	-10.80

PLANETOCENTRIC CONIC

C3	13.810	VHL	3.716	DLA	-15.89	RAL	227.68	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	7.484	DPA	-38.10	RAP	244.02	ECC	1.2273

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 40 51	1611.68	-1.84	6.13	82.99	118.26	6 7 43	1011.7	1.96	359.51
90.00	13 24 25	5291.52	27.18	239.74	88.18	81.75	14 52 36	4691.5	25.76	231.36
100.00	6 53 23	1377.64	-2.89	348.34	82.40	119.77	7 16 21	777.6	1.09	341.82
100.00	14 54 34	5000.78	28.37	218.14	87.96	80.17	16 17 55	4400.8	26.72	209.73
110.00	7 42 4	1225.13	-5.58	335.11	80.73	123.78	8 2 29	625.1	-1.10	328.88
110.00	16 22 22	4726.05	31.47	196.52	87.20	75.90	17 41 8	4126.1	29.21	188.04

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1032	TRA	-.4475	TC3	.8686	BAU	.1843	SGT	978.2	SGR	529.0	SG3	164.4	ST	268.4	SR	380.4	SS	131.1
RDE	-.2465	RRA	-.0257	RC3	-.4921	FAU	.03983	RRT	-.5161	RRF	.5995	RTF	-.7802	CRT	-.5685	CRS	.7809	CST	.0236
FDE	.1014	FRA	.2423	FC3	-2.4969	BSP	2862	SGB	1112.1	R23	-.1142	R13	.8053	LSA	428.6	MSA	221.9	SSA	30.0
BDE	.2672	BRA	.4483	BC3	.9983	FSP	-425	SG1	1024.4	SG2	432.7	THA	160.86	EL1	420.5	EL2	199.7	ALF	118.97

LAUNCH DATE SEP 6 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 230.932

RL	150.80	LAL	.00	LOL	343.00	VL	26.349	GAL	-4.26	AZL	89.55	HCA	100.96	SMA	124.51	ECC	.22326	INC	.4542	V1	29.547
RP	107.71	LAP	.45	LOP	83.96	VP	37.396	GAP	-10.34	AZP	90.09	TAL	195.18	TAP	296.15	RCA	96.71	APO	152.31	V2	35.184
RC	49.661	GL	3.31	GP	-18.25	ZAL	114.96	ZAP	22.42	ETS	49.53	ZAE	145.16	ETE	330.36	ZAC	83.80	ETC	261.78	CLP	-13.24

PLANETOCENTRIC CONIC

C3	13.051	VHL	3.613	DLA	-14.01	RAL	226.47	RAD	6567.5	VEL	11.595	PTH	2.03	VHP	7.073	DPA	-39.54	RAP	244.56	ECC	1.2148

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 18 53	1666.37	-3.60	9.19	80.76	118.11	5 46 39	1066.4	.19	2.56
90.00	13 36 46	5212.22	26.28	234.11	85.31	79.07	15 3 38	4612.2	24.51	225.89
100.00	6 32 48	1427.88	-4.58	351.11	80.22	119.57	6 56 36	827.9	-.61	344.58
100.00	15 5 32	4925.95	27.39	212.80	85.06	77.53	16 27 38	4325.9	25.39	204.57
110.00	7 24 24	1266.25	-7.13	337.28	78.65	123.52	7 45 30	666.3	-2.67	331.03
110.00	16 30 25	4660.34	30.28	191.77	84.20	73.32	17 48 6	4060.3	27.70	183.53

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0950	TRA	-.4228	TC3	.9805	BAU	.1997	SGT	1001.1	SGR	558.9	SG3	183.9	ST	257.2	SR	358.9	SS	166.3
RDE	-.2260	RRA	-.0269	RC3	-.5904	FAU	.04341	RRT	-.5823	RRF	.6601	RTF	-.7975	CRT	-.5584	CRS	.8857	CST	-.1606
FDE	.1510	FRA	.2312	FC3	-2.8797	BSP	3178	SGB	1146.5	R23	-.1118	R13	.8255	LSA	418.0	MSA	216.3	SSA	32.6
BDE	.2452	BRA	.4236	BC3	1.1445	FSP	-492	SG1	1063.8	SG2	427.6	THA	158.31	EL1	397.2	EL2	192.8	ALF	119.35

LAUNCH DATE SEP 6 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 237.682

RL	150.80	LAL	.00	LOL	343.00	VL	26.480	GAL	-4.35	AZL	89.34	HCA	104.19	SMA	125.32	ECC	.21641	INC	.6552	V1	29.547
RP	107.68	LAP	.64	LOP	87.19	VP	37.497	GAP	-9.56	AZP	90.16	TAL	196.15	TAP	300.34	RCA	98.20	APO	152.44	V2	35.193
RC	51.263	GL	4.91	GP	-19.69	ZAL	116.48	ZAP	25.05	ETS	46.40	ZAE	143.91	ETE	328.39	ZAC	82.41	ETC	261.87	CLP	-15.80

PLANETOCENTRIC CONIC

C3	12.439	VHL	3.527	DLA	-12.04	RAL	225.38	RAD	6567.5	VEL	11.568	PTH	2.02	VHP	6.690	DPA	-41.10	RAP	244.92	ECC	1.2047

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 57 25	1723.92	-5.43	12.42	78.86	117.83	5 26 9	1123.9	-1.67	5.77
90.00	13 49 29	5134.10	25.16	228.67	82.73	76.56	15 15 3	4534.1	23.06	220.62
100.00	6 12 38	1481.28	-6.37	354.07	78.34	119.27	6 37 19	881.3	-2.42	347.51
100.00	15 16 58	4851.97	26.19	207.63	82.44	75.05	16 37 50	4252.0	23.88	199.59
110.00	7 7 1	1310.97	-8.80	339.66	76.86	123.16	7 28 52	711.0	-4.38	333.37
110.00	16 39 4	4595.05	28.91	187.18	81.50	70.92	17 55 39	3995.0	26.04	179.18

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0770	TRA	-.4070	TC3	1.0585	BAU	.2109	SGT	1015.0	SGR	593.9	SG3	204.6	ST	239.4	SR	329.6	SS	218.3
RDE	-.2025	RRA	-.0270	RC3	-.6982	FAU	.04707	RRT	-.6279	RRF	.7146	RTF	-.8049	CRT	-.4915	CRS	.9391	CST	-.2207
FDE	.2178	FRA	.2254	FC3	-3.2763	BSP	3302	SGB	1176.0	R23	-.1261	R13	.8392	LSA	407.7	MSA	214.8	SSA	34.9
BDE	.2167	BRA	.4079	BC3	1.2680	FSP	-556	SG1	1095.2	SG2	428.4	THA	155.91	EL1	359.8	EL2	191.0	ALF	118.25

LAUNCH DATE SEP 6 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 244.417

RL	150.80	LAL	.00	LOL	343.00	VL	26.596	GAL	-4.42	AZL	89.14	HCA	107.42	SMA	126.06	ECC	.21033	INC	.8619	V1	29.547
RP	107.65	LAP	.82	LOP	90.42	VP	37.587	GAP	-8.80	AZP	90.26	TAL	197.09	TAP	304.51	RCA	99.54	APO	152.57	V2	35.202
RC	52.948	GL	6.63	GP	-21.30	ZAL	117.89	ZAP	27.92	ETS	43.75	ZAE	142.78	ETE	326.15	ZAC	80.85	ETC	261.93	CLP	-18.49

PLANETOCENTRIC CONIC

C3	11.957	VHL	3.458	DLA	-9.97	RAL	224.41	RAD	6567.5	VEL	11.547	PTH	2.02	VHP	6.335	DPA	-42.78	RAP	245.07	ECC	1.1968

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 36 32	1784.20	-7.34	15.83	77.28	117.43	5 6 16	1184.2	-3.61	9.14
90.00	14 2 40	5057.08	23.84	223.41	80.46	74.25	15 26 57	4457.1	21.45	215.56
100.00	5 52 57	1537.67	-8.23	357.22	76.79	118.84	6 18 35	937.7	-4.32	350.61
100.00	15 28 56	4778.85	24.81	202.63	80.14	72.77	16 48 35	4178.9	22.22	194.80
110.00	6 50 0	1359.01	-10.58	342.25	75.38	122.70	7 12 39	759.0	-6.20	335.90
110.00	16 48 22	4530.27	27.39	182.75	79.14	68.70	18 3 52	3930.3	24.25	175.00

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0580	TRA	-.3924	TC3	1.1221	BAU	.2220	SGT	1023.4	SGR	638.4	SG3	227.2	ST	221.3	SR	292.8	SS	280.3
RDE	-.1762	RRA	-.0268	RC3	-.8184	FAU	.05104	RRT	-.6696	RRF	.7658	RTF	-.8104	CRT	-.3975	CRS	.9633	CST	-.2086
FDE	.2981	FRA	.2202	FC3	-3.6953	BSP	3426	SGB	1206.2	R23	-.1406	R13	.8528	LSA	409.5	MSA	210.3	SSA	36.7
BDE	.1855	BRA	.3933	BC3	1.3888	FSP	-626	SG1	1126.7	SG2	430.7	THA	153.08	EL1	314.6	EL2	189.0	ALF	117.26

LAUNCH DATE SEP 6 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 251.137

RL	150.80	LAL	.00	LOL	343.00	VL	26.700	GAL	-4.49	AZL	88.92	HCA	110.65	SMA	126.72	ECC	.20496	INC	1.0763	V1	29.547
RP	107.63	LAP	1.01	LOP	93.65	VP	37.669	GAP	-8.08	AZP	90.38	TAL	197.98	TAP	308.63	RCA	100.75	APO	152.70	V2	35.210
RC	54.707	GL	8.45	GP	-23.08	ZAL	119.15	ZAP	31.03	ETS	41.45	ZAE	141.73	ETE	323.59	ZAC	79.10	ETC	261.94	CLP	-21.33

PLANETOCENTRIC CONIC

C3	11.590	VHL	3.404	DLA	-7.82	RAL	223.59	RAD	6567.4	VEL	11.532	PTH	2.01	VHP	6.009	DPA	-44.60	RAP	244.96	ECC	1.1907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 16 14	1847.15	-9.29	19.42	76.04	116.87	4 47 1	1247.1	-5.61	12.67
90.00	14 16 24	4981.07	22.34	218.35	78.52	72.13	15 39 25	4381.1	19.69	210.68
100.00	5 33 48	1596.89	-10.16	.56	75.58	118.26	6 0 25	996.9	-6.30	353.89
100.00	15 41 31	4706.56	23.27	197.82	78.18	70.68	16 59 58	4106.6	20.42	190.18
110.00	6 33 27	1410.15	-12.45	345.03	74.23	122.10	6 56 57	810.1	-8.12	338.61
110.00	16 58 22	4466.07	25.73	178.50	77.12	66.68	18 12 48	3866.1	22.35	170.98

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0380	TRA	-.3795	TC3	1.1659	BAU	.2331	SGT	1024.7	SGR	694.0	SG3	251.4	ST	205.1	SR	246.9	SS	352.0
RDE	-.1461	RRA	-.0258	RC3	-.9510	FAU	.05524	RRT	-.7052	RRF	.8119	RTF	-.8134	CRT	-.2694	CRS	.9732	CST	-.1370
FDE	.3943	FRA	.2170	FC3	-4.1261	BSP	3542	SGB	1237.6	R23	-.1544	R13	.8665	LSA	429.5	MSA	202.7	SSA	37.4
BDE	.1509	BRA	.3804	BC3	1.5046	FSP	-702	SG1	1158.5	SG2	435.2	THA	149.77	EL1	261.0	EL2	186.9	ALF	117.64

LAUNCH DATE SEP 6 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 257.838

RL	150.80	LAL	.00	LOL	343.00	VL	26.792	GAL	-4.56	AZL	88.70	HCA	113.89	SMA	127.32	ECC	.20024	INC	1.2999	V1	29.547
RP	107.60	LAP	1.19	LOP	96.89	VP	37.741	GAP	-7.38	AZP	90.53	TAL	198.82	TAP	312.71	RCA	101.83	APO	152.82	V2	35.218
RC	56.533	GL	10.37	GP	-25.06	ZAL	120.24	ZAP	34.37	ETS	39.39	ZAE	140.73	ETE	320.69	ZAC	77.14	ETC	261.90	CLP	-24.34

PLANETOCENTRIC CONIC

C3	11.326	VHL	3.365	DLA	-5.61	RAL	222.93	RAD	6567.4	VEL	11.520	PTH	2.01	VHP	5.713	DPA	-46.57	RAP	244.56	ECC	1.1864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 56 32	1912.76	-11.29	23.21	75.16	116.14	4 28 24	1312.8	-7.68	16.38
90.00	14 30 50	4905.90	20.69	213.45	76.92	70.22	15 52 36	4305.9	17.80	205.96
100.00	5 15 13	1658.91	-12.14	4.10	74.73	117.53	5 42 52	1058.9	-8.35	357.35
100.00	15 54 49	4634.98	21.58	193.17	76.57	68.80	17 12 4	4035.0	18.50	185.73
110.00	6 17 24	1464.25	-14.38	348.03	73.42	121.35	6 41 48	864.2	-10.13	341.51
110.00	17 9 8	4402.41	23.95	174.41	75.47	64.85	18 22 31	3802.4	20.36	167.11

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0183	TRA	-.3681	TC3	1.1870	BAU	.2447	SGT	1017.7	SGR	762.7	SG3	277.2	ST	192.9	SR	190.6	SS	432.3
RDE	-.1109	RRA	-.0240	RC3	-1.0962	FAU	.05963	RRT	-.7337	RRF	.8520	RTF	-.8137	CRT	-.1115	CRS	.9736	CST	-.0225
FDE	.5075	FRA	.2163	FC3	-4.5578	BSP	3666	SGB	1271.8	R23	-.1655	R13	.8807	LSA	470.8	MSA	193.4	SSA	36.6
BDE	.1125	BRA	.3688	BC3	1.6157	FSP	-783	SG1	1192.4	SG2	442.3	THA	145.87	EL1	202.2	EL2	180.7	ALF	138.16

LAUNCH DATE SEP 6 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 264.518

RL	150.80	LAL	.00	LOL	343.00	VL	26.873	GAL	-4.61	AZL	88.46	HCA	117.12	SMA	127.85	ECC	.19610	INC	1.5352	V1	29.547
RP	107.58	LAP	1.37	LOP	100.13	VP	37.806	GAP	-6.71	AZP	90.70	TAL	199.60	TAP	316.72	RCA	102.78	APO	152.93	V2	35.225
RC	58.419	GL	12.41	GP	-27.24	ZAL	121.14	ZAP	37.96	ETS	37.49	ZAE	139.73	ETE	317.40	ZAC	74.97	ETC	261.80	CLP	-27.53

PLANETOCENTRIC CONIC

C3	11.158	VHL	3.340	DLA	-3.32	RAL	222.44	RAD	6567.4	VEL	11.513	PTH	2.01	VHP	5.448	DPA	-48.69	RAP	243.78	ECC	1.1836

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 37 22	1981.18	-13.31	27.22	74.66	115.23	4 10 23	1381.2	-9.80	20.29
90.00	14 46 5	4831.29	18.90	208.71	75.70	68.51	16 6 36	4231.3	15.81	201.40
100.00	4 57 10	1723.78	-14.15	7.87	74.24	116.61	5 25 53	1123.8	-10.46	1.02
100.00	16 8 58	4563.92	19.76	188.68	75.32	67.10	17 25 2	3963.9	16.49	181.41
110.00	6 1 51	1521.28	-16.38	351.24	72.98	120.43	6 27 12	921.3	-12.22	344.61
110.00	17 20 46	4339.18	22.07	170.47	74.18	63.21	18 33 6	3739.2	18.29	163.37

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0008	TRA	-.3591	TC3	1.1780	BAU	.2564	SGT	1000.0	SGR	845.5	SG3	303.8	ST	186.6	SR	122.0	SS	521.2
RDE	-.0693	RRA	-.0207	RC3	-1.2519	FAU	.06404	RRT	-.7523	RRF	.8854	RTF	-.8097	CRT	.0683	CRS	.9561	CST	.1208
FDE	.6395	FRA	.2202	FC3	-4.9686	BSP	3781	SGB	1309.5	R23	-.1726	R13	.8953	LSA	534.7	MSA	185.2	SSA	34.4
BDE	.0693	BRA	.3597	BC3	1.7190	FSP	-867	SG1	1228.5	SG2	453.4	THA	141.31	EL1	186.9	EL2	121.5	ALF	4.43

LAUNCH DATE SEP 6 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 271.178

RL	150.80	LAL	.00	LOL	343.00	VL	26.944	GAL	-4.66	AZL	88.22	HCA	120.36	SMA	128.33	ECC	.19250	INC	1.7847	V1	29.547
RP	107.56	LAP	1.54	LOP	103.36	VP	37.862	GAP	-6.06	AZP	90.90	TAL	200.30	TAP	320.66	RCA	103.62	APO	153.03	V2	35.232
RC	60.358	GL	14.55	GP	-29.64	ZAL	121.81	ZAP	41.79	ETS	35.64	ZAE	138.67	ETE	313.73	ZAC	72.57	ETC	261.63	CLP	-30.93

PLANETOCENTRIC CONIC

C3	11.080	VHL	3.329	DLA	-.97	RAL	222.13	RAD	6567.4	VEL	11.509	PTH	2.00	VHP	5.216	DPA	-50.95	RAP	242.58	ECC	1.1823

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 18 41	2052.67	-15.34	31.48	74.54	114.10	3 52 53	1452.7	-11.96	24.44
90.00	15 2 19	4756.90	16.98	204.10	74.84	66.99	16 21 36	4156.9	13.72	196.94
100.00	4 39 34	1791.73	-16.18	11.89	74.13	115.48	5 9 26	1191.7	-12.62	4.91
100.00	16 24 6	4493.07	17.83	184.30	74.45	65.60	17 38 59	3893.1	14.38	177.20
110.00	5 46 47	1581.35	-18.42	354.71	72.92	119.32	6 13 8	981.4	-14.37	347.93
110.00	17 33 23	4276.21	20.08	166.66	73.27	61.74	18 44 40	3676.2	16.15	159.75

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0190	TRA	-.3535	TC3	1.1334	BAU	.2686	SGT	969.9	SGR	943.1	SG3	330.4	ST	186.9	SR	44.2	SS	618.7
RDE	-.0192	RRA	-.0148	RC3	-1.4153	FAU	.06824	RRT	-.7590	RRF	.9122	RTF	-.7998	CRT	.2225	CRS	.7087	CST	.2682
FDE	.7921	FRA	.2321	FC3	-5.3324	BSP	3875	SGB	1352.9	R23	-.1729	R13	.9107	LSA	621.7	MSA	179.4	SSA	31.1
BDE	.0270	BRA	.3538	BC3	1.8132	FSP	-946	SG1	1268.8	SG2	469.4	THA	136.06	EL1	187.1	EL2	43.0	ALF	3.18

LAUNCH DATE SEP 6 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 277.815

RL	150.80	LAL	.00	LOL	343.00	VL	27.006	GAL	-4.70	AZL	87.95	HCA	123.59	SMA	128.74	ECC	.18936	INC	2.0512	V1	29.547
RP	107.54	LAP	1.71	LOP	106.60	VP	37.912	GAP	-5.44	AZP	91.14	TAL	200.92	TAP	324.51	RCA	104.36	APO	153.12	V2	35.238
RC	62.346	GL	16.82	GP	-32.25	ZAL	122.25	ZAP	45.85	ETS	33.77	ZAE	137.50	ETE	309.67	ZAC	69.95	ETC	261.37	CLP	-34.56

PLANETOCENTRIC CONIC

C3	11.090	VHL	3.330	DLA	1.44	RAL	222.01	RAD	6567.4	VEL	11.510	PTH	2.00	VHP	5.019	DPA	-53.36	RAP	240.85	ECC	1.1825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 0 20	2127.67	-17.37	36.05	74.82	112.72	3 35 47	1527.7	-14.14	28.86
90.00	15 19 44	4682.28	14.94	199.57	74.37	65.66	16 37 47	4082.3	11.53	192.55
100.00	4 22 20	1863.13	-18.22	16.21	74.43	114.12	4 53 23	1263.1	-14.81	9.08
100.00	16 40 25	4422.05	15.78	180.03	73.96	64.28	17 54 7	3822.1	12.19	173.08
110.00	5 32 7	1644.70	-20.48	358.46	73.26	117.98	5 59 32	1044.7	-16.58	351.51
110.00	17 47 7	4213.25	18.01	162.96	72.74	60.44	18 57 20	3613.2	13.94	156.21

DIFFERENTIAL CORRECTIONS

TOE	-.0378	TRA	-.3545	TC3	1.0365	BAU	.2796
RDE	.0432	RRA	-.0039	RC3	-1.5752	FAU	.07164
FDE	.9712	FRA	.2600	FC3	-5.5923	BSP	3874
BDE	.0574	BRA	.3545	BC3	1.8856	FSP	-1004

MID-COURSE EXECUTION ACCURACY

SGT	923.6	SGR	1051.8	SG3	354.8		
RRT	-.7463	RRF	.9327	RTF	-.7785		
SGB	1399.8	R23	-.1636	R13	.9266		
SG1	1309.8	SG2	493.6	THA	130.05		

ORBIT DETERMINATION ACCURACY

ST	195.4	SR	80.7	SS	728.6		
CRT	-.3244	CRS	-.9394	CST	.4130		
LSA	737.2	MSA	176.9	SSA	26.9		
EL1	197.4	EL2	75.5	ALF	171.05		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 284.427

RL	150.80	LAL	.00	LOL	343.00	VL	27.059	GAL	-4.72	AZL	87.66	HCA	126.83	SMA	129.10	ECC	.18666	INC	2.3387	V1	29.547
RP	107.53	LAP	1.87	LOP	109.85	VP	37.954	GAP	-4.84	AZP	91.40	TAL	201.46	TAP	328.29	RCA	105.00	APO	153.20	V2	35.243
RC	64.375	GL	19.20	GP	-35.07	ZAL	122.45	ZAP	50.13	ETS	31.79	ZAE	136.14	ETE	305.24	ZAC	67.09	ETC	261.01	CLP	-38.43

PLANETOCENTRIC CONIC

C3	11.193	VHL	3.346	DLA	3.93	RAL	222.09	RAD	6567.4	VEL	11.514	PTH	2.01	VHP	4.860	DPA	-55.89	RAP	238.48	ECC	1.1842

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 42 5	2206.93	-19.38	41.00	75.52	111.06	3 18 52	1606.9	-16.35	33.64
90.00	15 38 34	4606.83	12.77	195.09	74.29	64.51	16 55 21	4006.8	9.24	188.19
100.00	4 5 16	1938.63	-20.25	20.90	75.15	112.47	4 37 35	1338.6	-17.03	13.58
100.00	16 58 5	4350.37	13.61	175.80	73.87	63.13	18 10 35	3750.4	9.90	168.98
110.00	5 17 44	1711.82	-22.57	2.55	74.02	116.38	5 46 16	1111.8	-18.85	355.39
110.00	18 2 6	4149.94	15.85	159.32	72.60	59.31	19 11 16	3549.9	11.66	152.72

DIFFERENTIAL CORRECTIONS

TOE	-.0321	TRA	-.3389	TC3	.9715	BAU	.3016
RDE	.1085	RRA	.0018	RC3	-1.7662	FAU	.07596
FDE	1.1304	FRA	.2616	FC3	-5.8753	BSP	4347
BDE	.1132	BRA	.3389	BC3	2.0157	FSP	-1123

MID-COURSE EXECUTION ACCURACY

SGT	874.1	SGR	1196.3	SG3	380.6		
RRT	-.7462	RRF	.9502	RTF	-.7592		
SGB	1481.6	R23	-.1449	R13	.9421		
SG1	1395.0	SG2	499.0	THA	123.43		

ORBIT DETERMINATION ACCURACY

ST	184.0	SR	189.3	SS	816.5		
CRT	-.3183	CRS	-.9898	CST	.3699		
LSA	840.6	MSA	170.9	SSA	24.4		
EL1	214.4	EL2	154.0	ALF	132.50		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 291.015

RL	150.80	LAL	.00	LOL	343.00	VL	27.104	GAL	-4.74	AZL	87.35	HCA	130.06	SMA	129.40	ECC	.18434	INC	2.6517	V1	29.547
RP	107.51	LAP	2.03	LOP	113.09	VP	37.990	GAP	-4.26	AZP	91.71	TAL	201.91	TAP	331.97	RCA	105.55	APO	153.26	V2	35.247
RC	66.441	GL	21.73	GP	-38.10	ZAL	122.38	ZAP	54.58	ETS	29.62	ZAE	134.55	ETE	300.48	ZAC	64.01	ETC	260.53	CLP	-42.57

PLANETOCENTRIC CONIC

C3	11.395	VHL	3.376	DLA	6.50	RAL	222.37	RAD	6567.4	VEL	11.523	PTH	2.01	VHP	4.743	DPA	-58.49	RAP	235.34	ECC	1.1875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 23 46	2291.27	-21.35	46.40	76.68	109.05	3 1 57	1691.3	-18.56	38.84
90.00	15 59 9	4529.88	10.48	190.60	74.64	63.54	17 14 39	3929.9	6.84	183.81
100.00	3 46 12	2018.94	-22.26	26.02	76.33	110.49	4 21 51	1418.9	-19.27	18.50
100.00	17 17 24	4277.45	11.33	171.59	74.20	62.15	18 28 41	3677.4	7.52	164.88
110.00	5 3 31	1783.23	-24.66	7.04	75.25	114.46	5 33 15	1183.2	-21.15	359.65
110.00	18 18 34	4085.93	13.59	155.74	72.87	58.35	19 26 40	3485.9	9.30	149.26

DIFFERENTIAL CORRECTIONS

TOE	-.0281	TRA	-.3355	TC3	.8319	BAU	.3207
RDE	.1922	RRA	.0171	RC3	-1.9337	FAU	.07848
FDE	1.3168	FRA	.2916	FC3	-5.9627	BSP	4608
BDE	.1943	BRA	.3359	BC3	2.1051	FSP	-1192

MID-COURSE EXECUTION ACCURACY

SGT	803.8	SGR	1345.9	SG3	400.1		
RRT	-.7075	RRF	.9624	RTF	-.7126		
SGB	1567.7	R23	-.1198	R13	.9560		
SG1	1480.2	SG2	516.5	THA	116.36		

ORBIT DETERMINATION ACCURACY

ST	179.2	SR	328.7	SS	919.2		
CRT	-.3006	CRS	-.9971	CST	.3338		
LSA	977.8	MSA	169.2	SSA	21.2		
EL1	334.7	EL2	167.9	ALF	102.50		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 297.578

RL	150.80	LAL	.00	LOL	343.00	VL	27.141	GAL	-4.75	AZL	87.00	HCA	133.30	SMA	129.66	ECC	.18236	INC	2.9960	V1	29.547
RP	107.50	LAP	2.18	LOP	116.33	VP	38.020	GAP	-3.70	AZP	92.06	TAL	202.27	TAP	335.57	RCA	106.02	APO	153.30	V2	35.251
RC	68.539	GL	24.40	GP	-41.30	ZAL	122.02	ZAP	59.16	ETS	27.18	ZAE	132.67	ETE	295.47	ZAC	60.74	ETC	259.91	CLP	-46.97

PLANETOCENTRIC CONIC

C3	11.710	VHL	3.422	DLA	9.15	RAL	222.87	RAD	6567.4	VEL	11.537	PTH	2.01	VHP	4.670	DPA	-61.12	RAP	231.29	ECC	1.1927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 5 2	2382.01	-23.25	52.38	78.34	106.64	2 44 44	1782.0	-20.75	44.59
90.00	16 21 51	4450.53	8.03	186.05	75.45	62.76	17 36 1	3850.5	4.32	179.34
100.00	3 30 51	2105.23	-24.20	31.69	78.02	108.11	4 5 56	1505.2	-21.50	23.94
100.00	17 38 43	4202.54	8.92	167.34	74.98	61.35	18 48 45	3602.5	5.02	160.72
110.00	4 49 16	1859.80	-26.72	12.03	76.99	112.15	5 20 16	1259.8	-23.48	4.37
110.00	18 36 46	4020.74	11.23	152.16	73.59	57.50	19 43 47	3420.7	6.86	145.79

DIFFERENTIAL CORRECTIONS

TOE	-.0114	TRA	-.3325	TC3	.6584	BAU	.3422
RDE	.2912	RRA	.0381	RC3	-2.0841	FAU	.07973
FDE	1.5032	FRA	.3301	FC3	-5.8941	BSP	4920
BDE	.2915	BRA	.3347	BC3	2.1856	FSP	-1242

MID-COURSE EXECUTION ACCURACY

SGT	722.1	SGR	1508.8	SG3	413.6		
RRT	-.6319	RRF	.9715	RTF	-.6310		
SGB	1672.7	R23	-.0901	R13	.9675		
SG1	1585.7	SG2	532.5	THA	109.06		

ORBIT DETERMINATION ACCURACY

ST	170.8	SR	489.9	SS	1018.9		
CRT	-.1574	CRS	-.9989	CST	.1811		
LSA	1130.7	MSA	168.4	SSA	18.2		
EL1	490.7	EL2	168.4	ALF	93.56		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 304.116

RL	150.80	LAL	.00	LOL	343.00	VL	27.171	GAL	-4.75	AZL	86.62	HCA	136.54	SMA	129.87	ECC	.18068	INC	3.3792	V1	29.547
RP	107.49	LAP	2.32	LOP	119.58	VP	38.045	GAP	-3.16	AZP	92.45	TAL	202.53	TAP	339.06	RCA	106.41	APO	153.33	V2	35.254
RC	70.666	GL	27.24	GP	-44.64	ZAL	121.38	ZAP	63.80	ETS	24.39	ZAE	130.47	ETE	290.26	ZAC	57.31	ETC	259.13	CLP	-51.65

PLANETOCENTRIC CONIC

C3	12.163	VHL	3.487	DLA	11.91	RAL	223.59	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	4.646	DPA	-63.69	RAP	226.15	ECC	1.2002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 45 24	2480.91	-25.01	59.08	80.54	103.72	2 26 45	1880.9	-22.88	51.06
90.00	16 47 12	4367.57	5.42	181.35	76.77	62.16	18 0 0	3767.6	1.65	174.70
100.00	3 12 48	2199.04	-26.03	38.06	80.25	105.23	3 49 27	1599.0	-23.69	30.04
100.00	18 2 30	4124.68	6.35	162.99	76.26	60.73	19 11 14	3524.7	2.40	156.43
110.00	4 34 44	1942.67	-28.73	17.65	79.31	109.38	5 7 6	1342.7	-25.81	9.68
110.00	18 57 3	3953.82	8.76	148.55	74.78	56.83	20 2 57	3353.8	4.33	142.26

DIFFERENTIAL CORRECTIONS

TDE	.0202	TRA	-.3311	TC3	.4486	BAU	.3647
RDE	.4096	RRA	.0690	RC3	-2.1973	FAU	.07910
FDE	1.6867	FRA	.3831	FC3	-5.6304	BSP	5228
BDE	.4101	BRA	.3382	BC3	2.2427	FSP	-1254

MID-COURSE EXECUTION ACCURACY

SGT	638.8	SGR	1677.8	SG3	419.0		
RRT	-.4867	RRF	.9781	RTF	-.4824		
SGB	1795.3	R23	-.0575	R13	.9764		
SG1	1709.8	SG2	547.7	THA	101.72		

ORBIT DETERMINATION ACCURACY

ST	170.3	SR	675.3	SS	1115.9
CRT	.1404	CRS	-.9995	CST	-.1244
LSA	1304.4	MSA	169.2	SSA	15.5
EL1	675.8	EL2	168.5	ALF	87.84

LAUNCH DATE SEP 6 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 310.626

RL	150.80	LAL	.00	LOL	343.00	VL	27.195	GAL	-4.74	AZL	86.19	HCA	139.77	SMA	130.04	ECC	.17926	INC	3.8110	V1	29.547
RP	107.48	LAP	2.46	LOP	122.83	VP	38.064	GAP	-2.64	AZP	92.91	TAL	202.70	TAP	342.47	RCA	106.73	APO	153.35	V2	35.256
RC	72.818	GL	30.25	GP	-48.09	ZAL	120.45	ZAP	68.43	ETS	21.20	ZAE	127.94	ETE	284.94	ZAC	53.75	ETC	258.16	CLP	-56.60

PLANETOCENTRIC CONIC

C3	12.788	VHL	3.576	DLA	14.77	RAL	224.53	RAD	6567.5	VEL	11.583	PTH	2.03	VHP	4.676	DPA	-66.12	RAP	219.73	ECC	1.2105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 24 11	2590.54	-26.56	66.73	83.34	100.19	2 7 22	1990.5	-24.89	58.47
90.00	17 15 59	4279.32	2.60	176.41	78.66	61.79	18 27 18	3679.3	-1.19	169.78
100.00	2 53 30	2302.54	-27.68	45.31	83.09	101.76	3 31 52	1702.5	-25.78	37.02
100.00	18 29 22	4042.55	3.59	158.45	78.11	60.30	19 36 45	3442.6	-.39	151.92
110.00	4 19 31	2033.37	-30.61	24.04	82.26	106.02	4 53 25	1433.4	-28.11	15.73
110.00	19 19 50	3884.49	6.16	144.87	76.52	56.31	20 24 34	3284.5	1.69	138.63

DIFFERENTIAL CORRECTIONS

TDE	.0794	TRA	-.3226	TC3	.2345	BAU	.3924
RDE	.5405	RRA	.1037	RC3	-2.2832	FAU	.07739
FDE	1.8343	FRA	.4269	FC3	-5.2390	BSP	5748
BDE	.5463	BRA	.3388	BC3	2.2952	FSP	-1270

MID-COURSE EXECUTION ACCURACY

SGT	574.4	SGR	1856.3	SG3	416.0		
RRT	-.2397	RRF	.9830	RTF	-.2288		
SGB	1943.2	R23	-.0309	R13	.9826		
SG1	1861.9	SG2	556.0	THA	94.66		

ORBIT DETERMINATION ACCURACY

ST	204.7	SR	868.8	SS	1191.4
CRT	.5712	CRS	-.9998	CST	-.5617
LSA	1479.1	MSA	168.6	SSA	13.3
EL1	877.0	EL2	166.5	ALF	82.05

LAUNCH DATE SEP 6 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 317.110

RL	150.80	LAL	.00	LOL	343.00	VL	27.214	GAL	-4.72	AZL	85.70	HCA	143.00	SMA	130.16	ECC	.17809	INC	4.3046	V1	29.547
RP	107.48	LAP	2.59	LOP	126.08	VP	38.078	GAP	-2.14	AZP	93.44	TAL	202.77	TAP	345.78	RCA	106.98	APO	153.34	V2	35.258
RC	74.992	GL	33.45	GP	-51.61	ZAL	119.22	ZAP	72.94	ETS	17.54	ZAE	125.09	ETE	279.57	ZAC	50.09	ETC	256.98	CLP	-61.81

PLANETOCENTRIC CONIC

C3	13.642	VHL	3.693	DLA	17.76	RAL	225.73	RAD	6567.5	VEL	11.620	PTH	2.04	VHP	4.769	DPA	-68.30	RAP	211.88	ECC	1.2245

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 0 21	2714.79	-27.75	75.63	86.77	95.89	1 45 35	2114.8	-26.64	67.14
90.00	17 49 23	4183.04	-.51	171.04	81.26	61.69	18 59 6	3583.0	-4.29	164.40
100.00	2 32 6	2418.89	-29.01	53.70	86.60	97.54	3 12 25	1818.9	-27.66	45.15
100.00	19 0 18	3954.18	.60	153.59	80.64	60.11	20 6 12	3354.2	-3.38	147.07
110.00	4 3 11	2133.94	-32.26	31.41	85.95	101.96	4 38 45	1533.9	-30.28	22.75
110.00	19 45 43	3811.89	3.40	141.05	78.89	55.97	20 49 15	3211.9	-1.09	134.85

DIFFERENTIAL CORRECTIONS

TDE	.1656	TRA	-.3121	TC3	.0021	BAU	.4198
RDE	.6924	RRA	.1520	RC3	-2.3019	FAU	.07349
FDE	1.9583	FRA	.4814	FC3	-4.6640	BSP	6241
BDE	.7119	BRA	.3471	BC3	2.3019	FSP	-1239

MID-COURSE EXECUTION ACCURACY

SGT	569.6	SGR	2026.5	SG3	402.6		
RRT	.1277	RRF	.9865	RTF	.1418		
SGB	2105.0	R23	-.0053	R13	.9867		
SG1	2027.9	SG2	564.5	THA	87.77		

ORBIT DETERMINATION ACCURACY

ST	298.7	SR	1077.9	SS	1256.2
CRT	.8217	CRS	-.9999	CST	-.8174
LSA	1673.4	MSA	169.6	SSA	11.3
EL1	1106.2	EL2	165.9	ALF	76.87

LAUNCH DATE SEP 6 1970 FLIGHT TIME 116.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 323.566

RL	150.80	LAL	.00	LOL	343.00	VL	27.226	GAL	-4.68	AZL	85.12	HCA	146.23	SMA	130.25	ECC	.17713	INC	4.8783	V1	29.547
RP	107.48	LAP	2.71	LOP	129.33	VP	38.088	GAP	-1.65	AZP	94.06	TAL	202.76	TAP	348.99	RCA	107.18	APO	153.32	V2	35.259
RC	77.186	GL	36.85	GP	-55.17	ZAL	117.69	ZAP	77.24	ETS	13.37	ZAE	121.95	ETE	274.19	ZAC	46.38	ETC	255.54	CLP	-67.24

PLANETOCENTRIC CONIC

C3	14.808	VHL	3.848	DLA	20.88	RAL	227.19	RAD	6567.6	VEL	11.670	PTH	2.05	VHP	4.933	DPA	-70.13	RAP	202.51	ECC	1.2437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 31 54	2860.44	-28.31	86.24	90.86	90.60	1 19 34	2260.4	-27.93	77.60
90.00	18 29 28	4073.61	-4.03	164.92	84.74	61.95	19 37 21	3473.6	-7.75	158.22
100.00	2 7 11	2553.21	-29.81	63.59	90.82	92.39	2 49 44	1953.2	-29.16	54.85
100.00	19 36 52	3856.07	-2.72	148.21	84.01	60.22	20 41 8	3256.1	-6.67	141.64
110.00	3 44 57	2247.31	-33.54	40.00	90.46	97.02	4 22 25	1647.3	-32.21	31.02
110.00	20 15 35	3734.73	.46	137.03	82.03	55.82	21 17 50	3134.7	-4.03	130.82

DIFFERENTIAL CORRECTIONS

TDE	.2901	TRA	-.2941	TC3	-.2249	BAU	.4471
RDE	.8628	RRA	.2140	RC3	-2.2473	FAU	.06779
FDE	2.0433	FRA	.5362	FC3	-3.9631	BSP	6769
BDE	.9103	BRA	.3637	BC3	2.2585	FSP	-1176

MID-COURSE EXECUTION ACCURACY

SGT	660.4	SGR	2181.3	SG3	379.5		
RRT	.4821	RRF	.9890	RTF	.4970		
SGB	2279.1	R23	.0171	R13	.9892		
SG1	2206.1	SG2	572.1	THA	81.09		

ORBIT DETERMINATION ACCURACY

ST	454.2	SR	1289.8	SS	1301.8
CRT	.9230	CRS	-.9999	CST	-.9214
LSA	1880.2	MSA	171.3	SSA	9.6
EL1	1357.3	EL2	166.1	ALF	71.71

LAUNCH DATE SEP 6 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 329.994

RL 150.80 LAL .00 LOL 343.00 VL 27.234 GAL -4.64 AZL 84.44 HCA 149.46 SMA 130.31 ECC .17636 INC 5.5578 V1 29.547
RP 107.48 LAP 2.82 LOP 132.58 VP 38.094 GAP -1.18 AZP 94.79 TAL 202.65 TAP 352.11 RCA 107.33 APO 153.29 V2 35.259
RC 79.396 GL 40.45 GP -58.76 ZAL 115.87 ZAP 81.22 ETS 8.67 ZAE 118.54 ETE 268.81 ZAC 42.63 ETC 253.79 CLP -72.88

PLANETOCENTRIC CONIC

C3 16.422 VHL 4.052 DLA 24.13 RAL 228.93 RAD 6567.7 VEL 11.739 PTH 2.07 VHP 5.182 DPA -71.53 RAP 191.67 ECC 1.2703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 26	3042.43	-27.72	99.51	95.48	83.99	24 41 8	2442.4	-28.27	90.88
90.00	19 20 55	3938.33	-8.31	157.28	89.43	62.83	20 26 33	3338.3	-11.88	150.43
100.00	1 35 49	2715.32	-29.66	75.63	95.67	86.07	2 21 4	2115.3	-29.89	66.84
100.00	20 22 8	3740.68	-6.60	141.83	88.50	60.78	21 24 29	3140.7	-10.44	135.16
110.00	3 23 38	2378.00	-34.17	50.15	95.80	91.05	4 3 16	1778.0	-33.65	40.94
110.00	20 50 49	3650.77	-2.75	132.64	86.13	55.91	21 51 39	3050.8	-7.21	126.39

DIFFERENTIAL CORRECTIONS
TDE .4647 TRA -.2640 TC3 -.4265 BAU .4741
RDE 1.0485 RRA .2900 RC3-2.1169 FAU .06073
FDE 2.0805 FRA .5837 FC3-3.2014 BSP 7355
BDE 1.1469 BRA .3921 BC3 2.1594 FSP -1090

MID-COURSE EXECUTION ACCURACY
SGT 847.5 SGR 2311.5 SG3 347.8
RRT .7061 RRF .9908 RTF .7210
SGB 2462.0 R23 .0360 R13 .9906
SG1 2392.7 SG2 579.8 THA 74.56

ORBIT DETERMINATION ACCURACY
ST 668.4 SR 1489.5 SS 1323.2
CRT .9622 CRS-1.0000 CST -.9620
LSA 2094.2 MSA 173.4 SSA 8.2
EL1 1624.0 EL2 167.0 ALF 66.38

LAUNCH DATE SEP 6 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 336.393

RL 150.80 LAL .00 LOL 343.00 VL 27.237 GAL -4.58 AZL 83.62 HCA 152.69 SMA 130.33 ECC .17575 INC 6.3807 V1 29.547
RP 107.48 LAP 2.92 LOP 135.83 VP 38.095 GAP -.73 AZP 95.67 TAL 202.45 TAP 355.14 RCA 107.42 APO 153.23 V2 35.258
RC 81.621 GL 44.24 GP -62.39 ZAL 113.75 ZAP 84.79 ETS 3.39 ZAE 114.88 ETE 263.39 ZAC 38.83 ETC 251.63 CLP -78.71

PLANETOCENTRIC CONIC

C3 18.703 VHL 4.325 DLA 27.49 RAL 230.99 RAD 6567.8 VEL 11.836 PTH 2.10 VHP 5.538 DPA -72.42 RAP 179.57 ECC 1.3078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 43 56	3324.82	-24.12	119.35	99.83	74.70	23 39 21	2724.8	-25.99	111.18
90.00	20 43 48	3716.26	-14.91	144.31	96.31	65.65	21 45 44	3116.3	-18.08	137.07
100.00	0 49 29	2932.73	-27.59	91.44	100.77	78.02	1 38 22	2332.7	-28.96	82.90
100.00	21 24 51	3583.58	-11.71	132.97	94.71	62.30	22 24 35	2983.6	-15.32	126.05
110.00	2 56 55	2533.95	-33.70	62.29	101.90	83.89	3 39 9	1934.0	-34.18	53.08
110.00	21 33 55	3555.12	-6.38	127.62	91.51	56.35	22 33 10	2955.1	-10.76	121.27

DIFFERENTIAL CORRECTIONS
TDE .7051 TRA -.2160 TC3 -.5850 BAU .4977
RDE 1.2490 RRA .3849 RC3-1.9025 FAU .05246
FDE 2.0730 FRA .6247 FC3-2.4281 BSP 7929
BDE 1.4343 BRA .4414 BC3 1.9905 FSP -978

MID-COURSE EXECUTION ACCURACY
SGT 1110.2 SGR 2403.5 SG3 309.4
RRT .8218 RRF .9919 RTF .8369
SGB 2647.5 R23 .0531 R13 .9912
SG1 2581.2 SG2 589.0 THA 68.01

ORBIT DETERMINATION ACCURACY
ST 939.2 SR 1664.5 SS 1321.3
CRT .9786 CRS-1.0000 CST -.9791
LSA 2316.7 MSA 176.6 SSA 7.0
EL1 1903.7 EL2 169.1 ALF 60.84

LAUNCH DATE SEP 6 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 342.761

RL 150 80 LAL .00 LOL 343.00 VL 27.236 GAL -4.51 AZL 82.60 HCA 155.90 SMA 130.32 ECC .17530 INC 7.4048 V1 29.547
RP 107.48 LAP 3.02 LOP 139.08 VP 38.093 GAP -.29 AZP 96.77 TAL 202.16 TAP 358.07 RCA 107.48 APO 153.17 V2 35.256
RC 83.861 GL 48.21 GP -66.09 ZAL 111.37 ZAP 87.87 ETS 357.46 ZAE 110.99 ETE 257.84 ZAC 34.95 ETC 248.89 CLP -84.73

PLANETOCENTRIC CONIC

C3 22.027 VHL 4.693 DLA 30.94 RAL 233.38 RAD 6567.9 VEL 11.975 PTH 2.13 VHP 6.033 DPA -72.75 RAP 166.59 ECC 1.3625

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.98	20 9 50	3892.63	-20.74	160.00	104.23	66.51	21 14 43	3292.6	-23.74	152.41
103.02	23 37 1	3226.53	-20.73	110.84	104.22	66.50	24 30 47	2626.5	-23.73	103.25
76.98	20 9 50	3892.63	-20.74	160.00	104.23	66.51	21 14 43	3292.6	-23.74	152.41
103.02	23 37 1	3226.53	-20.73	110.84	104.22	66.50	24 30 47	2626.5	-23.73	103.25
110.00	2 18 48	2734.28	-31.22	77.36	108.25	75.31	3 4 23	2134.3	-32.92	68.55
110.00	22 31 9	3432.88	-10.94	121.08	98.81	57.41	23 28 22	2832.9	-15.16	114.52

DIFFERENTIAL CORRECTIONS
TDE 1.0352 TRA -.1407 TC3 -.6828 BAU .5163
RDE 1.4562 RRA .5008 RC3-1.6147 FAU .04353
FDE 2.0203 FRA .6540 FC3-1.7107 BSP 8508
BDE 1.7867 BRA .5202 BC3 1.7532 FSP -852

MID-COURSE EXECUTION ACCURACY
SGT 1431.1 SGR 2442.5 SG3 266.7
RRT .8798 RRF .9924 RTF .8964
SGB 2830.9 R23 .0688 R13 .9912
SG1 2766.5 SG2 600.6 THA 61.25

ORBIT DETERMINATION ACCURACY
ST 1265.4 SR 1791.2 SS 1294.0
CRT .9860 CRS-1.0000 CST -.9872
LSA 2539.9 MSA 181.0 SSA 5.9
EL1 2186.2 EL2 172.8 ALF 54.89

LAUNCH DATE SEP 6 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 349.095

RL 150.80 LAL .00 LOL 343.00 VL 27.231 GAL -4.43 AZL 81.28 HCA 159.11 SMA 130.29 ECC .17497 INC 8.7227 V1 29.547
RP 107.49 LAP 3.10 LOP 142.33 VP 38.088 GAP .13 AZP 98.16 TAL 201.79 TAP .90 RCA 107.49 APO 153.08 V2 35.254
RC 86.111 GL 52.29 GP -69.93 ZAL 108.74 ZAP 90.37 ETS 350.66 ZAE 106.84 ETE 251.89 ZAC 30.94 ETC 245.23 CLP -91.07

PLANETOCENTRIC CONIC

C3 27.084 VHL 5.204 DLA 34.42 RAL 236.16 RAD 6568.1 VEL 12.184 PTH 2.19 VHP 6.723 DPA -72.49 RAP 153.16 ECC 1.4457

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.56	19 32 23	4093.97	-21.34	175.74	111.41	62.33	20 40 37	3494.0	-24.87	168.34
110.44	0 40 32	3126.62	-21.33	103.51	111.40	62.32	1 32 39	2526.6	-24.86	96.12
69.56	19 32 23	4093.97	-21.34	175.74	111.41	62.33	20 40 37	3494.0	-24.87	168.34
110.44	0 40 32	3126.62	-21.33	103.51	111.40	62.32	1 32 39	2526.6	-24.86	96.12
69.56	19 32 23	4093.97	-21.34	175.74	111.41	62.33	20 40 37	3494.0	-24.87	168.34
110.44	0 40 32	3126.62	-21.33	103.51	111.40	62.32	1 32 39	2526.6	-24.86	96.12

DIFFERENTIAL CORRECTIONS
TDE 1.4959 TRA -.0213 TC3 -.7072 BAU .5262
RDE 1.6540 RRA .6428 RC3-1.2695 FAU .03438
FDE 1.9299 FRA .6720 FC3-1.0990 BSP 9073
BDE 2.2302 BRA .6432 BC3 1.4532 FSP -718

MID-COURSE EXECUTION ACCURACY
SGT 1804.2 SGR 2407.9 SG3 222.4
RRT .9086 RRF .9921 RTF .9292
SGB 3008.8 R23 .0838 R13 .9908
SG1 2945.1 SG2 616.0 THA 53.93

ORBIT DETERMINATION ACCURACY
ST 1647.1 SR 1839.6 SS 1244.1
CRT .9894 CRS -.9999 CST -.9914
LSA 2758.6 MSA 187.2 SSA 5.0
EL1 2462.7 EL2 178.7 ALF 48.19

LAUNCH DATE SEP 6 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 355.392
RL 150.80 LAL .00 LOL 343.00 VL 27.223 GAL -4.34 AZL 79.51 HCA 162.31 SMA 130.23 ECC .17476 INC10.4929 V1 29.547
RP 107.50 LAP 3.17 LOP 145.58 VP 38.079 GAP .54 AZP 100.01 TAL 201.33 TAP 3.64 RCA 107.47 APO 152.98 V2 35.251
RC 88.372 GL 56.40 GP -74.02 ZAL 105.91 ZAP 92.23 ETS 342.45 ZAE 102.38 ETE 244.91 ZAC 26.69 ETC 239.90 CLP -98.14
PLANETOCENTRIC CONIC
C3 35.228 VHL 5.935 DLA 37.82 RAL 239.34 RAD 6568.4 VEL 12.514 PTH 2.27 VHP 7.703 DPA -71.56 RAP 139.67 ECC 1.5798

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.81	19 13 39	4253.64	-20.90	188.24	119.88	57.74	20 24 33	3653.6	-25.01	181.19
116.19	1 24 41	3098.98	-20.89	101.02	119.87	57.73	2 16 20	2499.0	-24.99	93.98
63.81	19 13 39	4253.64	-20.90	188.24	119.88	57.74	20 24 33	3653.6	-25.01	181.19
116.19	1 24 41	3098.98	-20.89	101.02	119.87	57.73	2 16 20	2499.0	-24.99	93.98
63.81	19 13 39	4253.64	-20.90	188.24	119.88	57.74	20 24 33	3653.6	-25.01	181.19
116.19	1 24 41	3098.98	-20.89	101.02	119.87	57.73	2 16 20	2499.0	-24.99	93.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 2.1591 TRA .1749 TC3 -.6558 BAU .5220 SGT 2235.1 SGR 2257.4 SG3 179.1 ST 2085.4 SR 1754.2 SS 1175.7
RDE 1.7906 RRA .8114 RC3 -.8935 FAU .02549 RRT .9197 RRF .9900 RTF .9498 CRT .9902 CRS -.9996 CST -.9939
FDE 1.8117 FRA .6782 FC3 -.6265 BSP 9640 SGB 3176.7 R23 .0984 R13 .9902 LSA 2961.4 MSA 195.9 SSA 4.2
BDE 2.8050 BRA .8300 BC3 1.1084 FSP -587 SG1 3112.3 SG2 636.6 THA 45.31 EL1 2718.6 EL2 187.5 ALF 40.02

LAUNCH DATE SEP 6 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 361.641
RL 150.80 LAL .00 LOL 343.00 VL 27.211 GAL -4.23 AZL 76.99 HCA 165.48 SMA 130.14 ECC .17463 INC13.0096 V1 29.547
RP 107.51 LAP 3.24 LOP 148.83 VP 38.067 GAP .93 AZP 102.61 TAL 200.78 TAP 6.26 RCA 107.42 APO 152.87 V2 35.247
RC 90.641 GL 60.32 GP -78.50 ZAL 102.95 ZAP 93.41 ETS 331.16 ZAE 97.46 ETE 235.15 ZAC 22.03 ETC 230.88 CLP-107.37
PLANETOCENTRIC CONIC
C3 49.436 VHL 7.031 DLA 40.94 RAL 242.96 RAD 6568.8 VEL 13.069 PTH 2.39 VHP 9.155 DPA -69.79 RAP 126.51 ECC 1.8136

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.11	19 5 53	4402.15	-18.99	199.28	129.61	53.03	20 19 15	3802.2	-23.66	192.73
120.89	2 1 19	3121.09	-18.97	101.47	129.59	53.02	2 53 20	2521.1	-23.65	94.92
59.11	19 5 53	4402.15	-18.99	199.28	129.61	53.03	20 19 15	3802.2	-23.66	192.73
120.89	2 1 19	3121.09	-18.97	101.47	129.59	53.02	2 53 20	2521.1	-23.65	94.92
59.11	19 5 53	4402.15	-18.99	199.28	129.61	53.03	20 19 15	3802.2	-23.66	192.73
120.89	2 1 19	3121.09	-18.97	101.47	129.59	53.02	2 53 20	2521.1	-23.65	94.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 3.1660 TRA .5298 TC3 -.5332 BAU .4898 SGT 2746.8 SGR 1885.9 SG3 139.4 ST 2585.8 SR 1413.3 SS 1100.4
RDE 1.6891 RRA .9889 RC3 -.5147 FAU .01709 RRT .9080 RRF .9789 RTF .9656 CRT .9869 CRS -.9976 CST -.9957
FDE 1.6856 FRA .6802 FC3 -.2992 BSP 10142 SGB 3331.9 R23 .1125 R13 .9895 LSA 3138.6 MSA 208.7 SSA 3.4
BDE 3.5884 BRA 1.1219 BC3 .7411 FSP -461 SG1 3264.9 SG2 664.8 THA 33.51 EL1 2939.9 EL2 200.8 ALF 28.49

LAUNCH DATE SEP 6 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 367.823
RL 150.80 LAL .00 LOL 343.00 VL 27.196 GAL -4.11 AZL 73.12 HCA 168.61 SMA 130.04 ECC .17457 INC16.8822 V1 29.547
RP 107.53 LAP 3.29 LOP 152.08 VP 38.052 GAP 1.29 AZP 106.57 TAL 200.12 TAP 8.73 RCA 107.34 APO 152.74 V2 35.243
RC 92.917 GL 63.70 GP -83.43 ZAL 99.92 ZAP 93.88 ETS 310.69 ZAE 91.79 ETE 216.39 ZAC 16.64 ETC 211.33 CLP-126.22
PLANETOCENTRIC CONIC
C3 77.217 VHL 8.787 DLA 43.41 RAL 246.97 RAD 6569.5 VEL 14.091 PTH 2.57 VHP 11.457 DPA -66.84 RAP 114.00 ECC 2.2708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.61	19 7 10	4550.04	-15.21	209.03	140.29	48.83	20 23 0	3950.0	-20.38	203.03
124.39	2 32 0	3188.69	-15.19	104.17	140.27	48.83	3 25 9	2588.7	-20.36	98.18
55.61	19 7 10	4550.04	-15.21	209.03	140.29	48.83	20 23 0	3950.0	-20.38	203.03
124.39	2 32 0	3188.69	-15.19	104.17	140.27	48.83	3 25 9	2588.7	-20.36	98.18
55.61	19 7 10	4550.04	-15.21	209.03	140.29	48.83	20 23 0	3950.0	-20.38	203.03
124.39	2 32 0	3188.69	-15.19	104.17	140.27	48.83	3 25 9	2588.7	-20.36	98.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 4.6901 TRA 1.2670 TC3 -.3459 BAU .3976 SGT 3318.8 SGR 1009.8 SG3 105.3 ST 3077.1 SR 472.7 SS 1039.3
RDE .6005 RRA .9826 RC3 -.1693 FAU .00918 RRT .7105 RRF .8176 RTF .9827 CRT .8855 CRS -.9148 CST -.9977
FDE 1.5846 FRA .6925 FC3 -.1029 BSP 10560 SGB 3469.0 R23 .1241 R13 .9895 LSA 3274.3 MSA 225.0 SSA 2.6
BDE 4.7283 BRA 1.6034 BC3 .3851 FSP -349 SG1 3398.9 SG2 693.8 THA 12.74 EL1 3105.5 EL2 217.6 ALF 7.78

LAUNCH DATE SEP 6 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 373.888
RL 150.80 LAL .00 LOL 343.00 VL 27.179 GAL -3.95 AZL 66.43 HCA 171.65 SMA 129.92 ECC .17450 INC23.5743 V1 29.547
RP 107.54 LAP 3.33 LOP 155.33 VP 38.035 GAP 1.62 AZP 113.35 TAL 199.32 TAP 10.96 RCA 107.25 APO 152.59 V2 35.238
RC 95.197 GL 65.64 GP -85.92 ZAL 96.95 ZAP 93.62 ETS 260.03 ZAE 84.67 ETE 167.48 ZAC 9.87 ETC 157.25 CLP 152.69
PLANETOCENTRIC CONIC
C3 141.689 VHL 11.903 DLA 44.42 RAL 251.13 RAD 6570.5 VEL 16.218 PTH 2.85 VHP 15.506 DPA -61.97 RAP 102.43 ECC 3.3318

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.23	19 18 21	4691.67	-9.59	216.56	151.21	46.42	20 36 33	4091.7	-15.05	210.99
125.77	2 54 2	3301.53	-9.58	109.11	151.20	46.42	3 49 3	2701.5	-15.03	103.53
54.23	19 18 21	4691.67	-9.59	216.56	151.21	46.42	20 36 33	4091.7	-15.05	210.99
125.77	2 54 2	3301.53	-9.58	109.11	151.20	46.42	3 49 3	2701.5	-15.03	103.53
54.23	19 18 21	4691.67	-9.59	216.56	151.21	46.42	20 36 33	4091.7	-15.05	210.99
125.77	2 54 2	3301.53	-9.58	109.11	151.20	46.42	3 49 3	2701.5	-15.03	103.53

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 5.2487 TRA 2.4207 TC3 -.0813 BAU .1560 SGT 3013.6 SGR 1920.7 SG3 78.9 ST 2573.4 SR 1886.7 SS 1036.9
RDE-3.9127 RRA -.5573 RC3 .0130 FAU .00094 RRT -.9289 RRF -.9238 RTF .9986 CRT -.9914 CRS .9904 CST-1.0000
FDE 1.5765 FRA .7536 FC3 -.0057 BSP 10885 SGB 3573.6 R23 -.1164 R13 -.9919 LSA 3348.8 MSA 206.7 SSA 1.8
BDE 6.5466 BRA 2.4841 BC3 .0823 FSP -261 SG1 3521.4 SG2 608.5 THA 148.32 EL1 3184.6 EL2 200.1 ALF 143.82

LAUNCH DATE SEP 6 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 379.681

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RL  150.80 LAL    .00 LOL 343.00 VL  27.159 GAL  -3.74 AZL  52.66 HCA 174.45 SMA 129.78 ECC .17424 INC37.3426 V1  29.547
RP  107.56 LAP   3.36 LOP 158.58 VP  38.015 GAP   1.87 AZP 127.21 TAL 198.24 TAP  12.69 RCA 107.17 APO 152.40 V2  35.232
RC  97.481 GL   63.74 GP  -77.18 ZAL  94.18 ZAP  92.73 ETS 206.73 ZAE  74.07 ETE 115.83 ZAC   2.45 ETC  10.78 CLP 102.39
PLANETOCENTRIC CONIC
C3 336.000 VHL 18.330 DLA  41.70 RAL 254.67 RAD 6571.9 VEL 21.385 PTH   3.21 VHP 23.816 DPA -53.09 RAP  92.04 ECC 6.5297
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.00	19 47 49	4777.50	-3.41	218.46	160.86	48.41	21 7 26	4177.5	-8.69	212.83
122.00	2 52 48	3470.01	-3.39	118.36	160.84	48.41	3 50 38	2870.0	-8.67	112.73
58.00	19 47 49	4777.50	-3.41	218.46	160.86	48.41	21 7 26	4177.5	-8.69	212.83
122.00	2 52 48	3470.01	-3.39	118.36	160.84	48.41	3 50 38	2870.0	-8.67	112.73
58.00	19 47 49	4777.50	-3.41	218.46	160.86	48.41	21 7 26	4177.5	-8.69	212.83
122.00	2 52 48	3470.01	-3.39	118.36	160.84	48.41	3 50 38	2870.0	-8.67	112.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .9939 TRA 1.7936 TC3 -.0063 BAU  .6501   SGT  813.0 SGR 3500.1 SG3   61.6      ST   383.8 SR  3069.7 SS  1197.9
RDE-9.6884 RRA-3.9961 RC3 -.1446 FAU-.01256   RRT -.7678 RRF -.9924 RTF  .8358      CRT -.8946 CRS  .9987 CST -.9161
FDE 1.8196 FRA  .9881 FC3  .0324 BSP  10856   SGB 3593.3 R23 -.0891 R13 -.9951      LSA 3312.7 MSA  177.5 SSA    1.8
BDE 9.7392 BRA 4.3801 BC3  .1447 FSP   -199   SG1 3556.5 SG2  512.5 THA 100.33      EL1 3088.9 EL2  170.4 ALF  96.40
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 384.559

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RL  150.80 LAL    .00 LOL 343.00 VL  27.136 GAL  -3.34 AZL  19.04 HCA 176.42 SMA 129.63 ECC .17312 INC70.9604 V1  29.547
RP  107.58 LAP   3.38 LOP 161.83 VP  37.993 GAP   1.87 AZP 160.93 TAL 196.33 TAP  12.75 RCA 107.19 APO 152.07 V2  35.226
RC  99.767 GL   51.00 GP  -57.37 ZAL  92.00 ZAP  91.50 ETS 188.64 ZAE  54.00 ETE  99.27 ZAC  20.66 ETC 287.19 CLP  92.79
PLANETOCENTRIC CONIC
C31085.869 VHL 32.953 DLA  28.55 RAL 255.69 RAD 6573.0 VEL 34.744 PTH   3.51 VHP 42.683 DPA -34.11 RAP  83.45 ECC18.8707
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.18	22 50 31	4311.86	.31	180.02	166.28	61.45	24 2 23	3711.9	-3.51	173.41
93.82	23 54 19	4105.21	.33	164.89	166.27	61.45	25 2 44	3505.2	-3.49	158.27
100.00	2 2 44	3704.46	-7.79	139.81	170.73	61.05	3 4 28	3104.5	-11.60	133.09
100.00	23 28 43	4187.84	8.43	166.52	161.83	61.22	24 38 31	3587.8	4.53	159.91
110.00	4 22 33	3266.74	-16.84	111.84	175.97	59.81	5 17 0	2666.7	-20.73	104.86
110.00	23 25 23	4198.33	17.51	162.09	156.61	60.16	24 35 21	3598.3	13.41	155.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-4.0703 TRA  .6815 TC3 -.0706 BAU 3.3370   SGT  857.6 SGR 3136.8 SG3   54.1      ST   709.0 SR  2306.0 SS  1628.9
RD-12.9551 RRA-8.2806 RC3 -.2188 FAU-.05537   RRT  .7597 RRF -.9986 RTF -.7279      CRT  .9632 CRS  .9996 CST  .9557
FDE 2.4660 FRA 1.7810 FC3  .0441 BSP   9311   SGB 3251.9 R23 -.0837 R13 -.9962      LSA 2904.5 MSA  194.4 SSA    1.6
BDE13.5795 BRA 8.3086 BC3  .2299 FSP   -163   SG1 3205.8 SG2  545.6 THA  77.91      EL1 2405.6 EL2  182.6 ALF  73.40
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 395.383

```
RL  150.80 LAL    .00 LOL 343.00 VL  27.112 GAL  -4.10 AZL 148.56 HCA 183.98 SMA 129.46 ECC .17923 INC58.5599 V1  29.547
RP  107.60 LAP   3.39 LOP 165.07 VP  37.969 GAP   3.49 AZP  31.50 TAL 199.40 TAP  23.37 RCA 106.26 APO 152.67 V2  35.218
RC 102.053 GL  -56.09 GP   64.32 ZAL  93.10 ZAP  93.49 ETS 180.56 ZAE  68.10 ETE 268.27 ZAC 141.55 ETC 281.02 CLP  98.08
PLANETOCENTRIC CONIC
C3 772.946 VHL 27.802 DLA -75.10 RAL 213.65 RAD 6572.8 VEL 29.904 PTH   3.45 VHP 35.824 DPA  83.89 RAP  13.10 ECC13.7207
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.99	3 10 30	2437.98	.46	80.90	123.52	165.10	3 51 8	1838.0	8.19	79.25
163.01	14 2 51	657.50	.47	284.83	123.54	165.10	14 13 49	57.5	8.20	283.18
16.99	3 10 30	2437.98	.46	80.90	123.52	165.10	3 51 8	1838.0	8.19	79.25
163.01	14 2 51	657.50	.47	284.83	123.54	165.10	14 13 49	57.5	8.20	283.18
16.99	3 10 30	2437.98	.46	80.90	123.52	165.10	3 51 8	1838.0	8.19	79.25
163.01	14 2 51	657.50	.47	284.83	123.54	165.10	14 13 49	57.5	8.20	283.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.9947 TRA  .9835 TC3 -.0944 BAU 2.4418   SGT 1398.5 SGR 3239.2 SG3   58.8      ST  1056.3 SR  2937.6 SS  1945.6
RD-14.2195 RRA -.8408 RC3  .2166 FAU-.03686   RRT -.9226 RRF  .9992 RTF -.9141      CRT -.9877 CRS-1.0000 CST  .9868
FDE-3.0438 FRA -.1655 FC3  .0413 BSP  10836   SGB 3528.2 R23 -.0781 R13  .9963      LSA 3674.9 MSA  160.2 SSA    2.0
BDE15.0712 BRA 1.2939 BC3  .2363 FSP   -184   SG1 3492.5 SG2  500.5 THA 112.20      EL1 3117.9 EL2  155.5 ALF 109.60
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 400.615

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RL  150.80 LAL    .00 LOL 343.00 VL  27.086 GAL  -3.75 AZL 122.58 HCA 186.31 SMA 129.28 ECC .17849 INC32.5793 V1  29.547
RP  107.63 LAP   3.39 LOP 168.32 VP  37.943 GAP   3.58 AZP  57.58 TAL 197.77 TAP  24.08 RCA 106.21 APO 152.36 V2  35.211
RC 104.339 GL  -64.63 GP   78.98 ZAL  94.77 ZAP  96.16 ETS 163.33 ZAE  84.59 ETE 250.72 ZAC 156.48 ETC 275.74 CLP 124.15
PLANETOCENTRIC CONIC
C3 259.425 VHL 16.107 DLA -78.30 RAL 176.31 RAD 6571.5 VEL 19.513 PTH   3.11 VHP 20.749 DPA  75.91 RAP 266.14 ECC 5.2695
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.32	0 34 14	2344.87	7.09	81.77	84.83	168.20	1 13 19	1744.9	14.91	80.50
166.68	11 41 12	5840.06	7.09	259.99	84.84	168.20	13 18 32	5240.1	14.92	258.72
13.32	0 34 14	2344.87	7.09	81.77	84.83	168.20	1 13 19	1744.9	14.91	80.50
166.68	11 41 12	5840.06	7.09	259.99	84.84	168.20	13 18 32	5240.1	14.92	258.72
13.32	0 34 14	2344.87	7.09	81.77	84.83	168.20	1 13 19	1744.9	14.91	80.50
166.68	11 41 12	5840.06	7.09	259.99	84.84	168.20	13 18 32	5240.1	14.92	258.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.6167 TRA  .2526 TC3 -.0199 BAU  .4146   SGT  498.3 SGR 3886.4 SG3   72.4      ST   256.5 SR  2411.7 SS  1008.4
RDE-6.2304 RRA-1.8078 RC3  .1179 FAU-.00430   RRT -.4864 RRF  .9965 RTF -.4188      CRT  .5817 CRS -.9987 CST -.6228
FDE-1.4833 FRA -.3706 FC3  .0143 BSP  12060   SGB 3918.2 R23 -.0824 R13  .9960      LSA 2618.0 MSA  212.6 SSA    1.5
BDE 6.2608 BRA 1.8253 BC3  .1195 FSP   -229   SG1 3894.1 SG2  434.6 THA  93.61      EL1 2416.4 EL2  208.2 ALF  86.43
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 406.426

RL	150.80	LAL	.00	LOL	343.00	VL	27.058	GAL	-3.52	AZL	111.63	HCA	189.21	SMA	129.09	ECC	.17868	INC	21.6321	V1	29.547
RP	107.65	LAP	3.38	LOP	171.56	VP	37.916	GAP	3.83	AZP	68.62	TAL	196.57	TAP	25.78	RCA	106.03	APO	152.16	V2	35.202
RC	106.624	GL	-65.17	GP	80.34	ZAL	96.42	ZAP	99.66	ETS	89.01	ZAE	93.82	ETE	176.45	ZAC	162.45	ETC	221.43	CLP	178.86

PLANETOCENTRIC CONIC

C3	120.336	VHL	10.970	DLA	-76.81	RAL	170.92	RAD	6570.3	VEL	15.546	PTH	2.77	VHP	14.178	DPA	66.58	RAP	254.17	ECC	2.9804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.02	0 16 4	2214.93	15.47	79.23	77.18	166.30	0 52 59	1614.9	23.23	77.59
164.98	11 16 20	5715.44	15.48	259.11	77.21	166.30	12 51 35	5115.4	23.24	257.47
15.02	0 16 4	2214.93	15.47	79.23	77.18	166.30	0 52 59	1614.9	23.23	77.59
164.98	11 16 20	5715.44	15.48	259.11	77.21	166.30	12 51 35	5115.4	23.24	257.47
15.02	0 16 4	2214.93	15.47	79.23	77.18	166.30	0 52 59	1614.9	23.23	77.59
164.98	11 16 20	5715.44	15.48	259.11	77.21	166.30	12 51 35	5115.4	23.24	257.47

DIFFERENTIAL CORRECTIONS

TDE	-3.6897	TRA	-1.4822	TC3	-.1359	BAU	.2223
RDE	-.0677	RRA	-.5207	RC3	-.0250	FAU	.00919
FDE	-1.1700	FRA	-.4013	FC3	-.0661	BSP	12771
BDE	3.6903	BRA	1.5711	BC3	.1382	FSP	-311

MID-COURSE EXECUTION ACCURACY

SGT	3913.4	SGR	1193.7	SG3	96.1		
RRT	.8838	RRF	.8465	RTF	.9961		
SGB	4091.4	R23	-.1085	R13	.9928		
SG1	4055.7	SG2	538.9	THA	15.37		

ORBIT DETERMINATION ACCURACY

ST	2179.4	SR	359.3	SS	821.2
CRT	.5518	CRS	-.4988	CST	-.9981
LSA	2336.9	MSA	303.9	SSA	1.9
EL1	2188.6	EL2	298.4	ALF	5.30

LAUNCH DATE SEP 6 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 412.402

RL	150.80	LAL	.00	LOL	343.00	VL	27.028	GAL	-3.31	AZL	106.00	HCA	192.27	SMA	128.89	ECC	.17920	INC	15.9992	V1	29.547
RP	107.68	LAP	3.36	LOP	174.81	VP	37.887	GAP	4.12	AZP	74.35	TAL	195.48	TAP	27.75	RCA	105.80	APO	151.99	V2	35.193
RC	108.906	GL	-63.07	GP	75.15	ZAL	97.76	ZAP	103.61	ETS	57.37	ZAE	100.30	ETE	145.42	ZAC	163.36	ETC	213.02	CLP	-156.63

PLANETOCENTRIC CONIC

C3	69.585	VHL	8.342	DLA	-75.18	RAL	177.39	RAD	6569.3	VEL	13.818	PTH	2.52	VHP	10.872	DPA	59.31	RAP	248.45	ECC	2.1452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.89	0 45 38	2091.43	23.23	76.00	80.85	163.84	1 20 29	1491.4	30.89	73.83
163.11	11 38 23	5598.61	23.24	257.74	80.88	163.84	13 11 42	4998.6	30.90	255.57
16.89	0 45 38	2091.43	23.23	76.00	80.85	163.84	1 20 29	1491.4	30.89	73.83
163.11	11 38 23	5598.61	23.24	257.74	80.88	163.84	13 11 42	4998.6	30.90	255.57
16.89	0 45 38	2091.43	23.23	76.00	80.85	163.84	1 20 29	1491.4	30.89	73.83
163.11	11 38 23	5598.61	23.24	257.74	80.88	163.84	13 11 42	4998.6	30.90	255.57

DIFFERENTIAL CORRECTIONS

TDE	-2.8293	TRA	-1.2423	TC3	-.4708	BAU	.4549
RDE	1.5848	RRA	.2383	RC3	.1320	FAU	.01837
FDE	-1.3338	FRA	-.3905	FC3	-.2286	BSP	12644
BDE	3.2429	BRA	1.2650	BC3	.4890	FSP	-394

MID-COURSE EXECUTION ACCURACY

SGT	3939.8	SGR	1281.7	SG3	124.7		
RRT	-.8759	RRF	-.9469	RTF	.9807		
SGB	4143.0	R23	.1407	R13	-.9875		
SG1	4100.2	SG2	594.3	THA	163.74		

ORBIT DETERMINATION ACCURACY

ST	2186.0	SR	1105.3	SS	909.9
CRT	-.9550	CRS	.9878	CST	-.9895
LSA	2595.4	MSA	303.4	SSA	2.7
EL1	2431.8	EL2	294.6	ALF	153.81

LAUNCH DATE SEP 6 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 418.426

RL	150.80	LAL	.00	LOL	343.00	VL	26.998	GAL	-3.10	AZL	102.61	HCA	195.40	SMA	128.69	ECC	.17991	INC	12.6122	V1	29.547
RP	107.71	LAP	3.32	LOP	178.05	VP	37.856	GAP	4.42	AZP	77.83	TAL	194.41	TAP	29.81	RCA	105.53	APO	151.84	V2	35.184
RC	111.186	GL	-60.02	GP	69.23	ZAL	98.70	ZAP	107.81	ETS	50.65	ZAE	105.41	ETE	139.86	ZAC	161.20	ETC	224.50	CLP	-149.57

PLANETOCENTRIC CONIC

C3	46.181	VHL	6.796	DLA	-73.39	RAL	186.56	RAD	6568.7	VEL	12.944	PTH	2.36	VHP	8.982	DPA	52.96	RAP	244.69	ECC	1.7600

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.94	1 26 27	1986.80	29.50	72.19	86.84	160.83	1 59 34	1386.8	37.02	69.33
161.06	12 10 48	5502.36	29.50	256.00	86.86	160.83	13 42 30	4902.4	37.02	253.14
18.94	1 26 27	1986.80	29.50	72.19	86.84	160.83	1 59 34	1386.8	37.02	69.33
161.06	12 10 48	5502.36	29.50	256.00	86.86	160.83	13 42 30	4902.4	37.02	253.14
18.94	1 26 27	1986.80	29.50	72.19	86.84	160.83	1 59 34	1386.8	37.02	69.33
161.06	12 10 48	5502.36	29.50	256.00	86.86	160.83	13 42 30	4902.4	37.02	253.14

DIFFERENTIAL CORRECTIONS

TDE	-2.6947	TRA	-1.0242	TC3	-.8981	BAU	.5929
RDE	1.6612	RRA	.2782	RC3	.3400	FAU	.02764
FDE	-1.6003	FRA	-.3801	FC3	-.5181	BSP	13695
BDE	3.1656	BRA	1.0613	BC3	.9603	FSP	-542

MID-COURSE EXECUTION ACCURACY

SGT	3972.5	SGR	1687.8	SG3	163.3		
RRT	-.9285	RRF	-.9827	RTF	.9738		
SGB	4316.1	R23	.1576	R13	-.9839		
SG1	4276.7	SG2	582.0	THA	158.04		

ORBIT DETERMINATION ACCURACY

ST	2446.4	SR	1422.1	SS	1079.2
CRT	-.9789	CRS	.9975	CST	-.9909
LSA	3016.8	MSA	265.8	SSA	3.4
EL1	2818.4	EL2	252.1	ALF	150.09

LAUNCH DATE SEP 6 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 424.472

RL	150.80	LAL	.00	LOL	343.00	VL	26.966	GAL	-2.89	AZL	100.35	HCA	198.57	SMA	128.47	ECC	.18076	INC	10.3537	V1	29.547
RP	107.74	LAP	3.28	LOP	181.28	VP	37.824	GAP	4.73	AZP	80.17	TAL	193.32	TAP	31.90	RCA	105.25	APO	151.69	V2	35.174
RC	113.462	GL	-56.62	GP	63.54	ZAL	99.21	ZAP	112.09	ETS	48.58	ZAE	109.61	ETE	139.47	ZAC	157.64	ETC	234.00	CLP	-147.58

PLANETOCENTRIC CONIC

C3	33.600	VHL	5.797	DLA	-71.40	RAL	195.78	RAD	6568.3	VEL	12.449	PTH	2.25	VHP	7.814	DPA	47.14	RAP	242.06	ECC	1.5530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.25	2 7 59	1901.22	34.21	67.84	92.54	157.31	2 39 41	1301.2	41.52	64.14
158.75	12 42 44	5427.46	34.21	254.00	92.56	157.31	14 13 12	4827.5	41.53	250.31
21.25	2 7 59	1901.22	34.21	67.84	92.54	157.31	2 39 41	1301.2	41.52	64.14
158.75	12 42 44	5427.46	34.21	254.00	92.56	157.31	14 13 12	4827.5	41.53	250.31
21.25	2 7 59	1901.22	34.21	67.84	92.54	157.31	2 39 41	1301.2	41.52	64.14
158.75	12 42 44	5427.46	34.21	254.00	92.56	157.31	14 13 12	4827.5	41.53	250.31

DIFFERENTIAL CORRECTIONS

TDE	-2.6386	TRA	-.8330	TC3	-1.3717	BAU	.6574
RDE	1.5083	RRA	.1992	RC3	.5103	FAU	.03491
FDE	-1.7918	FRA	-.3176	FC3	-.8995	BSP	13626
BDE	3.0393	BRA	.8565	BC3	1.4636	FSP	-641

MID-COURSE EXECUTION ACCURACY

SGT	3999.2	SGR	1718.6	SG3	196.9		
RRT	-.9344	RRF	-.9868	RTF	.9676		
SGB	4352.8	R23	.1799	R13	-.9787		
SG1	4315.7	SG2	567.3	THA	157.72		

ORBIT DETERMINATION ACCURACY

ST	2721.1	SR	1502.4	SS	1212.4
CRT	-.9864	CRS	.9991	CST	-.9924
LSA	3327.9	MSA	237.0	SSA	4.3
EL1	3100.7	EL2	216.7	ALF	151.27

LAUNCH DATE SEP 6 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 430.517

RL	150.80	LAL	.00	LOL	343.00	VL	26.932	GAL	-2.68	AZL	98.74	HCA	201.75	SMA	128.25	ECC	.18174	INC	8.7361	V1	29.547
RP	107.77	LAP	3.23	LOP	184.52	VP	37.790	GAP	5.04	AZP	81.88	TAL	192.22	TAP	33.97	RCA	104.94	APO	151.56	V2	35.164
RC	115.736	GL	-53.12	GP	58.25	ZAL	99.29	ZAP	116.33	ETS	47.80	ZAE	113.09	ETE	140.78	ZAC	153.67	ETC	240.39	CLP	-147.45

PLANETOCENTRIC CONIC

C3	26.098	VHL	5.109	DLA	-69.22	RAL	204.25	RAD	6568.1	VEL	12.144	PTH	2.18	VHP	7.060	DPA	41.76	RAP	240.22	ECC	1.4295

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.76	2 47 9	1831.35	37.55	63.05	97.28	153.42	3 17 40	1231.3	44.61	58.45
156.24	13 11 11	5370.87	37.56	251.85	97.30	153.42	14 40 42	4770.9	44.62	247.25
23.76	2 47 9	1831.35	37.55	63.05	97.28	153.42	3 17 40	1231.3	44.61	58.45
156.24	13 11 11	5370.87	37.56	251.85	97.30	153.42	14 40 42	4770.9	44.62	247.25
23.76	2 47 9	1831.35	37.55	63.05	97.28	153.42	3 17 40	1231.3	44.61	58.45
156.24	13 11 11	5370.87	37.56	251.85	97.30	153.42	14 40 42	4770.9	44.62	247.25

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.5747	TRA	-.6812	TC3	-1.9137	BAU	.7059	SGT	4098.9	SGR	1667.2	SG3	229.9
RDE	1.3162	RRA	.1228	RC3	.6564	FAU	.04143	RRT	-.9380	RRF	-.9874	RTF	.9643
FDE	-1.9009	FRA	-.2369	FC3	-1.3745	BSP	13851	SGB	4425.0	R23	.1930	R13	-.9746
BDE	2.8916	BRA	.6922	BC3	2.0231	FSP	-746	SG1	4392.0	SG2	539.3	THA	158.78

ST	2959.7	SR	1480.9
CRT	-.9900	CRS	.9996
LSA	3552.1	MSA	214.8
EL1	3304.2	EL2	187.1

SS	1307.9
CST	-.9934
SSA	5.2
ALF	153.56

LAUNCH DATE SEP 6 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 436.554

RL	150.80	LAL	.00	LOL	343.00	VL	26.898	GAL	-2.45	AZL	97.52	HCA	204.95	SMA	128.02	ECC	.18283	INC	7.5155	V1	29.547
RP	107.80	LAP	3.16	LOP	187.75	VP	37.756	GAP	5.35	AZP	83.18	TAL	191.09	TAP	36.03	RCA	104.62	APO	151.43	V2	35.153
RC	118.005	GL	-49.62	GP	53.38	ZAL	98.95	ZAP	120.43	ETS	47.44	ZAE	115.94	ETE	142.80	ZAC	149.71	ETC	244.71	CLP	-148.11

PLANETOCENTRIC CONIC

C3	21.288	VHL	4.614	DLA	-66.94	RAL	211.88	RAD	6567.9	VEL	11.944	PTH	2.13	VHP	6.563	DPA	36.78	RAP	238.98	ECC	1.3503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.42	3 23 27	1773.52	39.79	58.01	101.10	149.35	3 53 1	1173.5	46.53	52.51
153.58	13 35 45	5329.16	39.80	249.68	101.11	149.34	15 4 34	4729.2	46.54	244.17
26.42	3 23 27	1773.52	39.79	58.01	101.10	149.35	3 53 1	1173.5	46.53	52.51
153.58	13 35 45	5329.16	39.80	249.68	101.11	149.34	15 4 34	4729.2	46.54	244.17
26.42	3 23 27	1773.52	39.79	58.01	101.10	149.35	3 53 1	1173.5	46.53	52.51
153.58	13 35 45	5329.16	39.80	249.68	101.11	149.34	15 4 34	4729.2	46.54	244.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.4827	TRA	-.5434	TC3	-2.4976	BAU	.7435	SGT	4217.1	SGR	1576.3	SG3	258.4
RDE	1.1250	RRA	.0569	RC3	.7665	FAU	.04671	RRT	-.9400	RRF	-.9861	RTF	.9623
FDE	-1.9202	FRA	-.1366	FC3	-1.8997	BSP	14114	SGB	4502.1	R23	.2002	R13	-.9711
BDE	2.7257	BRA	.5464	BC3	2.6125	FSP	-839	SG1	4473.4	SG2	507.2	THA	160.38

ST	3126.8	SR	1398.3
CRT	-.9919	CRS	.9999
LSA	3678.0	MSA	198.4
EL1	3421.4	EL2	162.5

SS	1354.5
CST	-.9938
SSA	6.2
ALF	156.02

LAUNCH DATE SEP 6 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 442.581

RL	150.80	LAL	.00	LOL	343.00	VL	26.863	GAL	-2.22	AZL	96.56	HCA	208.15	SMA	127.79	ECC	.18403	INC	6.5571	V1	29.547
RP	107.84	LAP	3.09	LOP	190.98	VP	37.720	GAP	5.66	AZP	84.21	TAL	189.93	TAP	38.08	RCA	104.27	APO	151.31	V2	35.141
RC	120.271	GL	-46.20	GP	48.95	ZAL	98.21	ZAP	124.32	ETS	47.20	ZAE	118.25	ETE	145.10	ZAC	145.98	ETC	247.74	CLP	-149.15

PLANETOCENTRIC CONIC

C3	18.040	VHL	4.247	DLA	-64.58	RAL	218.77	RAD	6567.7	VEL	11.808	PTH	2.09	VHP	6.236	DPA	32.18	RAP	238.24	ECC	1.2969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.18	3 57 12	1724.78	41.13	52.89	104.23	145.26	4 25 57	1124.8	47.52	46.56
150.82	13 56 57	5299.39	41.14	247.62	104.25	145.25	15 25 17	4699.4	47.53	241.29
29.18	3 57 12	1724.78	41.13	52.89	104.23	145.26	4 25 57	1124.8	47.52	46.56
150.82	13 56 57	5299.39	41.14	247.62	104.25	145.25	15 25 17	4699.4	47.53	241.29
29.18	3 57 12	1724.78	41.13	52.89	104.23	145.26	4 25 57	1124.8	47.52	46.56
150.82	13 56 57	5299.39	41.14	247.62	104.25	145.25	15 25 17	4699.4	47.53	241.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.3698	TRA	-.4110	TC3	-3.1019	BAU	.7750	SGT	4339.6	SGR	1470.4	SG3	281.2
RDE	.9533	RRA	.0032	RC3	.8394	FAU	.05063	RRT	-.9407	RRF	-.9836	RTF	.9611
FDE	-1.8644	FRA	-.0231	FC3	-2.4297	BSP	14383	SGB	4581.9	R23	.2019	R13	-.9684
BDE	2.5544	BRA	.4111	BC3	3.2135	FSP	-914	SG1	4557.2	SG2	474.9	THA	162.12

ST	3221.3	SR	1286.1
CRT	-.9930	CRS	.9999
LSA	3719.4	MSA	185.8
EL1	3465.6	EL2	141.4

SS	1355.6
CST	-.9937
SSA	7.3
ALF	158.34

LAUNCH DATE SEP 6 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 448.594

RL	150.80	LAL	.00	LOL	343.00	VL	26.828	GAL	-1.98	AZL	95.78	HCA	211.35	SMA	127.55	ECC	.18536	INC	5.7807	V1	29.547
RP	107.87	LAP	3.00	LOP	194.21	VP	37.684	GAP	5.97	AZP	85.06	TAL	188.74	TAP	40.09	RCA	103.91	APO	151.20	V2	35.130
RC	122.531	GL	-42.85	GP	44.96	ZAL	97.11	ZAP	127.96	ETS	47.00	ZAE	120.09	ETE	147.49	ZAC	142.55	ETC	249.96	CLP	-150.37

PLANETOCENTRIC CONIC

C3	15.765	VHL	3.971	DLA	-62.19	RAL	225.05	RAD	6567.6	VEL	11.711	PTH	2.06	VHP	6.026	DPA	27.97	RAP	237.89	ECC	1.2595

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.00	4 28 56	1682.79	41.76	47.81	106.93	141.28	4 56 59	1082.8	47.78	40.79
148.00	14 15 20	5279.40	41.77	245.80	106.95	141.28	15 43 20	4679.4	47.79	238.77
32.00	4 28 56	1682.79	41.76	47.81	106.93	141.28	4 56 59	1082.8	47.78	40.79
148.00	14 15 20	5279.40	41.77	245.80	106.95	141.28	15 43 20	4679.4	47.79	238.77
32.00	4 28 56	1682.79	41.76	47.81	106.93	141.28	4 56 59	1082.8	47.78	40.79
148.00	14 15 20	5279.40	41.77	245.80	106.95	141.28	15 43 20	4679.4	47.79	238.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.2449	TRA	-.2811	TC3	-3.7078	BAU	.8031	SGT	4463.1	SGR	1362.3	SG3	297.8
RDE	.8067	RRA	-.0394	RC3	.8777	FAU	.05321	RRT	-.9403	RRF	-.9797	RTF	.9603
FDE	-1.7536	FRA	.0964	FC3	-2.9223	BSP	14673	SGB	4666.4	R23	.1986	R13	-.9662
BDE	2.3854	BRA	.2839	BC3	3.8103	FSP	-971	SG1	4645.1	SG2	445.4	THA	163.83

ST	3251.1	SR	1164.9
CRT	-.9937	CRS	.9999
LSA	3692.6	MSA	176.3
EL1	3451.3	EL2	122.8

SS	1318.9
CST	-.9933
SSA	8.4
ALF	160.38

LAUNCH DATE SEP 6 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 454.591

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RL  150.80 LAL    .00 LOL 343.00 VL  26.791 GAL  -1.72 AZL  95.14 HCA 214.55 SMA 127.31 ECC .18680 INC 5.1353 V1  29.547
RP  107.91 LAP   2.91 LOP 197.44 VP  37.647 GAP   6.27 AZP  85.77 TAL 187.53 TAP  42.08 RCA 103.53 APO 151.10 V2  35.118
RC 124.786 GL  -39.61 GP   41.37 ZAL  95.66 ZAP 131.34 ETS  46.81 ZAE 121.53 ETE 149.83 ZAC 139.45 ETC 251.65 CLP-151.67
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PLANETOCENTRIC CONIC

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C3  14.135 VHL  3.760 DLA -59.78 RAL 230.84 RAD 6567.6 VEL 11.641 PTH   2.04 VHP  5.900 DPA  24.12 RAP 237.88 ECC 1.2326
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.87	4 59 8	1645.76	41.83	42.87	109.41	137.51	5 26 33	1045.8	47.47	35.30
145.13	14 31 22	5267.66	41.84	244.31	109.43	137.50	15 59 10	4667.7	47.48	236.73
34.87	4 59 8	1645.76	41.83	42.87	109.41	137.51	5 26 33	1045.8	47.47	35.30
145.13	14 31 22	5267.66	41.84	244.31	109.43	137.50	15 59 10	4667.7	47.48	236.73
34.87	4 59 8	1645.76	41.83	42.87	109.41	137.51	5 26 33	1045.8	47.47	35.30
145.13	14 31 22	5267.66	41.84	244.31	109.43	137.50	15 59 10	4667.7	47.48	236.73

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TOE-2.1116 TRA -.1483 TC3-4.2944 BAU  .8287    SGT 4580.9 SGR 1258.7 SG3  308.5     ST  3222.3 SR  1046.2 SS  1252.1
ROE  .6850 RRA -.0741 RC3  .8866 FAU .05460    RRT -.9385 RRF -.9744 RTF  .9596     CRT -.9943 CRS  .9998 CST -.9925
FOE-1.6058 FRA  .2191 FC3-3.3442 BSP  14948    SGB 4750.7 R23  .1916 R13 -.9643     LSA 3607.9 MSA  169.3 SSA    9.8
BOE 2.2199 BRA  .1658 BC3 4.3850 FSP  -1008    SG1 4732.0 SG2  420.9 THA 165.42     EL1 3386.2 EL2  106.1 ALF 162.09
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 460.572

```
RL  150.80 LAL    .00 LOL 343.00 VL  26.754 GAL  -1.46 AZL  94.59 HCA 217.76 SMA 127.07 ECC .18836 INC 4.5874 V1  29.547
RP  107.95 LAP   2.81 LOP 200.66 VP  37.609 GAP   6.58 AZP  86.37 TAL 186.30 TAP  44.05 RCA 103.14 APO 151.01 V2  35.105
RC 127.036 GL  -36.46 GP   38.17 ZAL  93.92 ZAP 134.47 ETS  46.63 ZAE 122.64 ETE 152.07 ZAC 136.69 ETC 252.98 CLP-153.00
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PLANETOCENTRIC CONIC

```
C3  12.956 VHL  3.600 DLA -57.37 RAL 236.24 RAD 6567.5 VEL 11.591 PTH   2.03 VHP  5.835 DPA  20.62 RAP 238.16 ECC 1.2132
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.77	5 28 13	1612.29	41.44	38.11	111.80	134.00	5 55 5	1012.3	46.71	30.14
142.23	14 45 21	5263.19	41.45	243.21	111.81	133.99	16 13 4	4663.2	46.72	235.23
37.77	5 28 13	1612.29	41.44	38.11	111.80	134.00	5 55 5	1012.3	46.71	30.14
142.23	14 45 21	5263.19	41.45	243.21	111.81	133.99	16 13 4	4663.2	46.72	235.23
37.77	5 28 13	1612.29	41.44	38.11	111.80	134.00	5 55 5	1012.3	46.71	30.14
142.23	14 45 21	5263.19	41.45	243.21	111.81	133.99	16 13 4	4663.2	46.72	235.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TOE-1.9753 TRA -.0139 TC3-4.8482 BAU  .8533    SGT 4697.8 SGR 1164.3 SG3  314.5     ST  3146.0 SR   937.6 SS  1165.3
ROE  .5862 RRA -.1014 RC3  .8733 FAU .05503    RRT -.9353 RRF -.9675 RTF  .9591     CRT -.9949 CRS  .9993 CST -.9911
FOE-1.4391 FRA  .3380 FC3-3.6771 BSP  15269    SGB 4839.9 R23  .1804 R13 -.9628     LSA 3479.6 MSA  164.4 SSA   11.3
BOE 2.0605 BRA  .1023 BC3 4.9262 FSP  -1034    SG1 4823.3 SG2  401.1 THA 166.86     EL1 3281.5 EL2   90.3 ALF 163.47
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 466.535

```
RL  150.80 LAL    .00 LOL 343.00 VL  26.716 GAL  -1.18 AZL  94.11 HCA 220.96 SMA 126.83 ECC .19006 INC 4.1137 V1  29.547
RP  107.99 LAP   2.70 LOP 203.88 VP  37.571 GAP   6.89 AZP  86.89 TAL 185.03 TAP  45.99 RCA 102.72 APO 150.93 V2  35.093
RC 129.278 GL  -33.41 GP   35.32 ZAL  91.90 ZAP 137.34 ETS  46.49 ZAE 123.49 ETE 154.14 ZAC 134.24 ETC 254.08 CLP-154.33
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PLANETOCENTRIC CONIC

```
C3  12.108 VHL  3.480 DLA -54.95 RAL 241.31 RAD 6567.5 VEL 11.554 PTH   2.02 VHP  5.816 DPA  17.42 RAP 238.68 ECC 1.1993
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.72	5 56 31	1581.27	40.69	33.55	114.20	130.77	6 22 52	981.3	45.61	25.30
139.28	14 57 30	5265.30	40.70	242.55	114.21	130.76	16 25 15	4665.3	45.62	234.30
40.72	5 56 31	1581.27	40.69	33.55	114.20	130.77	6 22 52	981.3	45.61	25.30
139.28	14 57 30	5265.30	40.70	242.55	114.21	130.76	16 25 15	4665.3	45.62	234.30
40.72	5 56 31	1581.27	40.69	33.55	114.20	130.77	6 22 52	981.3	45.61	25.30
139.28	14 57 30	5265.30	40.70	242.55	114.21	130.76	16 25 15	4665.3	45.62	234.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TOE-1.8354 TRA  .1246 TC3-5.3481 BAU  .8763    SGT 4807.6 SGR 1079.0 SG3  316.2     ST  3026.1 SR   841.0 SS  1064.1
ROE  .5065 RRA -.1234 RC3  .8421 FAU .05463    RRT -.9308 RRF -.9588 RTF  .9587     CRT -.9957 CRS  .9982 CST -.9889
FOE-1.2631 FRA  .4513 FC3-3.9061 BSP  15549    SGB 4927.2 R23  .1660 R13 -.9616     LSA 3312.2 MSA  161.1 SSA   12.9
BOE 1.9040 BRA  .1754 BC3 5.4139 FSP  -1041    SG1 4912.0 SG2  386.1 THA 168.13     EL1 3139.9 EL2   74.8 ALF 164.52
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 472.479

```
RL  150.80 LAL    .00 LOL 343.00 VL  26.678 GAL   -.89 AZL  93.70 HCA 224.16 SMA 126.58 ECC .19189 INC 3.6977 V1  29.547
RP  108.03 LAP   2.58 LOP 207.10 VP  37.532 GAP   7.19 AZP  87.35 TAL 183.75 TAP  47.91 RCA 102.29 APO 150.87 V2  35.080
RC 131.513 GL  -30.47 GP   32.78 ZAL  89.66 ZAP 139.99 ETS  46.38 ZAE 124.12 ETE 156.05 ZAC 132.07 ETC 255.01 CLP-155.64
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PLANETOCENTRIC CONIC

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C3  11.512 VHL  3.393 DLA -52.54 RAL 246.10 RAD 6567.4 VEL 11.528 PTH   2.01 VHP  5.834 DPA  14.52 RAP 239.41 ECC 1.1895
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.70	6 24 18	1551.78	39.65	29.16	116.66	127.82	6 50 10	951.8	44.24	20.75
136.30	15 7 54	5273.64	39.66	242.36	116.67	127.81	16 35 48	4673.6	44.25	233.95
43.70	6 24 18	1551.78	39.65	29.16	116.66	127.82	6 50 10	951.8	44.24	20.75
136.30	15 7 54	5273.64	39.66	242.36	116.67	127.81	16 35 48	4673.6	44.25	233.95
43.70	6 24 18	1551.78	39.65	29.16	116.66	127.82	6 50 10	951.8	44.24	20.75
136.30	15 7 54	5273.64	39.66	242.36	116.67	127.81	16 35 48	4673.6	44.25	233.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TOE-1.6944 TRA  .2679 TC3-5.7809 BAU  .8982    SGT 4912.1 SGR 1004.0 SG3  314.5     ST  2872.3 SR   758.1 SS   957.0
ROE  .4434 RRA -.1414 RC3  .7981 FAU .05357    RRT -.9244 RRF -.9481 RTF  .9584     CRT -.9968 CRS  .9956 CST -.9857
FOE-1.0892 FRA  .5574 FC3-4.0285 BSP  15872    SGB 5013.7 R23  .1492 R13 -.9607     LSA 3116.9 MSA  159.7 SSA   14.6
BOE 1.7514 BRA  .3029 BC3 5.8357 FSP  -1044    SG1 4999.5 SG2  376.3 THA 169.24     EL1 2970.1 EL2   59.0 ALF 165.25
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 478.405
RL 150.80 LAL .00 LOL 343.00 VL 26.640 GAL -.59 AZL 93.33 HCA 227.37 SMA 126.34 ECC .19387 INC 3.3272 V1 29.547
RP 108.07 LAP 2.45 LOP 210.31 VP 37.492 GAP 7.50 AZP 87.74 TAL 182.44 TAP 49.81 RCA 101.84 APO 150.83 V2 35.067
RC 133.740 GL -27.62 GP 30.52 ZAL 87.23 ZAP 142.42 ETS 46.33 ZAE 124.59 ETE 157.78 ZAC 130.16 ETC 255.82 CLP-156.92
PLANETOCENTRIC CONIC
C3 11.121 VHL 3.335 DLA -50.14 RAL 250.63 RAD 6567.4 VEL 11.511 PTH 2.01 VHP 5.880 DPA 11.87 RAP 240.32 ECC 1.1830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.73	6 51 48	1522.98	38.38	24.94	119.21	125.14	7 17 11	923.0	42.66	16.45
133.27	15 16 36	5288.12	38.39	242.67	119.21	125.13	16 44 44	4688.1	42.67	234.19
46.73	6 51 48	1522.98	38.38	24.94	119.21	125.14	7 17 11	923.0	42.66	16.45
133.27	15 16 36	5288.12	38.39	242.67	119.21	125.13	16 44 44	4688.1	42.67	234.19
46.73	6 51 48	1522.98	38.38	24.94	119.21	125.14	7 17 11	923.0	42.66	16.45
133.27	15 16 36	5288.12	38.39	242.67	119.21	125.13	16 44 44	4688.1	42.67	234.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.5499 TRA .4186 TC3-6.1366 BAU .9191 SGT 5010.2 SGR 938.6 SG3 310.5 ST 2686.9 SR 686.6 SS 846.3
RDE .3927 RRA -.1571 RC3 .7474 FAU .05209 RRT -.9164 RRF -.9354 RTF .9581 CRT -.9980 CRS .9901 CST -.9805
FDE -.9183 FRA .6578 FC3-4.0551 BSP 16123 SGB 5097.3 R23 .1315 R13 -.9598 LSA 2895.0 MSA 161.1 SSA 16.4
BDE 1.5989 BRA .4471 BC3 6.1820 FSP -1031 SG1 5083.9 SG2 370.4 THA 170.21 EL1 2773.0 EL2 42.5 ALF 165.69

LAUNCH DATE SEP 6 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 484.311
RL 150.80 LAL .00 LOL 343.00 VL 26.602 GAL -.27 AZL 92.99 HCA 230.57 SMA 126.09 ECC .19600 INC 2.9934 V1 29.547
RP 108.11 LAP 2.31 LOP 213.53 VP 37.453 GAP 7.81 AZP 88.10 TAL 181.11 TAP 51.68 RCA 101.38 APO 150.80 V2 35.054
RC 135.957 GL -24.88 GP 28.51 ZAL 84.65 ZAP 144.66 ETS 46.35 ZAE 124.92 ETE 159.33 ZAC 128.48 ETC 256.55 CLP-158.17
PLANETOCENTRIC CONIC
C3 10.901 VHL 3.302 DLA -47.75 RAL 254.94 RAD 6567.4 VEL 11.502 PTH 2.00 VHP 5.948 DPA 9.45 RAP 241.40 ECC 1.1794

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.80	7 19 12	1494.14	36.93	20.84	121.85	122.73	7 44 7	894.1	40.93	12.34
130.20	15 23 33	5308.74	36.94	243.49	121.86	122.72	16 52 1	4708.7	40.94	234.99
49.80	7 19 12	1494.14	36.93	20.84	121.85	122.73	7 44 7	894.1	40.93	12.34
130.20	15 23 33	5308.74	36.94	243.49	121.86	122.72	16 52 1	4708.7	40.94	234.99
49.80	7 19 12	1494.14	36.93	20.84	121.85	122.73	7 44 7	894.1	40.93	12.34
130.20	15 23 33	5308.74	36.94	243.49	121.86	122.72	16 52 1	4708.7	40.94	234.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.4018 TRA .5796 TC3-6.3913 BAU .9368 SGT 5095.7 SGR 881.6 SG3 304.3 ST 2477.0 SR 625.8 SS 738.1
RDE .3523 RRA -.1721 RC3 .6879 FAU .05004 RRT -.9056 RRF -.9206 RTF .9571 CRT -.9991 CRS .9784 CST -.9719
FDE -.7544 FRA .7557 FC3-3.9743 BSP 16349 SGB 5171.4 R23 .1161 R13 -.9585 LSA 2654.0 MSA 167.0 SSA 18.2
BDE 1.4454 BRA .6046 BC3 6.4282 FSP -1012 SG1 5158.2 SG2 369.4 THA 171.05 EL1 2554.7 EL2 26.4 ALF 165.83

LAUNCH DATE SEP 6 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 490.195
RL 150.80 LAL .00 LOL 343.00 VL 26.563 GAL .06 AZL 92.69 HCA 233.77 SMA 125.84 ECC .19830 INC 2.6891 V1 29.547
RP 108.15 LAP 2.17 LOP 216.73 VP 37.413 GAP 8.12 AZP 88.41 TAL 179.77 TAP 53.53 RCA 100.89 APO 150.80 V2 35.041
RC 138.166 GL -22.25 GP 26.71 ZAL 81.95 ZAP 146.73 ETS 46.46 ZAE 125.16 ETE 160.73 ZAC 127.00 ETC 257.22 CLP-159.39
PLANETOCENTRIC CONIC
C3 10.830 VHL 3.291 DLA -45.38 RAL 259.03 RAD 6567.4 VEL 11.499 PTH 2.00 VHP 6.037 DPA 7.24 RAP 242.62 ECC 1.1782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.93	7 46 44	1464.39	35.34	16.80	124.60	120.56	8 11 9	864.4	39.09	8.34
127.07	15 28 37	5335.85	35.35	244.85	124.61	120.55	16 57 33	4735.9	39.10	236.38
52.93	7 46 44	1464.39	35.34	16.80	124.60	120.56	8 11 9	864.4	39.09	8.34
127.07	15 28 37	5335.85	35.35	244.85	124.61	120.55	16 57 33	4735.9	39.10	236.38
52.93	7 46 44	1464.39	35.34	16.80	124.60	120.56	8 11 9	864.4	39.09	8.34
127.07	15 28 37	5335.85	35.35	244.85	124.61	120.55	16 57 33	4735.9	39.10	236.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.2502 TRA .7542 TC3-6.5757 BAU .9565 SGT 5192.7 SGR 838.0 SG3 299.4 ST 2251.4 SR 574.1 SS 638.0
RDE .3197 RRA -.1887 RC3 .6331 FAU .04807 RRT -.8938 RRF -.9052 RTF .9552 CRT -.9993 CRS .9536 CST -.9560
FDE -.5976 FRA .8589 FC3-3.8425 BSP 16267 SGB 5259.9 R23 .1048 R13 -.9563 LSA 2402.5 MSA 181.3 SSA 19.9
BDE 1.2904 BRA .7774 BC3 6.6061 FSP -942 SG1 5246.7 SG2 371.9 THA 171.75 EL1 2323.4 EL2 20.2 ALF 165.70

LAUNCH DATE SEP 6 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 496.057
RL 150.80 LAL .00 LOL 343.00 VL 26.524 GAL .40 AZL 92.41 HCA 236.97 SMA 125.60 ECC .20077 INC 2.4090 V1 29.547
RP 108.19 LAP 2.02 LOP 219.94 VP 37.373 GAP 8.43 AZP 88.69 TAL 178.40 TAP 55.37 RCA 100.38 APO 150.81 V2 35.028
RC 140.364 GL -19.74 GP 25.11 ZAL 79.18 ZAP 148.64 ETS 46.66 ZAE 125.32 ETE 161.97 ZAC 125.70 ETC 257.86 CLP-160.57
PLANETOCENTRIC CONIC
C3 10.897 VHL 3.301 DLA -43.05 RAL 262.91 RAD 6567.4 VEL 11.502 PTH 2.00 VHP 6.141 DPA 5.22 RAP 243.96 ECC 1.1793

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.11	8 14 38	1432.88	33.65	12.78	127.43	118.61	8 38 31	832.9	37.17	4.37
123.89	15 31 41	5369.87	33.66	246.77	127.44	118.59	17 1 11	4769.9	37.18	238.37
56.11	8 14 38	1432.88	33.65	12.78	127.43	118.61	8 38 31	832.9	37.17	4.37
123.89	15 31 41	5369.87	33.66	246.77	127.44	118.59	17 1 11	4769.9	37.18	238.37
56.11	8 14 38	1432.88	33.65	12.78	127.43	118.61	8 38 31	832.9	37.17	4.37
123.89	15 31 41	5369.87	33.66	246.77	127.44	118.59	17 1 11	4769.9	37.18	238.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE-1.1141 TRA .9083 TC3-6.6774 BAU .9764 SGT 5275.2 SGR 793.3 SG3 289.1 ST 2043.5 SR 537.2 SS 557.4
RDE .2989 RRA -.1950 RC3 .5784 FAU .04594 RRT -.8807 RRF -.8859 RTF .9571 CRT -.9972 CRS .9165 CST -.9403
FDE -.4730 FRA .9145 FC3-3.6496 BSP 16972 SGB 5334.5 R23 .0818 R13 -.9579 LSA 2176.9 MSA 189.0 SSA 21.2
BDE 1.1535 BRA .9290 BC3 6.7024 FSP -972 SG1 5321.5 SG2 372.6 THA 172.42 EL1 2112.5 EL2 39.0 ALF 165.31

LAUNCH DATE SEP 6 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 501.898

RL	150.80	LAL	.00	LOL	343.00	VL	26.484	GAL	.76	AZL	92.15	HCA	240.16	SMA	125.35	ECC	.20343	INC	2.1487	V1	29.547
RP	108.23	LAP	1.86	LOP	223.14	VP	37.332	GAP	8.75	AZP	88.93	TAL	177.02	TAP	57.18	RCA	99.85	APO	150.85	V2	35.014
RC	142.552	GL	-17.34	GP	23.67	ZAL	76.37	ZAP	150.42	ETS	46.96	ZAE	125.42	ETE	163.08	ZAC	124.55	ETC	258.46	CLP	-161.72

PLANETOCENTRIC CONIC

C3	11.093	VHL	3.331	DLA	-40.76	RAL	266.59	RAD	6567.4	VEL	11.510	PTH	2.00	VHP	6.261	DPA	3.36	RAP	245.42	ECC	1.1826

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.37	8 43 8	1398.68	31.89	8.69	130.35	116.85	9 6 27	798.7	35.21	.37
120.63	15 32 34	5411.40	31.90	249.30	130.36	116.84	17 2 45	4811.4	35.22	240.97
59.37	8 43 8	1398.68	31.89	8.69	130.35	116.85	9 6 27	798.7	35.21	.37
120.63	15 32 34	5411.40	31.90	249.30	130.36	116.84	17 2 45	4811.4	35.22	240.97
59.37	8 43 8	1398.68	31.89	8.69	130.35	116.85	9 6 27	798.7	35.21	.37
120.63	15 32 34	5411.40	31.90	249.30	130.36	116.84	17 2 45	4811.4	35.22	240.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9620	TRA	1.0925	TC3	-6.6541	BAU	.9899	SGT	5342.4	SGR	757.2	SG3	279.8	ST	1819.5	SR	502.6	SS	487.7
RDE	.2803	RRA	-.2073	RC3	.5181	FAU	.04328	RRT	-.8642	RRF	-.8658	RTF	.9561	CRT	-.9892	CRS	.8432	CST	-.9103
FDE	-.3447	FRA	.9919	FC3	-3.3773	BSP	17101	SGB	5395.8	R23	.0702	R13	-.9568	LSA	1938.0	MSA	211.7	SSA	22.1
BDE	1.0021	BRA	1.1120	BC3	6.6743	FSP	-937	SG1	5382.6	SG2	378.1	THA	172.98	EL1	1886.3	EL2	71.1	ALF	164.69

LAUNCH DATE SEP 6 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 507.714

RL	150.80	LAL	.00	LOL	343.00	VL	26.445	GAL	1.13	AZL	91.90	HCA	243.36	SMA	125.10	ECC	.20629	INC	1.9047	V1	29.547
RP	108.27	LAP	1.70	LOP	226.34	VP	37.292	GAP	9.08	AZP	89.15	TAL	175.63	TAP	58.98	RCA	99.30	APO	150.91	V2	35.001
RC	144.730	GL	-15.08	GP	22.39	ZAL	73.54	ZAP	152.07	ETS	47.37	ZAE	125.48	ETE	164.07	ZAC	123.52	ETC	259.05	CLP	-162.84

PLANETOCENTRIC CONIC

C3	11.417	VHL	3.379	DLA	-38.52	RAL	270.08	RAD	6567.4	VEL	11.524	PTH	2.01	VHP	6.393	DPA	1.65	RAP	246.98	ECC	1.1879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.72	9 12 38	1360.41	30.09	4.45	133.34	115.27	9 35 19	760.4	33.22	356.21
117.28	15 30 54	5461.53	30.10	252.49	133.35	115.26	17 1 56	4861.5	33.23	244.26
62.72	9 12 38	1360.41	30.09	4.45	133.34	115.27	9 35 19	760.4	33.22	356.21
117.28	15 30 54	5461.53	30.10	252.49	133.35	115.26	17 1 56	4861.5	33.23	244.26
62.72	9 12 38	1360.41	30.09	4.45	133.34	115.27	9 35 19	760.4	33.22	356.21
117.28	15 30 54	5461.53	30.10	252.49	133.35	115.26	17 1 56	4861.5	33.23	244.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8124	TRA	1.2805	TC3	-6.5687	BAU	1.0051	SGT	5413.3	SGR	727.2	SG3	270.6	ST	1615.1	SR	474.9	SS	439.1
RDE	.2671	RRA	-.2186	RC3	.4659	FAU	.04086	RRT	-.8476	RRF	-.8450	RTF	.9558	CRT	-.9696	CRS	.7307	CST	-.8733
FDE	-.2308	FRA	1.0598	FC3	-3.0983	BSP	17315	SGB	5461.9	R23	.0580	R13	-.9563	LSA	1722.7	MSA	241.7	SSA	22.4
BDE	.8552	BRA	1.2990	BC3	6.5852	FSP	-909	SG1	5448.4	SG2	383.5	THA	173.47	EL1	1679.7	EL2	111.7	ALF	164.02

LAUNCH DATE SEP 6 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 513.504

RL	150.80	LAL	.00	LOL	343.00	VL	26.406	GAL	1.53	AZL	91.67	HCA	246.55	SMA	124.86	ECC	.20937	INC	1.6742	V1	29.547
RP	108.31	LAP	1.54	LOP	229.54	VP	37.252	GAP	9.41	AZP	89.33	TAL	174.22	TAP	60.77	RCA	98.72	APO	151.00	V2	34.988
RC	146.899	GL	-12.94	GP	21.23	ZAL	70.72	ZAP	153.60	ETS	47.91	ZAE	125.51	ETE	164.95	ZAC	122.62	ETC	259.63	CLP	-163.93

PLANETOCENTRIC CONIC

C3	11.868	VHL	3.445	DLA	-36.35	RAL	273.38	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	6.538	DPA	.09	RAP	248.63	ECC	1.1953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.20	9 43 40	1316.31	28.28	359.90	136.39	113.85	10 5 36	716.3	31.25	351.76
113.80	15 26 14	5521.83	28.29	256.46	136.39	113.84	16 58 16	4921.8	31.25	248.31
66.20	9 43 40	1316.31	28.28	359.90	136.39	113.85	10 5 36	716.3	31.25	351.76
113.80	15 26 14	5521.83	28.29	256.46	136.39	113.84	16 58 16	4921.8	31.25	248.31
66.20	9 43 40	1316.31	28.28	359.90	136.39	113.85	10 5 36	716.3	31.25	351.76
113.80	15 26 14	5521.83	28.29	256.46	136.39	113.84	16 58 16	4921.8	31.25	248.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6634	TRA	1.4765	TC3	-6.4140	BAU	1.0198	SGT	5481.1	SGR	702.0	SG3	261.4	ST	1439.2	SR	452.6	SS	412.4
RDE	.2582	RRA	-.2299	RC3	.4179	FAU	.03848	RRT	-.8301	RRF	-.8237	RTF	.9557	CRT	-.9292	CRS	.5815	CST	-.8389
FDE	-.1297	FRA	1.1220	FC3	-2.8072	BSP	17528	SGB	5525.8	R23	.0473	R13	-.9560	LSA	1538.9	MSA	278.9	SSA	22.3
BDE	.7119	BRA	1.4943	BC3	6.4276	FSP	-880	SG1	5512.1	SG2	389.3	THA	173.90	EL1	1500.2	EL2	160.4	ALF	163.52

LAUNCH DATE SEP 6 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 519.266

RL	150.80	LAL	.00	LOL	343.00	VL	26.366	GAL	1.94	AZL	91.45	HCA	249.74	SMA	124.62	ECC	.21268	INC	1.4547	V1	29.547
RP	108.35	LAP	1.36	LOP	232.73	VP	37.212	GAP	9.75	AZP	89.50	TAL	172.80	TAP	62.54	RCA	98.11	APO	151.12	V2	34.975
RC	149.057	GL	-10.93	GP	20.19	ZAL	67.95	ZAP	155.03	ETS	48.57	ZAE	125.52	ETE	165.73	ZAC	121.81	ETC	260.21	CLP	-164.99

PLANETOCENTRIC CONIC

C3	12.450	VHL	3.529	DLA	-34.25	RAL	276.51	RAD	6567.5	VEL	11.569	PTH	2.02	VHP	6.695	DPA	-1.35	RAP	250.36	ECC	1.2049

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.88	10 17 2	1263.61	26.47	354.86	139.49	112.57	10 38 5	663.6	29.29	346.80
110.12	15 17 48	5594.80	26.48	261.37	139.49	112.56	16 51 3	4994.8	29.30	253.31
69.88	10 17 2	1263.61	26.47	354.86	139.49	112.57	10 38 5	663.6	29.29	346.80
110.12	15 17 48	5594.80	26.48	261.37	139.49	112.56	16 51 3	4994.8	29.30	253.31
69.88	10 17 2	1263.61	26.47	354.86	139.49	112.57	10 38 5	663.6	29.29	346.80
110.12	15 17 48	5594.80	26.48	261.37	139.49	112.56	16 51 3	4994.8	29.30	253.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5138	TRA	1.6811	TC3	-6.1971	BAU	1.0334	SGT	5543.4	SGR	680.2	SG3	252.1	ST	1301.9	SR	434.3	SS	405.0
RDE	.2527	RRA	-.2414	RC3	.3737	FAU	.03613	RRT	-.8119	RRF	-.8021	RTF	.9556	CRT	-.8565	CRS	.4124	CST	-.8215
FDE	-.0392	FRA	1.1796	FC3	-2.5120	BSP	17757	SGB	5584.9	R23	.0382	R13	-.9559	LSA	1394.3	MSA	321.0	SSA	21.8
BDE	.5726	BRA	1.6984	BC3	6.2084	FSP	-854	SG1	5570.9	SG2	395.1	THA	174.28	EL1	1355.4	EL2	215.3	ALF	163.63

LAUNCH DATE SEP 6 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 525.000

RL 150.80 LAL .00 LOL 343.00 VL 26.327 GAL 2.36 AZL 91.24 HCA 252.93 SMA 124.37 ECC .21624 INC 1.2443 V1 29.547
RP 108.39 LAP 1.19 LOP 235.92 VP 37.172 GAP 10.10 AZP 89.63 TAL 171.36 TAP 64.29 RCA 97.48 APO 151.27 V2 34.962
RC 151.205 GL -9.06 GP 19.24 ZAL 65.24 ZAP 156.38 ETS 49.38 ZAE 125.50 ETE 166.43 ZAC 121.08 ETC 260.78 CLP-166.03

PLANETOCENTRIC CONIC

C3 13.171 VHL 3.629 DLA -32.23 RAL 279.46 RAD 6567.5 VEL 11.600 PTH 2.03 VHP 6.864 DPA -2.68 RAP 252.16 ECC 1.2168

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.92	10 54 16	1197.23	24.69	348.93	142.62	111.41	11 14 13	597.2	27.38	340.96
106.08	15 4 6	5685.34	24.70	267.56	142.63	111.39	16 38 52	5085.3	27.39	259.58
73.92	10 54 16	1197.23	24.69	348.93	142.62	111.41	11 14 13	597.2	27.38	340.96
106.08	15 4 6	5685.34	24.70	267.56	142.63	111.39	16 38 52	5085.3	27.39	259.58
110.00	14 1 47	5878.35	17.94	278.92	139.17	119.59	15 39 45	5278.3	21.75	271.85
110.00	16 55 46	5340.27	31.84	243.52	145.15	103.15	18 24 47	4740.3	33.32	234.61

DIFFERENTIAL CORRECTIONS
TDE -.3634 TRA 1.8954 TC3-5.9299 BAU 1.0458
RDE .2498 RRA -.2532 RC3 .3329 FAU .03379
FDE .0424 FRA 1.2339 FC3-2.2209 BSP 17964
BDE .4410 BRA 1.9123 BC3 5.9393 FSP -826

MID-COURSE EXECUTION ACCURACY
SGT 5600.9 SGR 661.2 SG3 242.9
RRT -.7933 RRF -.7806 RTF .9554
SGB 5639.8 R23 .0308 R13 -.9557
SG1 5625.5 SG2 400.8 THA 174.62

ORBIT DETERMINATION ACCURACY
ST 1213.3 SR 419.1 SS 412.7
CRT -.7426 CRS .2466 CST -.8305
LSA 1298.7 MSA 362.0 SSA 21.1
EL1 1254.6 EL2 271.4 ALF 164.89

LAUNCH DATE SEP 6 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 530.700

RL 150.80 LAL .00 LOL 343.00 VL 26.288 GAL 2.81 AZL 91.04 HCA 256.12 SMA 124.13 ECC .22008 INC 1.0410 V1 29.547
RP 108.43 LAP 1.01 LOP 239.11 VP 37.132 GAP 10.46 AZP 89.75 TAL 169.93 TAP 66.04 RCA 96.81 APO 151.45 V2 34.949
RC 153.343 GL -7.32 GP 18.39 ZAL 62.60 ZAP 157.63 ETS 50.34 ZAE 125.48 ETE 167.06 ZAC 120.42 ETC 261.36 CLP-167.05

PLANETOCENTRIC CONIC

C3 14.040 VHL 3.747 DLA -30.31 RAL 282.24 RAD 6567.6 VEL 11.637 PTH 2.04 VHP 7.045 DPA -3.90 RAP 254.04 ECC 1.2311

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.72	11 39 15	1104.51	22.95	341.22	145.79	110.35	11 57 40	504.5	25.52	333.32
101.28	14 41 21	5805.93	22.96	275.93	145.80	110.34	16 18 7	5205.9	25.53	268.03
78.72	11 39 15	1104.51	22.95	341.22	145.79	110.35	11 57 40	504.5	25.52	333.32
101.28	14 41 21	5805.93	22.96	275.93	145.80	110.34	16 18 7	5205.9	25.53	268.03
110.00	13 37 46	718.29	13.50	308.26	140.94	121.71	13 49 45	118.3	17.59	301.55
110.00	17 42 0	5240.15	33.15	236.01	148.80	98.88	19 9 20	4640.1	34.02	226.88

DIFFERENTIAL CORRECTIONS
TDE -.2280 TRA 2.1033 TC3-5.6694 BAU 1.0657
RDE .2514 RRA -.2631 RC3 .3024 FAU .03206
FDE .1039 FRA 1.2736 FC3-1.9770 BSP 18531
BDE .3394 BRA 2.1197 BC3 5.6775 FSP -821

MID-COURSE EXECUTION ACCURACY
SGT 5661.3 SGR 645.3 SG3 233.6
RRT -.7755 RRF -.7601 RTF .9567
SGB 5697.9 R23 .0227 R13 -.9569
SG1 5683.4 SG2 405.8 THA 174.92

ORBIT DETERMINATION ACCURACY
ST 1177.6 SR 409.1 SS 424.0
CRT -.6043 CRS .1188 CST -.8614
LSA 1257.5 MSA 390.1 SSA 20.2
EL1 1205.3 EL2 318.5 ALF 167.24

LAUNCH DATE SEP 6 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 536.369

RL 150.80 LAL .00 LOL 343.00 VL 26.249 GAL 3.28 AZL 90.84 HCA 259.30 SMA 123.90 ECC .22422 INC .8435 V1 29.547
RP 108.47 LAP .83 LOP 242.29 VP 37.093 GAP 10.83 AZP 89.84 TAL 168.48 TAP 67.78 RCA 96.12 APO 151.68 V2 34.937
RC 155.470 GL -5.70 GP 17.62 ZAL 60.05 ZAP 158.81 ETS 51.46 ZAE 125.44 ETE 167.62 ZAC 119.83 ETC 261.93 CLP-168.04

PLANETOCENTRIC CONIC

C3 15.069 VHL 3.882 DLA -28.47 RAL 284.88 RAD 6567.6 VEL 11.681 PTH 2.05 VHP 7.239 DPA -5.01 RAP 255.97 ECC 1.2480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.89	12 54 41	911.50	21.27	326.31	148.99	109.39	13 9 53	311.5	23.72	318.49
93.11	13 46 54	742.30	21.28	313.93	149.00	109.38	13 59 17	142.3	23.73	306.11
100.00	13 24 54	813.39	15.58	316.65	146.50	115.84	13 38 28	213.4	18.93	309.46
100.00	15 59 22	5603.67	27.20	262.29	150.88	102.91	17 32 46	5003.7	28.70	253.81
110.00	13 22 45	820.17	9.78	313.82	143.16	122.92	13 36 25	220.2	14.05	307.32
110.00	18 18 1	5169.66	33.76	230.60	152.13	95.73	19 44 11	4569.7	34.18	221.38

DIFFERENTIAL CORRECTIONS
TDE .0626 TRA 2.3508 TC3-5.2984 BAU 1.0687
RDE .2510 RRA -.2774 RC3 .2633 FAU .02940
FDE .1785 FRA 1.3309 FC3-1.6894 BSP 18406
BDE .2587 BRA 2.3671 BC3 5.3049 FSP -775

MID-COURSE EXECUTION ACCURACY
SGT 5701.8 SGR 629.3 SG3 225.0
RRT -.7563 RRF -.7390 RTF .9556
SGB 5736.4 R23 .0191 R13 -.9558
SG1 5721.7 SG2 410.3 THA 175.20

ORBIT DETERMINATION ACCURACY
ST 1194.2 SR 396.0 SS 451.2
CRT -.4238 CRS -.0131 CST -.8989
LSA 1272.4 MSA 408.7 SSA 19.4
EL1 1207.0 EL2 354.9 ALF 171.24

LAUNCH DATE SEP 6 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 541.999

RL 150.80 LAL .00 LOL 343.00 VL 26.210 GAL 3.78 AZL 90.65 HCA 262.48 SMA 123.66 ECC .22868 INC .6500 V1 29.547
RP 108.51 LAP .64 LOP 245.48 VP 37.054 GAP 11.22 AZP 89.91 TAL 167.03 TAP 69.51 RCA 95.38 APO 151.94 V2 34.925
RC 157.587 GL -4.22 GP 16.92 ZAL 57.60 ZAP 159.91 ETS 52.76 ZAE 125.40 ETE 168.12 ZAC 119.29 ETC 262.51 CLP-169.02

PLANETOCENTRIC CONIC

C3 16.272 VHL 4.034 DLA -26.73 RAL 287.36 RAD 6567.7 VEL 11.733 PTH 2.07 VHP 7.445 DPA -6.03 RAP 257.95 ECC 1.2678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 7 41	1115.96	13.67	337.97	149.72	115.04	12 26 17	516.0	16.93	330.81
90.00	14 53 41	5860.62	25.86	280.86	154.05	101.95	16 31 22	5260.6	27.25	272.47
100.00	12 57 6	956.37	11.17	324.98	148.45	117.91	13 13 2	356.4	14.82	318.09
100.00	16 46 58	5495.44	28.60	254.56	154.62	99.08	18 18 33	4895.4	29.56	245.89
110.00	13 12 13	908.91	6.47	318.55	145.62	123.64	13 27 22	308.9	10.84	312.20
110.00	18 48 20	5115.66	34.05	226.41	155.31	93.27	20 13 36	4515.7	34.12	217.16

DIFFERENTIAL CORRECTIONS
TDE .0954 TRA 2.6000 TC3-4.9368 BAU 1.0751
RDE .2536 RRA -.2906 RC3 .2315 FAU .02713
FDE .2401 FRA 1.3792 FC3-1.4434 BSP 18494
BDE .2710 BRA 2.6162 BC3 4.9422 FSP -744

MID-COURSE EXECUTION ACCURACY
SGT 5742.8 SGR 614.9 SG3 216.6
RRT -.7379 RRF -.7189 RTF .9554
SGB 5775.7 R23 .0152 R13 -.9555
SG1 5760.8 SG2 413.8 THA 175.46

ORBIT DETERMINATION ACCURACY
ST 1253.6 SR 386.0 SS 477.3
CRT -.2559 CRS -.1097 CST -.9318
LSA 1334.2 MSA 409.8 SSA 18.6
EL1 1257.8 EL2 371.9 ALF 175.06

LAUNCH DATE SEP 6 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 547.589

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RL  150.80 LAL    .00 LOL 343.00 VL  26.171 GAL   4.30 AZL  90.46 HCA 265.66 SMA 123.43 ECC .23350 INC  .4598 V1  29.547
RP  108.54 LAP    .46 LOP 248.66 VP  37.015 GAP  11.62 AZP  89.97 TAL 165.57 TAP  71.23 RCA  94.61 APO 152.25 V2  34.913
RC 159.692 GL    -2.86 GP   16.28 ZAL  55.25 ZAP 160.95 ETS  54.25 ZAE 125.35 ETE 168.58 ZAC 118.79 ETC 263.10 CLP-169.98
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PLANETOCENTRIC CONIC

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C3  17.669 VHL  4.203 DLA -25.09 RAL 289.69 RAD 6567.7 VEL 11.792 PTH   2.08 VHP  7.665 DPA  -6.96 RAP 259.99 ECC 1.2908
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 41 43	1254.27	9.54	346.04	151.86	116.79	12 2 37	654.3	13.06	339.13
90.00	15 38 18	5760.23	27.08	273.76	157.72	98.60	17 14 19	5160.2	27.99	265.22
100.00	12 39 55	1066.36	7.60	331.19	150.82	119.00	12 57 41	466.4	11.41	324.47
100.00	17 22 47	5423.38	29.26	249.30	158.05	96.39	18 53 11	4823.4	29.84	240.55
110.00	13 4 27	989.40	3.41	322.78	148.24	124.03	13 20 56	389.4	7.86	316.52
110.00	19 14 45	5073.10	34.16	223.09	158.43	91.31	20 39 18	4473.1	33.96	213.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE  .2522 TRA 2.8580 TC3-4.5749 BAU 1.0817    SGT 5780.5 SGR  601.6 SG3  208.4     ST  1340.4 SR   377.5 SS   502.1
RDE  .2580 RRA -.3037 RC3  .2036 FAU .02502    RRT -.7199 RRF -.6997 RTF  .9555     CRT -.1119 CRS -.1835 CST -.9555
FDE  .2938 FRA 1.4240 FC3-1.2259 BSP  18633    SGB 5811.7 R23  .0119 R13 -.9556     LSA 1424.9 MSA  400.9 SSA   17.9
BDE  .3608 BRA 2.8741 BC3 4.5794 FSP   -716    SG1 5796.8 SG2  416.4 THA 175.69     EL1 1341.2 EL2  375.0 ALF 178.04
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 553.132

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RL  150.80 LAL    .00 LOL 343.00 VL  26.133 GAL   4.85 AZL  90.27 HCA 268.84 SMA 123.20 ECC .23870 INC  .2711 V1  29.547
RP  108.58 LAP    .27 LOP 251.84 VP  36.977 GAP  12.04 AZP  89.99 TAL 164.12 TAP  72.96 RCA  93.79 APO 152.60 V2  34.901
RC 161.784 GL    -1.61 GP   15.70 ZAL  53.02 ZAP 161.92 ETS  55.94 ZAE 125.29 ETE 168.99 ZAC 118.32 ETC 263.69 CLP-170.93
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PLANETOCENTRIC CONIC

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C3  19.281 VHL  4.391 DLA -23.54 RAL 291.89 RAD 6567.8 VEL 11.860 PTH   2.10 VHP  7.899 DPA  -7.81 RAP 262.07 ECC 1.3173
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 25 3	1363.07	6.15	352.23	154.33	117.70	11 47 46	763.1	9.81	345.46
90.00	16 12 32	5692.36	27.68	268.89	161.14	96.22	17 47 24	5092.4	28.25	260.27
100.00	12 27 44	1160.75	4.45	336.43	153.40	119.59	12 47 4	560.7	8.36	329.82
100.00	17 52 32	5369.92	29.60	245.37	161.34	94.34	19 22 2	4769.9	29.89	236.57
110.00	12 58 34	1064.07	.56	326.68	150.97	124.18	13 16 18	464.1	5.04	320.46
110.00	19 38 12	5039.36	34.18	220.45	161.54	89.75	21 2 11	4439.4	33.77	211.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE  .4112 TRA 3.1283 TC3-4.2119 BAU 1.0867    SGT 5813.3 SGR  588.7 SG3  200.5     ST  1443.7 SR   369.8 SS   525.5
RDE  .2638 RRA -.3170 RC3  .1784 FAU .02299    RRT -.7024 RRF -.6813 RTF  .9558     CRT  .0062 CRS -.2416 CST -.9712
FDE  .3423 FRA 1.4674 FC3-1.0322 BSP  18771    SGB 5843.1 R23  .0091 R13 -.9559     LSA 1531.9 MSA  387.6 SSA   17.2
BDE  .4885 BRA 3.1443 BC3 4.2157 FSP   -690    SG1 5828.1 SG2  417.9 THA 175.91     EL1 1443.8 EL2  369.8 ALF    .10
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 558.625

```
RL  150.80 LAL    .00 LOL 343.00 VL  26.094 GAL   5.42 AZL  90.08 HCA 272.02 SMA 122.97 ECC .24434 INC  .0816 V1  29.547
RP  108.61 LAP    .08 LOP 255.01 VP  36.939 GAP  12.48 AZP  90.00 TAL 162.67 TAP  74.68 RCA  92.92 APO 153.01 V2  34.890
RC 163.865 GL    -.47 GP   15.17 ZAL  50.89 ZAP 162.83 ETS  57.87 ZAE 125.22 ETE 169.36 ZAC 117.89 ETC 264.28 CLP-171.86
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PLANETOCENTRIC CONIC

```
C3  21.135 VHL  4.597 DLA -22.09 RAL 293.97 RAD 6567.9 VEL 11.938 PTH   2.12 VHP  8.150 DPA  -8.57 RAP 264.18 ECC 1.3478
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 13 1	1457.11	3.15	357.51	156.98	118.16	11 37 18	857.1	6.89	350.83
90.00	16 41 6	5642.11	28.00	265.24	164.45	94.43	18 15 8	5042.1	28.32	256.59
100.00	12 18 34	1245.54	1.59	341.10	156.12	119.85	12 39 19	645.5	5.55	334.55
100.00	18 18 14	5328.90	29.78	242.33	164.58	92.75	19 47 3	4728.9	29.84	233.53
110.00	12 54 2	1134.36	-2.12	330.35	153.80	124.13	13 12 56	534.4	2.37	324.15
110.00	19 59 16	5012.85	34.16	218.38	164.64	88.52	21 22 49	4412.9	33.57	209.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE  .5729 TRA 3.4117 TC3-3.8531 BAU 1.0896    SGT 5841.1 SGR  575.8 SG3  192.9     ST  1554.4 SR   362.7 SS   547.1
RDE  .2706 RRA -.3303 RC3  .1557 FAU .02103    RRT -.6852 RRF -.6636 RTF  .9563     CRT  .1009 CRS -.2881 CST -.9812
FDE  .3865 FRA 1.5096 FC3 -.8615 BSP  18891    SGB 5869.4 R23  .0068 R13 -.9563     LSA 1645.5 MSA  373.0 SSA   16.5
BDE  .6336 BRA 3.4276 BC3 3.8562 FSP   -665    SG1 5854.5 SG2  418.4 THA 176.12     EL1 1554.9 EL2  360.7 ALF   1.43
```

LAUNCH DATE SEP 6 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 564.060

```
RL  150.80 LAL    .00 LOL 343.00 VL  26.056 GAL   6.03 AZL  89.89 HCA 275.19 SMA 122.74 ECC .25044 INC  .1047 V1  29.547
RP  108.65 LAP   -.11 LOP 258.19 VP  36.902 GAP  12.95 AZP  89.99 TAL 161.22 TAP  76.41 RCA  92.00 APO 153.48 V2  34.880
RC 165.932 GL     .57 GP   14.69 ZAL  48.87 ZAP 163.67 ETS  60.03 ZAE 125.15 ETE 169.70 ZAC 117.48 ETC 264.88 CLP-172.79
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PLANETOCENTRIC CONIC

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C3  23.262 VHL  4.823 DLA -20.73 RAL 295.92 RAD 6567.9 VEL 12.027 PTH   2.15 VHP  8.418 DPA  -9.26 RAP 266.32 ECC 1.3828
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 3 49	1541.85	.42	2.24	159.76	118.31	11 29 31	941.9	4.20	355.60
90.00	17 5 52	5603.81	28.17	262.46	167.71	93.04	18 39 15	5003.8	28.29	253.79
100.00	12 11 26	1323.67	-1.06	345.38	158.94	119.88	12 33 29	723.7	2.92	338.86
100.00	18 40 56	5297.23	29.86	239.98	167.79	91.52	20 9 14	4697.2	29.75	231.18
110.00	12 50 31	1201.18	-4.67	333.85	156.69	123.90	13 10 32	601.2	-.19	327.63
110.00	20 18 21	4992.48	34.11	216.79	167.75	87.58	21 41 33	4392.5	33.40	207.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE  .7376 TRA 3.7090 TC3-3.5042 BAU 1.0906    SGT 5864.1 SGR  562.9 SG3  185.6     ST  1666.0 SR   355.8 SS   566.7
RDE  .2785 RRA -.3435 RC3  .1351 FAU .01915    RRT -.6684 RRF -.6465 RTF  .9569     CRT  .1763 CRS -.3259 CST -.9876
FDE  .4270 FRA 1.5512 FC3 -.7126 BSP  19016    SGB 5891.1 R23  .0050 R13 -.9569     LSA 1759.1 MSA  358.6 SSA   15.9
BDE  .7885 BRA 3.7249 BC3 3.5068 FSP   -642    SG1 5876.2 SG2  417.8 THA 176.31     EL1 1667.3 EL2  350.0 ALF   2.26
```

LAUNCH DATE SEP 6 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 569.432

RL	150.80	LAL	.00	LOL	343.00	VL	26.018	GAL	6.68	AZL	89.70	HCA	278.36	SMA	122.52	ECC	.25707	INC	.2957	V1	29.547
RP	108.68	LAP	-.29	LOP	261.36	VP	36.866	GAP	13.44	AZP	89.96	TAL	159.78	TAP	78.14	RCA	91.02	APO	154.01	V2	34.869
RC	167.985	GL	1.51	GP	14.25	ZAL	46.96	ZAP	164.46	ETS	62.47	ZAE	125.07	ETE	170.01	ZAC	117.09	ETC	265.48	CLP	-173.72

PLANETOCENTRIC CONIC

C3	25.700	VHL	5.070	DLA	-19.46	RAL	297.75	RAD	6568.0	VEL	12.128	PTH	2.17	VHP	8.705	DPA	-9.87	RAP	268.49	ECC	1.4230

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 56 35	1620.04	-2.11	6.60	162.64	118.25	11 23 35	1020.0	1.69	359.97
90.00	17 27 45	5574.57	28.25	260.32	170.94	91.97	19 0 39	4974.6	28.23	251.66
100.00	12 5 46	1396.79	-3.53	349.40	161.84	119.70	12 29 3	796.8	.45	342.87
100.00	19 1 15	5273.05	29.89	238.18	170.98	90.57	20 29 8	4673.1	29.65	229.39
110.00	12 47 46	1265.15	-7.09	337.22	159.65	123.53	13 8 51	665.2	-2.63	330.97
110.00	20 35 44	4977.45	34.06	215.62	170.87	86.89	21 58 41	4377.5	33.25	206.48

DIFFERENTIAL CORRECTIONS

TDE	.9052	TRA	4.0207	TC3	-3.1693	BAU	1.0897
RDE	.2874	RRA	-.3565	RC3	.1166	FAU	.01735
FDE	.4638	FRA	1.5924	FC3	-.5845	BSP	19146
BDE	.9497	BRA	4.0365	BC3	3.1714	FSP	-619

MID-COURSE EXECUTION ACCURACY

SGT	5882.1	SGR	549.6	SG3	178.5		
RRT	-.6517	RRF	-.6300	RTF	.9577		
SGB	5907.8	R23	.0035	R13	-.9577		
SG1	5893.1	SG2	416.1	THA	176.50		

ORBIT DETERMINATION ACCURACY

ST	1773.8	SR	349.2	SS	584.1		
CRT	.2367	CRS	-.3570	CST	-.9917		
LSA	1868.2	MSA	345.0	SSA	15.3		
EL1	1775.8	EL2	338.9	ALF	2.77		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 574.730

RL	150.80	LAL	.00	LOL	343.00	VL	25.981	GAL	7.36	AZL	89.51	HCA	281.53	SMA	122.30	ECC	.26427	INC	.4893	V1	29.547
RP	108.71	LAP	-.48	LOP	264.53	VP	36.830	GAP	13.96	AZP	89.90	TAL	158.35	TAP	79.88	RCA	89.98	APO	154.62	V2	34.859
RC	170.025	GL	2.36	GP	13.84	ZAL	45.16	ZAP	165.18	ETS	65.18	ZAE	124.99	ETE	170.29	ZAC	116.71	ETC	266.08	CLP	-174.64

PLANETOCENTRIC CONIC

C3	28.493	VHL	5.338	DLA	-18.27	RAL	299.48	RAD	6568.1	VEL	12.242	PTH	2.20	VHP	9.014	DPA	-10.42	RAP	270.69	ECC	1.4689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 50 46	1693.26	-4.46	10.70	165.58	117.99	11 18 59	1093.3	-.68	4.06
90.00	17 47 20	5552.62	28.29	258.72	174.15	91.17	19 19 53	4952.6	28.16	250.05
100.00	12 1 12	1465.97	-5.86	353.22	164.81	119.37	12 25 38	866.0	-1.90	346.67
100.00	19 19 35	5255.14	29.89	236.85	174.17	89.87	20 47 10	4655.1	29.55	228.06
110.00	12 45 38	1326.72	-9.39	340.51	162.65	123.02	13 7 45	726.7	-4.97	334.20
110.00	20 51 38	4967.15	34.02	214.82	174.01	86.42	22 14 25	4367.2	33.15	205.69

DIFFERENTIAL CORRECTIONS

TDE	1.0765	TRA	4.3477	TC3	-2.8504	BAU	1.0864
RDE	.2972	RRA	-.3690	RC3	.0999	FAU	.01563
FDE	.4980	FRA	1.6335	FC3	-.4749	BSP	19289
BDE	1.1168	BRA	4.3633	BC3	2.8521	FSP	-598

MID-COURSE EXECUTION ACCURACY

SGT	5894.7	SGR	535.8	SG3	171.8		
RRT	-.6350	RRF	-.6137	RTF	.9587		
SGB	5919.0	R23	.0024	R13	-.9587		
SG1	5904.6	SG2	413.2	THA	176.68		

ORBIT DETERMINATION ACCURACY

ST	1875.5	SR	342.7	SS	599.6		
CRT	.2861	CRS	-.3834	CST	-.9943		
LSA	1970.7	MSA	332.3	SSA	14.8		
EL1	1878.1	EL2	327.9	ALF	3.09		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 579.944

RL	150.80	LAL	.00	LOL	343.00	VL	25.944	GAL	8.09	AZL	89.31	HCA	284.70	SMA	122.08	ECC	.27212	INC	.6873	V1	29.547
RP	108.74	LAP	-.66	LOP	267.70	VP	36.795	GAP	14.52	AZP	89.83	TAL	156.94	TAP	81.64	RCA	88.86	APO	155.30	V2	34.850
RC	172.049	GL	3.14	GP	13.47	ZAL	43.47	ZAP	165.83	ETS	68.21	ZAE	124.89	ETE	170.56	ZAC	116.35	ETC	266.68	CLP	-175.56

PLANETOCENTRIC CONIC

C3	31.695	VHL	5.630	DLA	-17.16	RAL	301.10	RAD	6568.3	VEL	12.372	PTH	2.23	VHP	9.346	DPA	-10.89	RAP	272.89	ECC	1.5216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 46 1	1762.52	-6.66	14.60	168.58	117.59	11 15 23	1162.5	-2.91	7.92
90.00	18 5 1	5536.75	28.31	257.56	177.36	90.58	19 37 18	4936.8	28.09	248.90
100.00	11 57 29	1531.91	-8.04	356.90	167.83	118.89	12 23 1	931.9	-4.13	350.30
100.00	19 36 14	5242.60	29.89	235.92	177.36	89.38	21 3 36	4642.6	29.48	227.14
110.00	12 43 59	1386.21	-11.58	343.72	165.71	122.39	13 7 5	786.2	-7.22	337.34
110.00	21 6 13	4961.06	33.99	214.35	177.17	86.14	22 28 54	4361.1	33.08	205.23

DIFFERENTIAL CORRECTIONS

TDE	1.2518	TRA	4.6917	TC3	-2.5490	BAU	1.0807
RDE	.3079	RRA	-.3808	RC3	.0850	FAU	.01399
FDE	.5297	FRA	1.6748	FC3	-.3821	BSP	19449
BDE	1.2891	BRA	4.7071	BC3	2.5504	FSP	-579

MID-COURSE EXECUTION ACCURACY

SGT	5902.1	SGR	521.4	SG3	165.2		
RRT	-.6182	RRF	-.5975	RTF	.9600		
SGB	5925.0	R23	.0015	R13	-.9600		
SG1	5910.9	SG2	409.2	THA	176.86		

ORBIT DETERMINATION ACCURACY

ST	1969.3	SR	336.1	SS	613.4		
CRT	.3270	CRS	-.4062	CST	-.9961		
LSA	2065.1	MSA	320.3	SSA	14.2		
EL1	1972.4	EL2	317.1	ALF	3.28		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 585.062

RL	150.80	LAL	.00	LOL	343.00	VL	25.907	GAL	8.87	AZL	89.11	HCA	287.87	SMA	121.87	ECC	.28068	INC	.8908	V1	29.547
RP	108.77	LAP	-.85	LOP	270.86	VP	36.761	GAP	15.12	AZP	89.73	TAL	155.55	TAP	83.41	RCA	87.66	APO	156.07	V2	34.841
RC	174.060	GL	3.84	GP	13.13	ZAL	41.87	ZAP	166.42	ETS	71.56	ZAE	124.78	ETE	170.80	ZAC	116.00	ETC	267.29	CLP	-176.48

PLANETOCENTRIC CONIC

C3	35.371	VHL	5.947	DLA	-16.13	RAL	302.62	RAD	6568.4	VEL	12.520	PTH	2.27	VHP	9.705	DPA	-11.29	RAP	275.11	ECC	1.5821

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 42 6	1828.51	-8.72	18.35	171.63	117.05	11 12 34	1228.5	-5.02	11.62
90.00	18 21 4	5526.10	28.32	256.78	180.56	90.19	19 53 10	4926.1	28.04	248.12
100.00	11 54 26	1595.10	-10.10	.46	170.89	118.28	12 21 1	995.1	-6.24	353.79
100.00	19 51 24	5234.74	29.88	235.33	180.55	89.07	21 18 39	4634.7	29.43	226.56
110.00	12 42 43	1443.85	-13.66	346.89	168.80	121.64	13 6 47	843.8	-9.37	340.41
110.00	21 19 37	4958.76	33.98	214.17	180.34	86.03	22 42 16	4358.8	33.06	205.05

DIFFERENTIAL CORRECTIONS

TDE	1.4321	TRA	5.0542	TC3	-2.2658	BAU	1.0720
RDE	.3194	RRA	-.3919	RC3	.0715	FAU	.01241
FDE	.5594	FRA	1.7172	FC3	-.3039	BSP	19621
BDE	1.4673	BRA	5.0694	BC3	2.2669	FSP	-562

MID-COURSE EXECUTION ACCURACY

SGT	5904.2	SGR	506.3	SG3	159.0		
RRT	-.6011	RRF	-.5813	RTF	.9614		
SGB	5925.9	R23	.0009	R13	-.9615		
SG1	5912.1	SG2	404.1	THA	177.04		

ORBIT DETERMINATION ACCURACY

ST	2054.8	SR	329.5	SS	626.1		
CRT	.3619	CRS	-.4263	CST	-.9973		
LSA	2151.1	MSA	308.9	SSA	13.7		
EL1	2058.4	EL2	306.7	ALF	3.40		

LAUNCH DATE SEP 6 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 590.067

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RL  150.80 LAL    .00 LOL 343.00 VL  25.871 GAL   9.70 AZL  88.90 HCA 291.03 SMA 121.66 ECC .29004 INC 1.1017 V1  29.547
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.728 GAP  15.76 AZP  89.60 TAL 154.18 TAP  85.21 RCA  86.37 APO 156.95 V2  34.833
RC 176.055 GL    4.47 GP   12.81 ZAL  40.39 ZAP 166.93 ETS  75.25 ZAE 124.65 ETE 171.03 ZAC 115.65 ETC 267.89 CLP-177.42
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PLANETOCENTRIC CONIC

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C3  39.599 VHL  6.293 DLA -15.18 RAL 304.04 RAD 6568.5 VEL 12.687 PTH   2.30 VHP 10.093 DPA -11.64 RAP 277.33 ECC 1.6517
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 38 50	1891.69	-10.65	21.98	174.71	116.39	11 10 22	1291.7	-7.02	15.19
90.00	18 35 40	5519.99	28.32	256.33	183.75	89.97	20 7 40	4920.0	28.01	247.68
100.00	11 51 55	1655.89	-12.04	3.93	173.99	117.57	12 19 31	1055.9	-8.26	357.19
100.00	20 5 16	5231.02	29.87	235.06	183.73	88.93	21 32 27	4631.0	29.41	226.28
110.00	12 41 45	1499.81	-15.63	350.02	171.92	120.79	13 6 44	899.8	-11.43	343.44
110.00	21 31 56	4959.87	33.99	214.26	183.52	86.09	22 54 36	4359.9	33.07	205.14

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.6193 TRA 5.4382 TC3-1.9996 BAU 1.0591   SGT 5901.6 SGR  490.4 SG3  153.0      ST  2132.7 SR   322.7 SS   638.2
RDE  .3316 RRA -.4018 RC3  .0594 FAU .01087   RRT -.5832 RRF -.5647 RTF  .9631      CRT  .3923 CRS -.4449 CST -.9981
FDE  .5885 FRA 1.7613 FC3 -.2377 BSP  19782   SGB 5921.9 R23  .0005 R13 -.9631      LSA 2229.6 MSA  297.8 SSA   13.2
BDE 1.6529 BRA 5.4530 BC3 2.0005 FSP   -545   SG1 5908.6 SG2  397.9 THA 177.21     EL1 2136.5 EL2  296.3 ALF   3.46
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 594.941

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RL  150.80 LAL    .00 LOL 343.00 VL  25.835 GAL  10.59 AZL  88.68 HCA 294.19 SMA 121.45 ECC .30031 INC 1.3217 V1  29.547
RP  108.82 LAP  -1.21 LOP 277.19 VP  36.696 GAP  16.45 AZP  89.46 TAL 152.85 TAP  87.04 RCA  84.98 APO 157.93 V2  34.825
RC 178.036 GL    5.04 GP   12.53 ZAL  39.00 ZAP 167.37 ETS  79.29 ZAE 124.51 ETE 171.25 ZAC 115.31 ETC 268.48 CLP-178.36
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PLANETOCENTRIC CONIC

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C3  44.476 VHL  6.669 DLA -14.29 RAL 305.37 RAD 6568.7 VEL 12.878 PTH   2.35 VHP 10.516 DPA -11.92 RAP 279.55 ECC 1.7320
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 36 6	1952.38	-12.47	25.52	177.81	115.63	11 8 39	1352.4	-8.91	18.64
90.00	18 49 0	5517.87	28.32	256.18	186.92	89.89	20 20 58	4917.9	28.00	247.52
100.00	11 49 50	1714.51	-13.86	7.33	177.11	116.75	12 18 24	1114.5	-10.16	.49
100.00	20 17 58	5230.97	29.87	235.05	186.91	88.93	21 45 9	4631.0	29.41	226.28
110.00	12 41 1	1554.19	-17.50	353.13	175.07	119.84	13 6 55	954.2	-13.40	346.42
110.00	21 43 16	4964.06	34.00	214.58	186.70	86.28	23 6 0	4364.1	33.12	205.45

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.8144 TRA 5.8466 TC3-1.7501 BAU 1.0410   SGT 5894.7 SGR  473.6 SG3  147.4      ST  2202.9 SR   315.6 SS   650.3
RDE  .3446 RRA -.4105 RC3  .0485 FAU .00935   RRT -.5645 RRF -.5474 RTF  .9649      CRT  .4195 CRS -.4623 CST -.9986
FDE  .6170 FRA 1.8082 FC3 -.1820 BSP  19926   SGB 5913.7 R23  .0003 R13 -.9649      LSA 2300.6 MSA  287.0 SSA   12.8
BDE 1.8468 BRA 5.8610 BC3 1.7507 FSP   -527   SG1 5900.8 SG2  390.5 THA 177.39     EL1 2207.0 EL2  286.0 ALF   3.50
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 599.660

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RL  150.80 LAL    .00 LOL 343.00 VL  25.800 GAL  11.55 AZL  88.45 HCA 297.35 SMA 121.25 ECC .31159 INC 1.5527 V1  29.547
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.664 GAP  17.21 AZP  89.29 TAL 151.56 TAP  88.91 RCA  83.47 APO 159.04 V2  34.818
RC 180.002 GL    5.55 GP   12.26 ZAL  37.71 ZAP 167.72 ETS  83.66 ZAE 124.34 ETE 171.45 ZAC 114.97 ETC 269.07 CLP-179.32
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PLANETOCENTRIC CONIC

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C3  50.119 VHL  7.079 DLA -13.48 RAL 306.61 RAD 6568.8 VEL 13.095 PTH   2.39 VHP 10.976 DPA -12.14 RAP 281.76 ECC 1.8248
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 33 49	2010.80	-14.16	28.97	180.93	114.78	11 7 19	1410.8	-10.70	22.00
90.00	19 1 9	5519.30	28.32	256.28	190.08	89.94	20 33 9	4919.3	28.01	247.63
100.00	11 48 6	1771.13	-15.57	10.66	180.24	115.84	12 17 37	1171.1	-11.97	3.72
100.00	20 29 34	5234.20	29.88	235.29	190.07	89.05	21 56 48	4634.2	29.43	226.52
110.00	12 40 29	1607.05	-19.27	356.22	178.24	118.80	13 7 16	1007.1	-15.28	349.37
110.00	21 53 40	4971.03	34.03	215.12	189.88	86.60	23 16 31	4371.0	33.19	205.99

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.0201 TRA 6.2827 TC3-1.5165 BAU 1.0164   SGT 5884.1 SGR  456.0 SG3  142.0      ST  2266.7 SR   308.2 SS   662.9
RDE  .3584 RRA -.4176 RC3  .0387 FAU .00783   RRT -.5444 RRF -.5288 RTF  .9670      CRT  .4445 CRS -.4792 CST -.9990
FDE  .6459 FRA 1.8584 FC3 -.1352 BSP  20021   SGB 5901.8 R23  .0003 R13 -.9670      LSA 2365.5 MSA  276.3 SSA   12.3
BDE 2.0517 BRA 6.2966 BC3 1.5170 FSP   -510   SG1 5889.4 SG2  382.2 THA 177.57     EL1 2270.9 EL2  275.6 ALF   3.51
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 604.196

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RL  150.80 LAL    .00 LOL 343.00 VL  25.766 GAL  12.59 AZL  88.20 HCA 300.51 SMA 121.06 ECC .32403 INC 1.7972 V1  29.547
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.634 GAP  18.03 AZP  89.09 TAL 150.31 TAP  90.83 RCA  81.83 APO 160.28 V2  34.812
RC 181.954 GL    6.01 GP   12.02 ZAL  36.52 ZAP 167.98 ETS  88.37 ZAE 124.15 ETE 171.65 ZAC 114.63 ETC 269.66 CLP 179.70
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PLANETOCENTRIC CONIC

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C3  56.674 VHL  7.528 DLA -12.72 RAL 307.75 RAD 6569.0 VEL 13.343 PTH   2.44 VHP 11.481 DPA -12.31 RAP 283.95 ECC 1.9327
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 31 52	2067.07	-15.74	32.35	184.06	113.85	11 6 19	1467.1	-12.38	25.28
90.00	19 12 14	5523.87	28.32	256.61	193.21	90.11	20 44 18	4923.9	28.03	247.96
100.00	11 46 38	1825.82	-17.17	13.94	183.38	114.85	12 17 4	1225.8	-13.67	6.89
100.00	20 40 9	5240.35	29.88	235.75	193.20	89.29	22 7 29	4640.4	29.47	226.97
110.00	12 40 5	1658.43	-20.92	359.28	181.42	117.67	13 7 43	1058.4	-17.05	352.29
110.00	22 3 12	4980.50	34.07	215.86	193.05	87.03	23 26 12	4380.5	33.28	206.71

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.2386 TRA 6.7498 TC3-1.2981 BAU  .9838   SGT 5870.1 SGR  437.5 SG3  137.0      ST  2324.3 SR   300.6 SS   676.6
RDE  .3729 RRA -.4227 RC3  .0300 FAU .00627   RRT -.5224 RRF -.5087 RTF  .9692      CRT  .4683 CRS -.4961 CST -.9993
FDE  .6760 FRA 1.9130 FC3 -.0958 BSP  20052   SGB 5886.4 R23  .0004 R13 -.9692      LSA 2424.8 MSA  265.6 SSA   11.9
BDE 2.2695 BRA 6.7630 BC3 1.2984 FSP   -491   SG1 5874.6 SG2  372.7 THA 177.76     EL1 2328.6 EL2  265.1 ALF   3.51
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LAUNCH DATE SEP 6 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 608.512
RL 150.80 LAL .00 LOL 343.00 VL 25.732 GAL 13.72 AZL 87.94 HCA 303.67 SMA 120.87 ECC .33777 INC 2.0581 V1 29.547
RP 108.87 LAP -1.71 LOP 286.68 VP 36.605 GAP 18.93 AZP 88.86 TAL 149.13 TAP 92.80 RCA 80.04 APO 161.69 V2 34.806
RC 183.891 GL 6.43 GP 11.79 ZAL 35.43 ZAP 168.14 ETS 93.37 ZAE 123.93 ETE 171.84 ZAC 114.30 ETC 270.23 CLP 178.69
PLANETOCENTRIC CONIC
C3 64.323 VHL 8.020 DLA -12.03 RAL 308.80 RAD 6569.2 VEL 13.626 PTH 2.49 VHP 12.036 DPA -12.42 RAP 286.12 ECC 2.0586

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 30 12	2121.25	-17.20	35.66	187.17	112.85	11 5 33	1521.2	-13.96	28.48
90.00	19 22 18	5531.25	28.31	257.15	196.31	90.38	20 54 29	4931.3	28.07	248.50
100.00	11 45 24	1878.60	-18.65	17.16	186.52	113.80	12 16 43	1278.6	-15.27	9.99
100.00	20 49 46	5249.13	29.89	236.40	196.31	89.64	22 17 16	4649.1	29.52	227.62
110.00	12 39 47	1708.28	-22.47	2.33	184.60	116.47	13 8 15	1108.3	-18.73	355.19
110.00	22 11 53	4992.22	34.11	216.77	196.19	87.57	23 35 5	4392.2	33.39	207.60

DIFFERENTIAL CORRECTIONS
TDE 2.4720 TRA 7.2548 TC3-1.0947 BAU .9416
RDE .3884 RRA -.4254 RC3 .0223 FAU .00466
FDE .7076 FRA 1.9729 FC3 -.0628 BSP 19982
BDE 2.5023 BRA 7.2673 BC3 1.0950 FSP -471

MID-COURSE EXECUTION ACCURACY
SGT 5855.3 SGR 418.1 SG3 132.2
RRT -.4981 RRF -.4862 RTF .9715
SGB 5870.2 R23 .0005 R13 -.9715
SG1 5859.0 SG2 362.3 THA 177.96

ORBIT DETERMINATION ACCURACY
ST 2376.7 SR 292.7 SS 691.7
CRT .4912 CRS -.5134 CST -.9995
LSA 2479.5 MSA 254.8 SSA 11.4
EL1 2381.1 EL2 254.5 ALF 3.50

LAUNCH DATE SEP 6 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 612.562
RL 150.80 LAL .00 LOL 343.00 VL 25.700 GAL 14.94 AZL 87.66 HCA 306.83 SMA 120.68 ECC .35302 INC 2.3387 V1 29.547
RP 108.89 LAP -1.87 LOP 289.85 VP 36.577 GAP 19.93 AZP 88.60 TAL 148.02 TAP 94.85 RCA 78.08 APO 163.28 V2 34.801
RC 185.813 GL 6.80 GP 11.58 ZAL 34.44 ZAP 168.19 ETS 98.61 ZAE 123.67 ETE 172.04 ZAC 113.96 ETC 270.79 CLP 177.65
PLANETOCENTRIC CONIC
C3 73.293 VHL 8.561 DLA -11.41 RAL 309.76 RAD 6569.4 VEL 13.951 PTH 2.55 VHP 12.649 DPA -12.49 RAP 288.26 ECC 2.2062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 28 45	2173.33	-18.55	38.89	190.26	111.79	11 4 59	1573.3	-15.43	31.60
90.00	19 31 23	5541.15	28.31	257.88	199.35	90.75	21 3 44	4941.1	28.11	249.22
100.00	11 44 21	1929.46	-20.01	20.32	189.62	112.68	12 16 30	1329.5	-16.77	13.03
100.00	20 58 28	5260.25	29.89	237.23	199.36	90.07	22 26 9	4660.2	29.58	228.44
110.00	12 39 34	1756.53	-23.90	5.34	187.76	115.20	13 8 50	1156.5	-20.30	358.04
110.00	22 19 45	5005.95	34.14	217.84	199.29	88.20	23 43 11	4405.9	33.52	208.66

DIFFERENTIAL CORRECTIONS
TDE 2.7222 TRA 7.7998 TC3 -.9059 BAU .8878
RDE .4050 RRA -.4250 RC3 .0157 FAU .00298
FDE .7413 FRA 2.0392 FC3 -.0352 BSP 19809
BDE 2.7522 BRA 7.8114 BC3 .9060 FSP -449

MID-COURSE EXECUTION ACCURACY
SGT 5838.1 SGR 398.0 SG3 127.8
RRT -.4705 RRF -.4606 RTF .9740
SGB 5851.6 R23 .0008 R13 -.9740
SG1 5841.1 SG2 351.0 THA 178.16

ORBIT DETERMINATION ACCURACY
ST 2423.5 SR 284.7 SS 708.8
CRT .5141 CRS -.5314 CST -.9997
LSA 2529.3 MSA 243.9 SSA 11.0
EL1 2428.0 EL2 243.7 ALF 3.49

LAUNCH DATE SEP 6 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 616.287
RL 150.80 LAL .00 LOL 343.00 VL 25.668 GAL 16.29 AZL 87.36 HCA 309.98 SMA 120.50 ECC .36997 INC 2.6435 V1 29.547
RP 108.90 LAP -2.03 LOP 293.01 VP 36.551 GAP 21.03 AZP 88.30 TAL 147.00 TAP 96.98 RCA 75.92 APO 165.09 V2 34.797
RC 187.719 GL 7.13 GP 11.39 ZAL 33.55 ZAP 168.11 ETS 104.03 ZAE 123.36 ETE 172.23 ZAC 113.63 ETC 271.34 CLP 176.57
PLANETOCENTRIC CONIC
C3 83.875 VHL 9.158 DLA -10.84 RAL 310.62 RAD 6569.6 VEL 14.326 PTH 2.61 VHP 13.330 DPA -12.51 RAP 290.36 ECC 2.3804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 27 30	2223.24	-19.78	42.03	193.29	110.69	11 4 33	1623.2	-16.79	34.63
90.00	19 39 30	5553.29	28.29	258.77	202.32	91.19	21 12 3	4953.3	28.16	250.10
100.00	11 43 25	1978.29	-21.26	23.41	192.68	111.52	12 16 23	1378.3	-18.15	16.00
100.00	21 6 16	5273.47	29.89	238.21	202.35	90.59	22 34 9	4673.5	29.65	229.42
110.00	12 39 23	1803.06	-25.21	8.32	190.88	113.88	13 9 26	1203.1	-21.77	.86
110.00	22 26 48	5021.46	34.17	219.06	202.33	88.92	23 50 29	4421.5	33.64	209.85

DIFFERENTIAL CORRECTIONS
TDE 2.9925 TRA 8.3918 TC3 -.7307 BAU .8194
RDE .4229 RRA -.4209 RC3 .0101 FAU .00117
FDE .7779 FRA 2.1130 FC3 -.0121 BSP 19511
BDE 3.0223 BRA 8.4023 BC3 .7308 FSP -426

MID-COURSE EXECUTION ACCURACY
SGT 5819.7 SGR 377.1 SG3 123.7
RRT -.4386 RRF -.4307 RTF .9766
SGB 5831.9 R23 .0010 R13 -.9766
SG1 5822.1 SG2 338.8 THA 178.37

ORBIT DETERMINATION ACCURACY
ST 2465.4 SR 276.5 SS 728.3
CRT .5373 CRS -.5506 CST -.9998
LSA 2575.0 MSA 232.9 SSA 10.5
EL1 2469.9 EL2 232.8 ALF 3.48

LAUNCH DATE SEP 6 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 619.615
RL 150.80 LAL .00 LOL 343.00 VL 25.638 GAL 17.77 AZL 87.02 HCA 313.14 SMA 120.33 ECC .38890 INC 2.9777 V1 29.547
RP 108.92 LAP -2.17 LOP 296.17 VP 36.526 GAP 22.26 AZP 87.96 TAL 146.08 TAP 99.21 RCA 73.54 APO 167.13 V2 34.793
RC 189.610 GL 7.42 GP 11.21 ZAL 32.77 ZAP 167.91 ETS 109.55 ZAE 123.00 ETE 172.42 ZAC 113.29 ETC 271.87 CLP 175.43
PLANETOCENTRIC CONIC
C3 96.439 VHL 9.820 DLA -10.33 RAL 311.38 RAD 6569.9 VEL 14.757 PTH 2.67 VHP 14.089 DPA -12.50 RAP 292.40 ECC 2.5871

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 26 23	2270.85	-20.89	45.08	196.26	109.56	11 4 14	1670.9	-18.04	37.57
90.00	19 46 40	5567.44	28.27	259.80	205.21	91.71	21 19 27	4967.4	28.21	251.14
100.00	11 42 36	2024.97	-22.40	26.41	195.67	110.33	12 16 21	1425.0	-19.43	18.87
100.00	21 13 8	5288.56	29.87	239.33	205.26	91.18	22 41 16	4688.6	29.72	230.53
110.00	12 39 12	1847.72	-26.41	11.23	193.94	112.53	13 9 59	1247.7	-23.12	3.62
110.00	22 33 1	5038.57	34.18	220.39	205.30	89.71	23 57 0	4438.6	33.76	211.17

DIFFERENTIAL CORRECTIONS
TDE 3.2846 TRA 9.0360 TC3 -.5696 BAU .7344
RDE .4426 RRA -.4121 RC3 .0056 FAU -.00077
FDE .8176 FRA 2.1955 FC3 .0069 BSP 19083
BDE 3.3142 BRA 9.0454 BC3 .5696 FSP -402

MID-COURSE EXECUTION ACCURACY
SGT 5800.1 SGR 355.7 SG3 119.8
RRT -.4010 RRF -.3952 RTF .9792
SGB 5811.0 R23 .0014 R13 -.9793
SG1 5801.8 SG2 325.8 THA 178.59

ORBIT DETERMINATION ACCURACY
ST 2501.6 SR 268.4 SS 750.5
CRT .5613 CRS -.5712 CST -.9998
LSA 2616.1 MSA 221.8 SSA 10.0
EL1 2506.2 EL2 221.7 ALF 3.47

LAUNCH DATE SEP 7 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 16 1970

HELIOCENTRIC CONIC DISTANCE 170.959

RL 150.76 LAL .00 LOL 343.97 VL 24.512 GAL -3.89 AZL 91.21 HCA 72.62 SMA 114.43 ECC .32390 INC 1.2076 V1 29.555
RP 108.01 LAP -1.15 LOP 56.59 VP 36.023 GAP -18.63 AZP 90.36 TAL 188.19 TAP 260.81 RCA 77.37 APO 151.49 V2 35.086
RC 40.692 GL -5.61 GP -10.58 ZAL 103.42 ZAP 11.75 ETS 112.78 ZAE 161.95 ETE 339.51 ZAC 90.58 ETC 260.20 CLP 5.14

PLANETOCENTRIC CONIC

C3 27.785 VHL 5.271 DLA -25.74 RAL 237.02 RAD 6568.1 VEL 12.213 PTH 2.19 VHP 11.522 DPA -29.87 RAP 236.69 ECC 1.4573

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 8	1321.15	7.47	349.85	106.41	117.39	8 42 9	721.2	11.08	343.04
90.00	11 51 48	624.14	25.09	306.53	113.23	103.58	12 2 12	24.1	26.71	298.24
100.00	9 15 39	1141.88	5.09	335.39	105.11	119.50	9 34 41	541.9	8.98	328.76
100.00	13 38 58	5566.68	27.73	259.67	113.89	101.63	15 11 45	4966.7	29.05	251.12
110.00	9 36 56	1075.14	.14	327.26	102.04	124.18	9 54 51	475.1	4.62	321.05
110.00	15 34 11	5206.19	33.47	233.41	115.01	97.37	17 0 57	4606.2	34.13	224.23

DIFFERENTIAL CORRECTIONS
TDE .1644 TRA -.5735 TC3 .2395 BAU .0950
RDE -.3955 RRA -.0304 RC3 -.0896 FAU .02330
FDE -.0693 FRA .2481 FC3 -.7259 BSP 1929
BDE .4284 BRA .5743 BC3 .2557 FSP -161

MID-COURSE EXECUTION ACCURACY
SGT 758.0 SGR 441.7 SG3 71.3
RRT -.2249 RRF .2571 RTF -.6617
SGB 877.4 R23 -.0408 R13 .6697
SG1 767.5 SG2 425.1 THA 169.18

ORBIT DETERMINATION ACCURACY
ST 274.1 SR 430.1 SS 118.9
CRT -.6327 CRS -.6124 CST .9862
LSA 480.6 MSA 207.1 SSA 18.0
EL1 471.9 EL2 193.4 ALF 116.81

LAUNCH DATE SEP 7 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 177.700

RL 150.76 LAL .00 LOL 343.97 VL 24.814 GAL -3.93 AZL 91.00 HCA 75.84 SMA 115.92 ECC .30760 INC 1.0020 V1 29.555
RP 107.97 LAP -.97 LOP 59.80 VP 36.241 GAP -17.49 AZP 90.25 TAL 188.94 TAP 264.78 RCA 80.26 APO 151.57 V2 35.098
RC 41.209 GL -4.99 GP -11.17 ZAL 104.68 ZAP 11.61 ETS 102.75 ZAE 159.42 ETE 339.00 ZAC 90.14 ETC 260.43 CLP 3.20

PLANETOCENTRIC CONIC

C3 24.824 VHL 4.982 DLA -24.85 RAL 235.82 RAD 6568.0 VEL 12.091 PTH 2.16 VHP 10.891 DPA -30.77 RAP 237.90 ECC 1.4085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 35	1350.61	6.54	351.52	102.80	117.61	8 21 5	750.6	10.19	344.74
90.00	12 3 48	5826.90	26.32	278.49	109.94	100.85	13 40 55	5226.9	27.55	270.04
100.00	8 57 38	1159.97	4.48	336.39	101.67	119.59	9 16 58	560.0	8.39	329.78
100.00	13 47 27	5492.76	28.63	254.37	110.40	98.98	15 18 59	4892.8	29.58	245.69
110.00	9 23 16	1079.55	-.03	327.49	98.86	124.18	9 41 16	479.6	4.46	321.28
110.00	15 38 18	5145.95	33.90	228.76	111.14	94.65	17 4 4	4546.0	34.18	219.53

DIFFERENTIAL CORRECTIONS
TDE .1633 TRA -.5538 TC3 .3040 BAU .1081
RDE -.3749 RRA -.0300 RC3 -.1172 FAU .02480
FDE -.0616 FRA .2465 FC3 -.8648 BSP 2070
BDE .4089 BRA .5546 BC3 .3258 FSP -184

MID-COURSE EXECUTION ACCURACY
SGT 787.2 SGR 448.2 SG3 79.4
RRT -.2542 RRF .2895 RTF -.6820
SGB 905.8 R23 -.0449 R13 .6910
SG1 798.8 SG2 427.2 THA 168.40

ORBIT DETERMINATION ACCURACY
ST 282.3 SR 431.3 SS 113.2
CRT -.6456 CRS -.5697 CST .9798
LSA 484.5 MSA 208.4 SSA 19.0
EL1 477.2 EL2 194.8 ALF 117.97

LAUNCH DATE SEP 7 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 184.457

RL 150.76 LAL .00 LOL 343.97 VL 25.089 GAL -3.99 AZL 90.80 HCA 79.05 SMA 117.33 ECC .29265 INC .8020 V1 29.555
RP 107.93 LAP -.79 LOP 63.01 VP 36.443 GAP -16.40 AZP 90.15 TAL 189.77 TAP 268.81 RCA 82.99 APO 151.66 V2 35.111
RC 41.891 GL -4.25 GP -11.81 ZAL 106.07 ZAP 11.87 ETS 92.55 ZAE 157.01 ETE 338.35 ZAC 89.62 ETC 260.65 CLP 1.22

PLANETOCENTRIC CONIC

C3 22.315 VHL 4.724 DLA -23.82 RAL 234.54 RAD 6567.9 VEL 11.987 PTH 2.14 VHP 10.291 DPA -31.72 RAP 239.06 ECC 1.3672

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 35	1383.13	5.51	353.36	99.25	117.82	7 59 38	783.1	9.19	346.61
90.00	12 15 32	5742.31	27.26	272.48	106.52	97.98	13 51 15	5142.3	28.08	263.91
100.00	8 38 35	1182.97	3.71	337.66	98.26	119.68	8 58 18	583.0	7.63	331.07
100.00	13 56 13	5417.70	29.31	248.89	106.81	96.17	15 26 31	4817.7	29.85	240.13
110.00	9 8 24	1089.47	-.41	328.01	95.69	124.18	9 26 33	489.5	4.08	321.80
110.00	15 42 53	5083.96	34.14	223.94	107.20	91.81	17 7 37	4484.0	34.01	214.69

DIFFERENTIAL CORRECTIONS
TDE .1629 TRA -.5317 TC3 .3794 BAU .1218
RDE -.3551 RRA -.0300 RC3 -.1510 FAU .02651
FDE -.0514 FRA .2430 FC3-1.0287 BSP 2258
BDE .3907 BRA .5325 BC3 .4084 FSP -211

MID-COURSE EXECUTION ACCURACY
SGT 815.2 SGR 455.5 SG3 88.6
RRT -.2914 RRF .3269 RTF -.7030
SGB 933.8 R23 -.0457 R13 .7130
SG1 830.0 SG2 428.0 THA 167.33

ORBIT DETERMINATION ACCURACY
ST 289.6 SR 430.9 SS 105.5
CRT -.6620 CRS -.5054 CST .9625
LSA 486.9 MSA 207.9 SSA 20.2
EL1 481.5 EL2 194.3 ALF 119.18

LAUNCH DATE SEP 7 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 191.226

RL 150.76 LAL .00 LOL 343.97 VL 25.341 GAL -4.06 AZL 90.61 HCA 82.27 SMA 118.66 ECC .27899 INC .6062 V1 29.555
RP 107.89 LAP -.60 LOP 66.23 VP 36.628 GAP -15.36 AZP 90.08 TAL 190.64 TAP 272.91 RCA 85.55 APO 151.76 V2 35.123
RC 42.728 GL -3.41 GP -12.53 ZAL 107.57 ZAP 12.55 ETS 82.87 ZAE 154.73 ETE 337.58 ZAC 89.03 ETC 260.86 CLP -.81

PLANETOCENTRIC CONIC

C3 20.195 VHL 4.494 DLA -22.66 RAL 233.19 RAD 6567.8 VEL 11.899 PTH 2.11 VHP 9.721 DPA -32.72 RAP 240.17 ECC 1.3324

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 14 15	1418.97	4.37	355.37	95.82	118.01	7 37 54	819.0	8.08	348.66
90.00	12 27 6	5658.44	27.91	266.43	103.02	95.01	14 1 25	5058.4	28.31	257.79
100.00	8 18 47	1210.68	2.77	339.18	94.93	119.78	8 38 57	610.7	6.71	332.61
100.00	14 5 16	5341.97	29.73	243.30	103.17	93.26	15 34 18	4742.0	29.87	234.50
110.00	8 52 33	1104.81	-1.00	328.81	92.58	124.17	9 10 58	504.8	3.49	322.60
110.00	15 47 59	5020.60	34.17	218.99	103.27	88.88	17 11 39	4420.6	33.63	209.79

DIFFERENTIAL CORRECTIONS
TDE .1526 TRA -.5176 TC3 .4503 BAU .1320
RDE -.3355 RRA -.0299 RC3 -.1907 FAU .02830
FDE -.0347 FRA .2412 FC3-1.2132 BSP 2261
BDE .3686 BRA .5185 BC3 .4890 FSP -236

MID-COURSE EXECUTION ACCURACY
SGT 844.4 SGR 462.7 SG3 98.6
RRT -.3150 RRF .3639 RTF -.7143
SGB 962.9 R23 -.0626 R13 .7264
SG1 861.3 SG2 430.5 THA 166.87

ORBIT DETERMINATION ACCURACY
ST 289.9 SR 428.0 SS 95.8
CRT -.6499 CRS -.3657 CST .9207
LSA 480.8 MSA 211.4 SSA 21.5
EL1 477.7 EL2 197.4 ALF 119.21

LAUNCH DATE SEP 7 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 198.003

RL	150.76	LAL	.00	LOL	343.97	VL	25.570	GAL	-4.14	AZL	90.41	HCA	85.48	SMA	119.91	ECC	.26656	INC	.4131	V1	29.555
RP	107.86	LAP	-.41	LOP	69.45	VP	36.799	GAP	-14.37	AZP	90.03	TAL	191.57	TAP	277.06	RCA	87.95	APO	151.87	V2	35.135
RC	43.711	GL	-2.46	GP	-13.32	ZAL	109.15	ZAP	13.63	ETS	74.21	ZAE	152.61	ETE	336.67	ZAC	88.35	ETC	261.06	CLP	-2.89

PLANETOCENTRIC CONIC

C3	18.409	VHL	4.291	DLA	-21.35	RAL	231.80	RAD	6567.7	VEL	11.823	PTH	2.09	VHP	9.180	DPA	-33.77	RAP	241.22	ECC	1.3030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 51 39	1458.33	3.11	357.58	92.52	118.16	7 15 58	858.3	6.85	350.90
90.00	12 38 36	5575.30	28.25	260.38	99.49	92.00	14 11 31	4975.3	28.23	251.71
100.00	7 58 23	1242.99	1.68	340.96	91.73	119.85	8 19 6	643.0	5.64	334.41
100.00	14 14 33	5265.88	29.89	237.65	99.53	90.29	15 42 19	4665.9	29.61	228.86
110.00	8 35 53	1125.44	-1.78	329.88	89.57	124.14	8 54 38	525.4	2.71	323.68
110.00	15 53 33	4956.20	33.97	213.97	99.37	85.92	17 16 9	4356.2	33.03	204.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1514	TRA	-.4933	TC3	.5476	BAU	.1471	SGT	872.9	SGR	472.6	SG3	110.2	ST	293.4	SR	423.6	SS	87.1
RDE	-.3170	RRA	-.0307	RC3	-.2395	FAU	.03049	RRT	-.3659	RRF	.4110	RTF	-.7369	CRT	-.6667	CRS	-.1859	CST	.8247
FDE	-.0173	FRA	.2344	FC3	-1.4337	BSP	2522	SGB	992.7	R23	-.0592	R13	.7500	LSA	478.6	MSA	208.5	SSA	23.1
BDE	.3513	BRA	.4943	BC3	.5977	FSP	-273	SG1	895.2	SG2	428.9	THA	165.37	EL1	477.3	EL2	194.1	ALF	120.31

LAUNCH DATE SEP 7 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 204.784

RL	150.76	LAL	.00	LOL	343.97	VL	25.779	GAL	-4.22	AZL	90.22	HCA	88.70	SMA	121.08	ECC	.25529	INC	.2216	V1	29.555
RP	107.82	LAP	-.22	LOP	72.67	VP	36.955	GAP	-13.42	AZP	90.01	TAL	192.54	TAP	281.24	RCA	90.17	APO	151.99	V2	35.146
RC	44.829	GL	-1.39	GP	-14.20	ZAL	110.80	ZAP	15.05	ETS	66.80	ZAE	150.66	ETE	335.62	ZAC	87.57	ETC	261.26	CLP	-5.03

PLANETOCENTRIC CONIC

C3	16.911	VHL	4.112	DLA	-19.91	RAL	230.40	RAD	6567.7	VEL	11.760	PTH	2.08	VHP	8.669	DPA	-34.89	RAP	242.18	ECC	1.2783

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 29 0	1501.15	1.73	359.97	89.42	118.27	6 54 2	901.2	5.50	353.31
90.00	12 50 5	5493.07	28.30	254.36	96.02	88.98	14 21 38	4893.1	27.86	245.72
100.00	7 37 40	1279.60	.43	342.96	88.70	119.89	7 58 59	679.6	4.41	336.43
100.00	14 24 7	5189.86	29.78	232.00	95.96	87.32	15 50 37	4589.9	29.09	223.26
110.00	8 18 40	1151.08	-2.76	331.22	86.70	124.08	8 37 51	551.1	1.73	325.02
110.00	15 59 36	4891.15	33.54	208.94	95.59	82.97	17 21 7	4291.1	32.20	199.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1422	TRA	-.4747	TC3	.6386	BAU	.1591	SGT	899.9	SGR	483.9	SG3	123.0	ST	289.9	SR	415.9	SS	82.6
RDE	-.2983	RRA	-.0314	RC3	-.2960	FAU	.03283	RRT	-.4074	RRF	.4591	RTF	-.7512	CRT	-.6594	CRS	.1250	CST	.6222
FDE	.0080	FRA	.2286	FC3	-1.6806	BSP	2650	SGB	1021.8	R23	-.0685	R13	.7666	LSA	468.7	MSA	208.7	SSA	24.9
BDE	.3304	BRA	.4757	BC3	.7039	FSP	-310	SG1	927.5	SG2	428.8	THA	164.18	EL1	468.6	EL2	193.4	ALF	120.39

LAUNCH DATE SEP 7 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 211.564

RL	150.76	LAL	.00	LOL	343.97	VL	25.968	GAL	-4.31	AZL	90.03	HCA	91.93	SMA	122.17	ECC	.24511	INC	.0288	V1	29.555
RP	107.79	LAP	-.03	LOP	75.89	VP	37.097	GAP	-12.50	AZP	90.00	TAL	193.53	TAP	285.46	RCA	92.23	APO	152.12	V2	35.158
RC	46.073	GL	-.20	GP	-15.18	ZAL	112.47	ZAP	16.79	ETS	60.61	ZAE	148.88	ETE	334.41	ZAC	86.68	ETC	261.44	CLP	-7.25

PLANETOCENTRIC CONIC

C3	15.662	VHL	3.957	DLA	-18.34	RAL	229.02	RAD	6567.6	VEL	11.707	PTH	2.06	VHP	8.185	DPA	-36.08	RAP	243.04	ECC	1.2578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 6 26	1547.36	.24	2.55	86.53	118.32	6 32 14	947.4	4.02	355.91
90.00	13 1 39	5411.85	28.06	248.43	92.65	86.02	14 31 51	4811.8	27.21	239.87
100.00	7 16 48	1320.28	-.95	345.20	85.87	119.88	7 38 49	720.3	3.04	338.67
100.00	14 33 58	5114.16	29.41	226.41	92.52	84.40	15 59 12	4514.2	28.32	217.77
110.00	8 1 7	1181.43	-3.92	332.81	84.02	123.98	8 20 49	581.4	.57	326.60
110.00	16 6 8	4825.77	32.88	203.95	91.97	80.09	17 26 34	4225.8	31.17	195.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1310	TRA	-.4565	TC3	.7315	BAU	.1709	SGT	925.2	SGR	498.1	SG3	137.2	ST	282.7	SR	404.9	SS	88.9
RDE	-.2794	RRA	-.0323	RC3	-.3618	FAU	.03543	RRT	-.4517	RRF	.5108	RTF	-.7639	CRT	-.6445	CRS	.4796	CST	.3125
FDE	.0398	FRA	.2219	FC3	-1.9587	BSP	2774	SGB	1050.8	R23	-.0793	R13	.7822	LSA	455.4	MSA	208.8	SSA	27.0
BDE	.3086	BRA	.4577	BC3	.8161	FSP	-352	SG1	959.4	SG2	428.5	THA	162.80	EL1	454.8	EL2	192.4	ALF	120.17

LAUNCH DATE SEP 7 1970 FLIGHT TIME 84.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 218.341

RL	150.76	LAL	.00	LOL	343.97	VL	26.139	GAL	-4.39	AZL	89.84	HCA	95.15	SMA	123.18	ECC	.23597	INC	.1607	V1	29.555
RP	107.76	LAP	.16	LOP	79.12	VP	37.228	GAP	-11.63	AZP	90.01	TAL	194.54	TAP	289.70	RCA	94.12	APO	152.25	V2	35.168
RC	47.431	GL	1.10	GP	-16.27	ZAL	114.13	ZAP	18.80	ETS	55.51	ZAE	147.27	ETE	333.02	ZAC	85.67	ETC	261.60	CLP	-9.55

PLANETOCENTRIC CONIC

C3	14.627	VHL	3.824	DLA	-16.64	RAL	227.69	RAD	6567.6	VEL	11.662	PTH	2.05	VHP	7.729	DPA	-37.36	RAP	243.79	ECC	1.2407

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 44 6	1596.79	-1.36	5.30	83.89	118.29	6 10 43	996.8	2.44	358.68
90.00	13 13 22	5331.76	27.54	242.63	89.45	83.16	14 42 13	4731.8	26.31	234.18
100.00	6 56 1	1364.72	-2.45	347.63	83.29	119.80	7 18 46	764.7	1.53	341.11
100.00	14 44 8	5039.06	28.79	220.91	89.26	81.57	16 8 7	4439.1	27.32	212.41
110.00	7 43 27	1216.15	-5.24	334.63	81.55	123.83	8 3 43	616.1	-.76	328.41
110.00	16 13 11	4760.39	32.01	199.05	88.56	77.31	17 32 32	4160.4	29.93	190.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1166	TRA	-.4396	TC3	.8218	BAU	.1820	SGT	947.7	SGR	515.8	SG3	153.0	ST	270.9	SR	389.7	SS	110.6
RDE	-.2598	RRA	-.0331	RC3	-.4373	FAU	.03831	RRT	-.4964	RRF	.5646	RTF	-.7748	CRT	-.6156	CRS	.7439	CST	.0153
FDE	.0805	FRA	.2149	FC3	-2.2676	BSP	2876	SGB	1079.0	R23	-.0925	R13	.7967	LSA	439.1	MSA	209.3	SSA	29.4
BDE	.2848	BRA	.4408	BC3	.9309	FSP	-398	SG1	990.2	SG2	428.6	THA	161.24	EL1	434.2	EL2	191.6	ALF	119.44

LAUNCH DATE SEP 7 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 225.110

RL	150.76	LAL	.00	LOL	343.97	VL	26.294	GAL	-4.47	AZL	89.65	HCA	98.38	SMA	124.12	ECC	.22777	INC	.3548	V1	29.555
RP	107.72	LAP	.35	LOP	82.34	VP	37.346	GAP	-10.79	AZP	90.05	TAL	195.56	TAP	293.93	RCA	95.85	APO	152.39	V2	35.179
RC	48.893	GL	2.51	GP	-17.49	ZAL	115.77	ZAP	21.07	ETS	51.31	ZAE	145.83	ETE	331.43	ZAC	84.53	ETC	261.73	CLP	-11.95

PLANETOCENTRIC CONIC

C3	13.776	VHL	3.712	DLA	-14.83	RAL	226.43	RAD	6567.5	VEL	11.626	PTH	2.04	VHP	7.301	DPA	-38.73	RAP	244.41	ECC	1.2267

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 22 9	1649.23	-3.04	8.23	81.54	118.17	5 49 38	1049.2	.74	1.60
90.00	13 25 18	5252.89	26.78	236.99	86.47	80.43	14 52 50	4652.9	25.18	228.68
100.00	6 35 29	1412.61	-4.07	350.27	80.97	119.64	6 59 1	812.6	-.09	343.74
100.00	14 54 39	4964.75	27.93	215.56	86.23	78.88	16 17 23	4364.7	26.11	207.23
110.00	7 25 51	1254.85	-6.70	336.68	79.34	123.60	7 46 46	654.8	-2.24	330.43
110.00	16 20 46	4695.27	30.94	194.28	85.42	74.68	17 39 1	4095.3	28.52	185.91

DIFFERENTIAL CORRECTIONS

TDE	.0989	TRA	-.4250	TC3	.9026	BAU	.1921		
RDE	-.2390	RRA	-.0338	RC3	-.5225	FAU	.04143		
FDE	.1318	FRA	.2085	FC3	-2.6033	BSP	2941		
BDE	.2586	BRA	.4264	BC3	1.0429	FSP	-447		

MID-COURSE EXECUTION ACCURACY

SGT	965.9	SGR	538.0	SG3	170.3		
RRT	-.5380	RRF	.6191	RTF	-.7823		
SGB	1105.6	R23	-.1102	R13	.8094		
SG1	1018.5	SG2	430.0	THA	159.50		

ORBIT DETERMINATION ACCURACY

ST	255.3	SR	369.4	SS	147.6		
CRT	-.5646	CRS	.8793	CST	-.1599		
LSA	422.0	MSA	210.5	SSA	31.8		
EL1	406.1	EL2	191.7	ALF	118.10		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 231.869

RL	150.76	LAL	.00	LOL	343.97	VL	26.433	GAL	-4.55	AZL	89.45	HCA	101.61	SMA	124.97	ECC	.22047	INC	.5522	V1	29.555
RP	107.69	LAP	.54	LOP	85.57	VP	37.453	GAP	-9.98	AZP	90.11	TAL	196.56	TAP	298.16	RCA	97.42	APO	152.53	V2	35.188
RC	50.451	GL	4.03	GP	-18.84	ZAL	117.33	ZAP	23.58	ETS	47.82	ZAE	144.54	ETE	329.60	ZAC	83.25	ETC	261.84	CLP	-14.46

PLANETOCENTRIC CONIC

C3	13.087	VHL	3.618	DLA	-12.93	RAL	225.27	RAD	6567.5	VEL	11.596	PTH	2.03	VHP	6.900	DPA	-40.20	RAP	244.86	ECC	1.2154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 0 41	1704.47	-4.81	11.33	79.48	117.94	5 29 5	1104.5	-1.04	4.68
90.00	13 37 32	5175.32	25.78	231.53	83.75	77.86	15 3 47	4575.3	23.85	223.39
100.00	6 15 20	1463.64	-5.78	353.09	78.95	119.38	6 39 43	863.6	-1.82	346.54
100.00	15 5 34	4891.38	26.85	210.37	83.47	76.35	16 27 6	4291.4	24.71	202.22
110.00	7 8 29	1297.15	-8.29	338.92	77.41	123.28	7 30 6	697.2	-3.85	332.64
110.00	16 28 54	4630.63	29.68	189.66	82.57	72.21	17 46 5	4030.6	26.96	181.53

DIFFERENTIAL CORRECTIONS

TDE	.0751	TRA	-.4156	TC3	.9618	BAU	.1999		
RDE	-.2157	RRA	-.0336	RC3	-.6168	FAU	.04470		
FDE	.1980	FRA	.2056	FC3	-2.9571	BSP	2902		
BDE	.2284	BRA	.4170	BC3	1.1426	FSP	-495		

MID-COURSE EXECUTION ACCURACY

SGT	977.0	SGR	564.7	SG3	189.0		
RRT	-.5698	RRF	.6714	RTF	-.7846		
SGB	1128.4	R23	-.1361	R13	.8195		
SG1	1041.0	SG2	435.5	THA	157.66		

ORBIT DETERMINATION ACCURACY

ST	235.9	SR	342.3	SS	200.0		
CRT	-.4658	CRS	.9400	CST	-.1980		
LSA	407.7	MSA	213.0	SSA	34.1		
EL1	367.4	EL2	194.5	ALF	115.36		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 238.614

RL	150.76	LAL	.00	LOL	343.97	VL	26.558	GAL	-4.63	AZL	89.25	HCA	104.84	SMA	125.76	ECC	.21397	INC	.7542	V1	29.555
RP	107.67	LAP	.73	LOP	88.80	VP	37.550	GAP	-9.21	AZP	90.19	TAL	197.53	TAP	302.37	RCA	98.85	APO	152.66	V2	35.198
RC	52.096	GL	5.65	GP	-20.34	ZAL	118.80	ZAP	26.33	ETS	44.89	ZAE	143.38	ETE	327.51	ZAC	81.79	ETC	261.92	CLP	-17.09

PLANETOCENTRIC CONIC

C3	12.537	VHL	3.541	DLA	-10.94	RAL	224.23	RAD	6567.5	VEL	11.573	PTH	2.02	VHP	6.528	DPA	-41.79	RAP	245.11	ECC	1.2063

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 39 45	1762.41	-6.65	14.59	77.74	117.59	5 9 7	1162.4	-2.91	7.92
90.00	13 50 8	5098.98	24.58	226.26	81.32	75.48	15 15 7	4499.0	22.35	218.30
100.00	5 55 37	1517.65	-7.57	356.10	77.24	119.00	6 20 54	917.6	-3.65	349.51
100.00	15 16 57	4818.97	25.59	205.36	81.02	74.00	16 37 16	4219.0	23.15	197.41
110.00	6 51 27	1342.81	-9.98	341.37	75.78	122.86	7 13 49	742.8	-5.58	335.04
110.00	16 37 37	4566.57	28.26	185.22	80.04	69.92	17 53 43	3966.6	25.27	177.32

DIFFERENTIAL CORRECTIONS

TDE	.0672	TRA	-.3902	TC3	1.0617	BAU	.2160		
RDE	-.1927	RRA	-.0358	RC3	-.7306	FAU	.04889		
FDE	.2635	FRA	.1894	FC3	-3.3757	BSP	3267		
BDE	.2040	BRA	.3919	BC3	1.2888	FSP	-577		

MID-COURSE EXECUTION ACCURACY

SGT	995.3	SGR	606.9	SG3	211.5		
RRT	-.6372	RRF	.7305	RTF	-.8010		
SGB	1165.8	R23	-.1317	R13	.8401		
SG1	1083.7	SG2	429.6	THA	154.48		

ORBIT DETERMINATION ACCURACY

ST	222.6	SR	312.7	SS	249.5		
CRT	-.4428	CRS	.9650	CST	-.2706		
LSA	408.6	MSA	203.2	SSA	36.7		
EL1	335.8	EL2	185.8	ALF	115.98		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 245.345

RL	150.76	LAL	.00	LOL	343.97	VL	26.669	GAL	-4.70	AZL	89.04	HCA	108.07	SMA	126.47	ECC	.20823	INC	.9625	V1	29.555
RP	107.64	LAP	.92	LOP	92.04	VP	37.637	GAP	-8.47	AZP	90.30	TAL	198.47	TAP	306.54	RCA	100.13	APO	152.80	V2	35.206
RC	53.818	GL	7.37	GP	-22.00	ZAL	120.14	ZAP	29.31	ETS	42.39	ZAE	142.32	ETE	325.12	ZAC	80.16	ETC	261.95	CLP	-19.87

PLANETOCENTRIC CONIC

C3	12.110	VHL	3.480	DLA	-8.87	RAL	223.33	RAD	6567.5	VEL	11.554	PTH	2.02	VHP	6.183	DPA	-43.52	RAP	245.13	ECC	1.1993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 19 28	1822.80	-8.54	18.02	76.34	117.10	4 49 50	1222.8	-4.84	11.30
90.00	14 3 14	5023.87	23.21	221.18	79.22	73.30	15 26 58	4423.9	20.70	213.41
100.00	5 36 29	1574.31	-9.43	359.28	75.87	118.50	6 2 43	974.3	-5.55	352.64
100.00	15 28 54	4747.59	24.16	200.54	78.89	71.85	16 48 1	4147.6	21.46	192.78
110.00	6 34 53	1391.44	-11.77	344.01	74.47	122.33	6 58 5	791.4	-7.42	337.61
110.00	16 46 59	4503.23	26.71	180.95	77.85	67.83	18 2 2	3903.2	23.46	173.29

DIFFERENTIAL CORRECTIONS

TDE	.0479	TRA	-.3767	TC3	1.1132	BAU	.2269		
RDE	-.1649	RRA	-.0361	RC3	-.8518	FAU	.05300		
FDE	.3516	FRA	.1821	FC3	-3.7890	BSP	3384		
BDE	.1717	BRA	.3784	BC3	1.4017	FSP	-650		

MID-COURSE EXECUTION ACCURACY

SGT	1000.2	SGR	654.8	SG3	234.7		
RRT	-.6763	RRF	.7802	RTF	-.8052		
SGB	1195.5	R23	-.1462	R13	.8540		
SG1	1114.4	SG2	432.9	THA	151.42		

ORBIT DETERMINATION ACCURACY

ST	205.4	SR	272.6	SS	315.9		
CRT	-.3286	CRS	.9762	CST	-.2193		
LSA	419.5	MSA	197.2	SSA	38.0		
EL1	287.6	EL2	184.0	ALF	114.45		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 252.058

RL	150.76	LAL	.00	LOL	343.97	VL	26.768	GAL	-4.76	AZL	88.82	HCA	111.30	SMA	127.11	ECC	.20318	INC	1.1788	V1	29.555
RP	107.61	LAP	1.10	LOP	95.27	VP	37.715	GAP	-7.75	AZP	90.43	TAL	199.36	TAP	310.66	RCA	101.28	APO	152.93	V2	35.214
RC	55.612	GL	9.20	GP	-23.85	ZAL	121.31	ZAP	32.53	ETS	40.19	ZAE	141.34	ETE	322.39	ZAC	78.34	ETC	261.94	CLP	-22.81

PLANETOCENTRIC CONIC

C3	11.792	VHL	3.434	DLA	-6.73	RAL	222.58	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	5.868	DPA	-45.38	RAP	244.87	ECC	1.1941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 59 48	1885.63	-10.47	21.63	75.29	116.46	4 31 14	1285.6	-6.83	14.84
90.00	14 16 55	4949.84	21.67	216.30	77.45	71.32	15 39 25	4349.8	18.92	208.70
100.00	5 17 56	1633.57	-11.33	2.65	74.83	117.85	5 45 10	1033.6	-7.52	355.94
100.00	15 41 28	4677.13	22.59	195.89	77.10	69.89	16 59 25	4077.1	19.65	188.33
110.00	6 18 51	1442.88	-13.62	346.84	73.49	121.66	6 42 53	842.9	-9.34	340.36
110.00	16 57 3	4440.59	25.03	176.85	76.02	65.93	18 11 4	3840.6	21.57	169.41

DIFFERENTIAL CORRECTIONS

TDE	.0285	TRA	-.3645	TC3	1.1442	BAU	.2380
RDE	-.1329	RRA	-.0358	RC3	-.9848	FAU	.05735
FDE	.4556	FRA	.1766	FC3	-4.2101	BSP	3503
BDE	.1359	BRA	.3663	BC3	1.5097	FSP	-728

MID-COURSE EXECUTION ACCURACY

SGT	997.5	SGR	714.3	SG3	259.6		
RRT	-.7091	RRF	.8245	RTF	-.8068		
SGB	1226.9	R23	-.1590	R13	.8682		
SG1	1145.8	SG2	438.5	THA	147.81		

ORBIT DETERMINATION ACCURACY

ST	191.2	SR	223.3	SS	390.6
CRT	-.1803	CRS	.9787	CST	-.1206
LSA	449.0	MSA	189.5	SSA	38.1
EL1	231.1	EL2	181.8	ALF	114.60

LAUNCH DATE SEP 7 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 258.751

RL	150.76	LAL	.00	LOL	343.97	VL	26.855	GAL	-4.82	AZL	88.60	HCA	114.53	SMA	127.68	ECC	.19874	INC	1.4049	V1	29.555
RP	107.59	LAP	1.28	LOP	98.51	VP	37.784	GAP	-7.06	AZP	90.58	TAL	200.18	TAP	314.72	RCA	102.30	APO	153.05	V2	35.222
RC	57.469	GL	11.12	GP	-25.90	ZAL	122.30	ZAP	35.99	ETS	38.18	ZAE	140.38	ETE	319.31	ZAC	76.31	ETC	261.87	CLP	-25.92

PLANETOCENTRIC CONIC

C3	11.573	VHL	3.402	DLA	-4.53	RAL	222.00	RAD	6567.4	VEL	11.531	PTH	2.01	VHP	5.584	DPA	-47.38	RAP	244.29	ECC	1.1905

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 40 46	1950.95	-12.42	25.44	74.59	115.65	4 13 17	1350.9	-8.87	18.56
90.00	14 31 18	4876.67	20.00	211.58	76.04	69.53	15 52 35	4276.7	17.04	204.16
100.00	4 59 58	1695.41	-13.28	6.21	74.15	117.03	5 28 14	1095.4	-9.55	359.41
100.00	15 54 47	4607.43	20.89	191.42	75.67	68.12	17 11 34	4007.4	17.74	184.04
110.00	6 3 20	1497.04	-15.54	349.87	72.86	120.84	6 28 17	897.0	-11.33	343.29
110.00	17 7 54	4378.57	23.25	172.91	74.54	64.21	18 20 53	3778.6	19.59	165.69

DIFFERENTIAL CORRECTIONS

TDE	.0100	TRA	-.3541	TC3	1.1514	BAU	.2496
RDE	-.0955	RRA	-.0347	RC3	-1.1300	FAU	.06186
FDE	.5767	FRA	.1735	FC3	-4.6277	BSP	3627
BDE	.0960	BRA	.3558	BC3	1.6132	FSP	-811

MID-COURSE EXECUTION ACCURACY

SGT	985.8	SGR	787.6	SG3	285.8		
RRT	-.7339	RRF	.8625	RTF	-.8051		
SGB	1261.8	R23	-.1684	R13	.8831		
SG1	1180.0	SG2	446.9	THA	143.57		

ORBIT DETERMINATION ACCURACY

ST	181.8	SR	163.4	SS	472.7
CRT	-.0026	CRS	.9716	CST	.0097
LSA	498.8	MSA	181.8	SSA	36.6
EL1	181.8	EL2	163.4	ALF	179.31

LAUNCH DATE SEP 7 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 265.424

RL	150.76	LAL	.00	LOL	343.97	VL	26.932	GAL	-4.87	AZL	88.36	HCA	117.77	SMA	128.19	ECC	.19487	INC	1.6430	V1	29.555
RP	107.57	LAP	1.45	LOP	101.74	VP	37.844	GAP	-6.40	AZP	90.77	TAL	200.94	TAP	318.70	RCA	103.21	APO	153.17	V2	35.229
RC	59.382	GL	13.15	GP	-28.14	ZAL	123.08	ZAP	39.69	ETS	36.29	ZAE	139.41	ETE	315.83	ZAC	74.07	ETC	261.73	CLP	-29.23

PLANETOCENTRIC CONIC

C3	11.445	VHL	3.383	DLA	-2.28	RAL	221.59	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	5.331	DPA	-49.54	RAP	243.31	ECC	1.1883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 22 16	2018.93	-14.39	29.46	74.26	114.65	3 55 55	1418.9	-10.95	22.48
90.00	14 46 33	4804.04	18.21	207.01	74.98	67.93	16 6 37	4204.0	15.06	199.75
100.00	4 42 33	1759.96	-15.24	10.00	73.84	116.03	5 11 53	1160.0	-11.62	3.08
100.00	16 8 57	4538.25	19.07	187.08	74.60	66.54	17 24 35	3938.2	15.74	179.88
110.00	5 48 22	1553.94	-17.49	353.12	72.60	119.85	6 14 16	953.9	-13.39	346.41
110.00	17 19 38	4317.03	21.38	169.12	73.43	62.67	18 31 35	3717.0	17.55	162.09

DIFFERENTIAL CORRECTIONS

TDE	-.0070	TRA	-.3461	TC3	1.1297	BAU	.2618
RDE	-.0511	RRA	-.0321	RC3	-1.2852	FAU	.06636
FDE	.7162	FRA	.1755	FC3	-5.0202	BSP	3756
BDE	.0516	BRA	.3476	BC3	1.7111	FSP	-897

MID-COURSE EXECUTION ACCURACY

SGT	963.6	SGR	875.5	SG3	312.7		
RRT	-.7488	RRF	.8939	RTF	-.7987		
SGB	1302.0	R23	-.1724	R13	.8986		
SG1	1218.4	SG2	459.0	THA	138.65		

ORBIT DETERMINATION ACCURACY

ST	177.9	SR	91.9	SS	562.2
CRT	.2022	CRS	.9257	CST	.1496
LSA	569.4	MSA	175.7	SSA	33.8
EL1	179.2	EL2	89.3	ALF	7.95

LAUNCH DATE SEP 7 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 272.074

RL	150.76	LAL	.00	LOL	343.97	VL	26.998	GAL	-4.90	AZL	88.10	HCA	121.00	SMA	128.63	ECC	.19151	INC	1.8959	V1	29.555
RP	107.55	LAP	1.62	LOP	104.98	VP	37.898	GAP	-5.76	AZP	90.98	TAL	201.61	TAP	322.62	RCA	104.00	APO	153.27	V2	35.235
RC	61.346	GL	15.28	GP	-30.60	ZAL	123.64	ZAP	43.63	ETS	34.42	ZAE	138.35	ETE	311.96	ZAC	71.60	ETC	261.52	CLP	-32.76

PLANETOCENTRIC CONIC

C3	11.403	VHL	3.377	DLA	.04	RAL	221.37	RAD	6567.4	VEL	11.524	PTH	2.01	VHP	5.113	DPA	-51.83	RAP	241.87	ECC	1.1877

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 4 13	2089.91	-16.36	33.74	74.31	113.44	3 39 3	1489.9	-13.05	26.63
90.00	15 2 49	4731.56	16.30	202.55	74.30	66.52	16 21 41	4131.6	12.98	195.44
100.00	4 25 35	1827.47	-17.21	14.04	73.91	114.82	4 56 2	1227.5	-13.72	6.99
100.00	16 24 9	4469.24	17.15	182.86	73.90	65.13	17 38 38	3869.2	13.65	175.81
110.00	5 33 52	1613.73	-19.48	356.61	72.71	118.66	6 0 46	1013.7	-15.51	349.75
110.00	17 32 21	4255.75	19.42	165.45	72.69	61.30	18 43 17	3655.8	15.44	158.59

DIFFERENTIAL CORRECTIONS

TDE	-.0219	TRA	-.3412	TC3	1.0725	BAU	.2745
RDE	.0022	RRA	-.0271	RC3	-1.4467	FAU	.07057
FDE	.8753	FRA	.1851	FC3	-5.3579	BSP	3872
BDE	.0220	BRA	.3423	BC3	1.8008	FSP	-978

MID-COURSE EXECUTION ACCURACY

SGT	928.0	SGR	978.1	SG3	339.0		
RRT	-.7505	RRF	.9188	RTF	-.7848		
SGB	1348.3	R23	-.1686	R13	.9147		
SG1	1261.7	SG2	475.5	THA	132.99		

ORBIT DETERMINATION ACCURACY

ST	178.9	SR	32.6	SS	659.1
CRT	.2772	CRS	-.1534	CST	.2769
LSA	661.1	MSA	171.8	SSA	30.3
EL1	179.2	EL2	31.3	ALF	2.98

LAUNCH DATE SEP 7 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 278.701

RL	150.76	LAL	.00	LOL	343.97	VL	27.056	GAL	-4.93	AZL	87.83	HCA	124.24	SMA	129.02	ECC	.18860	INC	2.1665	V1	29.555
RP	107.53	LAP	1.79	LOP	108.23	VP	37.944	GAP	-5.15	AZP	91.22	TAL	202.20	TAP	326.44	RCA	104.69	APO	153.36	V2	35.240
RC	63.355	GL	17.53	GP	-33.27	ZAL	123.95	ZAP	47.79	ETS	32.49	ZAE	137.16	ETE	307.70	ZAC	68.90	ETC	261.22	CLP	-36.53

PLANETOCENTRIC CONIC

C3	11.449	VHL	3.384	DLA	2.41	RAL	221.34	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	4.930	DPA	-54.25	RAP	239.85	ECC	1.1884

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 46 29	2164.38	-18.32	38.33	74.76	111.98	3 22 33	1564.4	-15.18	31.06
90.00	15 20 19	4658.74	14.27	198.16	73.99	65.28	16 37 58	4058.7	10.82	191.18
100.00	4 8 57	1898.38	-19.19	18.38	74.38	113.37	4 40 35	1298.4	-15.86	11.17
100.00	16 40 32	4399.98	15.12	178.72	73.58	63.90	17 53 52	3800.0	11.49	171.81
110.00	5 19 46	1676.71	-21.49	.39	73.22	117.24	5 47 43	1076.7	-17.67	353.35
110.00	17 46 12	4194.42	17.37	161.87	72.33	60.09	18 56 6	3594.4	13.27	155.16

DIFFERENTIAL CORRECTIONS

TDE	-.0353	TRA	-.3419	TC3	.9692	BAU	.2870
RDE	.0679	RRA	-.0172	RC3	-1.6055	FAU	.07399
FDE	1.0578	FRA	.2100	FC3	-5.5949	BSP	3924
BDE	.0765	BRA	.3424	BC3	1.8754	FSP	-1039

MID-COURSE EXECUTION ACCURACY

SGT	877.3	SGR	1092.9	SG3	363.2		
RRT	-.7328	RRF	.9379	RTF	-.7584		
SGB	1401.5	R23	-.1542	R13	.9310		
SG1	1310.0	SG2	498.0	THA	126.59		

ORBIT DETERMINATION ACCURACY

ST	184.9	SR	119.8	SS	765.9
CRT	-.2704	CRS	-.9687	CST	.3846
LSA	778.0	MSA	170.6	SSA	26.2
EL1	189.3	EL2	112.6	ALF	164.43

LAUNCH DATE SEP 7 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 285.303

RL	150.76	LAL	.00	LOL	343.97	VL	27.105	GAL	-4.96	AZL	87.54	HCA	127.48	SMA	129.36	ECC	.18609	INC	2.4590	V1	29.555
RP	107.52	LAP	1.95	LOP	111.47	VP	37.983	GAP	-4.56	AZP	91.50	TAL	202.70	TAP	330.18	RCA	105.29	APO	153.43	V2	35.245
RC	65.403	GL	19.90	GP	-36.14	ZAL	124.00	ZAP	52.15	ETS	30.41	ZAE	135.76	ETE	303.08	ZAC	65.99	ETC	260.80	CLP	-40.55

PLANETOCENTRIC CONIC

C3	11.586	VHL	3.404	DLA	4.86	RAL	221.50	RAD	6567.4	VEL	11.531	PTH	2.01	VHP	4.786	DPA	-56.77	RAP	237.16	ECC	1.1907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 28 49	2243.15	-20.25	43.30	75.63	110.23	3 6 12	1643.1	-17.32	35.85
90.00	15 39 16	4584.95	12.13	193.80	74.08	64.21	16 55 41	3985.0	8.56	186.94
100.00	3 52 27	1973.41	-21.14	23.10	75.27	111.64	4 25 20	1373.4	-18.02	15.70
100.00	16 58 20	4329.92	12.98	174.62	73.64	62.84	18 10 30	3729.9	9.24	167.83
110.00	5 5 56	1743.42	-23.52	4.52	74.15	115.56	5 34 59	1143.4	-19.88	357.26
110.00	18 1 20	4132.68	15.24	158.35	72.35	59.03	19 10 13	3532.7	11.03	151.78

DIFFERENTIAL CORRECTIONS

TDE	-.0277	TRA	-.3310	TC3	.8793	BAU	.3085
RDE	.1385	RRA	-.0107	RC3	-1.7867	FAU	.07789
FDE	1.2244	FRA	.2164	FC3	-5.8203	BSP	4345
BDE	.1412	BRA	.3311	BC3	1.9913	FSP	-1147

MID-COURSE EXECUTION ACCURACY

SGT	820.4	SGR	1238.6	SG3	387.2		
RRT	-.7172	RRF	.9537	RTF	-.7269		
SGB	1485.7	R23	-.1333	R13	.9463		
SG1	1396.4	SG2	507.1	THA	119.71		

ORBIT DETERMINATION ACCURACY

ST	175.0	SR	236.0	SS	854.9
CRT	-.2567	CRS	-.9923	CST	.3221
LSA	888.2	MSA	166.3	SSA	23.5
EL1	244.1	EL2	163.5	ALF	110.12

LAUNCH DATE SEP 7 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 291.881

RL	150.76	LAL	.00	LOL	343.97	VL	27.146	GAL	-4.97	AZL	87.22	HCA	130.71	SMA	129.64	ECC	.18394	INC	2.7781	V1	29.555
RP	107.51	LAP	2.11	LOP	114.71	VP	38.016	GAP	-3.98	AZP	91.81	TAL	203.11	TAP	333.83	RCA	105.79	APO	153.49	V2	35.249
RC	67.486	GL	22.41	GP	-39.20	ZAL	123.79	ZAP	56.67	ETS	28.11	ZAE	134.10	ETE	298.15	ZAC	62.87	ETC	260.26	CLP	-44.84

PLANETOCENTRIC CONIC

C3	11.824	VHL	3.439	DLA	7.38	RAL	221.87	RAD	6567.5	VEL	11.542	PTH	2.01	VHP	4.684	DPA	-59.33	RAP	233.66	ECC	1.1946

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 11 0	2327.12	-22.13	48.74	76.96	108.13	2 49 47	1727.1	-19.45	41.09
90.00	16 0 2	4509.46	9.85	189.42	74.59	63.32	17 15 11	3909.5	6.19	182.65
100.00	3 35 53	2053.35	-23.06	28.26	76.62	109.57	4 10 6	1453.3	-20.18	20.65
100.00	17 17 50	4258.47	10.72	170.51	74.13	61.93	18 28 49	3658.5	6.89	163.82
110.00	4 52 13	1814.46	-25.53	9.05	75.55	113.55	5 22 28	1214.5	-22.12	1.56
110.00	18 17 59	4070.12	13.02	154.86	72.77	58.11	19 25 49	3470.1	8.71	148.41

DIFFERENTIAL CORRECTIONS

TDE	-.0173	TRA	-.3291	TC3	.7276	BAU	.3283
RDE	.2268	RRA	.0045	RC3	-1.9453	FAU	.08005
FDE	1.4111	FRA	.2475	FC3	-5.8609	BSP	4620
BDE	.2274	BRA	.3291	BC3	2.0769	FSP	-1209

MID-COURSE EXECUTION ACCURACY

SGT	746.3	SGR	1390.2	SG3	404.8		
RRT	-.6597	RRF	.9649	RTF	-.6620		
SGB	1577.8	R23	-.1052	R13	.9597		
SG1	1488.3	SG2	523.9	THA	112.43		

ORBIT DETERMINATION ACCURACY

ST	169.1	SR	380.0	SS	954.2
CRT	-.1850	CRS	-.9974	CST	.2267
LSA	1027.4	MSA	165.4	SSA	20.4
EL1	381.6	EL2	165.4	ALF	95.80

LAUNCH DATE SEP 7 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 298.432

RL	150.76	LAL	.00	LOL	343.97	VL	27.180	GAL	-4.97	AZL	86.87	HCA	133.95	SMA	129.87	ECC	.18211	INC	3.1298	V1	29.555
RP	107.50	LAP	2.25	LOP	117.96	VP	38.044	GAP	-3.43	AZP	92.17	TAL	203.43	TAP	337.38	RCA	106.22	APO	153.53	V2	35.253
RC	69.600	GL	25.07	GP	-42.41	ZAL	123.30	ZAP	61.28	ETS	25.51	ZAE	132.14	ETE	293.00	ZAC	59.58	ETC	259.58	CLP	-49.40

PLANETOCENTRIC CONIC

C3	12.178	VHL	3.490	DLA	9.99	RAL	222.45	RAD	6567.5	VEL	11.557	PTH	2.02	VHP	4.628	DPA	-61.88	RAP	229.19	ECC	1.2004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 52 40	2417.72	-23.92	54.77	78.78	105.62	2 32 58	1817.7	-21.55	46.91
90.00	16 23 0	4431.29	7.43	184.96	75.55	62.60	17 36 51	3831.3	3.70	178.26
100.00	3 18 57	2139.45	-24.90	33.99	78.46	107.09	3 54 37	1539.4	-22.33	26.14
100.00	17 39 24	4184.80	8.33	166.35	75.06	61.19	18 49 9	3584.8	4.43	159.74
110.00	4 38 25	1890.78	-27.50	14.11	77.46	111.15	5 9 56	1290.8	-24.38	6.33
110.00	18 36 26	4006.23	10.70	151.37	73.64	57.34	19 43 12	3406.2	6.32	145.02

DIFFERENTIAL CORRECTIONS

TDE	.0074	TRA	-.3276	TC3	.5452	BAU	.3507
RDE	.3303	RRA	.0258	RC3	-2.0842	FAU	.08082
FDE	1.5938	FRA	.2876	FC3	-5.7457	BSP	4954
BDE	.3304	BRA	.3286	BC3	2.1543	FSP	-1252

MID-COURSE EXECUTION ACCURACY

SGT	665.7	SGR	1553.1	SG3	415.8		
RRT	-.5517	RRF	.9731	RTF	-.5481		
SGB	1689.7	R23	-.0742	R13	.9704		
SG1	1601.7	SG2	538.4	THA	105.04		

ORBIT DETERMINATION ACCURACY

ST	164.7	SR	544.3	SS	1049.0
CRT	.0443	CRS	-.9989	CST	-.0158
LSA	1181.6	MSA	165.2	SSA	17.6
EL1	544.3	EL2	164.5	ALF	89.16

LAUNCH DATE SEP 7 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 304.958

RL	150.76	LAL	.00	LOL	343.97	VL	27.207	GAL	-4.96	AZL	86.48	HCA	137.18	SMA	130.06	ECC	.18057	INC	3.5222	V1	29.555
RP	107.49	LAP	2.39	LOP	121.20	VP	38.066	GAP	-2.90	AZP	92.59	TAL	203.64	TAP	340.83	RCA	106.58	APO	153.55	V2	35.255
RC	71.740	GL	27.89	GP	-45.74	ZAL	122.52	ZAP	65.93	ETS	22.54	ZAE	129.86	ETE	287.69	ZAC	56.14	ETC	258.74	CLP	-54.24

PLANETOCENTRIC CONIC

C3	12.674	VHL	3.560	DLA	12.71	RAL	223.25	RAD	6567.5	VEL	11.578	PTH	2.02	VHP	4.621	DPA	-64.34	RAP	223.61	ECC	1.2086		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 33 20	2516.85	-25.57	61.57	81.14	102.60	2 15 17	1916.8	-23.58	53.46
90.00	16 48 45	4349.18	4.84	180.32	77.03	62.07	18 1 14	3749.2	1.06	173.67
100.00	3 1 14	2233.36	-26.63	40.44	80.86	104.12	3 38 28	1633.4	-24.42	32.33
100.00	18 3 32	4107.90	5.79	162.06	76.50	60.62	19 12 0	3507.9	1.83	155.51
110.00	4 24 16	1973.58	-29.41	19.80	79.94	108.27	4 57 9	1373.6	-26.63	11.71
110.00	18 57 0	3940.44	8.26	147.84	74.99	56.71	20 2 41	3340.4	3.82	141.56

DIFFERENTIAL CORRECTIONS

TDE	.0500	TRA	-.3264	TC3	.3326	BAU	.3746
RDE	.4517	RRA	.0562	RC3	-2.1855	FAU	.07975
FDE	1.7660	FRA	.3398	FC3	-5.4470	BSP	5312
BDE	.4545	BRA	.3312	BC3	2.2106	FSP	-1261

MID-COURSE EXECUTION ACCURACY

SGT	593.7	SGR	1720.1	SG3	418.3		
RRT	-.3524	RRF	.9792	RTF	-.3449		
SGB	1819.7	R23	-.0423	R13	.9783		
SG1	1734.2	SG2	551.1	THA	97.72		

ORBIT DETERMINATION ACCURACY

ST	180.6	SR	729.1	SS	1137.8		
CRT	.4079	CRS	-.9995	CST	-.3902		
LSA	1353.1	MSA	166.1	SSA	15.0		
EL1	733.0	EL2	164.0	ALF	83.92		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 311.456

RL	150.76	LAL	.00	LOL	343.97	VL	27.228	GAL	-4.94	AZL	86.03	HCA	140.42	SMA	130.21	ECC	.17928	INC	3.9656	V1	29.555		
RP	107.48	LAP	2.53	LOP	124.45	VP	38.082	GAP	-2.39	AZP	93.06	TAL	203.77	TAP	344.19	RCA	106.86	APO	153.55	V2	35.257		
RC	73.903	GL	30.89	GP	-49.15	ZAL	121.45	ZAP	70.51	ETS	19.14	ZAE	127.25	ETE	282.29	ZAC	52.60	ETC	257.70	CLP	-59.34		

PLANETOCENTRIC CONIC

C3	13.354	VHL	3.654	DLA	15.54	RAL	224.29	RAD	6567.5	VEL	11.608	PTH	2.03	VHP	4.671	DPA	-66.61	RAP	216.76	ECC	1.2198		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 12 15	2627.26	-26.98	69.34	84.09	98.95	1 56 2	2027.3	-25.46	61.00
90.00	17 18 6	4261.27	2.02	175.40	79.09	61.75	18 29 7	3661.3	-1.78	168.77
100.00	2 42 7	2337.42	-28.14	47.80	83.86	100.53	3 21 5	1737.4	-26.40	39.43
100.00	18 30 54	4026.34	3.05	157.56	78.52	60.25	19 38 1	3426.3	-.94	151.03
110.00	4 9 21	2064.50	-31.17	26.29	83.08	104.80	4 43 46	1464.5	-28.82	17.87
110.00	19 20 10	3872.04	5.69	144.21	76.88	56.24	20 24 42	3272.0	1.21	137.98

DIFFERENTIAL CORRECTIONS

TDE	.1205	TRA	-.3196	TC3	.1131	BAU	.4023
RDE	.5866	RRA	.0928	RC3	-2.2507	FAU	.07730
FDE	1.9037	FRA	.3889	FC3	-5.0117	BSP	5821
BDE	.5988	BRA	.3328	BC3	2.2536	FSP	-1262

MID-COURSE EXECUTION ACCURACY

SGT	559.5	SGR	1890.7	SG3	411.9		
RRT	-.0386	RRF	.9837	RTF	-.0256		
SGB	1971.7	R23	-.0161	R13	.9836		
SG1	1890.8	SG2	559.0	THA	90.72		

ORBIT DETERMINATION ACCURACY

ST	245.0	SR	922.1	SS	1207.8		
CRT	.7371	CRS	-.9998	CST	-.7281		
LSA	1530.1	MSA	166.2	SSA	12.9		
EL1	940.2	EL2	162.4	ALF	78.57		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 317.928

RL	150.76	LAL	.00	LOL	343.97	VL	27.243	GAL	-4.91	AZL	85.53	HCA	143.65	SMA	130.31	ECC	.17821	INC	4.4741	V1	29.555		
RP	107.48	LAP	2.65	LOP	127.70	VP	38.094	GAP	-1.89	AZP	93.61	TAL	203.79	TAP	347.45	RCA	107.09	APO	153.54	V2	35.258		
RC	76.087	GL	34.09	GP	-52.62	ZAL	120.08	ZAP	74.95	ETS	15.27	ZAE	124.33	ETE	276.88	ZAC	48.99	ETC	256.44	CLP	-64.68		

PLANETOCENTRIC CONIC

C3	14.276	VHL	3.778	DLA	18.49	RAL	225.57	RAD	6567.6	VEL	11.647	PTH	2.04	VHP	4.783	DPA	-68.61	RAP	208.55	ECC	1.2349		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 48 14	2753.25	-27.99	78.42	87.67	94.51	1 34 8	2153.2	-27.07	69.87
90.00	17 52 21	4164.53	-1.11	170.00	81.88	61.70	19 1 46	3564.5	-4.88	163.36
100.00	2 20 43	2455.06	-29.31	56.34	87.53	96.18	3 1 38	1855.1	-28.14	47.73
100.00	19 2 34	3937.95	.05	152.70	81.24	60.11	20 8 12	3338.0	-3.93	146.17
110.00	3 53 11	2165.71	-32.69	33.79	86.95	100.61	4 29 17	1565.7	-30.88	25.03
110.00	19 46 34	3800.06	2.95	140.44	79.43	55.93	20 49 55	3200.1	-1.54	134.23

DIFFERENTIAL CORRECTIONS

TDE	.2194	TRA	-.3114	TC3	-.1227	BAU	.4277
RDE	.7448	RRA	.1471	RC3	-2.2374	FAU	.07235
FDE	2.0220	FRA	.4558	FC3	-4.3879	BSP	6217
BDE	.7765	BRA	.3444	BC3	2.2408	FSP	-1200

MID-COURSE EXECUTION ACCURACY

SGT	606.1	SGR	2046.9	SG3	395.3		
RRT	.3349	RRF	.9869	RTF	.3480		
SGB	2134.7	R23	.0107	R13	.9870		
SG1	2057.7	SG2	568.1	THA	83.87		

ORBIT DETERMINATION ACCURACY

ST	364.8	SR	1132.8	SS	1271.1		
CRT	.8844	CRS	-.9999	CST	-.8806		
LSA	1733.1	MSA	168.8	SSA	10.9		
EL1	1178.8	EL2	163.6	ALF	73.78		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 324.371

RL	150.76	LAL	.00	LOL	343.97	VL	27.253	GAL	-4.87	AZL	84.93	HCA	146.88	SMA	130.38	ECC	.17734	INC	5.0672	V1	29.555		
RP	107.48	LAP	2.77	LOP	130.95	VP	38.102	GAP	-1.41	AZP	94.25	TAL	203.73	TAP	350.61	RCA	107.26	APO	153.51	V2	35.259		
RC	78.289	GL	37.48	GP	-56.11	ZAL	118.42	ZAP	79.13	ETS	10.90	ZAE	121.14	ETE	271.47	ZAC	45.34	ETC	254.92	CLP	-70.23		

PLANETOCENTRIC CONIC

C3	15.535	VHL	3.941	DLA	21.58	RAL	227.12	RAD	6567.6	VEL	11.701	PTH	2.06	VHP	4.969	DPA	-70.23	RAP	198.95	ECC	1.2557		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 4	2902.52	-28.30	89.32	91.88	89.06	1 7 26	2302.5	-28.13	80.66
90.00	18 33 52	4053.02	-4.69	163.77	85.59	62.04	19 41 25	3453.0	-8.39	157.05
100.00	1 55 22	2591.99	-29.88	66.48	91.88	90.88	2 38 34	1992.0	-29.44	57.70
100.00	19 40 15	3838.78	-3.31	147.26	84.82	60.27	20 44 14	3238.8	-7.24	140.68
110.00	3 34 58	2280.41	-33.79	42.55	91.63	95.53	4 12 58	1680.4	-32.65	33.50
110.00	20 17 9	3723.13	.01	136.42	82.75	55.82	21 19 12	3123.1	-4.47	130.21

DIFFERENTIAL CORRECTIONS

TDE	.3635	TRA	-.2906	TC3	-.3333	BAU	.4576
RDE	.9097	RRA	.2054	RC3	-2.1778	FAU	.06667
FDE	2.0787	FRA	.5014	FC3	-3.7153	BSP	6876
BDE	.9796	BRA	.3558	BC3	2.2032	FSP	-1152

MID-COURSE EXECUTION ACCURACY

SGT	744.6	SGR	2190.7	SG3	369.8		
RRT	.6154	RRF	.9892	RTF	.6306		
SGB	2313.8	R23	.0291	R13	.9891		
SG1	2241.6	SG2	573.6	THA	77.34		

ORBIT DETERMINATION ACCURACY

ST	545.7	SR	1326.9	SS	1301.8		
CRT	.9474	CRS	-.9999	CST	-.9459		
LSA	1929.9	MSA	169.4	SSA	9.4		
EL1	1425.5	EL2	162.6	ALF	68.42		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 330.786

```
RL  150.76 LAL    .00 LOL 343.97 VL  27.259 GAL  -4.82 AZL  84.23 HCA 150.11 SMA 130.42 ECC .17665 INC 5.7725 V1  29.555
RP  107.48 LAP   2.87 LOP 134.20 VP  38.105 GAP   -.95 AZP  95.01 TAL 203.57 TAP 353.68 RCA 107.38 APO 153.46 V2  35.258
RC  80.507 GL   41.09 GP  -59.62 ZAL 116.45 ZAP  82.96 ETS   6.00 ZAE 117.68 ETE 266.08 ZAC  41.64 ETC 253.09 CLP -75.97
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PLANETOCENTRIC CONIC

```
C3  17.280 VHL  4.157 DLA  24.80 RAL 228.96 RAD 6567.7 VEL 11.776 PTH   2.08 VHP  5.243 DPA -71.43 RAP 188.08 ECC 1.2844
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 19	3093.20	-27.31	103.16	96.54	82.20	24 26 52	2493.2	-28.10	94.59
90.00	19 28 20	3910.98	-9.15	155.72	90.60	63.09	20 33 31	3311.0	-12.69	148.83
100.00	1 22 43	2759.61	-29.40	78.90	96.82	84.36	2 8 43	2159.6	-29.87	70.13
100.00	20 27 33	3719.80	-7.29	140.67	89.60	60.93	21 29 33	3119.8	-11.11	133.97
110.00	3 13 21	2413.49	-34.18	52.92	97.13	89.41	3 53 34	1813.5	-33.88	43.69
110.00	20 53 25	3638.69	-3.21	132.01	87.08	55.95	21 54 4	3038.7	-7.66	125.75

DIFFERENTIAL CORRECTIONS

```
TDE  .5588 TRA -.2586 TC3 -.5199 BAU  .4838
RDE 1.0926 RRA  .2833 RC3-2.0287 FAU .05918
FDE 2.0990 FRA  .5512 FC3-2.9650 BSP  7453
BDE 1.2272 BRA  .3835 BC3 2.0943 FSP  -1058
```

MID-COURSE EXECUTION ACCURACY

```
SGT  966.5 SGR 2301.6 SG3  336.3
RRT  .7732 RRF  .9907 RTF  .7883
SGB 2496.3 R23  .0469 R13  .9902
SG1 2427.8 SG2  581.1 THA  70.87
```

ORBIT DETERMINATION ACCURACY

```
ST   779.2 SR  1512.3 SS  1315.9
CRT  .9719 CRS-1.0000 CST -.9717
LSA 2143.9 MSA  171.8 SSA    8.0
EL1 1693.3 EL2  163.9 ALF  63.13
```

LAUNCH DATE SEP 7 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 337.172

```
RL  150.76 LAL    .00 LOL 343.97 VL  27.259 GAL  -4.76 AZL  83.37 HCA 153.33 SMA 130.42 ECC .17611 INC 6.6311 V1  29.555
RP  107.48 LAP   2.97 LOP 137.45 VP  38.105 GAP   -.50 AZP  95.93 TAL 203.33 TAP 356.66 RCA 107.45 APO 153.39 V2  35.257
RC  82.739 GL   44.89 GP  -63.18 ZAL 114.20 ZAP  86.35 ETS    .53 ZAE 114.00 ETE 260.66 ZAC  37.90 ETC 250.83 CLP -81.88
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PLANETOCENTRIC CONIC

```
C3  19.756 VHL  4.445 DLA  28.14 RAL 231.11 RAD 6567.8 VEL 11.880 PTH   2.11 VHP  5.628 DPA -72.15 RAP 176.18 ECC 1.3251
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 8 7	3443.57	-21.76	127.26	100.24	71.42	23 5 31	2843.6	-24.10	119.36
90.00	21 12 43	3623.40	-17.44	138.67	98.51	67.33	22 13 6	3023.4	-20.36	131.21
100.00	0 31 26	2994.21	-26.65	95.76	101.81	75.93	1 21 20	2394.2	-28.32	87.36
100.00	21 36 1	3547.99	-12.82	130.92	96.29	62.76	22 35 9	2948.0	-16.37	123.92
110.00	2 45 42	2573.97	-33.37	65.36	103.31	82.10	3 28 36	1974.0	-34.10	56.20
110.00	21 38 15	3540.99	-6.92	126.87	92.78	56.44	22 37 16	2941.0	-11.28	120.50

DIFFERENTIAL CORRECTIONS

```
TDE  .8241 TRA -.2071 TC3 -.6581 BAU  .5066
RDE 1.2862 RRA  .3798 RC3-1.8017 FAU .05069
FDE 2.0751 FRA  .5933 FC3-2.2214 BSP  8033
BDE 1.5275 BRA  .4326 BC3 1.9181 FSP  -944
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1250.0 SGR 2371.1 SG3  296.9
RRT  .8537 RRF  .9916 RTF  .8694
SGB 2680.4 R23  .0631 R13  .9906
SG1 2614.6 SG2  590.4 THA  64.37
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ORBIT DETERMINATION ACCURACY

```
ST  1066.4 SR  1667.0 SS  1307.1
CRT  .9828 CRS-1.0000 CST -.9834
LSA 2365.1 MSA  175.2 SSA    6.8
EL1 1971.8 EL2  166.5 ALF  57.58
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 343.526

```
RL  150.76 LAL    .00 LOL 343.97 VL  27.256 GAL  -4.68 AZL  82.29 HCA 156.55 SMA 130.40 ECC .17571 INC 7.7061 V1  29.555
RP  107.49 LAP   3.06 LOP 140.70 VP  38.100 GAP   -.07 AZP  97.08 TAL 203.00 TAP 359.55 RCA 107.49 APO 153.31 V2  35.255
RC  84.985 GL   48.87 GP  -66.84 ZAL 111.68 ZAP  89.21 ETS 354.39 ZAE 110.08 ETE 255.08 ZAC  34.07 ETC 247.95 CLP -88.00
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PLANETOCENTRIC CONIC

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C3  23.390 VHL  4.836 DLA  31.57 RAL 233.61 RAD 6567.9 VEL 12.032 PTH   2.15 VHP  6.160 DPA -72.35 RAP 163.56 ECC 1.3849
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.43	19 55 55	3941.54	-20.73	163.69	105.61	65.64	21 1 37	3341.5	-23.84	156.14
104.57	23 44 54	3206.79	-20.71	109.35	105.61	65.63	24 38 21	2606.8	-23.83	101.80
75.43	19 55 55	3941.54	-20.73	163.69	105.61	65.64	21 1 37	3341.5	-23.84	156.14
104.57	23 44 54	3206.79	-20.71	109.35	105.61	65.63	24 38 21	2606.8	-23.83	101.80
110.00	2 4 32	2785.49	-30.28	81.05	109.57	73.31	2 50 57	2185.5	-32.26	72.40
110.00	22 39 24	3410.84	-11.74	119.88	100.57	57.66	23 36 15	2810.8	-15.93	113.28

DIFFERENTIAL CORRECTIONS

```
TDE 1.1854 TRA -.1259 TC3 -.7322 BAU  .5239
RDE 1.4808 RRA  .4973 RC3-1.5071 FAU .04170
FDE 2.0085 FRA  .6237 FC3-1.5433 BSP  8623
BDE 1.8968 BRA  .5130 BC3 1.6755 FSP  -818
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1582.5 SGR 2383.4 SG3  254.0
RRT  .8948 RRF  .9919 RTF  .9129
SGB 2860.9 R23  .0781 R13  .9905
SG1 2796.8 SG2  602.1 THA  57.60
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ORBIT DETERMINATION ACCURACY

```
ST  1405.5 SR  1767.0 SS  1274.3
CRT  .9880 CRS -.9999 CST -.9893
LSA 2586.3 MSA  179.8 SSA    5.8
EL1 2251.3 EL2  170.7 ALF  51.58
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 349.846

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RL  150.76 LAL    .00 LOL 343.97 VL  27.249 GAL  -4.60 AZL  80.90 HCA 159.75 SMA 130.35 ECC .17543 INC 9.1002 V1  29.555
RP  107.50 LAP   3.14 LOP 143.95 VP  38.093 GAP    .35 AZP  98.55 TAL 202.58 TAP   2.33 RCA 107.48 APO 153.22 V2  35.253
RC  87.241 GL   52.96 GP  -70.66 ZAL 108.92 ZAP  91.48 ETS 347.33 ZAE 105.90 ETE 249.02 ZAC  30.07 ETC 244.06 CLP -94.48
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PLANETOCENTRIC CONIC

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C3  28.968 VHL  5.382 DLA  35.01 RAL 236.51 RAD 6568.2 VEL 12.261 PTH   2.21 VHP  6.902 DPA -71.99 RAP 150.53 ECC 1.4767
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.49	19 23 34	4129.79	-21.14	178.44	113.03	61.41	20 32 23	3529.8	-24.79	171.12
111.51	0 44 18	3124.34	-21.12	103.21	113.03	61.40	1 36 22	2524.3	-24.77	95.89
68.49	19 23 34	4129.79	-21.14	178.44	113.03	61.41	20 32 23	3529.8	-24.79	171.12
111.51	0 44 18	3124.34	-21.12	103.21	113.03	61.40	1 36 22	2524.3	-24.77	95.89
68.49	19 23 34	4129.79	-21.14	178.44	113.03	61.41	20 32 23	3529.8	-24.79	171.12
111.51	0 44 18	3124.34	-21.12	103.21	113.03	61.40	1 36 22	2524.3	-24.77	95.89

DIFFERENTIAL CORRECTIONS

```
TDE 1.6877 TRA  .0039 TC3 -.7315 BAU  .5314
RDE 1.6559 RRA  .6406 RC3-1.1609 FAU .03258
FDE 1.9085 FRA  .6431 FC3 -.9737 BSP  9184
BDE 2.3644 BRA  .6406 BC3 1.3722 FSP  -685
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MID-COURSE EXECUTION ACCURACY

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SGT 1961.6 SGR 2315.7 SG3  210.3
RRT  .9148 RRF  .9912 RTF  .9382
SGB 3034.9 R23  .0926 R13  .9900
SG1 2971.4 SG2  617.6 THA  50.17
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ORBIT DETERMINATION ACCURACY

```
ST  1796.8 SR  1780.8 SS  1220.9
CRT  .9902 CRS -.9998 CST -.9926
LSA 2802.8 MSA  186.2 SSA    4.9
EL1 2523.6 EL2  177.1 ALF  44.74
```

LAUNCH DATE SEP 7 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 356.126

RL	150.76	LAL	.00	LOL	343.97	VL	27.238	GAL	-4.50	AZL	79.01	HCA	162.94	SMA	130.28	ECC	.17525	INC	10.9916
RP	107.51	LAP	3.21	LOP	147.20	VP	38.082	GAP	.75	AZP	100.52	TAL	202.07	TAP	5.02	RCA	107.44	APO	153.11
RC	89.506	GL	57.04	GP	-74.76	ZAL	105.97	ZAP	93.10	ETS	338.66	ZAE	101.38	ETE	241.71	ZAC	25.79	ETC	238.25

V1	29.555	V2	35.249	CLP	-101.89														

PLANETOCENTRIC CONIC

C3	38.071	VHL	6.170	DLA	38.36	RAL	239.83	RAD	6568.5	VEL	12.627	PTH	2.29	VHP	7.960	DPA	-70.97	RAP	137.40
ECC	1.6266																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.96	19 7 25	4285.55	-20.44	190.55	121.75	56.81	20 18 50	3685.5	-24.66	183.61
117.04	1 26 58	3106.24	-20.43	101.31	121.74	56.80	2 18 44	2506.2	-24.65	94.36
62.96	19 7 25	4285.55	-20.44	190.55	121.75	56.81	20 18 50	3685.5	-24.66	183.61
117.04	1 26 58	3106.24	-20.43	101.31	121.74	56.80	2 18 44	2506.2	-24.65	94.36
62.96	19 7 25	4285.55	-20.44	190.55	121.75	56.81	20 18 50	3685.5	-24.66	183.61
117.04	1 26 58	3106.24	-20.43	101.31	121.74	56.80	2 18 44	2506.2	-24.65	94.36

DIFFERENTIAL CORRECTIONS

TDE	2.4115	TRA	.2206	TC3	-.6559	BAU	.5227
RDE	1.7439	RRA	.8091	RC3	-.7903	FAU	.02379
FDE	1.7858	FRA	.6522	FC3	-.5410	BSP	9733
BDE	2.9760	BRA	.8386	BC3	1.0270	FSP	-555

MID-COURSE EXECUTION ACCURACY

SGT	2395.4	SGR	2119.3	SG3	168.3		
RRT	.9191	RRF	.9877	RTF	.9552		
SGB	3198.3	R23	.1068	R13	.9893		
SG1	3134.0	SG2	638.3	THA	41.20		

ORBIT DETERMINATION ACCURACY

ST	2240.8	SR	1644.9	SS	1151.7		
CRT	.9901	CRS	-.9993	CST	-.9946		
LSA	3002.5	MSA	195.4	SSA	4.1		
EL1	2773.5	EL2	186.6	ALF	36.20		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 362.356

RL	150.76	LAL	.00	LOL	343.97	VL	27.224	GAL	-4.38	AZL	76.28	HCA	166.11	SMA	130.18	ECC	.17515	INC	13.7176
RP	107.52	LAP	3.26	LOP	150.45	VP	38.069	GAP	1.13	AZP	103.33	TAL	201.48	TAP	7.58	RCA	107.38	APO	152.98
RC	91.778	GL	60.92	GP	-79.29	ZAL	102.88	ZAP	94.03	ETS	326.26	ZAE	96.36	ETE	230.94	ZAC	21.04	ETC	228.07

V1	29.555	V2	35.245	CLP	-112.22														

PLANETOCENTRIC CONIC

C3	54.251	VHL	7.366	DLA	41.39	RAL	243.61	RAD	6569.0	VEL	13.252	PTH	2.42	VHP	9.545	DPA	-69.07	RAP	124.50
ECC	1.8928																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.46	19 1 40	4433.13	-18.21	201.32	131.70	52.17	20 15 34	3833.1	-22.98	194.88
121.54	2 2 47	3136.28	-18.19	102.15	131.69	52.16	2 55 4	2536.3	-22.97	95.71
58.46	19 1 40	4433.13	-18.21	201.32	131.70	52.17	20 15 34	3833.1	-22.98	194.88
121.54	2 2 47	3136.28	-18.19	102.15	131.69	52.16	2 55 4	2536.3	-22.97	95.71
58.46	19 1 40	4433.13	-18.21	201.32	131.70	52.17	20 15 34	3833.1	-22.98	194.88
121.54	2 2 47	3136.28	-18.19	102.15	131.69	52.16	2 55 4	2536.3	-22.97	95.71

DIFFERENTIAL CORRECTIONS

TDE	3.5088	TRA	.6208	TC3	-.5114	BAU	.4818
RDE	1.5084	RRA	.9712	RC3	-.4239	FAU	.01553
FDE	1.6618	FRA	.6585	FC3	-.2477	BSP	10227
BDE	3.8193	BRA	1.1526	BC3	.6643	FSP	-433

MID-COURSE EXECUTION ACCURACY

SGT	2903.7	SGR	1667.5	SG3	130.2		
RRT	.8924	RRF	.9680	RTF	.9697		
SGB	3348.5	R23	.1203	R13	.9887		
SG1	3281.6	SG2	665.7	THA	28.41		

ORBIT DETERMINATION ACCURACY

ST	2736.4	SR	1211.8	SS	1079.4		
CRT	.9836	CRS	-.9955	CST	-.9963		
LSA	3174.5	MSA	208.6	SSA	3.3		
EL1	2985.9	EL2	200.4	ALF	23.65		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 368.513

RL	150.76	LAL	.00	LOL	343.97	VL	27.208	GAL	-4.25	AZL	72.00	HCA	169.22	SMA	130.06	ECC	.17510	INC	17.9953
RP	107.53	LAP	3.31	LOP	153.70	VP	38.052	GAP	1.48	AZP	107.70	TAL	200.77	TAP	9.99	RCA	107.29	APO	152.84
RC	94.056	GL	64.13	GP	-84.16	ZAL	99.74	ZAP	94.24	ETS	302.29	ZAE	90.49	ETE	208.73	ZAC	15.45	ETC	204.84

V1	29.555	V2	35.240	CLP	-136.63														

PLANETOCENTRIC CONIC

C3	86.783	VHL	9.316	DLA	43.66	RAL	247.77	RAD	6569.7	VEL	14.427	PTH	2.62	VHP	12.098	DPA	-65.89	RAP	112.20
ECC	2.4282																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.26	19 5 4	4580.25	-14.08	210.71	142.55	48.23	20 21 24	3980.2	-19.32	204.81
124.74	2 32 37	3211.61	-14.06	105.20	142.53	48.23	3 26 9	2611.6	-19.30	99.30
55.26	19 5 4	4580.25	-14.08	210.71	142.55	48.23	20 21 24	3980.2	-19.32	204.81
124.74	2 32 37	3211.61	-14.06	105.20	142.53	48.23	3 26 9	2611.6	-19.30	99.30
55.26	19 5 4	4580.25	-14.08	210.71	142.55	48.23	20 21 24	3980.2	-19.32	204.81
124.74	2 32 37	3211.61	-14.06	105.20	142.53	48.23	3 26 9	2611.6	-19.30	99.30

DIFFERENTIAL CORRECTIONS

TDE	5.0634	TRA	1.4551	TC3	-.3030	BAU	.3713
RDE	-.0343	RRA	.8390	RC3	-.1030	FAU	.00775
FDE	1.5728	FRA	.6786	FC3	-.0773	BSP	10692
BDE	5.0635	BRA	1.6797	BC3	.3200	FSP	-329

MID-COURSE EXECUTION ACCURACY

SGT	3398.1	SGR	738.9	SG3	98.1		
RRT	.3684	RRF	.4990	RTF	.9868		
SGB	3477.5	R23	.1292	R13	.9891		
SG1	3409.5	SG2	684.7	THA	4.77		

ORBIT DETERMINATION ACCURACY

ST	3136.3	SR	215.1	SS	1027.2		
CRT	.0204	CRS	-.0787	CST	-.9983		
LSA	3299.7	MSA	222.4	SSA	1.4		
EL1	3136.3	EL2	215.0	ALF	.08		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 374.535

RL	150.76	LAL	.00	LOL	343.97	VL	27.188	GAL	-4.08	AZL	64.39	HCA	172.23	SMA	129.93	ECC	.17500	INC	25.6082
RP	107.55	LAP	3.35	LOP	156.95	VP	38.033	GAP	1.80	AZP	115.40	TAL	199.90	TAP	12.14	RCA	107.19	APO	152.67
RC	96.339	GL	65.62	GP	-84.79	ZAL	96.68	ZAP	93.74	ETS	246.54	ZAE	82.92	ETE	154.75	ZAC	8.22	ETC	144.47

V1	29.555	V2	35.235	CLP	135.92														

PLANETOCENTRIC CONIC

C3	165.602	VHL	12.869	DLA	44.19	RAL	252.04	RAD	6570.8	VEL	16.939	PTH	2.92	VHP	16.711	DPA	-60.50	RAP	100.83
ECC	3.7254																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.54	19 19 15	4716.31	-8.25	217.51	153.48	46.43	20 37 51	4116.3	-13.71	211.97
125.46	2 52 30	3332.56	-8.24	110.63	153.46	46.43	3 48 3	2732.6	-13.70	105.10
54.54	19 19 15	4716.31	-8.25	217.51	153.48	46.43	20 37 51	4116.3	-13.71	211.97
125.46	2 52 30	3332.56	-8.24	110.63	153.46	46.43	3 48 3	2732.6	-13.70	105.10
54.54	19 19 15	4716.31	-8.25	217.51	153.48	46.43	20 37 51	4116.3	-13.71	211.97
125.46	2 52 30	3332.56	-8.24	110.63	153.46	46.43	3 48 3	2732.6	-13.70	105.10

DIFFERENTIAL CORRECTIONS

TDE	4.7841	TRA	2.4215	TC3	-.0395	BAU	.0879
RDE	-5.2398	RRA	-1.1526	RC3	-.0036	FAU	-.00091
FDE	1.6008	FRA	.7622	FC3	.0047	BSP	10920
BDE	7.0953	BRA	2.6819	BC3	.0397	FSP	-245

MID-COURSE EXECUTION ACCURACY

SGT	2609.3	SGR	2440.3	SG3	73.9		
RRT	-.9493	RRF	-.9586	RTF	.9982		
SGB	3572.6	R23	-.1133	R13	-.9924		
SG1	3527.2	SG2	567.5	THA	137.02		

ORBIT DETERMINATION ACCURACY

ST	2177.3	SR	2342.8	SS	1049.2		
CRT	-.9932	CRS	.9945	CST	-.9999		
LSA	3360.5	MSA	193.1	SSA	1.7		
EL1	3192.9	EL2	186.4	ALF	132.89		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 380.220

RL	150.76	LAL	.00	LOL	343.97	VL	27.167	GAL	-3.84	AZL	48.06	HCA	174.95	SMA	129.78	ECC	.17463	INC	41.9372	V1	29.555		
RP	107.57	LAP	3.37	LOP	160.20	VP	38.012	GAP	2.02	AZP	131.83	TAL	198.71	TAP	13.66	RCA	107.12	APO	152.44	V2	35.229		
RC	98.624	GL	62.35	GP	-74.26	ZAL	93.87	ZAP	92.65	ETS	201.60	ZAE	71.08	ETE	111.46	ZAC	4.10	ETC	322.59	CLP	99.80		

PLANETOCENTRIC CONIC

C3	418.210	VHL	20.450	DLA	40.13	RAL	255.48	RAD	6572.2	VEL	23.227	PTH	3.28	VHP	26.508	DPA	-50.27	RAP	90.75	ECC	7.8827		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.28	19 57 7	4771.93	-2.32	217.04	162.74	49.92	21 16 39	4171.9	-7.45	211.29
119.72	2 42 3	3520.26	-2.31	121.74	162.73	49.92	3 40 43	2920.3	-7.43	115.99
60.28	19 57 7	4771.93	-2.32	217.04	162.74	49.92	21 16 39	4171.9	-7.45	211.29
119.72	2 42 3	3520.26	-2.31	121.74	162.73	49.92	3 40 43	2920.3	-7.43	115.99
60.28	19 57 7	4771.93	-2.32	217.04	162.74	49.92	21 16 39	4171.9	-7.45	211.29
119.72	2 42 3	3520.26	-2.31	121.74	162.73	49.92	3 40 43	2920.3	-7.43	115.99

DIFFERENTIAL CORRECTIONS

TDE	.0490	TRA	1.6024	TC3	-.0175	BAU	.9646
RD	-10.6585	RRA	-4.6416	RC3	-.1716	FAU	-.01719
FDE	1.9281	FRA	1.0662	FC3	.0356	BSP	10710
BDE	10.6586	BRA	4.9104	BC3	.1725	FSP	-189

MID-COURSE EXECUTION ACCURACY

SGT	591.7	SGR	3507.7	SG3	59.0		
RRT	-.4768	RRF	-.9943	RTF	.5608		
SGB	3557.2	R23	-.0866	R13	-.9954		
SG1	3519.2	SG2	518.4	THA	94.70		

ORBIT DETERMINATION ACCURACY

ST	176.7	SR	3029.6	SS	1266.1		
CRT	-.2444	CRS	.9990	CST	-.2872		
LSA	3283.4	MSA	178.7	SSA	1.8		
EL1	3029.9	EL2	171.3	ALF	90.82		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 384.718

RL	150.76	LAL	.00	LOL	343.97	VL	27.143	GAL	-3.36	AZL	8.64	HCA	176.57	SMA	129.62	ECC	.17308	INC	81.3571	V1	29.555		
RP	107.59	LAP	3.39	LOP	163.45	VP	37.989	GAP	1.91	AZP	171.34	TAL	196.45	TAP	13.02	RCA	107.18	APO	152.05	V2	35.222		
RC	100.910	GL	46.40	GP	-51.71	ZAL	91.79	ZAP	91.37	ETS	187.20	ZAE	48.32	ETE	98.73	ZAC	26.14	ETC	283.67	CLP	92.20		

PLANETOCENTRIC CONIC

C3	1368.177	VHL	36.989	DLA	23.86	RAL	256.06	RAD	6573.1	VEL	38.594	PTH	3.55	VHP	47.843	DPA	-28.43	RAP	82.93	ECC	23.5167		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 42 50	3754.78	-13.82	146.61	173.74	65.04	2 45 25	3154.8	-17.07	139.45
90.00	21 1 1	4679.93	14.87	199.43	160.76	65.62	22 19 1	4079.9	11.46	192.41
100.00	3 23 36	3429.90	-16.39	123.96	174.99	64.65	4 20 46	2829.9	-19.67	116.71
100.00	22 2 56	4480.04	17.46	183.51	159.53	65.34	23 17 36	3880.0	13.99	176.44
110.00	5 10 24	3095.76	-22.39	101.68	178.08	63.47	6 2 0	2495.8	-25.77	94.15
110.00	22 32 37	4386.95	23.50	173.44	156.51	64.43	23 45 44	3786.9	19.86	166.18

DIFFERENTIAL CORRECTIONS

TDE	-4.8182	TRA	.5006	TC3	-.0802	BAU	4.1339
RD	-12.6204	RRA	-8.8796	RC3	-.2113	FAU	-.07094
FDE	2.5541	FRA	2.0066	FC3	.0449	BSP	8409
BDE	13.5089	BRA	8.8937	BC3	.2260	FSP	-154

MID-COURSE EXECUTION ACCURACY

SGT	957.2	SGR	2920.1	SG3	53.4		
RRT	.8082	RRF	-.9990	RTF	-.7831		
SGB	3073.0	R23	-.0904	R13	-.9957		
SG1	3024.4	SG2	544.3	THA	74.65		

ORBIT DETERMINATION ACCURACY

ST	747.0	SR	2006.8	SS	1689.3		
CRT	.9662	CRS	.9997	CST	.9593		
LSA	2720.5	MSA	195.8	SSA	1.4		
EL1	2133.7	EL2	181.2	ALF	70.07		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 395.769

RL	150.76	LAL	.00	LOL	343.97	VL	27.117	GAL	-4.16	AZL	141.23	HCA	184.36	SMA	129.44	ECC	.17959	INC	51.2334	V1	29.555		
RP	107.61	LAP	3.39	LOP	166.70	VP	37.963	GAP	3.59	AZP	38.85	TAL	199.67	TAP	24.03	RCA	106.19	APO	152.68	V2	35.215		
RC	103.196	GL	-58.92	GP	68.42	ZAL	93.56	ZAP	94.05	ETS	178.94	ZAE	72.42	ETE	266.16	ZAC	145.56	ETC	280.93	CLP	101.07		

PLANETOCENTRIC CONIC

C3	606.214	VHL	24.621	DLA	-77.13	RAL	205.36	RAD	6572.6	VEL	26.972	PTH	3.39	VHP	31.740	DPA	85.30	RAP	326.08	ECC	10.9767		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.65	2 28 48	2426.72	1.49	81.91	115.01	167.13	3 9 15	1826.7	9.28	80.52
165.35	13 30 30	637.99	1.49	283.52	115.03	167.13	13 41 8	38.0	9.29	282.14
14.65	2 28 48	2426.72	1.49	81.91	115.01	167.13	3 9 15	1826.7	9.28	80.52
165.35	13 30 30	637.99	1.49	283.52	115.03	167.13	13 41 8	38.0	9.29	282.14
14.65	2 28 48	2426.72	1.49	81.91	115.01	167.13	3 9 15	1826.7	9.28	80.52
165.35	13 30 30	637.99	1.49	283.52	115.03	167.13	13 41 8	38.0	9.29	282.14

DIFFERENTIAL CORRECTIONS

TDE	3.7268	TRA	.8787	TC3	-.0826	BAU	1.8127
RD	-12.7241	RRA	-1.2222	RC3	.2079	FAU	-.02663
FDE	-2.6972	FRA	-.2377	FC3	.0380	BSP	11197
BDE	13.2587	BRA	1.5053	BC3	.2237	FSP	-190

MID-COURSE EXECUTION ACCURACY

SGT	1326.8	SGR	3383.2	SG3	60.5		
RRT	-.9260	RRF	.9989	RTF	-.9130		
SGB	3634.0	R23	-.0800	R13	.9962		
SG1	3603.5	SG2	470.3	THA	110.32		

ORBIT DETERMINATION ACCURACY

ST	910.0	SR	2985.8	SS	1733.4		
CRT	-.9840	CRS	-.9999	CST	.9821		
LSA	3566.9	MSA	159.8	SSA	1.8		
EL1	3117.6	EL2	155.1	ALF	106.74		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 401.182

RL	150.76	LAL	.00	LOL	343.97	VL	27.089	GAL	-3.85	AZL	119.63	HCA	186.87	SMA	129.25	ECC	.17910	INC	29.6291	V1	29.555		
RP	107.64	LAP	3.39	LOP	169.94	VP	37.936	GAP	3.73	AZP	60.55	TAL	198.17	TAP	25.04	RCA	106.10	APO	152.40	V2	35.207		
RC	105.482	GL	-65.06	GP	80.09	ZAL	95.38	ZAP	97.01	ETS	152.30	ZAE	86.84	ETE	239.31	ZAC	158.14	ETC	267.95	CLP	135.12		

PLANETOCENTRIC CONIC

C3	217.155	VHL	14.736	DLA	-78.18	RAL	173.83	RAD	6571.2	VEL	18.398	PTH	3.04	VHP	19.017	DPA	73.70	RAP	261.40	ECC	4.5738		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.45	0 20 39	2319.87	8.74	81.45	81.97	168.04	0 59 18	1719.9	16.56	80.14
166.55	11 27 7	5815.43	8.74	259.79	81.99	168.04	13 4 2	5215.4	16.56	258.48
13.45	0 20 39	2319.87	8.74	81.45	81.97	168.04	0 59 18	1719.9	16.56	80.14
166.55	11 27 7	5815.43	8.74	259.79	81.99	168.04	13 4 2	5215.4	16.56	258.48
13.45	0 20 39	2319.87	8.74	81.45	81.97	168.04	0 59 18	1719.9	16.56	80.14
166.55	11 27 7	5815.43	8.74	259.79	81.99	168.04	13 4 2	5215.4	16.56	258.48

DIFFERENTIAL CORRECTIONS

TDE	-1.6353	TRA	-.1152	TC3	-.0061	BAU	.2185
RDE	-5.0028	RRA	-1.7755	RC3	.0750	FAU	-.00064
FDE	-1.3169	FRA	-.3769	FC3	.0025	BSP	12308
BDE	5.2632	BRA	1.7793	BC3	.0753	FSP	-244

MID-COURSE EXECUTION ACCURACY

SGT	672.6	SGR	3897.7	SG3	76.0		
RRT	.7513	RRF	.9941	RTF	.8142		
SGB	3955.3	R23	-.0874	R13	.9955		
SG1	3930.8	SG2	440.2	THA	82.52		

ORBIT DETERMINATION ACCURACY

ST	639.2	SR	2192.2	SS	912.2		
CRT	.9299	CRS	-.9966	CST	-.9570		
LSA	2448.1	MSA	231.5	SSA	1.5		
EL1	2272.2	EL2	226.8	ALF	74.67		

LAUNCH DATE SEP 7 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 407.036
RL 150.76 LAL .00 LOL 343.97 VL 27.060 GAL -3.62 AZL 110.19 HCA 189.81 SMA 129.05 ECC .17935 INC20.1883 V1 29.555
RP 107.66 LAP 3.37 LOP 173.18 VP 37.907 GAP 3.99 AZP 70.08 TAL 196.99 TAP 26.80 RCA 105.91 APO 152.20 V2 35.198
RC 107.765 GL -64.76 GP 79.25 ZAL 97.08 ZAP 100.68 ETS 77.95 ZAE 95.32 ETE 165.16 ZAC 162.89 ETC 214.98 CLP-173.88
PLANETOCENTRIC CONIC
C3 106.158 VHL 10.303 DLA -76.50 RAL 172.30 RAD 6570.0 VEL 15.083 PTH 2.71 VHP 13.364 DPA 64.84 RAP 252.26 ECC 2.7471

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.37	0 18 22	2188.73	17.14	78.64	78.04	165.86	0 54 50	1588.7	24.89	76.91
164.63	11 17 13	5690.43	17.15	258.87	78.07	165.86	12 52 3	5090.4	24.89	257.14
15.37	0 18 22	2188.73	17.14	78.64	78.04	165.86	0 54 50	1588.7	24.89	76.91
164.63	11 17 13	5690.43	17.15	258.87	78.07	165.86	12 52 3	5090.4	24.89	257.14
15.37	0 18 22	2188.73	17.14	78.64	78.04	165.86	0 54 50	1588.7	24.89	76.91
164.63	11 17 13	5690.43	17.15	258.87	78.07	165.86	12 52 3	5090.4	24.89	257.14

DIFFERENTIAL CORRECTIONS
TDE-3.4085 TRA-1.4860 TC3 -.2060 BAU .2925
RDE .6577 RRA -.2120 RC3 -.0047 FAU .01135
FDE-1.1629 FRA -.3971 FC3 -.0926 BSP 12660
BDE 3.4714 BRA 1.5010 BC3 .2061 FSP -322

MID-COURSE EXECUTION ACCURACY
SGT 4038.8 SGR 623.8 SG3 100.4
RRT .4366 RRF .3359 RTF .9925
SGB 4086.7 R23 -.1178 R13 .9914
SG1 4048.2 SG2 559.9 THA 3.93

ORBIT DETERMINATION ACCURACY
ST 2172.9 SR 395.9 SS 815.4
CRT -.6187 CRS .6920 CST -.9953
LSA 2333.2 MSA 315.1 SSA 2.1
EL1 2186.9 EL2 309.0 ALF 173.44

LAUNCH DATE SEP 7 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 413.019
RL 150.76 LAL .00 LOL 343.97 VL 27.029 GAL -3.41 AZL 105.15 HCA 192.89 SMA 128.84 ECC .17990 INC15.1494 V1 29.555
RP 107.69 LAP 3.34 LOP 176.43 VP 37.877 GAP 4.28 AZP 75.22 TAL 195.89 TAP 28.78 RCA 105.66 APO 152.02 V2 35.189
RC 110.046 GL -62.33 GP 73.70 ZAL 98.44 ZAP 104.76 ETS 55.99 ZAE 101.47 ETE 143.95 ZAC 162.99 ETC 215.74 CLP-155.14
PLANETOCENTRIC CONIC
C3 63.393 VHL 7.962 DLA -74.76 RAL 179.77 RAD 6569.2 VEL 13.592 PTH 2.48 VHP 10.433 DPA 57.74 RAP 247.30 ECC 2.0433

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.37	0 52 11	2068.23	24.64	75.20	82.58	163.19	1 26 39	1468.2	32.27	72.89
162.63	11 43 0	5577.25	24.64	257.42	82.61	163.19	13 15 58	4977.3	32.28	255.11
17.37	0 52 11	2068.23	24.64	75.20	82.58	163.19	1 26 39	1468.2	32.27	72.89
162.63	11 43 0	5577.25	24.64	257.42	82.61	163.19	13 15 58	4977.3	32.28	255.11
17.37	0 52 11	2068.23	24.64	75.20	82.58	163.19	1 26 39	1468.2	32.27	72.89
162.63	11 43 0	5577.25	24.64	257.42	82.61	163.19	13 15 58	4977.3	32.28	255.11

DIFFERENTIAL CORRECTIONS
TDE-2.7543 TRA-1.1972 TC3 -.5587 BAU .4945
RDE 1.5693 RRA .2475 RC3 .1683 FAU .02032
FDE-1.3584 FRA -.3857 FC3 -.2775 BSP 12748
BDE 3.1700 BRA 1.2225 BC3 .5835 FSP -413

MID-COURSE EXECUTION ACCURACY
SGT 3932.6 SGR 1344.0 SG3 130.1
RRT -.8889 RRF -.9579 RTF .9785
SGB 4156.0 R23 .1487 R13 -.9860
SG1 4114.1 SG2 588.6 THA 162.74

ORBIT DETERMINATION ACCURACY
ST 2212.8 SR 1147.5 SS 926.4
CRT -.9604 CRS .9908 CST -.9892
LSA 2642.7 MSA 296.0 SSA 2.9
EL1 2476.2 EL2 285.8 ALF 153.14

LAUNCH DATE SEP 7 1970 FLIGHT TIME 146.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 419.043
RL 150.76 LAL .00 LOL 343.97 VL 26.997 GAL -3.20 AZL 102.05 HCA 196.03 SMA 128.63 ECC .18063 INC12.0453 V1 29.555
RP 107.72 LAP 3.30 LOP 179.66 VP 37.845 GAP 4.58 AZP 78.41 TAL 194.80 TAP 30.83 RCA 105.39 APO 151.86 V2 35.179
RC 112.324 GL -59.12 GP 67.79 ZAL 99.38 ZAP 109.03 ETS 50.73 ZAE 106.37 ETE 140.01 ZAC 160.40 ETC 227.18 CLP-149.59
PLANETOCENTRIC CONIC
C3 42.961 VHL 6.554 DLA -72.85 RAL 189.06 RAD 6568.6 VEL 12.819 PTH 2.33 VHP 8.727 DPA 51.47 RAP 243.96 ECC 1.7070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.57	1 33 44	1967.26	30.57	71.17	88.54	159.98	2 6 31	1367.3	38.04	68.12
160.43	12 15 31	5485.54	30.58	255.61	88.57	159.97	13 46 57	4885.5	38.05	252.55
19.57	1 33 44	1967.26	30.57	71.17	88.54	159.98	2 6 31	1367.3	38.04	68.12
160.43	12 15 31	5485.54	30.58	255.61	88.57	159.97	13 46 57	4885.5	38.05	252.55
19.57	1 33 44	1967.26	30.57	71.17	88.54	159.98	2 6 31	1367.3	38.04	68.12
160.43	12 15 31	5485.54	30.58	255.61	88.57	159.97	13 46 57	4885.5	38.05	252.55

DIFFERENTIAL CORRECTIONS
TDE-2.6605 TRA -.9915 TC3-1.0016 BAU .6127
RDE 1.5759 RRA .2517 RC3 .3674 FAU .02907
FDE-1.6060 FRA -.3652 FC3 -.5858 BSP 13526
BDE 3.0922 BRA 1.0230 BC3 1.0668 FSP -548

MID-COURSE EXECUTION ACCURACY
SGT 3971.8 SGR 1639.1 SG3 166.9
RRT -.9263 RRF -.9826 RTF .9717
SGB 4296.7 R23 .1676 R13 -.9819
SG1 4257.9 SG2 576.2 THA 158.67

ORBIT DETERMINATION ACCURACY
ST 2487.6 SR 1395.7 SS 1086.7
CRT -.9798 CRS .9978 CST -.9909
LSA 3041.3 MSA 259.9 SSA 3.6
EL1 2841.9 EL2 244.4 ALF 150.97

LAUNCH DATE SEP 7 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 425.082
RL 150.76 LAL .00 LOL 343.97 VL 26.964 GAL -2.99 AZL 99.94 HCA 199.20 SMA 128.40 ECC .18149 INC 9.9413 V1 29.555
RP 107.75 LAP 3.26 LOP 182.90 VP 37.812 GAP 4.89 AZP 80.60 TAL 193.69 TAP 32.89 RCA 105.10 APO 151.71 V2 35.169
RC 114.599 GL -55.63 GP 62.17 ZAL 99.88 ZAP 113.34 ETS 48.97 ZAE 110.41 ETE 140.06 ZAC 156.69 ETC 235.86 CLP-148.07
PLANETOCENTRIC CONIC
C3 31.717 VHL 5.632 DLA -70.75 RAL 198.08 RAD 6568.3 VEL 12.373 PTH 2.23 VHP 7.662 DPA 45.71 RAP 241.62 ECC 1.5220

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.00	2 14 49	1884.80	34.96	66.60	93.93	156.28	2 46 14	1284.8	42.21	62.68
158.00	12 46 24	5414.82	34.97	253.54	93.95	156.27	14 16 39	4814.8	42.22	249.62
22.00	2 14 49	1884.80	34.96	66.60	93.93	156.28	2 46 14	1284.8	42.21	62.68
158.00	12 46 24	5414.82	34.97	253.54	93.95	156.27	14 16 39	4814.8	42.22	249.62
22.00	2 14 49	1884.80	34.96	66.60	93.93	156.28	2 46 14	1284.8	42.21	62.68
158.00	12 46 24	5414.82	34.97	253.54	93.95	156.27	14 16 39	4814.8	42.22	249.62

DIFFERENTIAL CORRECTIONS
TDE-2.6062 TRA -.8172 TC3-1.5005 BAU .6755
RDE 1.4197 RRA .1792 RC3 .5352 FAU .03629
FDE-1.7768 FRA -.3042 FC3 -.9905 BSP 13662
BDE 2.9678 BRA .8366 BC3 1.5931 FSP -654

MID-COURSE EXECUTION ACCURACY
SGT 4030.5 SGR 1659.9 SG3 200.7
RRT -.9331 RRF -.9864 RTF .9664
SGB 4358.9 R23 .1865 R13 -.9770
SG1 4323.2 SG2 556.5 THA 158.61

ORBIT DETERMINATION ACCURACY
ST 2757.7 SR 1454.0 SS 1211.3
CRT -.9866 CRS .9992 CST -.9924
LSA 3336.5 MSA 232.3 SSA 4.5
EL1 3110.5 EL2 210.0 ALF 152.38

LAUNCH DATE SEP 7 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 431.119

RL 150.76 LAL .00 LOL 343.97 VL 26.930 GAL -2.76 AZL 98.42 HCA 202.39 SMA 128.18 ECC .18247 INC 8.4165 V1 29.555
RP 107.79 LAP 3.20 LOP 186.14 VP 37.777 GAP 5.20 AZP 82.21 TAL 192.56 TAP 34.95 RCA 104.79 APO 151.56 V2 35.158
RC 116.871 GL -52.09 GP 56.96 ZAL 99.93 ZAP 117.58 ETS 48.25 ZAE 113.75 ETE 141.52 ZAC 152.69 ETC 241.68 CLP-148.10

PLANETOCENTRIC CONIC

C3 24.903 VHL 4.990 DLA -68.49 RAL 206.29 RAD 6568.0 VEL 12.095 PTH 2.16 VHP 6.970 DPA 40.38 RAP 240.00 ECC 1.4098

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.61	2 53 14	1817.31	38.04	61.65	98.33	152.26	3 23 31	1217.3	45.01	56.81
155.39	13 13 33	5361.75	38.04	251.35	98.35	152.25	14 42 55	4761.8	45.01	246.51
24.61	2 53 14	1817.31	38.04	61.65	98.33	152.26	3 23 31	1217.3	45.01	56.81
155.39	13 13 33	5361.75	38.04	251.35	98.35	152.25	14 42 55	4761.8	45.01	246.51
24.61	2 53 14	1817.31	38.04	61.65	98.33	152.26	3 23 31	1217.3	45.01	56.81
155.39	13 13 33	5361.75	38.04	251.35	98.35	152.25	14 42 55	4761.8	45.01	246.51

DIFFERENTIAL CORRECTIONS
TDE-2.5310 TRA -.6692 TC3-2.0572 BAU .7205
RDE 1.2319 RRA .1069 RC3 .6723 FAU .04245
FDE-1.8592 FRA -.2202 FC3-1.4757 BSP 13861
BDE 2.8149 BRA .6777 BC3 2.1642 FSP -753

MID-COURSE EXECUTION ACCURACY
SGT 4129.4 SGR 1600.9 SG3 231.9
RRT -.9363 RRF -.9866 RTF .9631
SGB 4428.8 R23 .1987 R13 -.9728
SG1 4397.2 SG2 528.0 THA 159.74

ORBIT DETERMINATION ACCURACY
ST 2973.8 SR 1418.1 SS 1291.9
CRT -.9899 CRS .9996 CST -.9932
LSA 3532.5 MSA 211.6 SSA 5.4
EL1 3289.6 EL2 181.8 ALF 154.65

LAUNCH DATE SEP 7 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 437.149

RL 150.76 LAL .00 LOL 343.97 VL 26.895 GAL -2.54 AZL 97.26 HCA 205.58 SMA 127.94 ECC .18357 INC 7.2558 V1 29.555
RP 107.82 LAP 3.13 LOP 189.37 VP 37.742 GAP 5.50 AZP 83.45 TAL 191.41 TAP 36.99 RCA 104.46 APO 151.43 V2 35.147
RC 119.138 GL -48.57 GP 52.19 ZAL 99.56 ZAP 121.64 ETS 47.86 ZAE 116.48 ETE 143.57 ZAC 148.78 ETC 245.63 CLP-148.82

PLANETOCENTRIC CONIC

C3 20.482 VHL 4.526 DLA -66.14 RAL 213.69 RAD 6567.8 VEL 11.911 PTH 2.12 VHP 6.514 DPA 35.46 RAP 238.96 ECC 1.3371

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.35	3 28 48	1761.23	40.04	56.50	101.86	148.11	3 58 10	1161.2	46.68	50.76
152.65	13 36 58	5322.94	40.05	249.18	101.88	148.11	15 5 41	4722.9	46.69	243.44
27.35	3 28 48	1761.23	40.04	56.50	101.86	148.11	3 58 10	1161.2	46.68	50.76
152.65	13 36 58	5322.94	40.05	249.18	101.88	148.11	15 5 41	4722.9	46.69	243.44
27.35	3 28 48	1761.23	40.04	56.50	101.86	148.11	3 58 10	1161.2	46.68	50.76
152.65	13 36 58	5322.94	40.05	249.18	101.88	148.11	15 5 41	4722.9	46.69	243.44

DIFFERENTIAL CORRECTIONS
TDE-2.4313 TRA -.5339 TC3-2.6522 BAU .7565
RDE 1.0508 RRA .0457 RC3 .7736 FAU .04735
FDE-1.8577 FRA -.1189 FC3-2.0014 BSP 14127
BDE 2.6486 BRA .5359 BC3 2.7628 FSP -840

MID-COURSE EXECUTION ACCURACY
SGT 4246.2 SGR 1510.2 SG3 258.5
RRT -.9380 RRF -.9850 RTF .9611
SGB 4506.8 R23 .2048 R13 -.9694
SG1 4479.4 SG2 496.3 THA 161.31

ORBIT DETERMINATION ACCURACY
ST 3119.4 SR 1331.2 SS 1325.6
CRT -.9916 CRS .9999 CST -.9935
LSA 3636.1 MSA 196.2 SSA 6.4
EL1 3387.9 EL2 158.2 ALF 157.01

LAUNCH DATE SEP 7 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 443.166

RL 150.76 LAL .00 LOL 343.97 VL 26.859 GAL -2.30 AZL 96.34 HCA 208.78 SMA 127.70 ECC .18479 INC 6.3382 V1 29.555
RP 107.86 LAP 3.05 LOP 192.60 VP 37.706 GAP 5.81 AZP 84.44 TAL 190.23 TAP 39.01 RCA 104.11 APO 151.30 V2 35.136
RC 121.402 GL -45.14 GP 47.86 ZAL 98.78 ZAP 125.47 ETS 47.59 ZAE 118.68 ETE 145.87 ZAC 145.12 ETC 248.44 CLP-149.87

PLANETOCENTRIC CONIC

C3 17.472 VHL 4.180 DLA -63.75 RAL 220.38 RAD 6567.7 VEL 11.784 PTH 2.08 VHP 6.215 DPA 30.94 RAP 238.36 ECC 1.2875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.16	4 1 59	1713.67	41.19	51.31	104.79	144.00	4 30 33	1113.7	47.47	44.78
149.84	13 57 10	5295.62	41.20	247.16	104.81	143.99	15 25 25	4695.6	47.48	240.63
30.16	4 1 59	1713.67	41.19	51.31	104.79	144.00	4 30 33	1113.7	47.47	44.78
149.84	13 57 10	5295.62	41.20	247.16	104.81	143.99	15 25 25	4695.6	47.48	240.63
30.16	4 1 59	1713.67	41.19	51.31	104.79	144.00	4 30 33	1113.7	47.47	44.78
149.84	13 57 10	5295.62	41.20	247.16	104.81	143.99	15 25 25	4695.6	47.48	240.63

DIFFERENTIAL CORRECTIONS
TDE-2.3147 TRA -.4033 TC3-3.2645 BAU .7873
RDE .8907 RRA -.0044 RC3 .8388 FAU .05091
FDE-1.7885 FRA -.0057 FC3-2.5225 BSP 14404
BDE 2.4801 BRA .4033 BC3 3.3705 FSP -909

MID-COURSE EXECUTION ACCURACY
SGT 4367.6 SGR 1408.0 SG3 279.4
RRT -.9383 RRF -.9821 RTF .9597
SGB 4588.9 R23 .2057 R13 -.9666
SG1 4565.2 SG2 465.7 THA 162.99

ORBIT DETERMINATION ACCURACY
ST 3195.9 SR 1221.1 SS 1316.9
CRT -.9927 CRS .9999 CST -.9933
LSA 3661.3 MSA 184.6 SSA 7.5
EL1 3418.4 EL2 138.0 ALF 159.19

LAUNCH DATE SEP 7 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 449.170

RL 150.76 LAL .00 LOL 343.97 VL 26.822 GAL -2.05 AZL 95.59 HCA 211.98 SMA 127.46 ECC .18612 INC 5.5907 V1 29.555
RP 107.89 LAP 2.96 LOP 195.83 VP 37.669 GAP 6.11 AZP 85.25 TAL 189.02 TAP 41.00 RCA 103.74 APO 151.18 V2 35.124
RC 123.660 GL -41.80 GP 43.97 ZAL 97.63 ZAP 129.05 ETS 47.35 ZAE 120.43 ETE 148.22 ZAC 141.77 ETC 250.51 CLP-151.08

PLANETOCENTRIC CONIC

C3 15.352 VHL 3.918 DLA -61.33 RAL 226.50 RAD 6567.6 VEL 11.693 PTH 2.06 VHP 6.025 DPA 26.81 RAP 238.15 ECC 1.2526

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.03	4 33 18	1672.43	41.67	46.21	107.37	140.04	5 1 11	1072.4	47.56	39.02
146.97	14 14 43	5277.76	41.68	245.41	107.38	140.03	15 42 40	4677.8	47.57	238.21
33.03	4 33 18	1672.43	41.67	46.21	107.37	140.04	5 1 11	1072.4	47.56	39.02
146.97	14 14 43	5277.76	41.68	245.41	107.38	140.03	15 42 40	4677.8	47.57	238.21
33.03	4 33 18	1672.43	41.67	46.21	107.37	140.04	5 1 11	1072.4	47.56	39.02
146.97	14 14 43	5277.76	41.68	245.41	107.38	140.03	15 42 40	4677.8	47.57	238.21

DIFFERENTIAL CORRECTIONS
TDE-2.1878 TRA -.2738 TC3-3.8727 BAU .8147
RDE .7553 RRA -.0441 RC3 .8709 FAU .05317
FDE-1.6709 FRA .1121 FC3-2.9986 BSP 14694
BDE 2.3145 BRA .2773 BC3 3.9694 FSP -961

MID-COURSE EXECUTION ACCURACY
SGT 4487.9 SGR 1305.3 SG3 294.4
RRT -.9376 RRF -.9778 RTF .9589
SGB 4673.8 R23 .2013 R13 -.9645
SG1 4653.3 SG2 437.7 THA 164.61

ORBIT DETERMINATION ACCURACY
ST 3210.3 SR 1105.4 SS 1273.6
CRT -.9934 CRS .9999 CST -.9928
LSA 3622.0 MSA 175.6 SSA 8.8
EL1 3393.1 EL2 120.0 ALF 161.09

LAUNCH DATE SEP 7 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 455.158

```
RL  150.76 LAL    .00 LOL 343.97 VL  26.785 GAL  -1.79 AZL  94.97 HCA 215.19 SMA 127.22 ECC .18756 INC 4.9665 V1  29.555
RP  107.93 LAP   2.86 LOP 199.05 VP  37.631 GAP   6.41 AZP  85.94 TAL 187.79 TAP  42.97 RCA 103.36 APO 151.08 V2  35.112
RC 125.912 GL  -38.56 GP   40.48 ZAL  96.14 ZAP 132.36 ETS  47.13 ZAE 121.79 ETE 150.51 ZAC 138.76 ETC 252.10 CLP-152.36
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PLANETOCENTRIC CONIC

```
C3  13.828 VHL  3.719 DLA -58.90 RAL 232.18 RAD 6567.5 VEL 11.628 PTH   2.04 VHP  5.913 DPA  23.04 RAP 238.26 ECC 1.2276
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.92	5 3 14	1635.84	41.60	41.27	109.78	136.31	5 30 30	1035.8	47.12	33.57
144.08	14 30 3	5267.91	41.61	244.02	109.79	136.30	15 57 51	4667.9	47.13	236.31
35.92	5 3 14	1635.84	41.60	41.27	109.78	136.31	5 30 30	1035.8	47.12	33.57
144.08	14 30 3	5267.91	41.61	244.02	109.79	136.30	15 57 51	4667.9	47.13	236.31
35.92	5 3 14	1635.84	41.60	41.27	109.78	136.31	5 30 30	1035.8	47.12	33.57
144.08	14 30 3	5267.91	41.61	244.02	109.79	136.30	15 57 51	4667.9	47.13	236.31

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0544 TRA -.1419 TC3-4.4597 BAU  .8402   SGT 4604.4 SGR 1207.7 SG3  303.9    ST  3169.6 SR   993.7 SS  1203.0
RDE  .6433 RRA -.0763 RC3  .8758 FAU .05432   RRT -.9354 RRF -.9719 RTF  .9582    CRT -.9940 CRS  .9997 CST -.9918
FDE-1.5215 FRA  .2316 FC3-3.4008 BSP  14980   SGB 4760.1 R23  .1931 R13 -.9626    LSA 3528.8 MSA  169.0 SSA   10.1
BDE 2.1528 BRA  .1612 BC3 4.5449 FSP   -994   SG1 4742.0 SG2  414.6 THA 166.11    EL1 3320.1 EL2  103.7 ALF 162.67
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 461.129

```
RL  150.76 LAL    .00 LOL 343.97 VL  26.747 GAL  -1.52 AZL  94.43 HCA 218.39 SMA 126.97 ECC .18914 INC 4.4346 V1  29.555
RP  107.97 LAP   2.75 LOP 202.27 VP  37.592 GAP   6.72 AZP  86.52 TAL 186.53 TAP  44.92 RCA 102.96 APO 150.99 V2  35.099
RC 128.158 GL  -35.42 GP   37.37 ZAL  94.34 ZAP 135.41 ETS  46.94 ZAE 122.84 ETE 152.68 ZAC 136.08 ETC 253.37 CLP-153.66
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PLANETOCENTRIC CONIC

```
C3  12.724 VHL  3.567 DLA -56.48 RAL 237.48 RAD 6567.5 VEL 11.581 PTH   2.03 VHP  5.859 DPA  19.61 RAP 238.63 ECC 1.2094
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.85	5 32 10	1602.52	41.11	36.52	112.15	132.86	5 58 52	1002.5	46.26	28.46
141.15	14 43 27	5265.16	41.12	243.03	112.16	132.85	16 11 12	4665.2	46.27	234.96
38.85	5 32 10	1602.52	41.11	36.52	112.15	132.86	5 58 52	1002.5	46.26	28.46
141.15	14 43 27	5265.16	41.12	243.03	112.16	132.85	16 11 12	4665.2	46.27	234.96
38.85	5 32 10	1602.52	41.11	36.52	112.15	132.86	5 58 52	1002.5	46.26	28.46
141.15	14 43 27	5265.16	41.12	243.03	112.16	132.85	16 11 12	4665.2	46.27	234.96

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9183 TRA -.0078 TC3-5.0078 BAU  .8643   SGT 4717.9 SGR 1118.9 SG3  308.8    ST  3083.2 SR   892.6 SS  1114.6
RDE  .5528 RRA -.1018 RC3  .8594 FAU .05453   RRT -.9320 RRF -.9644 RTF  .9577    CRT -.9947 CRS  .9991 CST -.9902
FDE-1.3569 FRA  .3468 FC3-3.7103 BSP  15297   SGB 4848.8 R23  .1806 R13 -.9612    LSA 3393.8 MSA  164.1 SSA   11.7
BDE 1.9964 BRA  .1021 BC3 5.0810 FSP  -1016   SG1 4832.6 SG2  396.1 THA 167.45    EL1 3208.6 EL2   88.0 ALF 163.92
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 467.083

```
RL  150.76 LAL    .00 LOL 343.97 VL  26.709 GAL  -1.23 AZL  93.97 HCA 221.59 SMA 126.72 ECC .19085 INC 3.9731 V1  29.555
RP  108.01 LAP   2.64 LOP 205.49 VP  37.553 GAP   7.02 AZP  87.03 TAL 185.25 TAP  46.84 RCA 102.54 APO 150.91 V2  35.086
RC 130.397 GL  -32.39 GP   34.60 ZAL  92.28 ZAP 138.22 ETS  46.78 ZAE 123.64 ETE 154.70 ZAC 133.70 ETC 254.42 CLP-154.96
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PLANETOCENTRIC CONIC

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C3  11.931 VHL  3.454 DLA -54.06 RAL 242.48 RAD 6567.5 VEL 11.546 PTH   2.02 VHP  5.848 DPA  16.49 RAP 239.24 ECC 1.1963
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.82	6 0 24	1571.45	40.28	31.98	114.55	129.69	6 26 36	971.5	45.08	23.67
138.18	14 55 6	5268.91	40.29	242.51	114.56	129.68	16 22 55	4668.9	45.09	234.20
41.82	6 0 24	1571.45	40.28	31.98	114.55	129.69	6 26 36	971.5	45.08	23.67
138.18	14 55 6	5268.91	40.29	242.51	114.56	129.68	16 22 55	4668.9	45.09	234.20
41.82	6 0 24	1571.45	40.28	31.98	114.55	129.69	6 26 36	971.5	45.08	23.67
138.18	14 55 6	5268.91	40.29	242.51	114.56	129.68	16 22 55	4668.9	45.09	234.20

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7794 TRA  .1307 TC3-5.5020 BAU  .8875   SGT 4826.6 SGR 1039.6 SG3  309.9    ST  2956.0 SR   803.1 SS  1013.8
RDE  .4800 RRA -.1226 RC3  .8276 FAU .05401   RRT -.9270 RRF -.9550 RTF  .9574    CRT -.9956 CRS  .9977 CST -.9878
FDE-1.1859 FRA  .4565 FC3-3.9195 BSP  15606   SGB 4937.3 R23  .1651 R13 -.9601    LSA 3222.5 MSA  161.0 SSA   13.4
BDE 1.8430 BRA  .1792 BC3 5.5639 FSP  -1024   SG1 4922.4 SG2  382.4 THA 168.64    EL1 3062.3 EL2   72.6 ALF 164.86
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 473.018

```
RL  150.76 LAL    .00 LOL 343.97 VL  26.670 GAL   -.94 AZL  93.57 HCA 224.80 SMA 126.47 ECC .19269 INC 3.5667 V1  29.555
RP  108.05 LAP   2.51 LOP 208.71 VP  37.514 GAP   7.32 AZP  87.47 TAL 183.94 TAP  48.74 RCA 102.10 APO 150.84 V2  35.074
RC 132.627 GL  -29.46 GP   32.14 ZAL  89.99 ZAP 140.80 ETS  46.67 ZAE 124.24 ETE 156.54 ZAC 131.61 ETC 255.32 CLP-156.24
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PLANETOCENTRIC CONIC

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C3  11.379 VHL  3.373 DLA -51.64 RAL 247.22 RAD 6567.4 VEL 11.522 PTH   2.01 VHP  5.871 DPA  13.65 RAP 240.05 ECC 1.1873
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.82	6 28 15	1541.65	39.18	27.61	117.04	126.82	6 53 56	941.6	43.65	19.17
135.18	15 5 2	5278.92	39.19	242.46	117.05	126.80	16 33 1	4678.9	43.66	234.02
44.82	6 28 15	1541.65	39.18	27.61	117.04	126.82	6 53 56	941.6	43.65	19.17
135.18	15 5 2	5278.92	39.19	242.46	117.05	126.80	16 33 1	4678.9	43.66	234.02
44.82	6 28 15	1541.65	39.18	27.61	117.04	126.82	6 53 56	941.6	43.65	19.17
135.18	15 5 2	5278.92	39.19	242.46	117.05	126.80	16 33 1	4678.9	43.66	234.02

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.6383 TRA  .2754 TC3-5.9226 BAU  .9088   SGT 4927.2 SGR  969.6 SG3  307.8    ST  2794.5 SR   726.1 SS   907.4
RDE  .4219 RRA -.1402 RC3  .7832 FAU .05285   RRT -.9200 RRF -.9436 RTF  .9570    CRT -.9967 CRS  .9946 CST -.9840
FDE-1.0166 FRA  .5607 FC3-4.0209 BSP  15893   SGB 5021.7 R23  .1481 R13 -.9591    LSA 3022.3 MSA  160.1 SSA   15.2
BDE 1.6918 BRA  .3090 BC3 5.9742 FSP  -1022   SG1 5007.8 SG2  374.0 THA 169.68    EL1 2886.7 EL2   56.8 ALF 165.48
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 478.935

RL	150.76	LAL	.00	LOL	343.97	VL	26.631	GAL	-.63	AZL	93.20	HCA	228.00	SMA	126.22	ECC	.19468	INC	3.2039
RP	108.09	LAP	2.38	LOP	211.92	VP	37.474	GAP	7.63	AZP	87.85	TAL	182.62	TAP	50.61	RCA	101.65	APO	150.80
RC	134.850	GL	-26.63	GP	29.95	ZAL	87.51	ZAP	143.17	ETS	46.63	ZAE	124.68	ETE	158.21	ZAC	129.76	ETC	256.12

PLANETOCENTRIC CONIC

C3	11.022	VHL	3.320	DLA	-49.24	RAL	251.71	RAD	6567.4	VEL	11.507	PTH	2.00	VHP	5.922	DPA	11.06	RAP	241.03

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.87	6 55 54	1512.27	37.86	23.39	119.63	124.21	7 21 6	912.3	42.03	14.90
132.13	15 13 15	5295.15	37.87	242.92	119.64	124.20	16 41 30	4695.1	42.04	234.42
47.87	6 55 54	1512.27	37.86	23.39	119.63	124.21	7 21 6	912.3	42.03	14.90
132.13	15 13 15	5295.15	37.87	242.92	119.64	124.20	16 41 30	4695.1	42.04	234.42
47.87	6 55 54	1512.27	37.86	23.39	119.63	124.21	7 21 6	912.3	42.03	14.90
132.13	15 13 15	5295.15	37.87	242.92	119.64	124.20	16 41 30	4695.1	42.04	234.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4932	TRA	.4283	TC3	-6.2549	BAU	.9279	SGT	5017.1	SGR	907.5	SG3	303.1	ST	2602.2	SR	659.4	SS	798.3
RDE	.3752	RRA	-.1558	RC3	.7294	FAU	.05113	RRT	-.9107	RRF	-.9299	RTF	.9563	CRT	-.9980	CRS	.9878	CST	-.9778
FDE	-.8506	FRA	.6597	FC3	-4.0159	BSP	16135	SGB	5098.5	R23	.1311	R13	-.9580	LSA	2795.9	MSA	162.2	SSA	17.1
BDE	1.5396	BRA	.4558	BC3	6.2973	FSP	-1008	SG1	5085.1	SG2	369.8	THA	170.60	EL1	2684.2	EL2	40.3	ALF	165.80

LAUNCH DATE SEP 7 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 484.831

RL	150.76	LAL	.00	LOL	343.97	VL	26.592	GAL	-.31	AZL	92.88	HCA	231.20	SMA	125.97	ECC	.19683	INC	2.8762
RP	108.13	LAP	2.24	LOP	215.13	VP	37.433	GAP	7.93	AZP	88.20	TAL	181.27	TAP	52.47	RCA	101.18	APO	150.77
RC	137.063	GL	-23.92	GP	28.00	ZAL	84.88	ZAP	145.36	ETS	46.66	ZAE	125.00	ETE	159.71	ZAC	128.14	ETC	256.84

PLANETOCENTRIC CONIC

C3	10.831	VHL	3.291	DLA	-46.86	RAL	255.99	RAD	6567.4	VEL	11.499	PTH	2.00	VHP	5.994	DPA	8.70	RAP	242.17

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.97	7 23 32	1482.63	36.37	19.28	122.32	121.87	7 48 15	882.6	40.27	10.79
129.03	15 19 43	5317.62	36.38	243.90	122.33	121.85	16 48 20	4717.6	40.28	235.41
50.97	7 23 32	1482.63	36.37	19.28	122.32	121.87	7 48 15	882.6	40.27	10.79
129.03	15 19 43	5317.62	36.38	243.90	122.33	121.85	16 48 20	4717.6	40.28	235.41
50.97	7 23 32	1482.63	36.37	19.28	122.32	121.87	7 48 15	882.6	40.27	10.79
129.03	15 19 43	5317.62	36.38	243.90	122.33	121.85	16 48 20	4717.6	40.28	235.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3487	TRA	.5872	TC3	-6.5029	BAU	.9466	SGT	5105.7	SGR	855.7	SG3	297.1	ST	2393.9	SR	605.1	SS	696.8
RDE	.3394	RRA	-.1695	RC3	.6738	FAU	.04918	RRT	-.8998	RRF	-.9144	RTF	.9560	CRT	-.9991	CRS	.9741	CST	-.9684
FDE	-.6977	FRA	.7509	FC3	-3.9313	BSP	16379	SGB	5176.9	R23	.1138	R13	-.9573	LSA	2560.1	MSA	167.3	SSA	19.0
BDE	1.3907	BRA	.6112	BC3	6.5377	FSP	-990	SG1	5163.7	SG2	369.2	THA	171.38	EL1	2469.1	EL2	24.4	ALF	165.83

LAUNCH DATE SEP 7 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 490.705

RL	150.76	LAL	.00	LOL	343.97	VL	26.552	GAL	.02	AZL	92.58	HCA	234.40	SMA	125.72	ECC	.19914	INC	2.5768
RP	108.17	LAP	2.09	LOP	218.34	VP	37.393	GAP	8.24	AZP	88.50	TAL	179.91	TAP	54.30	RCA	100.69	APO	150.76
RC	139.266	GL	-21.31	GP	26.26	ZAL	82.15	ZAP	147.37	ETS	46.78	ZAE	125.22	ETE	161.05	ZAC	126.71	ETC	257.51

PLANETOCENTRIC CONIC

C3	10.786	VHL	3.284	DLA	-44.50	RAL	260.05	RAD	6567.4	VEL	11.497	PTH	2.00	VHP	6.085	DPA	6.54	RAP	243.44

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.12	7 51 25	1451.77	34.75	15.22	125.12	119.76	8 15 37	851.8	38.40	6.77
125.88	15 24 16	5346.79	34.76	245.44	125.13	119.74	16 53 22	4746.8	38.41	236.98
54.12	7 51 25	1451.77	34.75	15.22	125.12	119.76	8 15 37	851.8	38.40	6.77
125.88	15 24 16	5346.79	34.76	245.44	125.13	119.74	16 53 22	4746.8	38.41	236.98
54.12	7 51 25	1451.77	34.75	15.22	125.12	119.76	8 15 37	851.8	38.40	6.77
125.88	15 24 16	5346.79	34.76	245.44	125.13	119.74	16 53 22	4746.8	38.41	236.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1823	TRA	.7618	TC3	-6.5681	BAU	.9508	SGT	5132.1	SGR	792.8	SG3	283.3	ST	2141.0	SR	545.9	SS	579.1
RDE	.3031	RRA	-.1849	RC3	.5789	FAU	.04502	RRT	-.8782	RRF	-.8921	RTF	.9492	CRT	-.9991	CRS	.9386	CST	-.9442
FDE	-.5197	FRA	.8471	FC3	-3.6136	BSP	16276	SGB	5193.0	R23	.1128	R13	-.9503	LSA	2276.5	MSA	185.8	SSA	20.7
BDE	1.2205	BRA	.7839	BC3	6.5935	FSP	-910	SG1	5179.4	SG2	375.7	THA	172.23	EL1	2209.4	EL2	22.1	ALF	165.71

LAUNCH DATE SEP 7 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 496.559

RL	150.76	LAL	.00	LOL	343.97	VL	26.512	GAL	.37	AZL	92.30	HCA	237.60	SMA	125.47	ECC	.20163	INC	2.3007
RP	108.21	LAP	1.94	LOP	221.54	VP	37.353	GAP	8.56	AZP	88.77	TAL	178.53	TAP	56.12	RCA	100.17	APO	150.77
RC	141.459	GL	-18.83	GP	24.70	ZAL	79.34	ZAP	149.24	ETS	47.00	ZAE	125.37	ETE	162.25	ZAC	125.44	ETC	258.14

PLANETOCENTRIC CONIC

C3	10.876	VHL	3.298	DLA	-42.17	RAL	263.91	RAD	6567.4	VEL	11.501	PTH	2.00	VHP	6.192	DPA	4.57	RAP	244.84

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.34	8 19 46	1418.79	33.04	11.14	128.01	117.86	8 43 25	818.8	36.47	2.76
122.66	15 26 43	5383.16	33.05	247.55	128.02	117.84	16 56 27	4783.2	36.48	239.17
57.34	8 19 46	1418.79	33.04	11.14	128.01	117.86	8 43 25	818.8	36.47	2.76
122.66	15 26 43	5383.16	33.05	247.55	128.02	117.84	16 56 27	4783.2	36.48	239.17
57.34	8 19 46	1418.79	33.04	11.14	128.01	117.86	8 43 25	818.8	36.47	2.76
122.66	15 26 43	5383.16	33.05	247.55	128.02	117.84	16 56 27	4783.2	36.48	239.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0600	TRA	.9203	TC3	-6.7457	BAU	.9843	SGT	5276.5	SGR	773.3	SG3	282.0	ST	1956.6	SR	522.3	SS	524.1
RDE	.2902	RRA	-.1933	RC3	.5643	FAU	.04491	RRT	-.8730	RRF	-.8781	RTF	.9554	CRT	-.9961	CRS	.8994	CST	-.9307
FDE	-.4252	FRA	.9093	FC3	-3.5752	BSP	16969	SGB	5332.9	R23	.0817	R13	-.9561	LSA	2082.8	MSA	192.7	SSA	21.9
BDE	1.0990	BRA	.9404	BC3	6.7693	FSP	-948	SG1	5319.7	SG2	374.1	THA	172.67	EL1	2024.6	EL2	44.4	ALF	165.10

LAUNCH DATE SEP 7 1970 FLIGHT TIME 174.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 502.390

RL	150.76	LAL	.00	LOL	343.97	VL	26.473	GAL	.74	AZL	92.04	HCA	240.79	SMA	125.22	ECC	.20431	INC	2.0437	V1	29.555		
RP	108.25	LAP	1.78	LOP	224.74	VP	37.312	GAP	8.88	AZP	89.00	TAL	177.13	TAP	57.92	RCA	99.64	APO	150.81	V2	35.008		
RC	143.643	GL	-16.46	GP	23.31	ZAL	76.49	ZAP	150.97	ETS	47.32	ZAE	125.48	ETE	163.32	ZAC	124.33	ETC	258.75	CLP	-162.19		

PLANETOCENTRIC CONIC

C3	11.095	VHL	3.331	DLA	-39.89	RAL	267.58	RAD	6567.4	VEL	11.510	PTH	2.00	VHP	6.313	DPA	2.76	RAP	246.34	ECC	1.1826		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.64	8 48 56	1382.55	31.27	6.95	130.98	116.15	9 11 58	782.5	34.50	358.65
119.36	15 26 51	5427.57	31.28	250.31	130.99	116.14	16 57 18	4827.6	34.51	242.00
60.64	8 48 56	1382.55	31.27	6.95	130.98	116.15	9 11 58	782.5	34.50	358.65
119.36	15 26 51	5427.57	31.28	250.31	130.99	116.14	16 57 18	4827.6	34.51	242.00
60.64	8 48 56	1382.55	31.27	6.95	130.98	116.15	9 11 58	782.5	34.50	358.65
119.36	15 26 51	5427.57	31.28	250.31	130.99	116.14	16 57 18	4827.6	34.51	242.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.9082	TRA	1.1044	TC3	-6.7128	BAU	.9985	SGT	5345.0	SGR	740.0	SG3	273.1	ST	1735.1	SR	490.3	SS	460.5
RDE	.2734	RRA	-.2053	RC3	.5079	FAU	.04240	RRT	-.8565	RRF	-.8574	RTF	.9547	CRT	-.9859	CRS	.8136	CST	-.8965
FDE	-.3025	FRA	.9835	FC3	-3.3088	BSP	17104	SGB	5396.0	R23	.0690	R13	-.9553	LSA	1848.0	MSA	217.1	SSA	22.7
BDE	.9485	BRA	1.1234	BC3	6.7320	FSP	-915	SG1	5382.7	SG2	379.3	THA	173.20	EL1	1801.3	EL2	78.9	ALF	164.40

LAUNCH DATE SEP 7 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 508.196

RL	150.76	LAL	.00	LOL	343.97	VL	26.433	GAL	1.12	AZL	91.80	HCA	243.98	SMA	124.98	ECC	.20719	INC	1.8025	V1	29.555		
RP	108.29	LAP	1.62	LOP	227.94	VP	37.271	GAP	9.20	AZP	89.21	TAL	175.72	TAP	59.70	RCA	99.08	APO	150.87	V2	34.995		
RC	145.816	GL	-14.23	GP	22.06	ZAL	73.63	ZAP	152.58	ETS	47.76	ZAE	125.54	ETE	164.27	ZAC	123.34	ETC	259.34	CLP	-163.29		

PLANETOCENTRIC CONIC

C3	11.440	VHL	3.382	DLA	-37.67	RAL	271.06	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	6.447	DPA	1.09	RAP	247.94	ECC	1.1883		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.05	9 19 15	1341.66	29.46	2.56	134.02	114.62	9 41 37	741.7	32.51	354.35
115.95	15 24 17	5481.14	29.47	253.77	134.03	114.60	16 55 38	4881.1	32.52	245.55
64.05	9 19 15	1341.66	29.46	2.56	134.02	114.62	9 41 37	741.7	32.51	354.35
115.95	15 24 17	5481.14	29.47	253.77	134.03	114.60	16 55 38	4881.1	32.52	245.55
64.05	9 19 15	1341.66	29.46	2.56	134.02	114.62	9 41 37	741.7	32.51	354.35
115.95	15 24 17	5481.14	29.47	253.77	134.03	114.60	16 55 38	4881.1	32.52	245.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.7593	TRA	1.2937	TC3	-6.6119	BAU	1.0136	SGT	5415.1	SGR	712.6	SG3	264.3	ST	1536.9	SR	464.8	SS	419.3
RDE	.2617	RRA	-.2169	RC3	.4576	FAU	.04003	RRT	-.8395	RRF	-.8363	RTF	.9544	CRT	-.9619	CRS	.6867	CST	-.8569
FDE	-.1941	FRA	1.0502	FC3	-3.0297	BSP	17314	SGB	5461.8	R23	.0570	R13	-.9549	LSA	1640.5	MSA	249.2	SSA	22.9
BDE	.8031	BRA	1.3117	BC3	6.6277	FSP	-887	SG1	5448.2	SG2	384.8	THA	173.66	EL1	1601.0	EL2	122.0	ALF	163.68

LAUNCH DATE SEP 7 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 513.976

RL	150.76	LAL	.00	LOL	343.97	VL	26.393	GAL	1.51	AZL	91.57	HCA	247.18	SMA	124.73	ECC	.21029	INC	1.5741	V1	29.555		
RP	108.33	LAP	1.45	LOP	231.13	VP	37.231	GAP	9.53	AZP	89.39	TAL	174.29	TAP	61.47	RCA	98.50	APO	150.96	V2	34.982		
RC	147.979	GL	-12.12	GP	20.94	ZAL	70.79	ZAP	154.08	ETS	48.33	ZAE	125.57	ETE	165.12	ZAC	122.45	ETC	259.92	CLP	-164.36		

PLANETOCENTRIC CONIC

C3	11.913	VHL	3.451	DLA	-35.51	RAL	274.36	RAD	6567.5	VEL	11.546	PTH	2.02	VHP	6.594	DPA	-.43	RAP	249.63	ECC	1.1961		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.62	9 51 26	1293.85	27.64	357.79	137.12	113.23	10 13 0	693.8	30.54	349.67
112.38	15 18 24	5545.88	27.66	258.07	137.13	113.22	16 50 50	4945.9	30.55	249.94
67.62	9 51 26	1293.85	27.64	357.79	137.12	113.23	10 13 0	693.8	30.54	349.67
112.38	15 18 24	5545.88	27.66	258.07	137.13	113.22	16 50 50	4945.9	30.55	249.94
67.62	9 51 26	1293.85	27.64	357.79	137.12	113.23	10 13 0	693.8	30.54	349.67
112.38	15 18 24	5545.88	27.66	258.07	137.13	113.22	16 50 50	4945.9	30.55	249.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.6105	TRA	1.4904	TC3	-6.4433	BAU	1.0283	SGT	5481.6	SGR	689.3	SG3	255.4	ST	1369.8	SR	444.3	SS	399.4
RDE	.2540	RRA	-.2283	RC3	.4114	FAU	.03772	RRT	-.8218	RRF	-.8148	RTF	.9544	CRT	-.9133	CRS	.5257	CST	-.8243
FDE	-.0976	FRA	1.1109	FC3	-2.7412	BSP	17547	SGB	5524.8	R23	.0463	R13	-.9548	LSA	1466.1	MSA	288.6	SSA	22.7
BDE	.6612	BRA	1.5078	BC3	6.4564	FSP	-861	SG1	5511.0	SG2	390.6	THA	174.07	EL1	1429.6	EL2	173.4	ALF	163.25

LAUNCH DATE SEP 7 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 519.729

RL	150.76	LAL	.00	LOL	343.97	VL	26.353	GAL	1.93	AZL	91.36	HCA	250.37	SMA	124.48	ECC	.21363	INC	1.3565	V1	29.555		
RP	108.37	LAP	1.28	LOP	234.33	VP	37.190	GAP	9.87	AZP	89.54	TAL	172.86	TAP	63.22	RCA	97.89	APO	151.08	V2	34.969		
RC	150.132	GL	-10.15	GP	19.92	ZAL	68.00	ZAP	155.48	ETS	49.02	ZAE	125.58	ETE	165.88	ZAC	121.66	ETC	260.50	CLP	-165.40		

PLANETOCENTRIC CONIC

C3	12.519	VHL	3.538	DLA	-33.43	RAL	277.48	RAD	6567.5	VEL	11.572	PTH	2.02	VHP	6.753	DPA	-1.84	RAP	251.40	ECC	1.2060		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.44	10 26 32	1235.57	25.84	352.39	140.27	111.98	10 47 7	635.6	28.59	344.35
108.56	15 8 12	5625.17	25.85	263.44	140.27	111.97	16 41 57	5025.2	28.60	255.41
71.44	10 26 32	1235.57	25.84	352.39	140.27	111.98	10 47 7	635.6	28.59	344.35
108.56	15 8 12	5625.17	25.85	263.44	140.27	111.97	16 41 57	5025.2	28.60	255.41
110.00	14 22 40	5764.72	21.62	272.16	138.16	117.14	15 58 45	5164.7	25.09	264.72
110.00	16 11 14	5432.06	30.23	250.19	142.01	106.78	17 41 46	4832.1	32.22	241.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4604	TRA	1.6965	TC3	-6.2119	BAU	1.0415	SGT	5542.1	SGR	669.0	SG3	246.4	ST	1244.4	SR	427.2	SS	397.9
RDE	.2492	RRA	-.2400	RC3	.3680	FAU	.03538	RRT	-.8033	RRF	-.7929	RTF	.9543	CRT	-.8275	CRS	.3506	CST	-.8139
FDE	-.0104	FRA	1.1680	FC3	-2.4469	BSP	17745	SGB	5582.3	R23	.0376	R13	-.9546	LSA	1333.6	MSA	332.2	SSA	22.1
BDE	.5235	BRA	1.7134	BC3	6.2227	FSP	-833	SG1	5568.2	SG2	396.5	THA	174.43	EL1	1295.3	EL2	230.4	ALF	163.61

LAUNCH DATE SEP 7 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 525.453

RL 150.76 LAL .00 LOL 343.97 VL 26.314 GAL 2.37 AZL 91.15 HCA 253.55 SMA 124.24 ECC .21723 INC 1.1475 V1 29.555
RP 108.41 LAP 1.10 LOP 237.52 VP 37.150 GAP 10.22 AZP 89.67 TAL 171.41 TAP 64.97 RCA 97.25 APO 151.23 V2 34.956
RC 152.275 GL -8.31 GP 19.01 ZAL 65.27 ZAP 156.79 ETS 49.87 ZAE 125.57 ETE 166.56 ZAC 120.95 ETC 261.08 CLP-166.42

PLANETOCENTRIC CONIC

C3 13.264 VHL 3.642 DLA -31.43 RAL 280.43 RAD 6567.5 VEL 11.604 PTH 2.03 VHP 6.923 DPA -3.12 RAP 253.24 ECC 1.2183

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.76	11 6 44	1159.56	24.07	345.81	143.45	110.85	11 26 3	559.6	26.68	337.86
104.24	14 51 31	5726.05	24.08	270.39	143.46	110.84	16 26 57	5126.1	26.69	262.43
75.76	11 6 44	1159.56	24.07	345.81	143.45	110.85	11 26 3	559.6	26.68	337.86
104.24	14 51 31	5726.05	24.08	270.39	143.46	110.84	16 26 57	5126.1	26.69	262.43
110.00	13 45 32	643.78	16.12	304.08	139.38	120.56	13 56 16	43.8	20.05	297.17
110.00	17 11 53	5289.84	32.56	239.77	146.20	101.03	18 40 3	4689.8	33.74	230.73

DIFFERENTIAL CORRECTIONS
TDE -.3095 TRA 1.9125 TC3-5.9329 BAU 1.0537
RDE .2471 RRA -.2520 RC3 .3284 FAU .03311
FDE .0678 FRA 1.2217 FC3-2.1607 BSP 17949
BDE .3960 BRA 1.9290 BC3 5.9419 FSP -807

MID-COURSE EXECUTION ACCURACY
SGT 5598.7 SGR 651.3 SG3 237.6
RRT -.7847 RRF -.7714 RTF .9543
SGB 5636.5 R23 .0302 R13 -.9545
SG1 5622.1 SG2 402.0 THA 174.76

ORBIT DETERMINATION ACCURACY
ST 1171.7 SR 413.0 SS 410.2
CRT -.6978 CRS .1874 CST -.8326
LSA 1254.1 MSA 372.2 SSA 21.3
EL1 1208.8 EL2 286.7 ALF 165.34

LAUNCH DATE SEP 7 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 531.142

RL 150.76 LAL .00 LOL 343.97 VL 26.274 GAL 2.82 AZL 90.95 HCA 256.74 SMA 124.00 ECC .22111 INC .9453 V1 29.555
RP 108.45 LAP .92 LOP 240.70 VP 37.110 GAP 10.58 AZP 89.78 TAL 169.96 TAP 66.70 RCA 96.58 APO 151.41 V2 34.943
RC 154.408 GL -6.61 GP 18.18 ZAL 62.62 ZAP 158.01 ETS 50.87 ZAE 125.55 ETE 167.16 ZAC 120.31 ETC 261.66 CLP-167.42

PLANETOCENTRIC CONIC

C3 14.159 VHL 3.763 DLA -29.52 RAL 283.21 RAD 6567.6 VEL 11.642 PTH 2.04 VHP 7.105 DPA -4.30 RAP 255.14 ECC 1.2330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.28	11 58 40	1044.12	22.34	336.48	146.66	109.82	12 16 5	444.1	24.84	328.61
98.72	14 21 46	5870.05	22.35	280.45	146.67	109.80	15 59 36	5270.1	24.85	272.58
100.00	13 52 4	677.09	19.44	308.37	145.44	113.17	14 3 21	77.1	22.41	300.83
100.00	15 11 4	5712.31	25.32	269.82	147.73	106.45	16 46 16	5112.3	27.33	261.59
110.00	13 26 8	758.81	12.03	310.49	141.41	122.24	13 38 47	158.8	16.21	303.87
110.00	17 53 29	5203.36	33.50	233.20	149.70	97.25	19 20 12	4603.4	34.14	224.01

DIFFERENTIAL CORRECTIONS
TDE -.1713 TRA 2.1240 TC3-5.6553 BAU 1.0720
RDE .2489 RRA -.2625 RC3 .2975 FAU .03133
FDE .1284 FRA 1.2626 FC3-1.9153 BSP 18472
BDE .3022 BRA 2.1401 BC3 5.6631 FSP -800

MID-COURSE EXECUTION ACCURACY
SGT 5656.4 SGR 636.2 SG3 228.5
RRT -.7667 RRF -.7508 RTF .9554
SGB 5692.1 R23 .0226 R13 -.9555
SG1 5677.5 SG2 407.0 THA 175.05

ORBIT DETERMINATION ACCURACY
ST 1152.2 SR 403.3 SS 425.1
CRT -.5452 CRS .0627 CST -.8693
LSA 1229.8 MSA 397.5 SSA 20.3
EL1 1174.8 EL2 331.6 ALF 168.24

LAUNCH DATE SEP 7 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 536.800

RL 150.76 LAL .00 LOL 343.97 VL 26.235 GAL 3.30 AZL 90.75 HCA 259.92 SMA 123.76 ECC .22529 INC .7485 V1 29.555
RP 108.49 LAP .74 LOP 243.89 VP 37.071 GAP 10.95 AZP 89.87 TAL 168.50 TAP 68.42 RCA 95.88 APO 151.64 V2 34.931
RC 156.530 GL -5.03 GP 17.43 ZAL 60.05 ZAP 159.16 ETS 52.03 ZAE 125.52 ETE 167.70 ZAC 119.73 ETC 262.24 CLP-168.40

PLANETOCENTRIC CONIC

C3 15.218 VHL 3.901 DLA -27.71 RAL 285.84 RAD 6567.6 VEL 11.688 PTH 2.06 VHP 7.300 DPA -5.39 RAP 257.10 ECC 1.2504

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 29 8	996.93	16.97	330.79	148.41	113.01	12 45 45	396.9	19.94	323.38
90.00	14 12 17	661.27	24.47	309.07	151.15	104.72	14 23 18	61.3	26.25	300.86
100.00	13 6 20	876.70	13.67	320.38	146.82	116.85	13 20 56	276.7	17.16	313.33
100.00	16 17 46	5544.77	28.02	258.11	152.05	100.86	17 50 11	4944.8	29.23	249.52
110.00	13 13 19	854.77	8.50	315.68	143.78	123.23	13 27 33	254.8	12.81	309.24
110.00	18 27 17	5139.48	33.94	228.26	152.97	94.36	19 52 56	4539.5	34.17	219.02

DIFFERENTIAL CORRECTIONS
TDE -.0069 TRA 2.3714 TC3-5.2808 BAU 1.0756
RDE .2493 RRA -.2767 RC3 .2598 FAU .02877
FDE .1994 FRA 1.3183 FC3-1.6367 BSP 18386
BDE .2493 BRA 2.3875 BC3 5.2871 FSP -758

MID-COURSE EXECUTION ACCURACY
SGT 5696.7 SGR 621.1 SG3 220.3
RRT -.7474 RRF -.7297 RTF .9545
SGB 5730.5 R23 .0189 R13 -.9546
SG1 5715.7 SG2 411.3 THA 175.32

ORBIT DETERMINATION ACCURACY
ST 1186.8 SR 391.2 SS 453.8
CRT -.3596 CRS -.0591 CST -.9090
LSA 1264.5 MSA 410.0 SSA 19.5
EL1 1195.9 EL2 362.2 ALF 172.55

LAUNCH DATE SEP 7 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 542.420

RL 150.76 LAL .00 LOL 343.97 VL 26.195 GAL 3.80 AZL 90.56 HCA 263.10 SMA 123.52 ECC .22980 INC .5557 V1 29.555
RP 108.53 LAP .55 LOP 247.07 VP 37.032 GAP 11.34 AZP 89.93 TAL 167.04 TAP 70.14 RCA 95.14 APO 151.90 V2 34.919
RC 158.641 GL -3.58 GP 16.75 ZAL 57.59 ZAP 160.24 ETS 53.38 ZAE 125.48 ETE 168.19 ZAC 119.19 ETC 262.83 CLP-169.37

PLANETOCENTRIC CONIC

C3 16.454 VHL 4.056 DLA -25.99 RAL 288.32 RAD 6567.7 VEL 11.740 PTH 2.07 VHP 7.508 DPA -6.37 RAP 259.11 ECC 1.2708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 49 59	1177.62	11.86	341.60	150.16	115.90	12 9 37	577.6	15.25	334.56
90.00	15 11 12	5804.03	26.60	276.88	155.21	100.09	16 47 56	5204.0	27.72	268.39
100.00	12 44 15	1002.37	9.69	327.59	149.02	118.42	13 0 58	402.4	13.42	320.78
100.00	16 59 37	5454.51	29.01	251.58	155.63	97.56	18 30 31	4854.5	29.75	242.86
110.00	13 4 8	939.99	5.29	320.19	146.35	123.82	13 19 48	340.0	9.70	313.87
110.00	18 56 14	5089.65	34.13	224.38	156.14	92.07	20 21 3	4489.7	34.04	215.14

DIFFERENTIAL CORRECTIONS
TDE .1513 TRA 2.6217 TC3-4.9138 BAU 1.0821
RDE .2523 RRA -.2900 RC3 .2286 FAU .02655
FDE .2583 FRA 1.3661 FC3-1.3970 BSP 18474
BDE .2942 BRA 2.6377 BC3 4.9191 FSP -727

MID-COURSE EXECUTION ACCURACY
SGT 5736.6 SGR 607.5 SG3 212.1
RRT -.7289 RRF -.7097 RTF .9544
SGB 5768.7 R23 .0151 R13 -.9545
SG1 5753.8 SG2 414.6 THA 175.56

ORBIT DETERMINATION ACCURACY
ST 1260.0 SR 381.8 SS 480.6
CRT -.1942 CRS -.1479 CST -.9405
LSA 1341.1 MSA 406.5 SSA 18.7
EL1 1262.3 EL2 373.8 ALF 176.31

LAUNCH DATE SEP 7 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 547.997

RL	150.76	LAL	.00	LOL	343.97	VL	26.156	GAL	4.33	AZL	90.37	HCA	266.28	SMA	123.29	ECC	.23467	INC	.3656	V1	29.555
RP	108.56	LAP	.37	LOP	250.25	VP	36.993	GAP	11.74	AZP	89.98	TAL	165.57	TAP	71.85	RCA	94.35	APO	152.22	V2	34.907
RC	160.740	GL	-2.26	GP	16.13	ZAL	55.24	ZAP	161.25	ETS	54.92	ZAE	125.43	ETE	168.63	ZAC	118.70	ETC	263.42	CLP	-170.32

PLANETOCENTRIC CONIC

C3	17.887	VHL	4.229	DLA	-24.36	RAL	290.65	RAD	6567.7	VEL	11.801	PTH	2.09	VHP	7.729	DPA	-7.27	RAP	261.17	ECC	1.2944

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 29 2	1300.54	8.11	348.68	152.50	117.22	11 50 42	700.5	11.70	341.84
90.00	15 50 47	5719.67	27.46	270.86	158.76	97.19	17 26 7	5119.7	28.17	262.26
100.00	12 29 35	1105.03	6.32	333.34	151.53	119.28	12 48 0	505.0	10.17	326.68
100.00	17 32 54	5390.41	29.49	246.88	159.01	95.13	19 2 45	4790.4	29.89	238.10
110.00	12 57 18	1018.11	2.32	324.29	149.05	124.11	13 14 16	418.1	6.78	318.04
110.00	19 21 41	5050.10	34.18	221.29	159.27	90.24	20 45 51	4450.1	33.84	212.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3090	TRA	2.8814	TC3	-4.5466	BAU	1.0883	SGT	5773.0	SGR	594.6	SG3	204.1	ST	1356.9	SR	373.7	SS	505.7
RDE	.2571	RRA	-.3032	RC3	.2012	FAU	.02449	RRT	-.7110	RRF	-.6905	RTF	.9546	CRT	-.0565	CRS	-.2158	CST	-.9619
FDE	.3101	FRA	1.4106	FC3	-1.1852	BSP	18611	SGB	5803.5	R23	.0117	R13	-.9547	LSA	1442.3	MSA	395.2	SSA	17.9
BDE	.4020	BRA	2.8973	BC3	4.5510	FSP	-701	SG1	5788.5	SG2	417.0	THA	175.79	EL1	1357.1	EL2	373.0	ALF	179.04

LAUNCH DATE SEP 7 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 553.528

RL	150.76	LAL	.00	LOL	343.97	VL	26.117	GAL	4.88	AZL	90.18	HCA	269.46	SMA	123.05	ECC	.23994	INC	.1768	V1	29.555
RP	108.60	LAP	.18	LOP	253.42	VP	36.955	GAP	12.16	AZP	90.00	TAL	164.11	TAP	73.57	RCA	93.53	APO	152.58	V2	34.896
RC	162.826	GL	-1.04	GP	15.56	ZAL	53.00	ZAP	162.20	ETS	56.67	ZAE	125.38	ETE	169.03	ZAC	118.24	ETC	264.01	CLP	-171.25

PLANETOCENTRIC CONIC

C3	19.541	VHL	4.420	DLA	-22.84	RAL	292.85	RAD	6567.8	VEL	11.871	PTH	2.11	VHP	7.966	DPA	-8.09	RAP	263.27	ECC	1.3216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 43	1402.36	4.90	354.44	155.10	117.92	11 38 6	802.4	8.60	347.71
90.00	16 22 39	5659.40	27.90	266.50	162.14	95.05	17 56 58	5059.4	28.31	257.86
100.00	12 18 55	1195.18	3.29	338.33	154.21	119.73	12 38 50	595.2	7.23	331.75
100.00	18 1 8	5341.82	29.73	243.29	162.29	93.25	19 30 10	4741.8	29.87	234.49
110.00	12 52 7	1091.06	-.47	328.09	151.86	124.18	13 10 18	491.1	4.02	321.88
110.00	19 44 25	5018.70	34.16	218.84	162.38	88.79	21 8 4	4418.7	33.62	209.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4692	TRA	3.1535	TC3	-4.1795	BAU	1.0928	SGT	5804.5	SGR	582.0	SG3	196.5	ST	1467.1	SR	366.3	SS	529.3
RDE	.2631	RRA	-.3165	RC3	.1763	FAU	.02249	RRT	-.6934	RRF	-.6721	RTF	.9549	CRT	.0543	CRS	-.2693	CST	-.9756
FDE	.3572	FRA	1.4540	FC3	-.9964	BSP	18749	SGB	5833.6	R23	.0090	R13	-.9550	LSA	1556.1	MSA	380.8	SSA	17.2
BDE	.5379	BRA	3.1693	BC3	4.1832	FSP	-677	SG1	5818.6	SG2	418.4	THA	176.00	EL1	1467.2	EL2	365.7	ALF	.83

LAUNCH DATE SEP 7 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 559.007

RL	150.76	LAL	.00	LOL	343.97	VL	26.079	GAL	5.47	AZL	89.99	HCA	272.63	SMA	122.82	ECC	.24564	INC	.0000	V1	29.555
RP	108.63	LAP	-.01	LOP	256.60	VP	36.917	GAP	12.60	AZP	90.00	TAL	162.65	TAP	75.28	RCA	92.65	APO	152.99	V2	34.885
RC	164.900	GL	.06	GP	15.05	ZAL	50.87	ZAP	163.08	ETS	58.65	ZAE	125.32	ETE	169.40	ZAC	117.81	ETC	264.61	CLP	-172.18

PLANETOCENTRIC CONIC

C3	21.442	VHL	4.631	DLA	-21.40	RAL	294.92	RAD	6567.9	VEL	11.951	PTH	2.13	VHP	8.218	DPA	-8.82	RAP	265.40	ECC	1.3529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 4 7	1492.25	2.02	359.47	157.85	118.25	11 28 59	892.3	5.78	352.81
90.00	16 49 46	5613.88	28.13	263.19	165.44	93.40	18 23 20	5013.9	28.30	254.53
100.00	12 10 46	1277.16	.52	342.83	157.02	119.89	12 32 3	677.2	4.49	336.30
100.00	18 25 49	5304.21	29.84	240.50	165.53	91.79	19 54 13	4704.2	29.77	231.69
110.00	12 48 8	1160.04	-3.10	331.69	154.75	124.06	13 7 28	560.0	1.39	325.49
110.00	20 4 56	4994.10	34.11	216.92	165.50	87.66	21 28 10	4394.1	33.41	207.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6324	TRA	3.4388	TC3	-3.8178	BAU	1.0953	SGT	5831.0	SGR	569.4	SG3	189.1	ST	1582.2	SR	359.3	SS	550.9
RDE	.2702	RRA	-.3299	RC3	.1536	FAU	.02056	RRT	-.6761	RRF	-.6543	RTF	.9554	CRT	.1422	CRS	-.3124	CST	-.9842
FDE	.4004	FRA	1.4964	FC3	-.8301	BSP	18865	SGB	5858.7	R23	.0068	R13	-.9555	LSA	1673.9	MSA	365.9	SSA	16.5
BDE	.6877	BRA	3.4546	BC3	3.8209	FSP	-652	SG1	5843.8	SG2	418.6	THA	176.20	EL1	1583.1	EL2	355.5	ALF	1.95

LAUNCH DATE SEP 7 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 564.428

RL	150.76	LAL	.00	LOL	343.97	VL	26.040	GAL	6.09	AZL	89.80	HCA	275.81	SMA	122.60	ECC	.25182	INC	.1998	V1	29.555
RP	108.66	LAP	-.20	LOP	259.77	VP	36.880	GAP	13.07	AZP	89.98	TAL	161.19	TAP	76.99	RCA	91.72	APO	153.47	V2	34.874
RC	166.961	GL	1.07	GP	14.57	ZAL	48.84	ZAP	163.91	ETS	60.88	ZAE	125.25	ETE	169.73	ZAC	117.40	ETC	265.22	CLP	-173.10

PLANETOCENTRIC CONIC

C3	23.622	VHL	4.860	DLA	-20.06	RAL	296.87	RAD	6568.0	VEL	12.042	PTH	2.15	VHP	8.489	DPA	-9.48	RAP	267.57	ECC	1.3888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 55 55	1574.20	-.63	4.04	160.71	118.31	11 22 10	974.2	3.16	357.41
90.00	17 13 32	5578.96	28.24	260.64	168.70	92.13	18 46 31	4979.0	28.24	251.98
100.00	12 4 23	1353.25	-2.06	347.00	159.91	119.83	12 26 57	753.2	1.92	340.48
100.00	18 47 45	5275.15	29.89	238.34	168.74	90.65	20 15 40	4675.1	29.66	229.54
110.00	12 45 3	1225.81	-5.60	335.14	157.71	123.78	13 5 29	625.8	-1.13	328.92
110.00	20 23 34	4975.35	34.05	215.46	168.63	86.80	21 46 29	4375.4	33.23	206.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7984	TRA	3.7382	TC3	-3.4672	BAU	1.0958	SGT	5852.8	SGR	556.7	SG3	182.1	ST	1696.2	SR	352.7	SS	570.2
RDE	.2784	RRA	-.3431	RC3	.1332	FAU	.01871	RRT	-.6592	RRF	-.6372	RTF	.9561	CRT	.2118	CRS	-.3472	CST	-.9896
FDE	.4397	FRA	1.5383	FC3	-.6856	BSP	18987	SGB	5879.2	R23	.0050	R13	-.9562	LSA	1789.6	MSA	351.6	SSA	15.9
BDE	.8456	BRA	3.7539	BC3	3.4698	FSP	-629	SG1	5864.3	SG2	417.8	THA	176.39	EL1	1697.9	EL2	344.4	ALF	2.63

LAUNCH DATE SEP 7 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 569.784

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RL  150.76 LAL    .00 LOL 343.97 VL  26.002 GAL   6.74 AZL  89.61 HCA 278.98 SMA 122.37 ECC .25854 INC  .3912 V1  29.555
RP  108.69 LAP   -.39 LOP 262.94 VP  36.844 GAP  13.57 AZP  89.94 TAL 159.74 TAP  78.72 RCA  90.73 APO 154.01 V2  34.864
RC 169.007 GL    1.98 GP   14.14 ZAL  46.94 ZAP 164.67 ETS  63.38 ZAE 125.17 ETE 170.03 ZAC 117.00 ETC 265.82 CLP-174.02
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PLANETOCENTRIC CONIC

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C3  26.122 VHL  5.111 DLA -18.81 RAL 298.71 RAD 6568.1 VEL 12.145 PTH   2.18 VHP  8.779 DPA -10.06 RAP 269.75 ECC 1.4299
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 49 25	1650.34	-3.08	8.29	163.65	118.16	11 16 56	1050.3	.71	1.66
90.00	17 34 40	5552.31	28.30	258.69	171.94	91.16	19 7 12	4952.3	28.16	250.03
100.00	11 59 18	1424.82	-4.48	350.94	162.87	119.59	12 23 3	824.8	-.51	344.41
100.00	19 7 28	5253.07	29.89	236.70	171.95	89.79	20 35 1	4653.1	29.54	227.91
110.00	12 42 41	1288.92	-7.98	338.48	160.72	123.35	13 4 10	688.9	-3.54	332.21
110.00	20 40 35	4961.73	33.99	214.40	171.78	86.17	22 3 16	4361.7	33.09	205.28

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .9673 TRA 4.0514 TC3-3.1326 BAU 1.0947   SGT 5869.5 SGR  543.5 SG3  175.2     ST  1804.8 SR   346.3 SS   587.4
RDE  .2875 RRA -.3559 RC3  .1149 FAU .01695   RRT -.6423 RRF -.6205 RTF  .9570     CRT  .2676 CRS -.3763 CST -.9930
FDE  .4758 FRA 1.5795 FC3 -.5619 BSP  19126   SGB 5894.6 R23  .0035 R13 -.9570     LSA 1899.3 MSA  338.3 SSA   15.3
BDE 1.0092 BRA 4.0670 BC3 3.1347 FSP   -608   SG1 5879.9 SG2  415.8 THA 176.58     EL1 1807.2 EL2  333.2 ALF   3.04
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 575.065

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RL  150.76 LAL    .00 LOL 343.97 VL  25.965 GAL   7.44 AZL  89.41 HCA 282.15 SMA 122.15 ECC .26584 INC  .5855 V1  29.555
RP  108.72 LAP   -.57 LOP 266.11 VP  36.808 GAP  14.09 AZP  89.88 TAL 158.30 TAP  80.45 RCA  89.68 APO 154.63 V2  34.855
RC 171.039 GL    2.80 GP   13.75 ZAL  45.13 ZAP 165.36 ETS  66.16 ZAE 125.09 ETE 170.31 ZAC 116.63 ETC 266.43 CLP-174.93
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PLANETOCENTRIC CONIC

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C3  28.986 VHL  5.384 DLA -17.64 RAL 300.43 RAD 6568.2 VEL 12.262 PTH   2.21 VHP  9.091 DPA -10.57 RAP 271.96 ECC 1.4770
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 44 10	1721.99	-5.37	12.31	166.65	117.84	11 12 52	1122.0	-1.60	5.66
90.00	17 53 40	5532.45	28.31	257.24	175.17	90.43	19 25 52	4932.5	28.07	248.58
100.00	11 55 13	1492.76	-6.75	354.71	165.90	119.19	12 20 5	892.8	-2.81	348.14
100.00	19 25 19	5236.92	29.88	235.50	175.16	89.16	20 52 36	4636.9	29.45	226.72
110.00	12 40 51	1349.77	-10.24	341.75	163.78	122.79	13 3 21	749.8	-5.85	335.41
110.00	20 56 10	4952.67	33.95	213.70	174.95	85.76	22 18 42	4352.7	32.99	204.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.1405 TRA 4.3813 TC3-2.8134 BAU 1.0909   SGT 5881.2 SGR  529.8 SG3  168.7     ST  1906.8 SR   339.9 SS   602.7
RDE  .2976 RRA -.3683 RC3  .0983 FAU .01526   RRT -.6254 RRF -.6041 RTF  .9582     CRT  .3132 CRS -.4010 CST -.9952
FDE  .5093 FRA 1.6210 FC3 -.4559 BSP  19265   SGB 5905.0 R23  .0024 R13 -.9582     LSA 2002.1 MSA  325.9 SSA   14.7
BDE 1.1787 BRA 4.3967 BC3 2.8151 FSP   -588   SG1 5890.6 SG2  412.7 THA 176.76     EL1 1909.9 EL2  322.3 ALF   3.29
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 580.259

```
RL  150.76 LAL    .00 LOL 343.97 VL  25.927 GAL   8.18 AZL  89.22 HCA 285.31 SMA 121.94 ECC .27380 INC  .7845 V1  29.555
RP  108.75 LAP   -.76 LOP 269.28 VP  36.773 GAP  14.66 AZP  89.79 TAL 156.89 TAP  82.20 RCA  88.55 APO 155.32 V2  34.846
RC 173.056 GL    3.55 GP   13.38 ZAL  43.44 ZAP 166.00 ETS  69.26 ZAE 124.99 ETE 170.57 ZAC 116.26 ETC 267.03 CLP-175.85
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PLANETOCENTRIC CONIC

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C3  32.270 VHL  5.681 DLA -16.55 RAL 302.05 RAD 6568.3 VEL 12.395 PTH   2.24 VHP  9.427 DPA -11.01 RAP 274.18 ECC 1.5311
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 39 53	1790.00	-7.52	16.16	169.70	117.38	11 9 43	1190.0	-3.79	9.46
90.00	18 10 52	5518.34	28.32	256.21	178.39	89.91	19 42 50	4918.3	28.00	247.56
100.00	11 51 53	1557.69	-8.89	358.34	168.97	118.66	12 17 51	957.7	-4.99	351.72
100.00	19 41 33	5225.88	29.87	234.68	178.37	88.73	21 8 39	4625.9	29.37	225.91
110.00	12 39 28	1408.64	-12.39	344.95	166.88	122.12	13 2 56	808.6	-8.06	338.53
110.00	21 10 28	4947.70	33.92	213.31	178.13	85.53	22 32 56	4347.7	32.93	204.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.3175 TRA 4.7276 TC3-2.5128 BAU 1.0847   SGT 5887.3 SGR  515.4 SG3  162.4     ST  2000.0 SR   333.5 SS   616.4
RDE  .3085 RRA -.3799 RC3  .0835 FAU .01365   RRT -.6083 RRF -.5877 RTF  .9595     CRT  .3513 CRS -.4225 CST -.9967
FDE  .5404 FRA 1.6629 FC3 -.3662 BSP  19429   SGB 5909.8 R23  .0016 R13 -.9595     LSA 2095.8 MSA  314.3 SSA   14.2
BDE 1.3531 BRA 4.7428 BC3 2.5142 FSP   -570   SG1 5895.7 SG2  408.5 THA 176.94     EL1 2003.5 EL2  311.7 ALF   3.44
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 585.355

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RL  150.76 LAL    .00 LOL 343.97 VL  25.891 GAL   8.96 AZL  89.01 HCA 288.48 SMA 121.72 ECC .28249 INC  .9896 V1  29.555
RP  108.78 LAP   -.94 LOP 272.45 VP  36.739 GAP  15.26 AZP  89.69 TAL 155.49 TAP  83.97 RCA  87.34 APO 156.11 V2  34.837
RC 175.059 GL    4.22 GP   13.05 ZAL  41.85 ZAP 166.56 ETS  72.68 ZAE 124.89 ETE 170.81 ZAC 115.91 ETC 267.64 CLP-176.77
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PLANETOCENTRIC CONIC

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C3  36.043 VHL  6.004 DLA -15.54 RAL 303.57 RAD 6568.4 VEL 12.546 PTH   2.27 VHP  9.790 DPA -11.39 RAP 276.40 ECC 1.5932
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 36 21	1854.94	-9.53	19.87	172.80	116.79	11 7 16	1254.9	-5.86	13.11
90.00	18 26 31	5509.19	28.31	255.54	181.60	89.57	19 58 20	4909.2	27.95	246.89
100.00	11 49 9	1620.02	-10.90	1.87	172.08	118.01	12 16 10	1020.0	-7.07	355.18
100.00	19 56 24	5219.34	29.86	234.19	181.57	88.47	21 23 23	4619.3	29.33	225.43
110.00	12 38 25	1465.72	-14.44	348.11	170.01	121.33	13 2 51	865.7	-10.18	341.59
110.00	21 23 38	4946.40	33.92	213.21	181.32	85.47	22 46 4	4346.4	32.92	204.11

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.4998 TRA 5.0931 TC3-2.2303 BAU 1.0753   SGT 5888.4 SGR  500.3 SG3  156.3     ST  2084.7 SR   327.0 SS   629.0
RDE  .3203 RRA -.3906 RC3  .0701 FAU .01210   RRT -.5907 RRF -.5712 RTF  .9611     CRT  .3838 CRS -.4417 CST -.9977
FDE  .5700 FRA 1.7058 FC3 -.2906 BSP  19601   SGB 5909.6 R23  .0010 R13 -.9611     LSA 2180.9 MSA  303.2 SSA   13.7
BDE 1.5337 BRA 5.1080 BC3 2.2315 FSP   -553   SG1 5895.8 SG2  403.1 THA 177.11     EL1 2088.6 EL2  301.4 ALF   3.52
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LAUNCH DATE SEP 7 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 590.335

RL	150.76	LAL	.00	LOL	343.97	VL	25.854	GAL	9.81	AZL	88.80	HCA	291.64	SMA	121.51	ECC	.29200	INC	1.2022	V1	29.555
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.706	GAP	15.91	AZP	89.56	TAL	154.12	TAP	85.76	RCA	86.03	APO	156.99	V2	34.829
RC	177.047	GL	4.83	GP	12.75	ZAL	40.37	ZAP	167.05	ETS	76.44	ZAE	124.76	ETE	171.03	ZAC	115.55	ETC	268.24	CLP	-177.69

PLANETOCENTRIC CONIC

C3	40.385	VHL	6.355	DLA	-14.60	RAL	304.99	RAD	6568.6	VEL	12.718	PTH	2.31	VHP	10.183	DPA	-11.70	RAP	278.63	ECC	1.6646

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 33 25	1917.22	-11.42	23.47	175.92	116.09	11 5 22	1317.2	-7.82	16.64
90.00	18 40 47	5504.38	28.31	255.19	184.81	89.40	20 12 31	4904.4	27.93	246.54
100.00	11 46 55	1680.06	-12.80	5.32	175.21	117.25	12 14 55	1080.1	-9.05	358.54
100.00	20 9 58	5216.78	29.85	234.00	184.77	88.37	21 36 55	4616.8	29.31	225.24
110.00	12 37 39	1521.18	-16.37	351.24	173.18	120.43	13 3 0	921.2	-12.21	344.60
110.00	21 35 44	4948.42	33.93	213.37	184.52	85.56	22 58 12	4348.4	32.94	204.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	1.6896	TRA	5.4806	TC3	-1.9651	BAU	1.0614	SGT	5884.9	SGR	484.3	SG3	150.5	ST	2161.6	SR	320.3	SS	641.2
RDE	.3328	RRA	-.4003	RC3	.0580	FAU	.01058	RRT	-.5724	RRF	-.5541	RTF	.9628	CRT	.4125	CRS	-.4595	CST	-.9984
FDE	.5989	FRA	1.7508	FC3	-.2267	BSP	19757	SGB	5904.8	R23	.0006	R13	-.9628	LSA	2258.5	MSA	292.4	SSA	13.2
BDE	1.7220	BRA	5.4952	BC3	1.9659	FSP	-536	SG1	5891.4	SG2	396.7	THA	177.29	EL1	2165.7	EL2	291.2	ALF	3.56

LAUNCH DATE SEP 7 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 595.181

RL	150.76	LAL	.00	LOL	343.97	VL	25.818	GAL	10.71	AZL	88.58	HCA	294.80	SMA	121.31	ECC	.30243	INC	1.4242	V1	29.555
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.674	GAP	16.61	AZP	89.40	TAL	152.78	TAP	87.59	RCA	84.62	APO	157.99	V2	34.822
RC	179.021	GL	5.37	GP	12.46	ZAL	38.98	ZAP	167.46	ETS	80.54	ZAE	124.62	ETE	171.25	ZAC	115.21	ETC	268.83	CLP	-178.64

PLANETOCENTRIC CONIC

C3	45.396	VHL	6.738	DLA	-13.73	RAL	306.32	RAD	6568.7	VEL	12.914	PTH	2.35	VHP	10.612	DPA	-11.96	RAP	280.86	ECC	1.7471

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 30 58	1977.12	-13.19	26.98	179.07	115.29	11 3 55	1377.1	-9.68	20.06
90.00	18 53 49	5503.43	28.31	255.12	188.00	89.36	20 25 32	4903.4	27.92	246.47
100.00	11 45 5	1738.01	-14.58	8.70	178.38	116.39	12 14 3	1138.0	-10.92	1.83
100.00	20 22 23	5217.77	29.85	234.07	187.96	88.41	21 49 21	4617.8	29.31	225.31
110.00	12 37 5	1575.10	-18.21	354.34	176.37	119.44	13 3 21	975.1	-14.15	347.58
110.00	21 46 52	4953.44	33.95	213.76	187.72	85.79	23 9 25	4353.4	33.00	204.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	1.8878	TRA	5.8926	TC3	-1.7171	BAU	1.0425	SGT	5877.0	SGR	467.5	SG3	145.0	ST	2230.9	SR	313.3	SS	653.4
RDE	.3461	RRA	-.4085	RC3	.0472	FAU	.00907	RRT	-.5529	RRF	-.5361	RTF	.9647	CRT	.4384	CRS	-.4765	CST	-.9989
FDE	.6275	FRA	1.7984	FC3	-.1731	BSP	19894	SGB	5895.6	R23	.0004	R13	-.9647	LSA	2328.5	MSA	281.9	SSA	12.7
BDE	1.9193	BRA	5.9067	BC3	1.7177	FSP	-519	SG1	5882.8	SG2	389.1	THA	177.47	EL1	2235.1	EL2	281.0	ALF	3.58

LAUNCH DATE SEP 7 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 599.867

RL	150.76	LAL	.00	LOL	343.97	VL	25.783	GAL	11.69	AZL	88.34	HCA	297.96	SMA	121.11	ECC	.31391	INC	1.6578	V1	29.555
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.643	GAP	17.38	AZP	89.22	TAL	151.49	TAP	89.45	RCA	83.09	APO	159.12	V2	34.815
RC	180.980	GL	5.86	GP	12.21	ZAL	37.69	ZAP	167.79	ETS	84.97	ZAE	124.45	ETE	171.45	ZAC	114.86	ETC	269.43	CLP	-179.59

PLANETOCENTRIC CONIC

C3	51.199	VHL	7.155	DLA	-12.93	RAL	307.55	RAD	6568.9	VEL	13.136	PTH	2.40	VHP	11.079	DPA	-12.15	RAP	283.07	ECC	1.8426

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 28 55	2034.82	-14.84	30.41	182.23	114.40	11 2 49	1434.8	-11.42	23.40
90.00	19 5 42	5505.88	28.31	255.30	191.17	89.45	20 37 28	4905.9	27.94	246.65
100.00	11 43 33	1794.01	-16.25	12.03	181.55	115.44	12 13 27	1194.0	-12.69	5.04
100.00	20 33 45	5221.93	29.86	234.38	191.14	88.57	22 0 47	4621.9	29.34	225.62
110.00	12 36 42	1627.53	-19.93	357.43	179.58	118.36	13 3 50	1027.5	-15.99	350.53
110.00	21 57 5	4961.17	33.99	214.36	190.92	86.14	23 19 46	4361.2	33.08	205.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.0972	TRA	6.3335	TC3	-1.4854	BAU	1.0170	SGT	5866.4	SGR	449.8	SG3	139.8	ST	2293.7	SR	306.0	SS	666.3
RDE	.3602	RRA	-.4150	RC3	.0374	FAU	.00756	RRT	-.5320	RRF	-.5169	RTF	.9668	CRT	.4624	CRS	-.4931	CST	-.9992
FDE	.6568	FRA	1.8498	FC3	-.1277	BSP	19996	SGB	5883.6	R23	.0004	R13	-.9668	LSA	2392.6	MSA	271.4	SSA	12.3
BDE	2.1279	BRA	6.3471	BC3	1.4859	FSP	-501	SG1	5871.3	SG2	380.5	THA	177.65	EL1	2298.1	EL2	270.8	ALF	3.58

LAUNCH DATE SEP 7 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 604.364

RL	150.76	LAL	.00	LOL	343.97	VL	25.749	GAL	12.75	AZL	88.09	HCA	301.12	SMA	120.91	ECC	.32657	INC	1.9055	V1	29.555
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.613	GAP	18.21	AZP	89.01	TAL	150.25	TAP	91.37	RCA	81.43	APO	160.40	V2	34.809
RC	182.925	GL	6.30	GP	11.97	ZAL	36.51	ZAP	168.02	ETS	89.72	ZAE	124.26	ETE	171.65	ZAC	114.52	ETC	270.01	CLP	179.43

PLANETOCENTRIC CONIC

C3	57.946	VHL	7.612	DLA	-12.20	RAL	308.69	RAD	6569.1	VEL	13.390	PTH	2.45	VHP	11.592	DPA	-12.29	RAP	285.27	ECC	1.9536

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 27 10	2090.43	-16.38	33.77	185.39	113.43	11 2 1	1490.4	-13.07	26.66
90.00	19 16 32	5511.39	28.32	255.70	194.31	89.65	20 48 24	4911.4	27.97	247.05
100.00	11 42 17	1848.11	-17.80	15.29	184.72	114.42	12 13 5	1248.1	-14.35	8.20
100.00	20 44 7	5228.94	29.87	234.90	194.29	88.85	22 11 16	4628.9	29.39	226.13
110.00	12 36 27	1678.47	-21.55	.50	182.80	117.20	13 4 25	1078.5	-17.73	353.45
110.00	22 6 26	4971.35	34.04	215.15	194.09	86.61	23 29 18	4371.3	33.19	206.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.3194	TRA	6.8062	TC3	-1.2680	BAU	.9826	SGT	5851.9	SGR	431.2	SG3	134.9	ST	2350.2	SR	298.5	SS	680.2
RDE	.3751	RRA	-.4194	RC3	.0288	FAU	.00601	RRT	-.5090	RRF	-.4957	RTF	.9691	CRT	.4853	CRS	-.5099	CST	-.9994
FDE	.6871	FRA	1.9054	FC3	-.0898	BSP	19987	SGB	5867.7	R23	.0005	R13	-.9691	LSA	2450.9	MSA	260.9	SSA	11.8
BDE	2.3495	BRA	6.8191	BC3	1.2683	FSP	-483	SG1	5856.0	SG2	370.9	THA	177.84	EL1	2354.7	EL2	260.5	ALF	3.57

LAUNCH DATE SEP 7 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 608.633
RL 150.76 LAL .00 LOL 343.97 VL 25.715 GAL 13.89 AZL 87.83 HCA 304.28 SMA 120.72 ECC .34056 INC 2.1700 V1 29.555
RP 108.88 LAP -1.79 LOP 288.27 VP 36.584 GAP 19.13 AZP 88.78 TAL 149.07 TAP 93.35 RCA 79.61 APO 161.83 V2 34.804
RC 184.854 GL 6.69 GP 11.75 ZAL 35.42 ZAP 168.15 ETS 94.75 ZAE 124.04 ETE 171.84 ZAC 114.18 ETC 270.58 CLP 178.42
PLANETOCENTRIC CONIC
C3 65.825 VHL 8.113 DLA -11.52 RAL 309.74 RAD 6569.3 VEL 13.681 PTH 2.50 VHP 12.156 DPA -12.38 RAP 287.44 ECC 2.0833

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 25 42	2143.97	-17.79	37.06	188.53	112.40	11 1 26	1544.0	-14.60	29.84
90.00	19 26 22	5519.62	28.32	256.30	197.41	89.96	20 58 22	4919.6	28.01	247.65
100.00	11 41 13	1900.32	-19.24	18.50	187.89	113.33	12 12 53	1300.3	-15.92	11.29
100.00	20 53 32	5238.49	29.88	235.61	197.40	89.22	22 20 51	4638.5	29.46	226.83
110.00	12 36 17	1727.87	-23.06	3.54	186.01	115.97	13 5 5	1127.9	-19.37	356.34
110.00	22 14 58	4983.71	34.08	216.11	197.24	87.18	23 38 1	4383.7	33.31	206.95

DIFFERENTIAL CORRECTIONS
TDE 2.5569 TRA 7.3160 TC3-1.0660 BAU .9383
RDE .3910 RRA -.4212 RC3 .0213 FAU .00440
FDE .7193 FRA 1.9667 FC3 -.0579 BSP 19912
BDE 2.5866 BRA 7.3281 BC3 1.0662 FSP -463

MID-COURSE EXECUTION ACCURACY
SGT 5835.7 SGR 411.9 SG3 130.3
RRT -.4835 RRF -.4721 RTF .9716
SG8 5850.2 R23 .0006 R13 -.9716
SG1 5839.1 SG2 360.3 THA 178.04

ORBIT DETERMINATION ACCURACY
ST 2401.1 SR 290.8 SS 695.8
CRT .5078 CRS -.5271 CST -.9996
LSA 2504.3 MSA 250.3 SSA 11.3
EL1 2405.7 EL2 250.0 ALF 3.56

LAUNCH DATE SEP 7 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 612.627
RL 150.76 LAL .00 LOL 343.97 VL 25.682 GAL 15.14 AZL 87.54 HCA 307.44 SMA 120.54 ECC .35610 INC 2.4552 V1 29.555
RP 108.90 LAP -1.95 LOP 291.43 VP 36.557 GAP 20.14 AZP 88.51 TAL 147.96 TAP 95.40 RCA 77.61 APO 163.46 V2 34.799
RC 186.768 GL 7.04 GP 11.54 ZAL 34.44 ZAP 168.17 ETS 100.00 ZAE 123.77 ETE 172.03 ZAC 113.84 ETC 271.14 CLP 177.37
PLANETOCENTRIC CONIC
C3 75.077 VHL 8.665 DLA -10.91 RAL 310.69 RAD 6569.5 VEL 14.015 PTH 2.56 VHP 12.780 DPA -12.43 RAP 289.57 ECC 2.2356

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 24 26	2195.42	-19.10	40.27	191.64	111.31	11 1 1	1595.4	-16.03	32.94
90.00	19 35 14	5530.28	28.32	257.08	200.46	90.35	21 7 24	4930.3	28.06	248.43
100.00	11 40 18	1950.61	-20.56	21.65	191.02	112.19	12 12 49	1350.6	-17.37	14.31
100.00	21 2 2	5250.32	29.89	236.49	200.46	89.68	22 29 33	4650.3	29.53	227.71
110.00	12 36 10	1775.67	-24.45	6.56	189.19	114.67	13 5 46	1175.7	-20.91	359.19
110.00	22 22 40	4998.03	34.12	217.23	200.35	87.84	23 45 58	4398.0	33.45	208.05

DIFFERENTIAL CORRECTIONS
TDE 2.8125 TRA 7.8678 TC3 -.8786 BAU .8820
RDE .4081 RRA -.4199 RC3 .0148 FAU .00271
FDE .7537 FRA 2.0345 FC3 -.0312 BSP 19719
BDE 2.8419 BRA 7.8790 BC3 .8787 FSP -442

MID-COURSE EXECUTION ACCURACY
SGT 5818.1 SGR 391.7 SG3 126.1
RRT -.4543 RRF -.4449 RTF .9741
SG8 5831.2 R23 .0009 R13 -.9741
SG1 5820.8 SG2 348.8 THA 178.24

ORBIT DETERMINATION ACCURACY
ST 2446.9 SR 282.9 SS 713.4
CRT .5302 CRS -.5452 CST -.9997
LSA 2553.2 MSA 239.5 SSA 10.9
EL1 2451.6 EL2 239.4 ALF 3.54

LAUNCH DATE SEP 7 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 616.285
RL 150.76 LAL .00 LOL 343.97 VL 25.651 GAL 16.51 AZL 87.23 HCA 310.59 SMA 120.36 ECC .37339 INC 2.7655 V1 29.555
RP 108.91 LAP -2.10 LOP 294.59 VP 36.530 GAP 21.27 AZP 88.20 TAL 146.95 TAP 97.54 RCA 75.42 APO 165.30 V2 34.795
RC 188.667 GL 7.35 GP 11.35 ZAL 33.56 ZAP 168.06 ETS 105.41 ZAE 123.46 ETE 172.22 ZAC 113.50 ETC 271.68 CLP 176.29
PLANETOCENTRIC CONIC
C3 86.004 VHL 9.274 DLA -10.36 RAL 311.54 RAD 6569.7 VEL 14.400 PTH 2.62 VHP 13.474 DPA -12.43 RAP 291.67 ECC 2.4154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 23 19	2244.69	-20.29	43.40	194.69	110.19	11 0 44	1644.7	-17.36	35.95
90.00	19 43 9	5543.13	28.31	258.02	203.44	90.82	21 15 32	4943.1	28.12	249.36
100.00	11 39 31	1998.86	-21.77	24.72	194.09	111.00	12 12 50	1398.9	-18.72	17.26
100.00	21 9 38	5264.19	29.89	237.52	203.45	90.23	22 37 22	4664.2	29.60	228.73
110.00	12 36 5	1821.72	-25.72	9.53	192.33	113.33	13 6 27	1221.7	-22.34	2.00
110.00	22 29 34	5014.09	34.16	218.48	203.40	88.58	23 53 8	4414.1	33.58	209.28

DIFFERENTIAL CORRECTIONS
TDE 3.0881 TRA 8.4670 TC3 -.7055 BAU .8112
RDE .4267 RRA -.4145 RC3 .0094 FAU .00090
FDE .7910 FRA 2.1100 FC3 -.0091 BSP 19410
BDE 3.1174 BRA 8.4771 BC3 .7055 FSP -419

MID-COURSE EXECUTION ACCURACY
SGT 5799.2 SGR 370.9 SG3 122.0
RRT -.4205 RRF -.4132 RTF .9768
SG8 5811.0 R23 .0012 R13 -.9768
SG1 5801.3 SG2 336.4 THA 178.45

ORBIT DETERMINATION ACCURACY
ST 2487.3 SR 274.9 SS 733.4
CRT .5532 CRS -.5645 CST -.9998
LSA 2597.6 MSA 228.7 SSA 10.4
EL1 2492.0 EL2 228.6 ALF 3.53

LAUNCH DATE SEP 7 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 619.529
RL 150.76 LAL .00 LOL 343.97 VL 25.620 GAL 18.02 AZL 86.89 HCA 313.74 SMA 120.19 ECC .39271 INC 3.1063 V1 29.555
RP 108.92 LAP -2.24 LOP 297.75 VP 36.506 GAP 22.52 AZP 87.85 TAL 146.04 TAP 99.78 RCA 72.99 APO 167.39 V2 34.791
RC 190.549 GL 7.63 GP 11.18 ZAL 32.79 ZAP 167.83 ETS 110.90 ZAE 123.09 ETE 172.42 ZAC 113.16 ETC 272.20 CLP 175.14
PLANETOCENTRIC CONIC
C3 98.995 VHL 9.950 DLA -9.87 RAL 312.29 RAD 6569.9 VEL 14.844 PTH 2.68 VHP 14.249 DPA -12.39 RAP 293.70 ECC 2.6292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 21	2291.63	-21.36	46.42	197.67	109.04	11 0 32	1691.6	-18.57	38.86
90.00	19 50 6	5557.93	28.29	259.11	206.32	91.36	21 22 44	4957.9	28.18	250.44
100.00	11 38 49	2044.91	-22.87	27.71	197.09	109.80	12 12 54	1444.9	-19.96	20.12
100.00	21 16 19	5279.88	29.88	238.69	206.36	90.84	22 44 18	4679.9	29.68	229.89
110.00	12 36 0	1865.87	-26.88	12.44	195.41	111.96	13 7 6	1265.9	-23.66	4.75
110.00	22 35 37	5031.70	34.18	219.86	206.37	89.39	23 59 29	4431.7	33.72	210.64

DIFFERENTIAL CORRECTIONS
TDE 3.3867 TRA 9.1197 TC3 -.5461 BAU .7228
RDE .4471 RRA -.4043 RC3 .0051 FAU-.00107
FDE .8318 FRA 2.1944 FC3 .0093 BSP 18956
BDE 3.4161 BRA 9.1287 BC3 .5461 FSP -395

MID-COURSE EXECUTION ACCURACY
SGT 5779.2 SGR 349.6 SG3 118.3
RRT -.3804 RRF -.3752 RTF .9795
SG8 5789.8 R23 .0016 R13 -.9795
SG1 5780.7 SG2 323.3 THA 178.68

ORBIT DETERMINATION ACCURACY
ST 2522.3 SR 267.0 SS 756.4
CRT .5771 CRS -.5853 CST -.9999
LSA 2637.8 MSA 217.7 SSA 9.9
EL1 2527.0 EL2 217.7 ALF 3.52

LAUNCH DATE SEP 8 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 17 1970

HELIOCENTRIC CONIC DISTANCE 171.872

RL	150.72	LAL	.00	LOL	344.94	VL	24.660	GAL	-4.24	AZL	91.11	HCA	73.26	SMA	115.11	ECC	.31728	INC	1.1095	V1	29.563
RP	107.99	LAP	-1.06	LOP	58.19	VP	36.124	GAP	-18.17	AZP	90.32	TAL	189.24	TAP	262.50	RCA	78.59	APO	151.63	V2	35.092
RC	40.930	GL	-5.27	GP	-10.85	ZAL	105.48	ZAP	11.67	ETS	108.52	ZAE	160.55	ETE	339.46	ZAC	90.40	ETC	260.34	CLP	4.32

PLANETOCENTRIC CONIC

C3	26.855	VHL	5.182	DLA	-25.17	RAL	235.93	RAD	6568.1	VEL	12.175	PTH	2.18	VHP	11.269	DPA	-30.34	RAP	237.46	ECC	1.4420

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 0 46	1350.46	6.55	351.52	104.32	117.61	8 23 16	750.5	10.20	344.73
90.00	11 54 35	5865.93	25.79	281.23	111.52	102.12	13 32 21	5265.9	27.20	272.85
100.00	8 58 41	1163.45	4.36	336.58	103.12	119.60	9 18 5	563.4	8.27	329.97
100.00	13 39 21	5528.18	28.23	256.92	112.06	100.27	15 11 29	4928.2	29.36	248.30
110.00	9 22 52	1087.61	-.34	327.91	100.20	124.18	9 40 59	487.6	4.15	321.70
110.00	15 31 40	5176.78	33.71	231.15	112.97	96.05	16 57 56	4576.8	34.18	221.94

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1668	TRA	-.5514	TC3	.2707	BAU	.1037	SGT	752.6	SGR	442.3	SG3	73.4	ST	273.7	SR	428.0	SS	108.5
RDE	-.3869	RRA	-.0347	RC3	-.1004	FAU	.02392	RRT	-.2389	RRF	.2674	RTF	-.6668	CRT	-.6518	CRS	-.5943	CST	.9811
FDE	-.0620	FRA	.2305	FC3	-.7710	BSP	2005	SGB	873.0	R23	-.0351	R13	.6751	LSA	478.8	MSA	200.6	SSA	18.5
BDE	.4213	BRA	.5525	BC3	.2888	FSP	-169	SG1	763.4	SG2	423.4	THA	168.39	EL1	471.8	EL2	188.3	ALF	117.33

LAUNCH DATE SEP 8 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 178.622

RL	150.72	LAL	.00	LOL	344.94	VL	24.953	GAL	-4.28	AZL	90.91	HCA	76.47	SMA	116.58	ECC	.30146	INC	.9050	V1	29.563
RP	107.95	LAP	-.88	LOP	61.41	VP	36.337	GAP	-17.04	AZP	90.21	TAL	190.06	TAP	266.53	RCA	81.43	APO	151.72	V2	35.105
RC	41.530	GL	-4.60	GP	-11.46	ZAL	106.84	ZAP	11.69	ETS	98.28	ZAE	158.08	ETE	338.87	ZAC	89.93	ETC	260.56	CLP	2.35

PLANETOCENTRIC CONIC

C3	24.070	VHL	4.906	DLA	-24.20	RAL	234.66	RAD	6568.0	VEL	12.060	PTH	2.16	VHP	10.647	DPA	-31.25	RAP	238.64	ECC	1.3961

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 5	1380.82	5.59	353.23	100.73	117.81	8 2 6	780.8	9.27	346.48
90.00	12 6 8	5781.54	26.86	275.28	108.11	99.33	13 42 30	5181.5	27.87	266.76
100.00	8 40 6	1183.83	3.68	337.70	99.67	119.69	8 59 50	583.8	7.60	331.11
100.00	13 47 48	5453.76	29.01	251.53	108.48	97.53	15 18 42	4853.8	29.75	242.80
110.00	9 8 28	1094.87	-.62	328.29	97.00	124.18	9 26 43	494.9	3.87	322.08
110.00	15 35 56	5115.49	34.05	226.39	109.03	93.26	17 1 11	4515.5	34.12	217.15

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1641	TRA	-.5320	TC3	.3371	BAU	.1163	SGT	781.1	SGR	449.1	SG3	81.9	ST	280.3	SR	428.5	SS	101.2
RDE	-.3668	RRA	-.0347	RC3	-.1299	FAU	.02549	RRT	-.2679	RRF	.3007	RTF	-.6858	CRT	-.6608	CRS	-.5333	CST	.9677
FDE	-.0524	FRA	.2274	FC3	-.9169	BSP	2126	SGB	901.0	R23	-.0407	R13	.6953	LSA	481.0	MSA	201.8	SSA	19.6
BDE	.4018	BRA	.5332	BC3	.3613	FSP	-192	SG1	794.2	SG2	425.6	THA	167.65	EL1	475.7	EL2	189.5	ALF	118.25

LAUNCH DATE SEP 8 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 185.387

RL	150.72	LAL	.00	LOL	344.94	VL	25.220	GAL	-4.33	AZL	90.71	HCA	79.69	SMA	117.96	ECC	.28700	INC	.7056	V1	29.563
RP	107.91	LAP	-.69	LOP	64.62	VP	36.533	GAP	-15.97	AZP	90.13	TAL	190.93	TAP	270.62	RCA	84.11	APO	151.82	V2	35.117
RC	42.291	GL	-3.81	GP	-12.13	ZAL	108.31	ZAP	12.14	ETS	88.17	ZAE	155.75	ETE	338.15	ZAC	89.38	ETC	260.78	CLP	.33

PLANETOCENTRIC CONIC

C3	21.718	VHL	4.660	DLA	-23.10	RAL	233.31	RAD	6567.9	VEL	11.962	PTH	2.13	VHP	10.055	DPA	-32.21	RAP	239.77	ECC	1.3574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 16 59	1414.51	4.51	355.12	97.22	117.98	7 40 34	814.5	8.22	348.41
90.00	12 17 31	5697.80	27.64	269.28	104.61	96.42	13 52 28	5097.8	28.24	260.67
100.00	8 20 39	1209.03	2.83	339.09	96.29	119.77	8 40 48	609.0	6.77	332.52
100.00	13 56 32	5378.51	29.56	246.00	104.82	94.67	15 26 11	4778.5	29.89	237.21
110.00	8 53 0	1107.58	-1.10	328.95	93.84	124.17	9 11 28	507.6	3.39	322.75
110.00	15 40 40	5052.73	34.18	221.50	105.06	90.37	17 4 53	4452.7	33.85	212.27

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1606	TRA	-.5125	TC3	.4159	BAU	.1300	SGT	811.4	SGR	456.5	SG3	91.3	ST	285.2	SR	427.3	SS	92.2
RDE	-.3473	RRA	-.0351	RC3	-.1657	FAU	.02727	RRT	-.3026	RRF	.3380	RTF	-.7070	CRT	-.6686	CRS	-.4304	CST	.9343
FDE	-.0393	FRA	.2231	FC3	-1.0869	BSP	2291	SGB	931.0	R23	-.0442	R13	.7176	LSA	480.7	MSA	202.2	SSA	20.9
BDE	.3826	BRA	.5137	BC3	.4477	FSP	-219	SG1	827.5	SG2	426.6	THA	166.76	EL1	477.3	EL2	189.8	ALF	119.07

LAUNCH DATE SEP 8 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 192.163

RL	150.72	LAL	.00	LOL	344.94	VL	25.464	GAL	-4.40	AZL	90.51	HCA	82.90	SMA	119.27	ECC	.27382	INC	.5103	V1	29.563
RP	107.88	LAP	-.51	LOP	67.84	VP	36.713	GAP	-14.94	AZP	90.06	TAL	191.86	TAP	274.77	RCA	86.61	APO	151.93	V2	35.129
RC	43.202	GL	-2.92	GP	-12.88	ZAL	109.88	ZAP	12.99	ETS	78.84	ZAE	153.56	ETE	337.31	ZAC	88.75	ETC	260.98	CLP	-1.74

PLANETOCENTRIC CONIC

C3	19.736	VHL	4.443	DLA	-21.86	RAL	231.92	RAD	6567.8	VEL	11.879	PTH	2.11	VHP	9.495	DPA	-33.23	RAP	240.84	ECC	1.3248

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 36	1451.67	3.32	357.21	93.85	118.14	7 18 48	851.7	7.06	350.52
90.00	12 28 47	5614.81	28.12	263.26	101.07	93.44	14 2 21	5014.8	28.30	254.60
100.00	8 0 33	1238.86	1.82	340.73	93.01	119.84	8 21 11	638.9	5.77	334.18
100.00	14 5 31	5302.86	29.85	240.40	101.16	91.74	15 33 54	4702.9	29.77	231.69
110.00	8 36 40	1125.60	-1.79	329.89	90.76	124.14	8 55 26	525.6	2.70	323.69
110.00	15 45 53	4988.88	34.10	216.51	101.12	87.42	17 9 2	4388.9	33.36	207.35

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1541	TRA	-.4938	TC3	.4924	BAU	.1411	SGT	837.7	SGR	464.9	SG3	101.9	ST	286.4	SR	423.8	SS	82.8
RDE	-.3284	RRA	-.0358	RC3	-.2085	FAU	.02924	RRT	-.3366	RRF	.3793	RTF	-.7203	CRT	-.6687	CRS	-.2520	CST	.8551
FDE	-.0219	FRA	.2176	FC3	-1.2828	BSP	2381	SGB	958.1	R23	-.0541	R13	.7329	LSA	476.4	MSA	202.6	SSA	22.4
BDE	.3627	BRA	.4951	BC3	.5347	FSP	-249	SG1	857.3	SG2	427.8	THA	165.82	EL1	474.9	EL2	190.1	ALF	119.50

LAUNCH DATE SEP 8 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 198.944

RL	150.72	LAL	.00	LOL	344.94	VL	25.685	GAL	-4.47	AZL	90.32	HCA	86.12	SMA	120.50	ECC	.26186	INC	.3175	V1	29.563
RP	107.84	LAP	-.32	LOP	71.06	VP	36.878	GAP	-13.96	AZP	90.02	TAL	192.84	TAP	278.96	RCA	88.95	APO	152.06	V2	35.141
RC	44.254	GL	-1.91	GP	-13.70	ZAL	111.52	ZAP	14.23	ETS	70.66	ZAE	151.54	ETE	336.33	ZAC	88.03	ETC	261.18	CLP	-3.86

PLANETOCENTRIC CONIC

C3	18.073	VHL	4.251	DLA	-20.48	RAL	230.51	RAO	6567.7	VEL	11.809	PTH	2.09	VHP	8.963	DPA	-34.30	RAP	241.83	ECC	1.29'4

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 32 6	1492.31	2.02	359.48	90.65	118.25	6 56 58	892.3	5.78	352.82
90.00	12 40 1	5532.72	28.31	257.26	97.54	90.44	14 12 13	4932.7	28.07	248.60
100.00	7 40 2	1273.06	.66	342.61	89.89	119.89	8 1 15	673.1	4.63	336.07
100.00	14 14 46	5227.20	29.87	234.77	97.53	88.78	15 41 53	4627.2	29.38	226.00
110.00	8 19 43	1148.69	-2.67	331.10	87.81	124.09	8 38 52	548.7	1.82	324.89
110.00	15 51 34	4924.34	33.79	211.50	97.26	84.47	17 13 38	4324.3	32.65	202.45

DIFFERENTIAL CORRECTIONS

TDE	.1411	TRA	-.4799	TC3	.5680	BAU	.1507
RDE	-.3094	RRA	-.0363	RC3	-.2580	FAU	.03136
FDE	.0027	FRA	.2130	FC3	-1.5021	BSP	2384
BDE	.3400	BRA	.4812	BC3	.6238	FSP	-278

MID-COURSE EXECUTION ACCURACY

SGT	863.7	SGR	474.1	SG3	113.5		
RRT	-.3642	RRF	.4219	RTF	-.7296		
SGB	985.3	R23	-.0729	R13	.7450		
SG1	886.3	SG2	430.2	THA	165.11		

ORBIT DETERMINATION ACCURACY

ST	281.5	SR	417.3	SS	77.2
CRT	-.6479	CRS	.0646	CST	.6741
LSA	465.3	MSA	205.5	SSA	24.2
EL1	465.2	EL2	192.4	ALF	119.03

LAUNCH DATE SEP 8 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 205.728

RL	150.72	LAL	.00	LOL	344.94	VL	25.887	GAL	-4.54	AZL	90.13	HCA	89.34	SMA	121.65	ECC	.25105	INC	.1253	V1	29.563
RP	107.81	LAP	-.13	LOP	74.28	VP	37.029	GAP	-13.02	AZP	90.00	TAL	193.85	TAP	283.19	RCA	91.11	APO	152.19	V2	35.152
RC	45.436	GL	-.80	GP	-14.62	ZAL	113.19	ZAP	15.80	ETS	63.76	ZAE	149.69	ETE	335.20	ZAC	87.21	ETC	261.37	CLP	-6.05

PLANETOCENTRIC CONIC

C3	16.684	VHL	4.085	DLA	-18.98	RAL	229.10	RAO	6567.7	VEL	11.750	PTH	2.07	VHP	8.461	DPA	-35.44	RAP	242.74	ECC	1.2746

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 9 37	1536.34	.60	1.93	87.65	118.31	6 35 13	936.3	4.38	355.29
90.00	12 51 17	5451.67	28.21	251.34	94.11	87.47	14 22 9	4851.7	27.56	242.73
100.00	7 19 19	1311.39	-.64	344.71	86.96	119.89	7 41 11	711.4	3.34	338.18
100.00	14 24 15	5151.86	29.63	229.19	94.01	85.85	15 50 7	4551.9	28.74	220.50
110.00	8 2 21	1176.56	-3.73	332.56	85.03	124.00	8 21 58	576.6	.75	326.35
110.00	15 57 43	4859.45	33.25	206.51	93.54	81.56	17 18 43	4259.5	31.73	197.62

DIFFERENTIAL CORRECTIONS

TDE	.1263	TRA	-.4660	TC3	.6454	BAU	.1603
RDE	-.2903	RRA	-.0371	RC3	-.3158	FAU	.03372
FDE	.0340	FRA	.2076	FC3	-1.7495	BSP	2398
BDE	.3166	BRA	.4674	BC3	.7185	FSP	-312

MID-COURSE EXECUTION ACCURACY

SGT	887.2	SGR	485.2	SG3	126.4		
RRT	-.3952	RRF	.4683	RTF	-.7381		
SGB	1011.2	R23	-.0923	R13	.7572		
SG1	914.0	SG2	432.6	THA	164.17		

ORBIT DETERMINATION ACCURACY

ST	273.2	SR	407.6	SS	82.2
CRT	-.6181	CRS	.4498	CST	.3706
LSA	451.1	MSA	208.2	SSA	26.2
EL1	450.6	EL2	194.2	ALF	118.19

LAUNCH DATE SEP 8 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 212.509

RL	150.72	LAL	.00	LOL	344.94	VL	26.069	GAL	-4.62	AZL	89.94	HCA	92.57	SMA	122.72	ECC	.24131	INC	.0626	V1	29.563
RP	107.77	LAP	.06	LOP	77.50	VP	37.167	GAP	-12.12	AZP	90.00	TAL	194.88	TAP	287.45	RCA	93.10	APO	152.33	V2	35.163
RC	46.738	GL	.43	GP	-15.64	ZAL	114.88	ZAP	17.67	ETS	58.03	ZAE	148.02	ETE	333.91	ZAC	86.27	ETC	261.53	CLP	-8.32

PLANETOCENTRIC CONIC

C3	15.531	VHL	3.941	DLA	-17.35	RAL	227.73	RAO	6567.6	VEL	11.701	PTH	2.06	VHP	7.986	DPA	-36.65	RAP	243.54	ECC	1.2556

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 47 17	1583.67	-.93	4.57	84.89	118.30	6 13 40	983.7	2.86	357.94
90.00	13 2 39	5371.75	27.84	245.52	90.81	84.58	14 32 11	4771.7	26.79	237.01
100.00	6 58 35	1353.58	-2.07	347.02	84.25	119.83	7 21 9	753.6	1.91	340.50
100.00	14 34 2	5077.07	29.13	223.68	90.65	82.99	15 58 39	4477.1	27.86	215.11
110.00	7 44 46	1208.91	-4.96	334.25	82.46	123.86	8 4 54	608.9	-.48	328.04
110.00	16 4 21	4794.51	32.49	201.59	90.02	78.74	17 24 15	4194.5	30.60	192.89

DIFFERENTIAL CORRECTIONS

TDE	.1237	TRA	-.4382	TC3	.7591	BAU	.1768
RDE	-.2722	RRA	-.0393	RC3	-.3859	FAU	.03669
FDE	.0656	FRA	.1939	FC3	-2.0451	BSP	2755
BDE	.2990	BRA	.4400	BC3	.8516	FSP	-366

MID-COURSE EXECUTION ACCURACY

SGT	914.3	SGR	502.7	SG3	141.8		
RRT	-.4639	RRF	.5270	RTF	-.7626		
SGB	1043.3	R23	-.0827	R13	.7829		
SG1	951.6	SG2	427.9	THA	161.91		

ORBIT DETERMINATION ACCURACY

ST	269.7	SR	396.2	SS	95.8
CRT	-.6337	CRS	.7066	CST	.0393
LSA	444.3	MSA	201.7	SSA	28.6
EL1	441.2	EL2	187.4	ALF	119.06

LAUNCH DATE SEP 8 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 219.285

RL	150.72	LAL	.00	LOL	344.94	VL	26.234	GAL	-4.70	AZL	89.74	HCA	95.79	SMA	123.70	ECC	.23258	INC	.2567	V1	29.563
RP	107.74	LAP	.26	LOP	80.73	VP	37.293	GAP	-11.25	AZP	90.03	TAL	195.92	TAP	291.71	RCA	94.93	APO	152.47	V2	35.174
RC	48.150	GL	1.76	GP	-16.78	ZAL	116.55	ZAP	19.81	ETS	53.31	ZAE	146.52	ETE	332.42	ZAC	85.21	ETC	261.68	CLP	-10.68

PLANETOCENTRIC CONIC

C3	14.580	VHL	3.818	DLA	-15.61	RAL	226.42	RAO	6567.6	VEL	11.660	PTH	2.05	VHP	7.540	DPA	-37.96	RAP	244.21	ECC	1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 25 18	1633.97	-2.55	7.38	82.40	118.21	5 52 32	1034.0	1.24	.75
90.00	13 14 12	5293.17	27.20	239.86	87.71	81.81	14 42 25	4693.2	25.79	231.48
100.00	6 38 4	1399.22	-3.62	349.53	81.81	119.69	7 1 23	799.2	.36	343.01
100.00	14 44 8	5003.15	28.40	218.31	87.50	80.26	16 7 31	4403.2	26.76	209.89
110.00	7 27 12	1245.27	-6.34	336.17	80.12	123.66	7 47 58	645.3	-1.87	329.93
110.00	16 11 28	4729.87	31.53	196.80	86.74	76.06	17 30 18	4129.9	29.29	188.31

DIFFERENTIAL CORRECTIONS

TDE	.1091	TRA	-.4210	TC3	.8455	BAU	.1880
RDE	-.2523	RRA	-.0408	RC3	-.4635	FAU	.03972
FDE	.1108	FRA	.1842	FC3	-2.3587	BSP	2870
BDE	.2749	BRA	.4230	BC3	.9643	FSP	-414

MID-COURSE EXECUTION ACCURACY

SGT	934.9	SGR	522.2	SG3	158.2		
RRT	-.5098	RRF	.5818	RTF	-.7733		
SGB	1070.9	R23	-.0955	R13	.7977		
SG1	981.7	SG2	427.8	THA	160.19		

ORBIT DETERMINATION ACCURACY

ST	256.7	SR	379.3	SS	126.9
CRT	-.6004	CRS	.8662	CST	-.1847
LSA	429.6	MSA	200.9	SSA	31.1
EL1	418.5	EL2	186.1	ALF	118.16

LAUNCH DATE SEP 8 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 226.052

RL	150.72	LAL	.00	LOL	344.94	VL	26.382	GAL	-4.77	AZL	89.55	HCA	99.02	SMA	124.61	ECC	.22479	INC	.4515	V1	29.563
RP	107.71	LAP	.45	LOP	83.96	VP	37.407	GAP	-10.42	AZP	90.07	TAL	196.95	TAP	295.97	RCA	96.60	APO	152.62	V2	35.184
RC	49.661	GL	3.20	GP	-18.04	ZAL	118.16	ZAP	22.19	ETS	49.42	ZAE	145.17	ETE	330.72	ZAC	84.02	ETC	261.80	CLP	-13.15

PLANETOCENTRIC CONIC

C3	13.805	VHL	3.716	DLA	-13.77	RAL	225.20	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	7.122	DPA	-39.36	RAP	244.74	ECC	1.2272

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 3 48	1687.05	-4.26	10.35	80.20	118.02	5 31 55	1087.1	-.48	3.71
90.00	13 25 59	5215.99	26.33	234.38	84.86	79.19	14 52 55	4616.0	24.57	226.15
100.00	6 17 53	1448.02	-5.26	352.23	79.65	119.47	6 42 1	848.0	-1.29	345.68
100.00	14 54 35	4930.25	27.45	213.10	84.60	77.67	16 16 45	4330.3	25.47	204.86
110.00	7 9 51	1285.28	-7.84	338.29	78.06	123.38	7 31 16	685.3	-3.40	332.02
110.00	16 19 7	4665.75	30.39	192.16	83.74	73.53	17 36 53	4065.8	27.83	183.89

DIFFERENTIAL CORRECTIONS

TDE	.0921	TRA	-.4054	TC3	.9245	BAU	.1987
RDE	-.2311	RRA	-.0422	RC3	-.5513	FAU	.04307
FDE	.1666	FRA	.1741	FC3	-2.7007	BSP	2968
BDE	.2488	BRA	.4076	BC3	1.0764	FSP	-468

MID-COURSE EXECUTION ACCURACY

SGT	952.0	SGR	547.1	SG3	176.4		
RRT	-.5548	RRF	.6374	RTF	-.7819		
SGB	1098.0	R23	-.1106	R13	.8118		
SG1	1010.9	SG2	428.7	THA	158.20		

ORBIT DETERMINATION ACCURACY

ST	240.6	SR	357.1	SS	170.2		
CRT	-.5470	CRS	.9362	CST	-.2893		
LSA	416.3	MSA	199.9	SSA	33.8		
EL1	388.9	EL2	185.0	ALF	116.73		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 232.807

RL	150.72	LAL	.00	LOL	344.94	VL	26.516	GAL	-4.84	AZL	89.35	HCA	102.25	SMA	125.44	ECC	.21786	INC	.6500	V1	29.563
RP	107.68	LAP	.64	LOP	87.19	VP	37.510	GAP	-9.63	AZP	90.14	TAL	197.96	TAP	300.21	RCA	98.11	APO	152.77	V2	35.193
RC	51.263	GL	4.74	GP	-19.44	ZAL	119.67	ZAP	24.81	ETS	46.18	ZAE	143.98	ETE	328.77	ZAC	82.67	ETC	261.89	CLP	-15.73

PLANETOCENTRIC CONIC

C3	13.182	VHL	3.631	DLA	-11.85	RAL	224.10	RAD	6567.5	VEL	11.600	PTH	2.03	VHP	6.731	DPA	-40.87	RAP	245.08	ECC	1.2169

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 42 53	1742.67	-6.03	13.48	78.32	117.72	5 11 55	1142.7	-2.27	6.81
90.00	13 38 5	5140.24	25.26	229.09	82.29	76.75	15 3 46	4540.2	23.18	221.03
100.00	5 58 12	1499.67	-6.98	355.09	77.80	119.14	6 23 12	899.7	-3.04	348.52
100.00	15 5 27	4858.48	26.31	208.08	82.00	75.26	16 26 26	4258.5	24.02	200.02
110.00	6 52 50	1328.57	-9.46	340.60	76.29	123.00	7 14 59	728.6	-5.05	334.29
110.00	16 27 19	4602.34	29.08	187.68	81.06	71.18	17 44 1	4002.3	26.23	179.66

DIFFERENTIAL CORRECTIONS

TDE	.0707	TRA	-.3938	TC3	.9831	BAU	.2075
RDE	-.2074	RRA	-.0430	RC3	-.6482	FAU	.04659
FDE	.2370	FRA	.1664	FC3	-3.0601	BSP	2992
BDE	.2191	BRA	.3961	BC3	1.1775	FSP	-523

MID-COURSE EXECUTION ACCURACY

SGT	961.9	SGR	577.4	SG3	196.1		
RRT	-.5913	RRF	.6905	RTF	-.7857		
SGB	1121.9	R23	-.1317	R13	.8237		
SG1	1035.1	SG2	432.8	THA	156.01		

ORBIT DETERMINATION ACCURACY

ST	221.8	SR	328.2	SS	225.9		
CRT	-.4511	CRS	.9660	CST	-.2897		
LSA	408.7	MSA	199.0	SSA	36.1		
EL1	349.9	EL2	185.7	ALF	114.14		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 239.548

RL	150.72	LAL	.00	LOL	344.94	VL	26.635	GAL	-4.91	AZL	89.15	HCA	105.48	SMA	126.19	ECC	.21172	INC	.8533	V1	29.563
RP	107.65	LAP	.82	LOP	90.42	VP	37.603	GAP	-8.87	AZP	90.23	TAL	198.94	TAP	304.42	RCA	99.48	APO	152.91	V2	35.202
RC	52.948	GL	6.37	GP	-21.00	ZAL	121.08	ZAP	27.67	ETS	43.43	ZAE	142.90	ETE	326.54	ZAC	81.15	ETC	261.95	CLP	-18.45

PLANETOCENTRIC CONIC

C3	12.690	VHL	3.562	DLA	-9.85	RAL	223.12	RAD	6567.5	VEL	11.579	PTH	2.02	VHP	6.369	DPA	-42.50	RAP	245.21	ECC	1.2089

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 22 34	1800.72	-7.85	16.77	76.75	117.29	4 52 34	1200.7	-4.13	10.06
90.00	13 50 36	5065.85	24.00	224.00	80.03	74.50	15 15 2	4465.9	21.64	216.13
100.00	5 39 3	1553.96	-8.77	358.13	76.26	118.69	6 4 57	954.0	-4.87	351.51
100.00	15 16 48	4787.83	24.99	203.24	79.72	73.04	16 36 36	4187.8	22.43	195.38
110.00	6 36 15	1374.85	-11.16	343.10	74.82	122.52	6 59 10	774.8	-6.79	336.73
110.00	16 36 6	4539.72	27.62	183.39	78.71	69.01	17 51 45	3939.7	24.52	175.60

DIFFERENTIAL CORRECTIONS

TDE	.0575	TRA	-.3744	TC3	1.0565	BAU	.2209
RDE	-.1824	RRA	-.0452	RC3	-.7610	FAU	.05079
FDE	.3132	FRA	.1515	FC3	-3.4649	BSP	3232
BDE	.1913	BRA	.3771	BC3	1.3021	FSP	-600

MID-COURSE EXECUTION ACCURACY

SGT	974.0	SGR	620.9	SG3	218.7		
RRT	-.6452	RRF	.7459	RTF	-.7961		
SGB	1155.0	R23	-.1373	R13	.8410		
SG1	1071.6	SG2	431.1	THA	152.91		

ORBIT DETERMINATION ACCURACY

ST	206.6	SR	294.7	SS	283.1		
CRT	-.3849	CRS	.9776	CST	-.2943		
LSA	414.2	MSA	191.4	SSA	38.2		
EL1	311.4	EL2	180.4	ALF	113.34		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 246.273

RL	150.72	LAL	.00	LOL	344.94	VL	26.741	GAL	-4.97	AZL	88.94	HCA	108.71	SMA	126.88	ECC	.20632	INC	1.0632	V1	29.563
RP	107.63	LAP	1.01	LOP	93.65	VP	37.686	GAP	-8.13	AZP	90.34	TAL	199.88	TAP	308.59	RCA	100.70	APO	153.05	V2	35.210
RC	54.707	GL	8.10	GP	-22.73	ZAL	122.33	ZAP	30.77	ETS	41.05	ZAE	141.92	ETE	323.99	ZAC	79.46	ETC	261.96	CLP	-21.32

PLANETOCENTRIC CONIC

C3	12.315	VHL	3.509	DLA	-7.79	RAL	222.29	RAD	6567.5	VEL	11.563	PTH	2.02	VHP	6.035	DPA	-44.26	RAP	245.10	ECC	1.2027

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 2 55	1860.99	-9.72	20.21	75.53	116.73	4 33 56	1261.0	-6.05	13.45
90.00	14 3 37	4992.77	22.58	219.12	78.10	72.45	15 26 50	4392.8	19.97	211.42
100.00	5 20 31	1610.71	-10.60	1.34	75.06	118.11	5 47 22	1010.7	-6.76	354.66
100.00	15 28 43	4718.32	23.53	198.59	77.76	71.01	16 47 21	4118.3	20.72	190.92
110.00	6 20 12	1423.82	-12.94	345.78	73.68	121.92	6 43 56	823.8	-8.63	339.34
110.00	16 45 31	4477.95	26.05	179.28	76.70	67.04	18 0 9	3877.9	22.71	171.71

DIFFERENTIAL CORRECTIONS

TDE	.0385	TRA	-.3618	TC3	1.0960	BAU	.2317
RDE	-.1531	RRA	-.0461	RC3	-.8827	FAU	.05507
FDE	.4087	FRA	.1418	FC3	-3.8712	BSP	3345
BDE	.1578	BRA	.3647	BC3	1.4073	FSP	-674

MID-COURSE EXECUTION ACCURACY

SGT	975.2	SGR	672.3	SG3	242.6		
RRT	-.6817	RRF	.7940	RTF	-.7989		
SGB	1184.5	R23	-.1514	R13	.8553		
SG1	1101.6	SG2	435.5	THA	149.59		

ORBIT DETERMINATION ACCURACY

ST	191.0	SR	251.6	SS	352.4		
CRT	-.2508	CRS	.9810	CST	-.2131		
LSA	433.9	MSA	185.0	SSA	39.0		
EL1	260.6	EL2	178.5	ALF	110.96		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 252.979

RL	150.72	LAL	.00	LOL	344.94	VL	26.835	GAL	-5.03	AZL	88.72	HCA	111.95	SMA	127.49	ECC	.20157	INC	1.2814
RP	107.60	LAP	1.19	LOP	96.89	VP	37.760	GAP	-7.43	AZP	90.48	TAL	200.75	TAP	312.70	RCA	101.79	APO	153.19
RC	56.533	GL	9.92	GP	-24.64	ZAL	123.40	ZAP	34.10	ETS	38.92	ZAE	140.99	ETE	321.10	ZAC	77.56	ETC	261.92

V1	29.563	V2	35.218	CLP	-24.36														

PLANETOCENTRIC CONIC

C3	12.043	VHL	3.470	DLA	-5.67	RAL	221.62	RAD	6567.5	VEL	11.551	PTH	2.02	VHP	5.732	DPA	-46.15	RAP	244.68

ECC	1.1982	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG	
		90.00	3 43 57	1923.51	-11.61	23.83	74.65	116.01	4 16 0	1323.5	-8.02	16.99	
		90.00	14 17 15	4920.80	21.03	214.41	76.51	70.59	15 39 16	4320.8	18.19	206.89	
		100.00	5 2 36	1669.76	-12.48	4.73	74.21	117.39	5 30 26	1069.8	-8.71	357.96	
		100.00	15 41 16	4649.78	21.94	194.12	76.15	69.17	16 58 46	4049.8	18.91	186.64	
		110.00	6 4 42	1475.33	-14.78	348.65	72.88	121.18	6 29 18	875.3	-10.54	342.11	
		110.00	16 55 40	4416.97	24.37	175.34	75.04	65.25	18 9 17	3817.0	20.83	167.98	

DIFFERENTIAL CORRECTIONS

TDE	.0201	TRA	-.3506	TC3	1.1146	BAU	.2428	SGT	968.5	SGR	736.1	SG3	268.0	ST	179.1	SR	199.1	SS	429.1
RDE	-.1191	RRA	-.0466	RC3	-1.0160	FAU	.05956	RRT	-.7113	RRF	.8364	RTF	-.7989	CRT	-.0831	CRS	.9773	CST	-.0955
FDE	.5205	FRA	.1337	FC3	-4.2820	BSP	3469	SGB	1216.5	R23	-.1630	R13	.8702	LSA	471.8	MSA	178.2	SSA	38.3
BDE	.1207	BRA	.3537	BC3	1.5082	FSP	-755	SG1	1133.3	SG2	442.2	THA	145.67	EL1	201.6	EL2	176.3	ALF	109.10

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 8 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 259.664

RL	150.72	LAL	.00	LOL	344.94	VL	26.917	GAL	-5.08	AZL	88.49	HCA	115.18	SMA	128.04	ECC	.19742	INC	1.5099
RP	107.58	LAP	1.37	LOP	100.13	VP	37.825	GAP	-6.75	AZP	90.64	TAL	201.56	TAP	316.74	RCA	102.76	APO	153.31
RC	58.419	GL	11.84	GP	-26.75	ZAL	124.28	ZAP	37.68	ETS	36.96	ZAE	140.08	ETE	317.82	ZAC	75.46	ETC	261.82

V1	29.563	V2	35.225	CLP	-27.59														

PLANETOCENTRIC CONIC

C3	11.865	VHL	3.444	DLA	-3.50	RAL	221.12	RAD	6567.5	VEL	11.543	PTH	2.01	VHP	5.460	DPA	-48.20	RAP	243.91

ECC	1.1953	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG	
		90.00	3 25 35	1988.36	-13.52	27.64	74.13	115.12	3 58 44	1388.4	-10.02	20.71	
		90.00	14 31 37	4849.67	19.35	209.87	75.27	68.91	15 52 26	4249.7	16.31	202.51	
		100.00	4 45 18	1731.24	-14.37	8.31	73.70	116.49	5 14 9	1131.2	-10.70	1.44	
		100.00	15 54 35	4582.02	20.24	189.81	74.90	67.52	17 10 57	3982.0	17.01	182.50	
		110.00	5 49 47	1529.35	-16.66	351.70	72.42	120.29	6 15 16	929.3	-12.51	345.05	
		110.00	17 6 35	4356.67	22.60	171.55	73.75	63.64	18 19 12	3756.7	18.87	164.40	

DIFFERENTIAL CORRECTIONS

TDE	.0028	TRA	-.3417	TC3	1.1078	BAU	.2544	SGT	952.2	SGR	813.6	SG3	294.5	ST	172.4	SR	135.6	SS	513.1
RDE	-.0790	RRA	-.0460	RC3	-1.1602	FAU	.06416	RRT	-.7317	RRF	.8723	RTF	-.7946	CRT	.1185	CRS	.9583	CST	.0440
FDE	.6501	FRA	.1294	FC3	-4.6818	BSP	3587	SGB	1252.5	R23	-.1703	R13	.8857	LSA	529.4	MSA	172.5	SSA	36.1
BDE	.0791	BRA	.3448	BC3	1.6042	FSP	-830	SG1	1168.0	SG2	452.1	THA	141.09	EL1	174.3	EL2	133.2	ALF	13.02

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 8 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 266.328

RL	150.72	LAL	.00	LOL	344.94	VL	26.990	GAL	-5.12	AZL	88.25	HCA	118.42	SMA	128.52	ECC	.19380	INC	1.7509
RP	107.56	LAP	1.54	LOP	103.36	VP	37.883	GAP	-6.09	AZP	90.83	TAL	202.28	TAP	320.70	RCA	103.61	APO	153.43
RC	60.358	GL	13.85	GP	-29.06	ZAL	124.95	ZAP	41.49	ETS	35.06	ZAE	139.12	ETE	314.14	ZAC	73.14	ETC	261.64

V1	29.563	V2	35.232	CLP	-31.02														

PLANETOCENTRIC CONIC

C3	11.774	VHL	3.431	DLA	-1.28	RAL	220.80	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	5.220	DPA	-50.38	RAP	242.71

ECC	1.1938	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG	
		90.00	3 7 46	2055.76	-15.43	31.67	73.97	114.04	3 42 2	1455.8	-12.05	24.62	
		90.00	14 46 51	4779.03	17.56	205.46	74.39	67.42	16 6 30	4179.0	14.35	198.25	
		100.00	4 28 31	1795.29	-16.28	12.10	73.56	115.42	4 58 26	1195.3	-12.73	5.12	
		100.00	16 8 47	4514.74	18.43	185.63	74.00	66.04	17 24 2	3914.7	15.04	178.48	
		110.00	5 35 24	1585.93	-18.57	354.98	72.32	119.23	6 1 50	985.9	-14.53	348.19	
		110.00	17 18 24	4296.86	20.74	167.90	72.81	62.20	18 30 1	3696.9	16.86	160.93	

DIFFERENTIAL CORRECTIONS

TDE	-.0119	TRA	-.3350	TC3	1.0713	BAU	.2668	SGT	924.1	SGR	905.8	SG3	321.3	ST	170.4	SR	63.3	SS	603.2
RDE	-.0316	RRA	-.0441	RC3	-1.3133	FAU	.06867	RRT	-.7412	RRF	.9016	RTF	-.7844	CRT	.3857	CRS	.8145	CST	.1744
FDE	.7976	FRA	.1298	FC3	-5.0492	BSP	3721	SGB	1294.0	R23	-.1710	R13	.9020	LSA	606.2	MSA	168.3	SSA	33.0
BDE	.0338	BRA	.3378	BC3	1.6948	FSP	-925	SG1	1207.4	SG2	465.4	THA	135.77	EL1	172.4	EL2	57.7	ALF	9.19

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 8 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 272.969

RL	150.72	LAL	.00	LOL	344.94	VL	27.052	GAL	-5.15	AZL	87.99	HCA	121.65	SMA	128.94	ECC	.19067	INC	2.0072
RP	107.54	LAP	1.71	LOP	106.60	VP	37.933	GAP	-5.46	AZP	91.05	TAL	202.93	TAP	324.58	RCA	104.35	APO	153.52
RC	62.346	GL	15.97	GP	-31.58	ZAL	125.37	ZAP	45.53	ETS	33.15	ZAE	138.06	ETE	310.06	ZAC	70.60	ETC	261.39

V1	29.563	V2	35.238	CLP	-34.69														

PLANETOCENTRIC CONIC

C3	11.767	VHL	3.430	DLA	1.00	RAL	220.66	RAD	6567.4	VEL	11.539	PTH	2.01	VHP	5.015	DPA	-52.69	RAP	241.00

ECC	1.1937	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG	
		90.00	2 50 22	2126.10	-17.33	35.96	74.19	112.75	3 25 49	1526.1	-14.10	28.77	
		90.00	15 3 9	4708.46	15.67	201.15	73.87	66.11	16 21 38	4108.5	12.30	194.08	
		100.00	4 12 11	1862.23	-18.19	16.16	73.80	114.13	4 43 13	1262.2	-14.78	9.03	
		100.00	16 24 2	4447.56	16.52	181.55	73.46	64.73	17 38 9	3847.6	12.98	174.55	
		110.00	5 21 29	1645.30	-20.50	358.49	72.60	117.97	5 48 54	1045.3	-16.60	351.54	
		110.00	17 31 13	4237.26	18.81	164.36	72.23	60.92	18 41 50	3637.3	14.79	157.55	

DIFFERENTIAL CORRECTIONS

TDE	-.0231	TRA	-.3310	TC3	1.0034	BAU	.2804	SGT	883.8	SGR	1013.8	SG3	347.5	ST	171.5	SR	55.2	SS	698.5
RDE	.0249	RRA	-.0398	RC3	-1.4732	FAU	.07290	RRT	-.7373	RRF	.9248	RTF	-.7658	CRT	.1144	CRS	-.7730	CST	.2734
FDE	.9620	FRA	.1376	FC3	-5.3635	BSP	3860	SGB	1344.9	R23	-.1626	R13	.9189	LSA	701.5	MSA	165.8	SSA	29.3
BDE	.0339	BRA	.3334	BC3	1.7825	FSP	-1008	SG1	1255.5	SG2	482.1	THA	129.71	EL1	171.7	EL2	54.8	ALF	2.35

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 8 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 279.586

RL	150.72	LAL	.00	LOL	344.94	VL	27.105	GAL	-5.17	AZL	87.72	HCA	124.89	SMA	129.30	ECC	.18797	INC	2.2822	V1	29.563
RP	107.53	LAP	1.87	LOP	109.85	VP	37.975	GAP	-4.86	AZP	91.31	TAL	203.48	TAP	328.37	RCA	105.00	APO	153.61	V2	35.243
RC	64.375	GL	18.20	GP	-34.30	ZAL	125.55	ZAP	49.78	ETS	31.14	ZAE	136.83	ETE	305.60	ZAC	67.85	ETC	261.04	CLP	-38.60

PLANETOCENTRIC CONIC

C3	11.846	VHL	3.442	DLA	3.33	RAL	220.71	RAD	6567.5	VEL	11.543	PTH	2.01	VHP	4.847	DPA	-55.11	RAP	238.69	ECC	1.1950

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 33 15	2199.95	-19.21	40.56	74.81	111.21	3 9 55	1600.0	-16.16	33.21
90.00	15 20 43	4637.41	13.66	196.89	73.72	64.95	16 38 1	4037.4	10.17	189.95
100.00	3 56 9	1932.57	-20.09	20.52	74.43	112.61	4 28 21	1332.6	-16.86	13.22
100.00	16 40 30	4380.03	14.52	177.54	73.30	63.58	17 53 30	3780.0	10.85	170.67
110.00	5 7 57	1707.80	-22.45	2.30	73.28	116.48	5 36 25	1107.8	-18.71	355.16
110.00	17 45 11	4177.55	16.80	160.90	72.02	59.78	18 54 49	3577.6	12.66	154.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0308	TRA	-.3320	TC3	.8923	BAU	.2942	SGT	828.4	SGR	1133.8	SG3	371.0	ST	174.8	SR	160.8	SS	801.9
RDE	.0940	RRA	-.0310	RC3	-1.6297	FAU	.07627	RRT	-.7116	RRF	.9425	RTF	-.7315	CRT	-.2162	CRS	-.9790	CST	.3389
FDE	1.1472	FRA	.1601	FC3	-5.5739	BSP	3960	SGB	1404.2	R23	-.1435	R13	.9356	LSA	819.4	MSA	165.5	SSA	25.4
BDE	.0989	BRA	.3334	BC3	1.8580	FSP	-1072	SG1	1310.9	SG2	503.4	THA	122.93	EL1	186.3	EL2	147.3	ALF	145.59

LAUNCH DATE SEP 8 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 286.178

RL	150.72	LAL	.00	LOL	344.94	VL	27.151	GAL	-5.18	AZL	87.42	HCA	128.13	SMA	129.61	ECC	.18565	INC	2.5797	V1	29.563
RP	107.51	LAP	2.03	LOP	113.09	VP	38.012	GAP	-4.27	AZP	91.59	TAL	203.94	TAP	332.07	RCA	105.55	APO	153.68	V2	35.247
RC	66.441	GL	20.55	GP	-37.21	ZAL	125.48	ZAP	54.22	ETS	28.95	ZAE	135.38	ETE	300.79	ZAC	64.89	ETC	260.57	CLP	-42.77

PLANETOCENTRIC CONIC

C3	12.016	VHL	3.466	DLA	5.73	RAL	220.96	RAD	6567.5	VEL	11.550	PTH	2.02	VHP	4.718	DPA	-57.60	RAP	235.66	ECC	1.1978

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 16 9	2278.15	-21.06	45.55	75.84	109.38	2 54 7	1678.1	-18.22	38.02
90.00	15 39 48	4565.22	11.54	192.65	73.96	63.96	16 55 53	3965.2	7.95	185.82
100.00	3 40 12	2007.04	-21.97	25.25	75.48	110.80	4 13 39	1407.0	-18.95	17.76
100.00	16 58 26	4311.56	12.41	173.55	73.52	62.58	18 10 17	3711.6	8.64	166.79
110.00	4 54 39	1774.03	-24.40	6.45	74.37	114.72	5 24 13	1174.0	-20.86	359.09
110.00	18 0 28	4117.34	14.70	157.49	72.19	58.79	19 9 5	3517.3	10.46	150.95

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0198	TRA	-.3250	TC3	.7821	BAU	.3155	SGT	765.8	SGR	1280.4	SG3	393.1	ST	166.0	SR	283.0	SS	890.6
RDE	.1695	RRA	-.0239	RC3	-1.8012	FAU	.07975	RRT	-.6780	RRF	.9568	RTF	-.6843	CRT	-.1674	CRS	-.9937	CST	.2403
FDE	1.3190	FRA	.1707	FC3	-5.7458	BSP	4345	SGB	1491.9	R23	-.1198	R13	.9505	LSA	934.8	MSA	162.5	SSA	22.7
BDE	.1707	BRA	.3258	BC3	1.9637	FSP	-1168	SG1	1400.4	SG2	514.7	THA	115.81	EL1	285.0	EL2	162.5	ALF	98.34

LAUNCH DATE SEP 8 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 292.744

RL	150.72	LAL	.00	LOL	344.94	VL	27.188	GAL	-5.19	AZL	87.09	HCA	131.36	SMA	129.87	ECC	.18367	INC	2.9050	V1	29.563
RP	107.50	LAP	2.18	LOP	116.34	VP	38.042	GAP	-3.71	AZP	91.92	TAL	204.31	TAP	335.67	RCA	106.02	APO	153.73	V2	35.251
RC	68.539	GL	23.05	GP	-40.28	ZAL	125.13	ZAP	58.79	ETS	26.51	ZAE	133.65	ETE	295.71	ZAC	61.74	ETC	259.97	CLP	-47.22

PLANETOCENTRIC CONIC

C3	12.288	VHL	3.505	DLA	8.21	RAL	221.42	RAD	6567.5	VEL	11.562	PTH	2.02	VHP	4.632	DPA	-60.11	RAP	231.77	ECC	1.2022

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 58 49	2361.72	-22.85	51.02	77.32	107.20	2 38 11	1761.7	-20.28	43.29
90.00	16 0 45	4491.11	9.29	188.37	74.62	63.13	17 15 36	3891.1	5.61	181.62
100.00	3 24 8	2086.56	-23.80	30.45	76.99	108.64	3 58 55	1486.6	-21.03	22.75
100.00	17 18 7	4241.50	10.18	169.54	74.15	61.74	18 28 49	3641.5	6.32	162.88
110.00	4 41 26	1844.65	-26.33	11.03	75.93	112.63	5 12 11	1244.6	-23.03	3.42
110.00	18 17 18	4056.17	12.52	154.09	72.76	57.93	19 24 55	3456.2	8.19	147.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0025	TRA	-.3248	TC3	.6194	BAU	.3360	SGT	690.2	SGR	1432.5	SG3	408.4	ST	161.5	SR	430.6	SS	986.0
RDE	.2622	RRA	-.0085	RC3	-1.9496	FAU	.08145	RRT	-.5944	RRF	.9670	RTF	-.5939	CRT	-.0234	CRS	-.9976	CST	.0703
FDE	1.5044	FRA	.2036	FC3	-5.7388	BSP	4637	SGB	1590.1	R23	-.0893	R13	.9632	LSA	1075.7	MSA	162.3	SSA	19.7
BDE	.2622	BRA	.3249	BC3	2.0456	FSP	-1223	SG1	1499.0	SG2	530.4	THA	108.36	EL1	430.6	EL2	161.5	ALF	90.58

LAUNCH DATE SEP 8 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 299.284

RL	150.72	LAL	.00	LOL	344.94	VL	27.219	GAL	-5.18	AZL	86.74	HCA	134.60	SMA	130.08	ECC	.18198	INC	3.2644	V1	29.563
RP	107.49	LAP	2.32	LOP	119.58	VP	38.067	GAP	-3.16	AZP	92.29	TAL	204.58	TAP	339.18	RCA	106.41	APO	153.76	V2	35.254
RC	70.666	GL	25.69	GP	-43.49	ZAL	124.50	ZAP	63.43	ETS	23.74	ZAE	131.61	ETE	290.42	ZAC	58.43	ETC	259.23	CLP	-51.94

PLANETOCENTRIC CONIC

C3	12.680	VHL	3.561	DLA	10.78	RAL	222.08	RAD	6567.5	VEL	11.579	PTH	2.02	VHP	4.592	DPA	-62.57	RAP	226.90	ECC	1.2087

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 40 53	2452.16	-24.53	57.11	79.29	104.60	2 21 46	1852.2	-22.29	49.16
90.00	16 23 59	4414.05	6.89	183.98	75.73	62.47	17 37 33	3814.0	3.15	177.30
100.00	3 7 37	2172.45	-25.55	36.23	78.99	106.08	3 43 50	1572.4	-23.09	28.29
100.00	17 39 57	4168.99	7.81	165.46	75.23	61.06	18 49 26	3569.0	3.89	158.87
110.00	4 28 5	1920.68	-28.22	16.14	78.01	110.14	5 0 5	1320.7	-25.22	8.25
110.00	18 35 59	3993.52	10.23	150.68	73.77	57.20	19 42 32	3393.5	5.84	144.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0311	TRA	-.3248	TC3	.4297	BAU	.3595	SGT	615.7	SGR	1594.2	SG3	416.8	ST	167.5	SR	596.5	SS	1075.2
RDE	.3697	RRA	.0131	RC3	-2.0766	FAU	.08174	RRT	-.4424	RRF	.9746	RTF	-.4360	CRT	.2832	CRS	-.9990	CST	-.2530
FDE	1.6809	FRA	.2457	FC3	-5.5810	BSP	4997	SGB	1709.0	R23	-.0576	R13	.9729	LSA	1230.1	MSA	162.4	SSA	17.0
BDE	.3710	BRA	.3250	BC3	2.1206	FSP	-1259	SG1	1620.3	SG2	543.3	THA	100.94	EL1	598.6	EL2	160.1	ALF	85.10

LAUNCH DATE SEP 8 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 305.797

RL	150.72	LAL	.00	LOL	344.94	VL	27.243	GAL	-5.17	AZL	86.33	HCA	137.83	SMA	130.25	ECC	.18057	INC	3.6664	V1	29.563
RP	107.48	LAP	2.46	LOP	122.83	VP	38.086	GAP	-2.64	AZP	92.72	TAL	204.75	TAP	342.58	RCA	106.73	APO	153.77	V2	35.256
RC	72.818	GL	28.50	GP	-46.79	ZAL	123.59	ZAP	68.06	ETS	20.58	ZAE	129.24	ETE	285.02	ZAC	55.01	ETC	258.32	CLP	-56.92

PLANETOCENTRIC CONIC

C3	13.221	VHL	3.636	DLA	13.45	RAL	222.97	RAD	6567.5	VEL	11.602	PTH	2.03	VHP	4.603	DPA	-64.89	RAP	220.91	ECC	1.2176

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 21 49	2551.52	-26.06	63.99	81.80	101.48	2 4 21	1951.5	-24.22	55.80
90.00	16 50 8	4332.67	4.31	179.39	77.36	61.99	18 2 21	3732.7	.53	172.75
100.00	2 50 12	2266.47	-27.15	42.76	81.54	103.00	3 27 59	1666.5	-25.09	34.56
100.00	18 4 26	4092.95	5.29	161.23	76.82	60.54	19 12 39	3493.0	1.32	154.69
110.00	4 14 17	2003.41	-30.02	21.90	80.66	107.17	4 47 40	1403.4	-27.38	13.70
110.00	18 56 51	3928.78	7.82	147.22	75.26	56.62	20 2 20	3328.8	3.38	140.95

DIFFERENTIAL CORRECTIONS

TDE	.0851	TRA	-.3243	TC3	.2150	BAU	.3845
RDE	.4938	RRA	.0438	RC3	-2.1646	FAU	.08016
FDE	1.8412	FRA	.2992	FC3	-5.2493	BSP	5388
BDE	.5011	BRA	.3273	BC3	2.1753	FSP	-1262

MID-COURSE EXECUTION ACCURACY

SGT	564.4	SGR	1757.4	SG3	416.4		
RRT	-.1806	RRF	.9801	RTF	-.1701		
SGB	1845.8	R23	-.0269	R13	.9798		
SG1	1760.7	SG2	554.1	THA	93.68		

ORBIT DETERMINATION ACCURACY

ST	207.0	SR	779.9	SS	1156.3
CRT	.6241	CRS	-.9995	CST	-.6074
LSA	1400.4	MSA	163.5	SSA	14.6
EL1	790.9	EL2	159.5	ALF	80.19

LAUNCH DATE SEP 8 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 312.284

RL	150.72	LAL	.00	LOL	344.94	VL	27.261	GAL	-5.14	AZL	85.88	HCA	141.07	SMA	130.38	ECC	.17939	INC	4.1218	V1	29.563
RP	107.48	LAP	2.59	LOP	126.08	VP	38.100	GAP	-2.13	AZP	93.21	TAL	204.82	TAP	345.89	RCA	106.99	APO	153.76	V2	35.258
RC	74.992	GL	31.50	GP	-50.16	ZAL	122.38	ZAP	72.59	ETS	16.98	ZAE	126.56	ETE	279.57	ZAC	51.50	ETC	257.21	CLP	-62.17

PLANETOCENTRIC CONIC

C3	13.955	VHL	3.736	DLA	16.25	RAL	224.09	RAD	6567.5	VEL	11.634	PTH	2.04	VHP	4.672	DPA	-66.99	RAP	213.68	ECC	1.2297

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 0 49	2662.79	-27.33	71.88	84.90	97.72	1 45 12	2062.8	-25.98	63.48
90.00	17 20 4	4244.97	1.49	174.49	79.59	61.72	18 30 49	3645.0	-2.30	167.86
100.00	2 31 15	2371.14	-28.54	50.23	84.69	99.31	3 10 47	1771.1	-26.95	41.78
100.00	18 32 18	4011.86	2.56	156.76	79.00	60.21	19 39 10	3411.9	-1.43	150.24
110.00	3 59 39	2094.56	-31.67	28.49	83.96	103.59	4 34 34	1494.6	-29.48	19.97
110.00	19 20 24	3861.19	5.28	143.64	77.31	56.18	20 24 45	3261.2	.80	137.42

DIFFERENTIAL CORRECTIONS

TDE	.1680	TRA	-.3187	TC3	-.0060	BAU	.4125
RDE	.6310	RRA	.0815	RC3	-2.2111	FAU	.07707
FDE	1.9658	FRA	.3512	FC3	-4.7813	BSP	5904
BDE	.6530	BRA	.3289	BC3	2.2111	FSP	-1251

MID-COURSE EXECUTION ACCURACY

SGT	570.6	SGR	1919.0	SG3	406.8		
RRT	.1739	RRF	.9842	RTF	.1888		
SGB	2002.0	R23	-.0016	R13	.9844		
SG1	1921.8	SG2	561.1	THA	86.76		

ORBIT DETERMINATION ACCURACY

ST	299.5	SR	969.9	SS	1219.7
CRT	.8379	CRS	-.9998	CST	-.8300
LSA	1578.2	MSA	163.9	SSA	12.6
EL1	1002.7	EL2	158.1	ALF	75.11

LAUNCH DATE SEP 8 1970 FLIGHT TIME 114.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 318.743

RL	150.72	LAL	.00	LOL	344.94	VL	27.273	GAL	-5.10	AZL	85.35	HCA	144.30	SMA	130.46	ECC	.17842	INC	4.6458	V1	29.563
RP	107.48	LAP	2.71	LOP	129.33	VP	38.110	GAP	-1.64	AZP	93.78	TAL	204.80	TAP	349.10	RCA	107.18	APO	153.74	V2	35.259
RC	77.186	GL	34.69	GP	-53.56	ZAL	120.88	ZAP	76.93	ETS	12.91	ZAE	123.58	ETE	274.13	ZAC	47.94	ETC	255.88	CLP	-67.63

PLANETOCENTRIC CONIC

C3	14.948	VHL	3.866	DLA	19.17	RAL	225.45	RAD	6567.6	VEL	11.676	PTH	2.05	VHP	4.804	DPA	-68.80	RAP	205.19	ECC	1.2460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 36 35	2790.66	-28.16	81.14	88.62	93.15	1 23 6	2190.7	-27.42	72.55
90.00	17 55 13	4147.57	-1.65	169.06	82.57	61.73	19 4 20	3547.6	-5.42	162.40
100.00	2 9 46	2490.17	-29.53	58.93	88.51	94.83	2 51 16	1890.2	-28.55	50.26
100.00	19 4 43	3923.29	-.45	151.90	81.89	60.11	20 10 6	3323.3	-4.42	145.37
110.00	3 43 38	2196.49	-33.05	36.12	88.00	99.27	4 20 15	1596.5	-31.42	27.27
110.00	19 47 20	3789.74	2.56	139.90	80.02	55.90	20 50 29	3189.7	-1.93	133.69

DIFFERENTIAL CORRECTIONS

TDE	.2836	TRA	-.3091	TC3	-.2311	BAU	.4397
RDE	.7867	RRA	.1342	RC3	-2.1879	FAU	.07188
FDE	2.0614	FRA	.4140	FC3	-4.1629	BSP	6386
BDE	.8362	BRA	.3369	BC3	2.2001	FSP	-1194

MID-COURSE EXECUTION ACCURACY

SGT	666.1	SGR	2065.3	SG3	387.5		
RRT	.5018	RRF	.9871	RTF	.5169		
SGB	2170.1	R23	.0219	R13	.9872		
SG1	2094.4	SG2	568.2	THA	80.07		

ORBIT DETERMINATION ACCURACY

ST	444.8	SR	1168.6	SS	1271.2
CRT	.9255	CRS	-.9999	CST	-.9221
LSA	1775.3	MSA	165.9	SSA	10.7
EL1	1240.3	EL2	158.7	ALF	70.26

LAUNCH DATE SEP 8 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 325.173

RL	150.72	LAL	.00	LOL	344.94	VL	27.280	GAL	-5.06	AZL	84.74	HCA	147.53	SMA	130.51	ECC	.17764	INC	5.2592	V1	29.563
RP	107.48	LAP	2.82	LOP	132.58	VP	38.115	GAP	-1.17	AZP	94.44	TAL	204.69	TAP	352.22	RCA	107.33	APO	153.70	V2	35.259
RC	79.396	GL	38.09	GP	-56.98	ZAL	119.08	ZAP	80.99	ETS	8.34	ZAE	120.33	ETE	268.72	ZAC	44.35	ETC	254.29	CLP	-73.29

PLANETOCENTRIC CONIC

C3	16.305	VHL	4.038	DLA	22.23	RAL	227.09	RAD	6567.7	VEL	11.734	PTH	2.07	VHP	5.012	DPA	-70.23	RAP	195.47	ECC	1.2683

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 6 34	2943.91	-28.22	92.34	92.93	87.54	0 55 38	2343.9	-28.26	83.68
90.00	18 38 16	4033.58	-5.31	162.67	86.50	62.14	19 45 30	3433.6	-9.00	155.93
100.00	1 43 57	2629.93	-29.89	69.30	92.98	89.39	2 27 47	2029.9	-29.65	60.50
100.00	19 43 35	3822.79	-3.85	146.38	85.70	60.33	20 47 17	3222.8	-7.77	139.78
110.00	3 25 23	2312.59	-33.97	45.05	92.84	94.06	4 3 55	1712.6	-33.03	35.94
110.00	20 18 38	3712.90	-.38	135.89	83.54	55.82	21 20 31	3112.9	-4.86	129.67

DIFFERENTIAL CORRECTIONS

TDE	.4441	TRA	-.2889	TC3	-.4356	BAU	.4678
RDE	.9525	RRA	.1970	RC3	-2.1013	FAU	.06540
FDE	2.1070	FRA	.4685	FC3	-3.4725	BSP	6973
BDE	1.0510	BRA	.3497	BC3	2.1460	FSP	-1124

MID-COURSE EXECUTION ACCURACY

SGT	846.7	SGR	2190.4	SG3	359.6		
RRT	.7089	RRF	.9892	RTF	.7243		
SGB	2348.3	R23	.0407	R13	.9889		
SG1	2277.0	SG2	574.5	THA	73.60		

ORBIT DETERMINATION ACCURACY

ST	644.0	SR	1355.6	SS	1298.5
CRT	.9623	CRS	-.9999	CST	-.9611
LSA	1977.4	MSA	167.6	SSA	9.2
EL1	1492.4	EL2	159.1	ALF	65.13

LAUNCH DATE SEP 8 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 331.575

RL	150.72	LAL	.00	LOL	344.94	VL	27.283	GAL	-5.00	AZL	84.01	HCA	150.76	SMA	130.53	ECC	.17701	INC	5.9919
RP	107.48	LAP	2.92	LOP	135.83	VP	38.116	GAP	-.71	AZP	95.23	TAL	204.49	TAP	355.24	RCA	107.42	APO	153.64
RC	81.621	GL	41.70	GP	-60.42	ZAL	116.98	ZAP	84.65	ETS	3.26	ZAE	116.85	ETE	263.34	ZAC	40.72	ETC	252.38

V1	29.563	V2	35.258	CLP	-79.11														

PLANETOCENTRIC CONIC

C3	18.190	VHL	4.265	DLA	25.43	RAL	229.02	RAD	6567.7	VEL	11.814	PTH	2.09	VHP	5.311	DPA	-71.25	RAP	184.69

ECC	1.2994																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 20 3	3144.86	-26.78	106.85	97.60	80.42	24 12 28	2544.9	-27.83	98.34
90.00	19 36 15	3883.18	-10.01	154.12	91.85	63.37	20 40 58	3283.2	-13.50	147.19
100.00	1 9 48	2803.72	-29.07	82.14	97.99	82.69	1 56 31	2203.7	-29.77	73.40
100.00	20 33 7	3699.55	-7.96	139.54	90.76	61.09	21 34 47	3099.5	-11.75	132.81
110.00	3 3 25	2448.24	-34.12	55.63	98.48	87.81	3 44 13	1848.2	-34.05	46.39
110.00	20 55 59	3627.79	-3.63	131.44	88.10	55.99	21 56 27	3027.8	-8.07	125.17

DIFFERENTIAL CORRECTIONS

TDE	.6603	TRA	-.2551	TC3	-.6057	BAU	.4933
RDE	1.1310	RRA	.2769	RC3	-1.9359	FAU	.05755
FDE	2.1110	FRA	.5207	FC3	-2.7391	BSP	7547
BDE	1.3096	BRA	.3765	BC3	2.0285	FSP	-1024

MID-COURSE EXECUTION ACCURACY

SGT	1094.4	SGR	2281.5	SG3	324.5		
RRT	.8189	RRF	.9905	RTF	.8343		
SGB	2530.4	R23	.0576	R13	.9897		
SG1	2462.5	SG2	582.0	THA	67.21		

ORBIT DETERMINATION ACCURACY

ST	894.4	SR	1525.2	SS	1306.0		
CRT	.9782	CRS	-1.0000	CST	-.9781		
LSA	2191.5	MSA	170.3	SSA	7.8		
EL1	1760.8	EL2	161.0	ALF	59.88		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 337.947

RL	150.72	LAL	.00	LOL	344.94	VL	27.281	GAL	-4.93	AZL	83.11	HCA	153.98	SMA	130.52	ECC	.17653	INC	6.8883
RP	107.48	LAP	3.02	LOP	139.08	VP	38.113	GAP	-.27	AZP	96.20	TAL	204.20	TAP	358.17	RCA	107.48	APO	153.56
RC	83.861	GL	45.51	GP	-63.92	ZAL	114.60	ZAP	87.85	ETS	357.61	ZAE	113.13	ETE	257.93	ZAC	37.03	ETC	250.02

V1	29.563	V2	35.256	CLP	-85.09														

PLANETOCENTRIC CONIC

C3	20.878	VHL	4.569	DLA	28.75	RAL	231.27	RAD	6567.8	VEL	11.927	PTH	2.12	VHP	5.726	DPA	-71.82	RAP	173.06

ECC	1.3436																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.79	20 53 47	3687.03	-19.67	144.28	100.63	68.60	21 55 14	3087.0	-22.41	136.64
95.21	22 20 29	3406.31	-19.66	123.71	100.63	68.59	23 17 16	2806.3	-22.40	116.07
100.00	0 11 37	3061.69	-25.44	100.41	102.76	73.76	1 2 38	2461.7	-27.43	92.17
100.00	21 49 16	3506.88	-14.09	128.52	98.03	63.36	22 47 43	2906.9	-17.55	121.44
110.00	2 34 42	2613.72	-32.95	68.39	104.74	80.35	3 18 15	2013.7	-33.93	59.29
110.00	21 42 41	3527.62	-7.42	126.16	94.11	56.54	22 41 28	2927.6	-11.77	119.77

DIFFERENTIAL CORRECTIONS

TDE	.9509	TRA	-.1997	TC3	-.7223	BAU	.5149
RDE	1.3161	RRA	.3755	RC3	-1.6972	FAU	.04885
FDE	2.0722	FRA	.5646	FC3	-2.0258	BSP	8123
BDE	1.6237	BRA	.4253	BC3	1.8445	FSP	-907

MID-COURSE EXECUTION ACCURACY

SGT	1392.4	SGR	2327.6	SG3	284.3		
RRT	.8757	RRF	.9913	RTF	.8924		
SGB	2712.3	R23	.0730	R13	.9899		
SG1	2647.1	SG2	591.2	THA	60.75		

ORBIT DETERMINATION ACCURACY

ST	1195.5	SR	1658.8	SS	1291.3		
CRT	.9857	CRS	-1.0000	CST	-.9865		
LSA	2412.1	MSA	173.9	SSA	6.7		
EL1	2038.2	EL2	164.0	ALF	54.34		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 344.287

RL	150.72	LAL	.00	LOL	344.94	VL	27.275	GAL	-4.85	AZL	81.98	HCA	157.19	SMA	130.48	ECC	.17618	INC	8.0180
RP	107.49	LAP	3.10	LOP	142.33	VP	38.107	GAP	.15	AZP	97.40	TAL	203.82	TAP	1.01	RCA	107.49	APO	153.46
RC	86.111	GL	49.50	GP	-67.53	ZAL	111.95	ZAP	90.49	ETS	351.28	ZAE	109.19	ETE	252.32	ZAC	33.23	ETC	247.01

V1	29.563	V2	35.254	CLP	-91.29														

PLANETOCENTRIC CONIC

C3	24.852	VHL	4.985	DLA	32.16	RAL	233.89	RAD	6568.0	VEL	12.093	PTH	2.16	VHP	6.297	DPA	-71.92	RAP	160.80

ECC	1.4090																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.08	19 43 53	3985.12	-20.66	166.97	107.05	64.79	20 50 18	3385.1	-23.89	159.47
105.92	23 51 14	3192.93	-20.65	108.27	107.04	64.78	24 44 27	2592.9	-23.87	100.77
74.08	19 43 53	3985.12	-20.66	166.97	107.05	64.79	20 50 18	3385.1	-23.89	159.47
105.92	23 51 14	3192.93	-20.65	108.27	107.04	64.78	24 44 27	2592.9	-23.87	100.77
110.00	1 49 42	2838.84	-29.17	84.82	110.82	71.34	2 37 0	2238.8	-31.44	76.34
110.00	22 48 32	3387.21	-12.60	118.59	102.46	57.96	23 44 59	2787.2	-16.74	111.93

DIFFERENTIAL CORRECTIONS

TDE	1.3441	TRA	-.1118	TC3	-.7718	BAU	.5303
RDE	1.4967	RRA	.4950	RC3	-1.3973	FAU	.03980
FDE	1.9941	FRA	.5966	FC3	-1.3864	BSP	8697
BDE	2.0116	BRA	.5075	BC3	1.5963	FSP	-780

MID-COURSE EXECUTION ACCURACY

SGT	1732.5	SGR	2313.3	SG3	241.6		
RRT	.9050	RRF	.9913	RTF	.9250		
SGB	2890.2	R23	.0874	R13	.9896		
SG1	2826.5	SG2	603.1	THA	53.97		

ORBIT DETERMINATION ACCURACY

ST	1545.6	SR	1732.4	SS	1254.1		
CRT	.9893	CRS	-.9999	CST	-.9909		
LSA	2632.7	MSA	178.7	SSA	5.7		
EL1	2315.6	EL2	168.7	ALF	48.30		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 350.592

RL	150.72	LAL	.00	LOL	344.94	VL	27.266	GAL	-4.76	AZL	80.51	HCA	160.39	SMA	130.41	ECC	.17594	INC	9.4948
RP	107.50	LAP	3.17	LOP	145.58	VP	38.098	GAP	.56	AZP	98.95	TAL	203.35	TAP	3.75	RCA	107.47	APO	153.36
RC	88.372	GL	53.60	GP	-71.34	ZAL	109.06	ZAP	92.53	ETS	343.95	ZAE	104.98	ETE	246.14	ZAC	29.24	ETC	242.86

V1	29.563	V2	35.251	CLP	-97.94														

PLANETOCENTRIC CONIC

C3	31.013	VHL	5.569	DLA	35.58	RAL	236.90	RAD	6568.2	VEL	12.344	PTH	2.23	VHP	7.093	DPA	-71.48	RAP	148.12

ECC	1.5104																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.50	19 15 37	4163.71	-20.88	180.97	114.70	60.51	20 25 0	3563.7	-24.64	173.73
112.50	0 47 32	3124.63	-20.86	103.08	114.69	60.50	1 39 37	2524.6	-24.63	95.84
67.50	19 15 37	4163.71	-20.88	180.97	114.70	60.51	20 25 0	3563.7	-24.64	173.73
112.50	0 47 32	3124.63	-20.86	103.08	114.69	60.50	1 39 37	2524.6	-24.63	95.84
67.50	19 15 37	4163.71	-20.88	180.97	114.70	60.51	20 25 0	3563.7	-24.64	173.73
112.50	0 47 32	3124.63	-20.86	103.08	114.69	60.50	1 39 37	2524.6	-24.63	95.84

DIFFERENTIAL CORRECTIONS

TDE	1.8892	TRA	.0296	TC3	-.7465	BAU	.5352
RDE	1.6449	RRA	.6396	RC3	-1.0531	FAU	.03076
FDE	1.8856	FRA	.6172	FC3	-.8586	BSP	9259
BDE	2.5049	BRA	.6403	BC3	1.2909	FSP	-650

MID-COURSE EXECUTION ACCURACY

SGT	2114.4	SGR	2212.3	SG3	198.7		
RRT	.9181	RRF	.9900	RTF	.9451		
SGB	3060.2	R23	.1014	R13	.9890		
SG1	2997.1	SG2	618.4	THA	46.41		

ORBIT DETERMINATION ACCURACY

ST	1943.9	SR	1710.0	SS	1197.8		
CRT	.9906	CRS	-.9997	CST	-.9935		
LSA	2846.6	MSA	185.4	SSA	4.8		
EL1	2583.0	EL2	175.6	ALF	41.30		

LAUNCH DATE SEP 8 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 356.856

RL	150.72	LAL	.00	LOL	344.94	VL	27.253	GAL	-4.65	AZL	78.48	HCA	163.58	SMA	130.32	ECC	.17579	INC	11.5198	V1	29.563		
RP	107.51	LAP	3.24	LOP	148.83	VP	38.085	GAP	.95	AZP	101.06	TAL	202.80	TAP	6.38	RCA	107.41	APO	153.23	V2	35.247		
RC	90.641	GL	57.67	GP	-75.47	ZAL	105.97	ZAP	93.91	ETS	334.76	ZAE	100.39	ETE	238.43	ZAC	24.91	ETC	236.53	CLP	-105.76		

PLANETOCENTRIC CONIC

C3	41.212	VHL	6.420	DLA	38.87	RAL	240.37	RAD	6568.6	VEL	12.751	PTH	2.32	VHP	8.237	DPA	-70.38	RAP	135.28	ECC	1.6782		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.17	19 1 47	4316.59	-19.92	192.76	123.66	55.90	20 13 44	3716.6	-24.25	185.91
117.83	1 29 0	3115.24	-19.91	101.69	123.66	55.90	2 20 55	2515.2	-24.24	94.84
62.17	19 1 47	4316.59	-19.92	192.76	123.66	55.90	20 13 44	3716.6	-24.25	185.91
117.83	1 29 0	3115.24	-19.91	101.69	123.66	55.90	2 20 55	2515.2	-24.24	94.84
62.17	19 1 47	4316.59	-19.92	192.76	123.66	55.90	20 13 44	3716.6	-24.25	185.91
117.83	1 29 0	3115.24	-19.91	101.69	123.66	55.90	2 20 55	2515.2	-24.24	94.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.6776	TRA	.2705	TC3	-.6465	BAU	.5207	SGT	2548.7	SGR	1968.4	SG3	158.0	ST	2391.7	SR	1520.5	SS	1129.0
RDE	1.6746	RRA	.8077	RC3	-.6893	FAU	.02206	RRT	.9156	RRF	.9844	RTF	.9596	CRT	.9895	CRS	-.9989	CST	-.9952
FDE	1.7607	FRA	.6298	FC3	-.4634	BSP	9758	SGB	3220.4	R23	.1151	R13	.9884	LSA	3044.4	MSA	195.0	SSA	4.0
BDE	3.1581	BRA	.8518	BC3	.9451	FSP	-521	SG1	3156.3	SG2	639.1	THA	37.04	EL1	2828.0	EL2	185.8	ALF	32.33

LAUNCH DATE SEP 8 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 363.066

RL	150.72	LAL	.00	LOL	344.94	VL	27.237	GAL	-4.53	AZL	75.52	HCA	166.74	SMA	130.21	ECC	.17571	INC	14.4815	V1	29.563		
RP	107.53	LAP	3.29	LOP	152.08	VP	38.070	GAP	1.33	AZP	104.11	TAL	202.16	TAP	8.89	RCA	107.33	APO	153.09	V2	35.243		
RC	92.917	GL	61.49	GP	-80.05	ZAL	102.77	ZAP	94.58	ETS	321.05	ZAE	95.26	ETE	226.43	ZAC	20.04	ETC	224.97	CLP	-117.52		

PLANETOCENTRIC CONIC

C3	59.709	VHL	7.727	DLA	41.79	RAL	244.30	RAD	6569.1	VEL	13.456	PTH	2.46	VHP	9.970	DPA	-68.34	RAP	122.59	ECC	1.9827		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.87	18 58 1	4463.51	-17.36	203.27	133.84	51.36	20 12 24	3863.5	-22.24	196.94
122.13	2 4 7	3152.95	-17.35	102.90	133.83	51.36	2 56 40	2552.9	-22.22	96.57
57.87	18 58 1	4463.51	-17.36	203.27	133.84	51.36	20 12 24	3863.5	-22.24	196.94
122.13	2 4 7	3152.95	-17.35	102.90	133.83	51.36	2 56 40	2552.9	-22.22	96.57
57.87	18 58 1	4463.51	-17.36	203.27	133.84	51.36	20 12 24	3863.5	-22.24	196.94
122.13	2 4 7	3152.95	-17.35	102.90	133.83	51.36	2 56 40	2552.9	-22.22	96.57

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.8641	TRA	.7228	TC3	-.4816	BAU	.4697	SGT	3046.3	SGR	1431.4	SG3	121.7	ST	2873.4	SR	984.6	SS	1060.6
RDE	1.2719	RRA	.9467	RC3	-.3381	FAU	.01396	RRT	.8641	RRF	.9477	RTF	.9734	CRT	.9768	CRS	-.9908	CST	-.9967
FDE	1.6404	FRA	.6404	FC3	-.2023	BSP	10229	SGB	3365.9	R23	.1276	R13	.9880	LSA	3210.5	MSA	208.4	SSA	3.1
BDE	4.0681	BRA	1.1911	BC3	.5884	FSP	-404	SG1	3299.5	SG2	665.2	THA	23.09	EL1	3030.8	EL2	200.1	ALF	18.59

LAUNCH DATE SEP 8 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 369.195

RL	150.72	LAL	.00	LOL	344.94	VL	27.219	GAL	-4.38	AZL	70.77	HCA	169.84	SMA	130.08	ECC	.17566	INC	19.2281	V1	29.563		
RP	107.54	LAP	3.33	LOP	155.33	VP	38.052	GAP	1.67	AZP	108.95	TAL	201.40	TAP	11.24	RCA	107.23	APO	152.93	V2	35.238		
RC	95.197	GL	64.51	GP	-84.74	ZAL	99.52	ZAP	94.53	ETS	292.90	ZAE	89.15	ETE	200.09	ZAC	14.21	ETC	197.40	CLP	-149.63		

PLANETOCENTRIC CONIC

C3	98.044	VHL	9.902	DLA	43.84	RAL	248.62	RAD	6569.9	VEL	14.812	PTH	2.68	VHP	12.814	DPA	-64.88	RAP	110.46	ECC	2.6136		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.02	19 3 34	4609.59	-12.90	212.26	144.83	47.73	20 20 23	4009.6	-18.20	206.45
124.98	2 33 3	3235.82	-12.89	106.29	144.82	47.73	3 26 59	2635.8	-18.19	100.48
55.02	19 3 34	4609.59	-12.90	212.26	144.83	47.73	20 20 23	4009.6	-18.20	206.45
124.98	2 33 3	3235.82	-12.89	106.29	144.82	47.73	3 26 59	2635.8	-18.19	100.48
55.02	19 3 34	4609.59	-12.90	212.26	144.83	47.73	20 20 23	4009.6	-18.20	206.45
124.98	2 33 3	3235.82	-12.89	106.29	144.82	47.73	3 26 59	2635.8	-18.19	100.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	5.3742	TRA	1.6570	TC3	-.2501	BAU	.3340	SGT	3418.0	SGR	705.4	SG3	91.6	ST	3135.2	SR	498.7	SS	1020.3
RDE	-.8197	RRA	.6396	RC3	-.0487	FAU	.00619	RRT	-.3091	RRF	-.1923	RTF	.9906	CRT	-.9041	CRS	.8824	CST	-.9988
FDE	1.5680	FRA	.6706	FC3	-.0547	BSP	10612	SGB	3490.0	R23	-.1325	R13	-.9890	LSA	3327.4	MSA	218.3	SSA	2.2
BDE	5.4363	BRA	1.7761	BC3	.2549	FSP	-305	SG1	3425.2	SG2	669.4	THA	176.21	EL1	3167.6	EL2	210.9	ALF	171.78

LAUNCH DATE SEP 8 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 375.168

RL	150.72	LAL	.00	LOL	344.94	VL	27.198	GAL	-4.20	AZL	62.05	HCA	172.81	SMA	129.94	ECC	.17553	INC	27.9512	V1	29.563		
RP	107.56	LAP	3.36	LOP	158.58	VP	38.031	GAP	1.97	AZP	117.76	TAL	200.47	TAP	13.28	RCA	107.13	APO	152.74	V2	35.232		
RC	97.481	GL	65.44	GP	-83.29	ZAL	96.37	ZAP	93.80	ETS	234.63	ZAE	81.03	ETE	143.60	ZAC	6.42	ETC	132.81	CLP	124.52		

PLANETOCENTRIC CONIC

C3	195.395	VHL	13.978	DLA	43.79	RAL	252.99	RAD	6571.1	VEL	17.797	PTH	2.99	VHP	18.101	DPA	-58.86	RAP	99.30	ECC	4.2157		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.08	19 21 13	4737.85	-6.93	218.19	155.73	46.65	20 40 11	4137.8	-12.37	212.66
124.92	2 50 14	3365.34	-6.91	112.33	155.71	46.65	3 46 19	2765.3	-12.35	106.80
55.08	19 21 13	4737.85	-6.93	218.19	155.73	46.65	20 40 11	4137.8	-12.37	212.66
124.92	2 50 14	3365.34	-6.91	112.33	155.71	46.65	3 46 19	2765.3	-12.35	106.80
55.08	19 21 13	4737.85	-6.93	218.19	155.73	46.65	20 40 11	4137.8	-12.37	212.66
124.92	2 50 14	3365.34	-6.91	112.33	155.71	46.65	3 46 19	2765.3	-12.35	106.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	4.1301	TRA	2.3439	TC3	-.0119	BAU	.0962	SGT	2153.7	SGR	2849.8	SG3	69.6	ST	1739.3	SR	2686.1	SS	1070.8
RDE	-6.5129	RRA	-1.7481	RC3	-.0349	FAU	-.00306	RRT	-.9510	RRF	-.9742	RTF	.9946	CRT	-.9927	CRS	.9964	CST	-.9993
FDE	1.6386	FRA	.7806	FC3	.0135	BSP	10770	SGB	3572.1	R23	-.1092	R13	-.9928	LSA	3369.5	MSA	182.7	SSA	1.8
BDE	7.7120	BRA	2.9239	BC3	.0368	FSP	-227	SG1	3531.5	SG2	537.1	THA	126.69	EL1	3195.2	EL2	175.8	ALF	122.85

LAUNCH DATE SEP 8 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 380.716

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RL  150.72 LAL    .00 LOL 344.94 VL  27.174 GAL  -3.93 AZL  42.54 HCA 175.41 SMA 129.78 ECC .17499 INC47.4593 VI  29.563
RP  107.58 LAP   3.38 LOP 161.83 VP  38.009 GAP   2.15 AZP 137.37 TAL 199.14 TAP  14.54 RCA 107.07 APO 152.49 V2  35.226
RC  99.767 GL   60.46 GP  -70.89 ZAL  93.55 ZAP  92.52 ETS 197.46 ZAE  67.66 ETE 108.09 ZAC   7.08 ETC 303.18 CLP  97.72
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PLANETOCENTRIC CONIC

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C3 527.127 VHL 22.959 DLA  38.08 RAL 256.27 RAD 6572.4 VEL 25.464 PTH   3.35 VHP 29.702 DPA -46.98 RAP  89.58 ECC 9.6752
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.41	20 11 14	4749.26	-1.39	214.39	164.51	51.95	21 30 24	4149.3	-6.30	208.48
116.59	2 26 22	3582.76	-1.37	126.20	164.50	51.95	3 26 5	2982.8	-6.28	120.28
63.41	20 11 14	4749.26	-1.39	214.39	164.51	51.95	21 30 24	4149.3	-6.30	208.48
116.59	2 26 22	3582.76	-1.37	126.20	164.50	51.95	3 26 5	2982.8	-6.28	120.28
63.41	20 11 14	4749.26	-1.39	214.39	164.51	51.95	21 30 24	4149.3	-6.30	208.48
116.59	2 26 22	3582.76	-1.37	126.20	164.50	51.95	3 26 5	2982.8	-6.28	120.28

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE -.9250 TRA 1.4217 TC3 -.0306 BAU 1.3780   SGT  525.5 SGR 3469.9 SG3   56.9          ST   267.6 SR  2937.1 SS  1349.8
RD-11.5903 RRA-5.3601 RC3 -.1931 FAU-.02326   RRT  .0146 RRF -.9958 RTF  .0697          CRT  .7621 CRS  .9992 CST  .7362
FDE 2.0597 FRA 1.1718 FC3  .0382 BSP  10247   SGB 3509.4 R23 -.0845 R13 -.9957          LSA 3238.4 MSA  180.7 SSA    1.8
BDE11.6271 BRA 5.5455 BC3  .1955 FSP   -177   SG1 3469.9 SG2  525.5 THA  89.87          EL1 2944.2 EL2  172.8 ALF  86.02
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 391.970

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RL  150.72 LAL    .00 LOL 344.94 VL  27.149 GAL  -4.78 AZL 177.71 HCA 183.40 SMA 129.60 ECC .18249 INC87.6970 VI  29.563
RP  107.60 LAP   3.39 LOP 165.07 VP  37.984 GAP   3.90 AZP   2.30 TAL 202.37 TAP  25.77 RCA 105.95 APO 153.25 V2  35.218
RC 102.053 GL  -43.46 GP   48.31 ZAL  92.65 ZAP  92.77 ETS 181.99 ZAE  51.94 ETE 268.77 ZAC 125.68 ETC 278.59 CLP  94.16
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PLANETOCENTRIC CONIC

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C31544.750 VHL 39.303 DLA -64.76 RAL 236.88 RAD 6573.2 VEL 40.817 PTH   3.57 VHP 50.708 DPA  70.30 RAP  60.26 ECC26.4227
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.97	5 1 8	2434.75	-1.39	75.23	147.53	154.75	5 41 43	1834.8	5.85	72.22
151.03	15 1 51	719.80	-1.38	291.81	147.54	154.75	15 13 51	119.8	5.85	288.81
28.97	5 1 8	2434.75	-1.39	75.23	147.53	154.75	5 41 43	1834.8	5.85	72.22
151.03	15 1 51	719.80	-1.38	291.81	147.54	154.75	15 13 51	119.8	5.85	288.81
28.97	5 1 8	2434.75	-1.39	75.23	147.53	154.75	5 41 43	1834.8	5.85	72.22
151.03	15 1 51	719.80	-1.38	291.81	147.54	154.75	15 13 51	119.8	5.85	288.81

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 6.7603 TRA  .9617 TC3 -.1096 BAU 4.6708   SGT 1349.6 SGR 2620.6 SG3   54.0          ST   990.8 SR  2049.2 SS  2194.5
RD-14.0117 RRA 1.5391 RC3  .1978 FAU-.08031   RRT -.8990 RRF  .9994 RTF -.8973          CRT -.9844 CRS-1.0000 CST  .9849
FDE-3.4258 FRA  .3624 FC3  .0450 BSP   8360   SGB 2947.7 R23 -.0914 R13  .9952          LSA 3157.5 MSA  164.4 SSA    2.5
BDE15.5573 BRA 1.8149 BC3  .2262 FSP   -159   SG1 2898.9 SG2  534.3 THA 115.78          EL1 2270.7 EL2  157.3 ALF 115.58
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 396.213

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RL  150.72 LAL    .00 LOL 344.94 VL  27.122 GAL  -4.24 AZL 135.14 HCA 184.79 SMA 129.41 ECC .18004 INC45.1397 VI  29.563
RP  107.63 LAP   3.39 LOP 168.32 VP  37.957 GAP   3.71 AZP  44.96 TAL 199.99 TAP  24.78 RCA 106.11 APO 152.71 V2  35.211
RC 104.339 GL  -61.07 GP   71.84 ZAL  94.09 ZAP  94.69 ETS 176.37 ZAE  76.17 ETE 263.15 ZAC 148.96 ETC 280.22 CLP 105.23
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PLANETOCENTRIC CONIC

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C3 479.854 VHL 21.906 DLA -78.35 RAL 196.89 RAD 6572.3 VEL 24.518 PTH   3.33 VHP 28.262 DPA  83.56 RAP 288.51 ECC 8.8972
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.26	1 48 21	2410.87	2.69	82.45	106.33	168.34	2 28 32	1810.9	10.53	81.23
166.74	12 55 35	617.81	2.70	282.70	106.35	168.34	13 5 53	17.8	10.53	281.47
13.26	1 48 21	2410.87	2.69	82.45	106.33	168.34	2 28 32	1810.9	10.53	81.23
166.74	12 55 35	617.81	2.70	282.70	106.35	168.34	13 5 53	17.8	10.53	281.47
13.26	1 48 21	2410.87	2.69	82.45	106.33	168.34	2 28 32	1810.9	10.53	81.23
166.74	12 55 35	617.81	2.70	282.70	106.35	168.34	13 5 53	17.8	10.53	281.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 2.3249 TRA  .7402 TC3 -.0680 BAU 1.3155   SGT 1173.9 SGR 3510.9 SG3   62.2          ST   672.8 SR  2896.5 SS  1498.3
RD-10.8617 RRA-1.4517 RC3  .1935 FAU-.01873   RRT -.9180 RRF  .9985 RTF -.8991          CRT -.9699 CRS -.9999 CST  .9656
FDE-2.3084 FRA -.2810 FC3  .0338 BSP  11131   SGB 3701.9 R23 -.0818 R13  .9961          LSA 3325.7 MSA  164.5 SSA    1.6
BDE11.1077 BRA 1.6295 BC3  .2051 FSP   -192   SG1 3675.1 SG2  444.8 THA 107.32          EL1 2969.4 EL2  159.7 ALF 102.73
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 401.760

```
RL  150.72 LAL    .00 LOL 344.94 VL  27.092 GAL  -3.95 AZL 117.11 HCA 187.44 SMA 129.21 ECC .17975 INC27.1114 VI  29.563
RP  107.65 LAP   3.38 LOP 171.56 VP  37.929 GAP   3.88 AZP  63.08 TAL 198.58 TAP  26.01 RCA 105.99 APO 152.44 V2  35.202
RC 106.624 GL  -65.23 GP   80.59 ZAL  96.03 ZAP  97.91 ETS 136.89 ZAE  88.87 ETE 223.55 ZAC 159.51 ETC 256.15 CLP 147.28
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PLANETOCENTRIC CONIC

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C3 184.008 VHL 13.565 DLA -77.97 RAL 172.56 RAD 6571.0 VEL 17.474 PTH   2.96 VHP 17.545 DPA  71.57 RAP 257.93 ECC 4.0283
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.70	0 12 8	2293.87	10.43	81.03	80.30	167.76	0 50 22	1693.9	18.25	79.66
166.30	11 17 39	5790.17	10.44	259.61	80.32	167.76	12 54 9	5190.2	18.25	258.25
13.70	0 12 8	2293.87	10.43	81.03	80.30	167.76	0 50 22	1693.9	18.25	79.66
166.30	11 17 39	5790.17	10.44	259.61	80.32	167.76	12 54 9	5190.2	18.25	258.25
13.70	0 12 8	2293.87	10.43	81.03	80.30	167.76	0 50 22	1693.9	18.25	79.66
166.30	11 17 39	5790.17	10.44	259.61	80.32	167.76	12 54 9	5190.2	18.25	258.25

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE-2.6211 TRA -.5805 TC3 -.0077 BAU  .0765   SGT 1615.2 SGR 3618.4 SG3   79.4          ST  1162.0 SR  1842.2 SS   844.1
RDE-3.6945 RRA-1.6111 RC3  .0301 FAU .00241   RRT  .9519 RRF  .9887 RTF  .9854          CRT  .9684 CRS -.9909 CST -.9932
FDE-1.2010 FRA -.3778 FC3 -.0113 BSP  12215   SGB 3962.5 R23 -.0947 R13  .9947          LSA 2322.3 MSA  251.7 SSA    1.5
BDE 4.5298 BRA 1.7125 BC3  .0311 FSP   -253   SG1 3936.4 SG2  454.7 THA  66.65          EL1 2164.0 EL2  246.5 ALF  58.12
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 407.645
RL 150.72 LAL .00 LOL 344.94 VL 27.062 GAL -3.72 AZL 108.90 HCA 190.42 SMA 129.01 ECC .18005 INC18.9010 V1 29.563
RP 107.68 LAP 3.36 LOP 174.81 VP 37.898 GAP 4.15 AZP 71.39 TAL 197.41 TAP 27.82 RCA 105.78 APO 152.23 V2 35.193
RC 108.906 GL -64.24 GP 78.00 ZAL 97.78 ZAP 101.75 ETS 70.76 ZAE 96.74 ETE 157.77 ZAC 163.13 ETC 212.50 CLP-168.50
PLANETOCENTRIC CONIC
C3 94.337 VHL 9.713 DLA -76.16 RAL 174.06 RAD 6569.8 VEL 14.686 PTH 2.66 VHP 12.648 DPA 63.12 RAP 250.62 ECC 2.5526

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.77	0 22 16	2162.81	18.78	77.98	79.25	165.36	0 58 19	1562.8	26.50	76.15
164.23	11 19 30	5665.92	18.78	258.61	79.26	165.36	12 53 56	5065.9	26.51	256.77
15.77	0 22 16	2162.81	18.78	77.98	79.25	165.36	0 58 19	1562.8	26.50	76.15
164.23	11 19 30	5665.92	18.78	258.61	79.26	165.36	12 53 56	5065.9	26.51	256.77
15.77	0 22 16	2162.81	18.78	77.98	79.25	165.36	0 58 19	1562.8	26.50	76.15
164.23	11 19 30	5665.92	18.78	258.61	79.26	165.36	12 53 56	5065.9	26.51	256.77

DIFFERENTIAL CORRECTIONS
TDE-3.1548 TRA-1.4443 TC3 -.2819 BAU .3568
RDE 1.0248 RRA -.0275 RC3 .0243 FAU .01353
FDE-1.1708 FRA -.3951 FC3 -.1242 BSP 12755
BDE 3.3171 BRA 1.4446 BC3 .2829 FSP -340

MID-COURSE EXECUTION ACCURACY
SGT 4054.9 SGR 610.1 SG3 105.3
RRT -.3677 RRF -.4882 RTF .9891
SGB 4100.5 R23 .1261 R13 -.9901
SG1 4061.2 SG2 566.5 THA 176.77

ORBIT DETERMINATION ACCURACY
ST 2145.9 SR 604.9 SS 819.6
CRT -.8501 CRS .9073 CST -.9927
LSA 2354.2 MSA 316.6 SSA 2.3
EL1 2207.9 EL2 309.6 ALF 166.25

LAUNCH DATE SEP 8 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 413.635
RL 150.72 LAL .00 LOL 344.94 VL 27.030 GAL -3.51 AZL 104.37 HCA 193.52 SMA 128.79 ECC .18062 INC14.3683 V1 29.563
RP 107.71 LAP 3.32 LOP 178.05 VP 37.867 GAP 4.44 AZP 76.01 TAL 196.29 TAP 29.80 RCA 105.53 APO 152.05 V2 35.184
RC 111.186 GL -61.52 GP 72.23 ZAL 99.15 ZAP 105.94 ETS 55.08 ZAE 102.59 ETE 143.00 ZAC 162.49 ETC 218.66 CLP-154.09
PLANETOCENTRIC CONIC
C3 58.015 VHL 7.617 DLA -74.30 RAL 182.25 RAD 6569.1 VEL 13.393 PTH 2.45 VHP 10.040 DPA 56.17 RAP 246.30 ECC 1.9548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.90	0 59 15	2045.61	25.98	74.33	84.37	162.48	1 33 20	1445.6	33.58	71.86
162.10	11 47 52	5556.78	25.98	257.08	84.39	162.48	13 20 29	4956.8	33.58	254.61
17.90	0 59 15	2045.61	25.98	74.33	84.37	162.48	1 33 20	1445.6	33.58	71.86
162.10	11 47 52	5556.78	25.98	257.08	84.39	162.48	13 20 29	4956.8	33.58	254.61
17.90	0 59 15	2045.61	25.98	74.33	84.37	162.48	1 33 20	1445.6	33.58	71.86
162.10	11 47 52	5556.78	25.98	257.08	84.39	162.48	13 20 29	4956.8	33.58	254.61

DIFFERENTIAL CORRECTIONS
TDE-2.6983 TRA-1.1569 TC3 -.6511 BAU .5290
RDE 1.5337 RRA .2457 RC3 .2033 FAU .02217
FDE-1.3812 FRA -.3796 FC3 -.3308 BSP 12807
BDE 3.1037 BRA 1.1827 BC3 .6821 FSP -431

MID-COURSE EXECUTION ACCURACY
SGT 3930.0 SGR 1376.0 SG3 135.1
RRT -.8960 RRF -.9642 RTF .9763
SGB 4163.9 R23 .1570 R13 -.9844
SG1 4123.0 SG2 582.4 THA 162.22

ORBIT DETERMINATION ACCURACY
ST 2247.6 SR 1171.8 SS 942.3
CRT -.9643 CRS .9928 CST -.9891
LSA 2688.7 MSA 288.3 SSA 3.0
EL1 2519.5 EL2 276.7 ALF 152.96

LAUNCH DATE SEP 8 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 419.655
RL 150.72 LAL .00 LOL 344.94 VL 26.997 GAL -3.29 AZL 101.51 HCA 196.66 SMA 128.57 ECC .18137 INC11.5132 V1 29.563
RP 107.74 LAP 3.28 LOP 181.28 VP 37.834 GAP 4.74 AZP 78.96 TAL 195.18 TAP 31.84 RCA 105.25 APO 151.88 V2 35.174
RC 113.462 GL -58.17 GP 66.34 ZAL 100.09 ZAP 110.27 ETS 50.87 ZAE 107.30 ETE 140.26 ZAC 159.55 ETC 229.66 CLP-149.72
PLANETOCENTRIC CONIC
C3 40.090 VHL 6.332 DLA -72.26 RAL 191.53 RAD 6568.5 VEL 12.707 PTH 2.31 VHP 8.496 DPA 49.97 RAP 243.33 ECC 1.6598

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.24	1 41 6	1948.25	31.57	70.06	90.19	159.05	2 13 34	1348.2	38.99	66.81
159.76	12 20 4	5469.65	31.58	255.19	90.21	159.05	13 51 13	4869.6	39.00	251.94
20.24	1 41 6	1948.25	31.57	70.06	90.19	159.05	2 13 34	1348.2	38.99	66.81
159.76	12 20 4	5469.65	31.58	255.19	90.21	159.05	13 51 13	4869.6	39.00	251.94
20.24	1 41 6	1948.25	31.57	70.06	90.19	159.05	2 13 34	1348.2	38.99	66.81
159.76	12 20 4	5469.65	31.58	255.19	90.21	159.05	13 51 13	4869.6	39.00	251.94

DIFFERENTIAL CORRECTIONS
TDE-2.6357 TRA -.9735 TC3-1.1210 BAU .6384
RDE 1.5009 RRA .2359 RC3 .4026 FAU .03088
FDE-1.6159 FRA -.3596 FC3 -.6668 BSP 13695
BDE 3.0331 BRA 1.0017 BC3 1.1911 FSP -573

MID-COURSE EXECUTION ACCURACY
SGT 4008.4 SGR 1611.1 SG3 172.6
RRT -.9275 RRF -.9832 RTF .9708
SGB 4320.1 R23 .1726 R13 -.9807
SG1 4283.1 SG2 563.7 THA 159.18

ORBIT DETERMINATION ACCURACY
ST 2538.4 SR 1374.4 SS 1099.0
CRT -.9810 CRS .9981 CST -.9912
LSA 3078.4 MSA 252.6 SSA 3.8
EL1 2877.0 EL2 235.4 ALF 151.82

LAUNCH DATE SEP 8 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 425.689
RL 150.72 LAL .00 LOL 344.94 VL 26.962 GAL -3.08 AZL 99.55 HCA 199.84 SMA 128.34 ECC .18223 INC 9.5483 V1 29.563
RP 107.77 LAP 3.23 LOP 184.52 VP 37.800 GAP 5.04 AZP 81.01 TAL 194.05 TAP 33.88 RCA 104.95 APO 151.72 V2 35.164
RC 115.736 GL -54.61 GP 60.80 ZAL 100.57 ZAP 114.60 ETS 49.35 ZAE 111.19 ETE 140.66 ZAC 155.73 ETC 237.57 CLP-148.58
PLANETOCENTRIC CONIC
C3 30.008 VHL 5.478 DLA -70.06 RAL 200.33 RAD 6568.2 VEL 12.304 PTH 2.22 VHP 7.524 DPA 44.27 RAP 241.26 ECC 1.4939

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.80	2 21 36	1868.79	35.65	65.29	95.24	155.18	2 52 45	1268.8	42.83	61.14
157.20	12 49 47	5403.01	35.66	253.07	95.26	155.18	14 19 50	4803.0	42.84	248.92
22.80	2 21 36	1868.79	35.65	65.29	95.24	155.18	2 52 45	1268.8	42.83	61.14
157.20	12 49 47	5403.01	35.66	253.07	95.26	155.18	14 19 50	4803.0	42.84	248.92
22.80	2 21 36	1868.79	35.65	65.29	95.24	155.18	2 52 45	1268.8	42.83	61.14
157.20	12 49 47	5403.01	35.66	253.07	95.26	155.18	14 19 50	4803.0	42.84	248.92

DIFFERENTIAL CORRECTIONS
TDE-2.5665 TRA -.7996 TC3-1.6300 BAU .6909
RDE 1.3325 RRA .1589 RC3 .5560 FAU .03748
FDE-1.7535 FRA -.2880 FC3-1.0813 BSP 13606
BDE 2.8918 BRA .8152 BC3 1.7222 FSP -661

MID-COURSE EXECUTION ACCURACY
SGT 4050.4 SGR 1597.2 SG3 203.5
RRT -.9311 RRF -.9858 RTF .9648
SGB 4354.0 R23 .1938 R13 -.9750
SG1 4319.6 SG2 546.2 THA 159.50

ORBIT DETERMINATION ACCURACY
ST 2783.8 SR 1401.5 SS 1204.8
CRT -.9867 CRS .9992 CST -.9923
LSA 3333.7 MSA 227.9 SSA 4.6
EL1 3110.0 EL2 203.6 ALF 153.46

LAUNCH DATE SEP 8 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 431.718

RL	150.72	LAL	.00	LOL	344.94	VL	26.927	GAL	-2.85	AZL	98.11	HCA	203.02	SMA	128.10	ECC	.18323	INC	8.1085	V1	29.563
RP	107.80	LAP	3.16	LOP	187.75	VP	37.764	GAP	5.35	AZP	82.53	TAL	192.89	TAP	35.92	RCA	104.63	APO	151.57	V2	35.153
RC	118.005	GL	-51.03	GP	55.68	ZAL	100.59	ZAP	118.82	ETS	48.66	ZAE	114.39	ETE	142.25	ZAC	151.72	ETC	242.87	CLP	-148.75

PLANETOCENTRIC CONIC

C3	23.805	VHL	4.879	DLA	-67.72	RAL	208.29	RAD	6568.0	VEL	12.049	PTH	2.15	VHP	6.890	DPA	39.00	RAP	239.86	ECC	1.3918		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.51	2 59 15	1803.53	38.46	60.18	99.30	151.05	3 29 19	1203.5	45.33	55.10
154.49	13 15 37	5353.40	38.46	250.85	99.31	151.04	14 44 51	4753.4	45.34	245.77
25.51	2 59 15	1803.53	38.46	60.18	99.30	151.05	3 29 19	1203.5	45.33	55.10
154.49	13 15 37	5353.40	38.46	250.85	99.31	151.04	14 44 51	4753.4	45.34	245.77
25.51	2 59 15	1803.53	38.46	60.18	99.30	151.05	3 29 19	1203.5	45.33	55.10
154.49	13 15 37	5353.40	38.46	250.85	99.31	151.04	14 44 51	4753.4	45.34	245.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.4830	TRA	-.6576	TC3	-2.2032	BAU	.7344	SGT	4156.3	SGR	1536.3	SG3	233.4	ST	2979.9	SR	1355.7	SS	1272.5
RDE	1.1520	RRA	.0924	RC3	.6860	FAU	.04336	RRT	-.9345	RRF	-.9857	RTF	.9618	CRT	-.9897	CRS	.9997	CST	-.9930
FDE	-1.8128	FRA	-.2032	FC3	-1.5769	BSP	13864	SGB	4431.1	R23	.2041	R13	-.9711	LSA	3506.2	MSA	208.5	SSA	5.6
BDE	2.7372	BRA	.6641	BC3	2.3075	FSP	-759	SG1	4400.9	SG2	516.5	THA	160.67	EL1	3269.1	EL2	176.5	ALF	155.68

LAUNCH DATE SEP 8 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 437.739

RL	150.72	LAL	.00	LOL	344.94	VL	26.891	GAL	-2.62	AZL	97.00	HCA	206.22	SMA	127.86	ECC	.18433	INC	7.0034	V1	29.563
RP	107.84	LAP	3.09	LOP	190.98	VP	37.728	GAP	5.65	AZP	83.71	TAL	191.72	TAP	37.93	RCA	104.29	APO	151.43	V2	35.141
RC	120.271	GL	-47.50	GP	51.01	ZAL	100.18	ZAP	122.84	ETS	48.25	ZAE	117.00	ETE	144.34	ZAC	147.85	ETC	246.50	CLP	-149.52

PLANETOCENTRIC CONIC

C3	19.737	VHL	4.443	DLA	-65.32	RAL	215.46	RAD	6567.8	VEL	11.879	PTH	2.11	VHP	6.472	DPA	34.16	RAP	238.98	ECC	1.3248		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.32	3 34 9	1749.06	40.23	54.93	102.56	146.84	4 3 18	1149.1	46.77	48.97
151.68	13 37 53	5317.44	40.24	248.69	102.58	146.84	15 6 31	4717.4	46.77	242.72
28.32	3 34 9	1749.06	40.23	54.93	102.56	146.84	4 3 18	1149.1	46.77	48.97
151.68	13 37 53	5317.44	40.24	248.69	102.58	146.84	15 6 31	4717.4	46.77	242.72
28.32	3 34 9	1749.06	40.23	54.93	102.56	146.84	4 3 18	1149.1	46.77	48.97
151.68	13 37 53	5317.44	40.24	248.69	102.58	146.84	15 6 31	4717.4	46.77	242.72

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.3775	TRA	-.5255	TC3	-2.8094	BAU	.7693	SGT	4274.0	SGR	1446.9	SG3	258.2	ST	3105.5	SR	1266.4	SS	1294.5
RDE	.9815	RRA	.0357	RC3	.7791	FAU	.04791	RRT	-.9360	RRF	-.9838	RTF	.9599	CRT	-.9914	CRS	.9999	CST	-.9932
FDE	-1.7931	FRA	-.1018	FC3	-2.1015	BSP	14143	SGB	4512.3	R23	.2089	R13	-.9677	LSA	3589.7	MSA	194.1	SSA	6.6
BDE	2.5721	BRA	.5267	BC3	2.9154	FSP	-840	SG1	4486.1	SG2	485.4	THA	162.20	EL1	3350.3	EL2	154.0	ALF	157.94

LAUNCH DATE SEP 8 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 443.748

RL	150.72	LAL	.00	LOL	344.94	VL	26.854	GAL	-2.37	AZL	96.12	HCA	209.42	SMA	127.62	ECC	.18555	INC	6.1241	V1	29.563
RP	107.87	LAP	3.00	LOP	194.21	VP	37.691	GAP	5.95	AZP	84.66	TAL	190.51	TAP	39.93	RCA	103.94	APO	151.30	V2	35.130
RC	122.531	GL	-44.06	GP	46.78	ZAL	99.36	ZAP	126.61	ETS	47.95	ZAE	119.09	ETE	146.62	ZAC	144.26	ETC	249.10	CLP	-150.57

PLANETOCENTRIC CONIC

C3	16.944	VHL	4.116	DLA	-62.88	RAL	221.96	RAD	6567.7	VEL	11.761	PTH	2.08	VHP	6.199	DPA	29.71	RAP	238.54	ECC	1.2789		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.18	4 6 47	1702.60	41.20	49.69	105.31	142.72	4 35 9	1102.6	47.36	42.96
148.82	13 57 8	5292.53	41.21	246.72	105.33	142.71	15 25 20	4692.5	47.37	239.99
31.18	4 6 47	1702.60	41.20	49.69	105.31	142.72	4 35 9	1102.6	47.36	42.96
148.82	13 57 8	5292.53	41.21	246.72	105.33	142.71	15 25 20	4692.5	47.37	239.99
31.18	4 6 47	1702.60	41.20	49.69	105.31	142.72	4 35 9	1102.6	47.36	42.96
148.82	13 57 8	5292.53	41.21	246.72	105.33	142.71	15 25 20	4692.5	47.37	239.99

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.2577	TRA	-.3961	TC3	-3.4275	BAU	.7992	SGT	4393.3	SGR	1348.7	SG3	277.4	ST	3164.5	SR	1159.2	SS	1277.1
RDE	.8327	RRA	-.0108	RC3	.8370	FAU	.05112	RRT	-.9360	RRF	-.9804	RTF	.9585	CRT	-.9923	CRS	.9999	CST	-.9929
FDE	-1.7125	FRA	.0105	FC3	-2.6120	BSP	14425	SGB	4595.7	R23	.2086	R13	-.9650	LSA	3599.4	MSA	183.2	SSA	7.8
BDE	2.4063	BRA	.3963	BC3	3.5282	FSP	-904	SG1	4573.0	SG2	456.0	THA	163.80	EL1	3367.5	EL2	134.6	ALF	159.99

LAUNCH DATE SEP 8 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 449.742

RL	150.72	LAL	.00	LOL	344.94	VL	26.816	GAL	-2.12	AZL	95.40	HCA	212.62	SMA	127.37	ECC	.18689	INC	5.4038	V1	29.563		
RP	107.91	LAP	2.91	LOP	197.44	VP	37.653	GAP	6.25	AZP	85.44	TAL	189.28	TAP	41.90	RCA	103.57	APO	151.17	V2	35.118		
RC	124.786	GL	-40.72	GP	42.99	ZAL	98.16	ZAP	130.12	ETS	47.68	ZAE	120.75	ETE	148.93	ZAC	141.00	ETC	251.03	CLP	-151.76		

PLANETOCENTRIC CONIC

C3	14.967	VHL	3.869	DLA	-60.44	RAL	227.94	RAD	6567.6	VEL	11.677	PTH	2.05	VHP	6.027	DPA	25.66	RAP	238.45	ECC	1.2463		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.08	4 37 43	1662.04	41.52	44.58	107.78	138.78	5 5 25	1062.0	47.30	37.22
145.92	14 13 52	5276.76	41.53	245.05	107.79	138.78	15 41 49	4676.8	47.30	237.70
34.08	4 37 43	1662.04	41.52	44.58	107.78	138.78	5 5 25	1062.0	47.30	37.22
145.92	14 13 52	5276.76	41.53	245.05	107.79	138.78	15 41 49	4676.8	47.30	237.70
34.08	4 37 43	1662.04	41.52	44.58	107.78	138.78	5 5 25	1062.0	47.30	37.22
145.92	14 13 52	5276.76	41.53	245.05	107.79	138.78	15 41 49	4676.8	47.30	237.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.1286	TRA	-.2666	TC3	-4.0363	BAU	.8259	SGT	4509.1	SGR	1250.4	SG3	290.7	ST	3163.0	SR	1048.4	SS	1226.8
RDE	.7072	RRA	-.0483	RC3	.8626	FAU	.05305	RRT	-.9347	RRF	-.9756	RTF	.9575	CRT	-.9930	CRS	.9999	CST	-.9922
FDE	-1.5882	FRA	.1275	FC3	-3.0688	BSP	14705	SGB	4679.3	R23	.2037	R13	-.9627	LSA	3546.6	MSA	174.9	SSA	9.1
BDE	2.2430	BRA	.2709	BC3	4.1274	FSP	-950	SG1	4659.5	SG2	430.0	THA	165.34	EL1	3330.2	EL2	117.2	ALF	161.76

LAUNCH DATE SEP 8 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 455.721
RL 150.72 LAL .00 LOL 344.94 VL 26.778 GAL -1.85 AZL 94.80 HCA 215.82 SMA 127.12 ECC .18834 INC 4.7998 V1 29.563
RP 107.95 LAP 2.81 LOP 200.66 VP 37.614 GAP 6.55 AZP 86.10 TAL 188.03 TAP 43.85 RCA 103.18 APO 151.06 V2 35.105
RC 127.036 GL -37.49 GP 39.60 ZAL 96.61 ZAP 133.36 ETS 47.44 ZAE 122.04 ETE 151.17 ZAC 138.08 ETC 252.54 CLP-153.02
PLANETOCENTRIC CONIC
C3 13.541 VHL 3.680 DLA -58.00 RAL 233.49 RAD 6567.5 VEL 11.616 PTH 2.04 VHP 5.928 DPA 21.97 RAP 238.67 ECC 1.2229

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.01	5 7 23	1625.82	41.34	39.64	110.14	135.11	5 34 29	1025.8	46.73	31.82
142.99	14 28 33	5268.78	41.35	243.76	110.15	135.10	15 56 22	4668.8	46.74	235.94
37.01	5 7 23	1625.82	41.34	39.64	110.14	135.11	5 34 29	1025.8	46.73	31.82
142.99	14 28 33	5268.78	41.35	243.76	110.15	135.10	15 56 22	4668.8	46.74	235.94
37.01	5 7 23	1625.82	41.34	39.64	110.14	135.11	5 34 29	1025.8	46.73	31.82
142.99	14 28 33	5268.78	41.35	243.76	110.15	135.10	15 56 22	4668.8	46.74	235.94

DIFFERENTIAL CORRECTIONS
TDE-1.9959 TRA -.1356 TC3-4.6205 BAU .8509
RDE .6047 RRA -.0782 RC3 .8632 FAU .05394
FDE-1.4391 FRA .2434 FC3-3.4486 BSP 15000
BDE 2.0855 BRA .1565 BC3 4.7004 FSP -979

MID-COURSE EXECUTION ACCURACY
SGT 4623.9 SGR 1158.8 SG3 299.0
RRT -.9322 RRF -.9692 RTF .9568
SGB 4766.9 R23 .1941 R13 -.9609
SG1 4749.3 SG2 408.4 THA 166.75

ORBIT DETERMINATION ACCURACY
ST 3111.7 SR 944.2 SS 1153.6
CRT -.9937 CRS .9997 CST -.9911
LSA 3446.2 MSA 168.5 SSA 10.5
EL1 3250.2 EL2 101.2 ALF 163.20

LAUNCH DATE SEP 8 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 461.683
RL 150.72 LAL .00 LOL 344.94 VL 26.740 GAL -1.58 AZL 94.28 HCA 219.02 SMA 126.87 ECC .18993 INC 4.2831 V1 29.563
RP 107.99 LAP 2.70 LOP 203.88 VP 37.575 GAP 6.85 AZP 86.67 TAL 186.75 TAP 45.78 RCA 102.77 APO 150.96 V2 35.093
RC 129.278 GL -34.37 GP 36.58 ZAL 94.77 ZAP 136.34 ETS 47.23 ZAE 123.04 ETE 153.28 ZAC 135.48 ETC 253.75 CLP-154.29
PLANETOCENTRIC CONIC
C3 12.508 VHL 3.537 DLA -55.57 RAL 238.71 RAD 6567.5 VEL 11.571 PTH 2.02 VHP 5.884 DPA 18.61 RAP 239.14 ECC 1.2058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.96	5 36 11	1592.60	40.75	34.92	112.49	131.72	6 2 44	992.6	45.77	26.77
140.04	14 41 23	5267.77	40.76	242.90	112.50	131.71	16 9 11	4667.8	45.78	234.75
39.96	5 36 11	1592.60	40.75	34.92	112.49	131.72	6 2 44	992.6	45.77	26.77
140.04	14 41 23	5267.77	40.76	242.90	112.50	131.71	16 9 11	4667.8	45.78	234.75
39.96	5 36 11	1592.60	40.75	34.92	112.49	131.72	6 2 44	992.6	45.77	26.77
140.04	14 41 23	5267.77	40.76	242.90	112.50	131.71	16 9 11	4667.8	45.78	234.75

DIFFERENTIAL CORRECTIONS
TDE-1.8598 TRA -.0008 TC3-5.1646 BAU .8751
RDE .5216 RRA -.1024 RC3 .8454 FAU .05401
FDE-1.2764 FRA .3562 FC3-3.7381 BSP 15311
BDE 1.9315 BRA .1024 BC3 5.2333 FSP -997

MID-COURSE EXECUTION ACCURACY
SGT 4735.3 SGR 1076.0 SG3 303.1
RRT -.9283 RRF -.9611 RTF .9563
SGB 4856.0 R23 .1808 R13 -.9595
SG1 4840.2 SG2 391.4 THA 168.01

ORBIT DETERMINATION ACCURACY
ST 3015.0 SR 849.8 SS 1063.5
CRT -.9945 CRS .9989 CST -.9892
LSA 3304.0 MSA 163.9 SSA 12.1
EL1 3131.3 EL2 85.8 ALF 164.33

LAUNCH DATE SEP 8 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 467.627
RL 150.72 LAL .00 LOL 344.94 VL 26.701 GAL -1.29 AZL 93.83 HCA 222.23 SMA 126.62 ECC .19164 INC 3.8334 V1 29.563
RP 108.03 LAP 2.58 LOP 207.10 VP 37.535 GAP 7.15 AZP 87.16 TAL 185.45 TAP 47.68 RCA 102.35 APO 150.88 V2 35.080
RC 131.513 GL -31.35 GP 33.90 ZAL 92.65 ZAP 139.08 ETS 47.06 ZAE 123.79 ETE 155.23 ZAC 133.18 ETC 254.77 CLP-155.56
PLANETOCENTRIC CONIC
C3 11.767 VHL 3.430 DLA -53.14 RAL 243.65 RAD 6567.4 VEL 11.539 PTH 2.01 VHP 5.881 DPA 15.56 RAP 239.83 ECC 1.1937

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.95	6 4 25	1561.34	39.84	30.39	114.91	128.63	6 30 27	961.3	44.52	22.04
137.05	14 52 30	5273.24	39.85	242.51	114.92	128.62	16 20 23	4673.2	44.53	234.16
42.95	6 4 25	1561.34	39.84	30.39	114.91	128.63	6 30 27	961.3	44.52	22.04
137.05	14 52 30	5273.24	39.85	242.51	114.92	128.62	16 20 23	4673.2	44.53	234.16
42.95	6 4 25	1561.34	39.84	30.39	114.91	128.63	6 30 27	961.3	44.52	22.04
137.05	14 52 30	5273.24	39.85	242.51	114.92	128.62	16 20 23	4673.2	44.53	234.16

DIFFERENTIAL CORRECTIONS
TDE-1.7221 TRA .1380 TC3-5.6460 BAU .8973
RDE .4552 RRA -.1222 RC3 .8108 FAU .05328
FDE-1.1108 FRA .4630 FC3-3.9198 BSP 15617
BDE 1.7812 BRA .1843 BC3 5.7039 FSP -1003

MID-COURSE EXECUTION ACCURACY
SGT 4839.9 SGR 1001.6 SG3 303.5
RRT -.9225 RRF -.9509 RTF .9558
SGB 4942.5 R23 .1648 R13 -.9584
SG1 4927.9 SG2 379.6 THA 169.13

ORBIT DETERMINATION ACCURACY
ST 2880.9 SR 767.3 SS 963.8
CRT -.9955 CRS .9972 CST -.9864
LSA 3129.1 MSA 161.1 SSA 13.9
EL1 2980.5 EL2 70.5 ALF 165.14

LAUNCH DATE SEP 8 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 473.553
RL 150.72 LAL .00 LOL 344.94 VL 26.661 GAL -.99 AZL 93.44 HCA 225.43 SMA 126.36 ECC .19350 INC 3.4363 V1 29.563
RP 108.07 LAP 2.45 LOP 210.31 VP 37.495 GAP 7.45 AZP 87.59 TAL 184.13 TAP 49.56 RCA 101.91 APO 150.81 V2 35.067
RC 133.740 GL -28.44 GP 31.51 ZAL 90.31 ZAP 141.60 ETS 46.95 ZAE 124.35 ETE 157.01 ZAC 131.16 ETC 255.64 CLP-156.81
PLANETOCENTRIC CONIC
C3 11.256 VHL 3.355 DLA -50.73 RAL 248.33 RAD 6567.4 VEL 11.517 PTH 2.01 VHP 5.909 DPA 12.79 RAP 240.71 ECC 1.1853

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.97	6 32 20	1531.14	38.68	26.04	117.43	125.83	6 57 51	931.1	43.03	17.58
134.03	15 1 57	5284.96	38.69	242.62	117.44	125.81	16 30 2	4685.0	43.04	234.15
45.97	6 32 20	1531.14	38.68	26.04	117.43	125.83	6 57 51	931.1	43.03	17.58
134.03	15 1 57	5284.96	38.69	242.62	117.44	125.81	16 30 2	4685.0	43.04	234.15
45.97	6 32 20	1531.14	38.68	26.04	117.43	125.83	6 57 51	931.1	43.03	17.58
134.03	15 1 57	5284.96	38.69	242.62	117.44	125.81	16 30 2	4685.0	43.04	234.15

DIFFERENTIAL CORRECTIONS
TDE-1.5817 TRA .2833 TC3-6.0588 BAU .9191
RDE .4021 RRA -.1392 RC3 .7680 FAU .05210
FDE -.9467 FRA .5644 FC3-4.0070 BSP 15905
BDE 1.6320 BRA .3156 BC3 6.1073 FSP -999

MID-COURSE EXECUTION ACCURACY
SGT 4940.5 SGR 937.0 SG3 301.3
RRT -.9152 RRF -.9387 RTF .9555
SGB 5028.6 R23 .1471 R13 -.9574
SG1 5014.8 SG2 372.1 THA 170.10

ORBIT DETERMINATION ACCURACY
ST 2713.5 SR 696.0 SS 858.8
CRT -.9967 CRS .9933 CST -.9819
LSA 2925.6 MSA 160.6 SSA 15.8
EL1 2800.8 EL2 54.7 ALF 165.65

LAUNCH DATE SEP 8 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 479.460

RL	150.72	LAL	.00	LOL	344.94	VL	26.621	GAL	-.68	AZL	93.08	HCA	228.63	SMA	126.11	ECC	.19550	INC	3.0809	V1	29.563
RP	108.11	LAP	2.31	LOP	213.53	VP	37.455	GAP	7.76	AZP	87.96	TAL	182.78	TAP	51.41	RCA	101.45	APO	150.76	V2	35.054
RC	135.957	GL	-25.64	GP	29.39	ZAL	87.78	ZAP	143.91	ETS	46.91	ZAE	124.77	ETE	158.62	ZAC	129.37	ETC	256.42	CLP	-158.04

PLANETOCENTRIC CONIC

C3	10.933	VHL	3.307	DLA	-48.33	RAL	252.79	RAD	6567.4	VEL	11.503	PTH	2.00	VHP	5.964	DPA	10.26	RAP	241.76	ECC	1.1799		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.04	7 0 9	1501.15	37.31	21.83	120.07	123.30	7 25 10	901.2	41.37	13.33
130.96	15 9 41	5302.95	37.32	243.23	120.08	123.28	16 38 4	4702.9	41.38	234.73
49.04	7 0 9	1501.15	37.31	21.83	120.07	123.30	7 25 10	901.2	41.37	13.33
130.96	15 9 41	5302.95	37.32	243.23	120.08	123.28	16 38 4	4702.9	41.38	234.73
49.04	7 0 9	1501.15	37.31	21.83	120.07	123.30	7 25 10	901.2	41.37	13.33
130.96	15 9 41	5302.95	37.32	243.23	120.08	123.28	16 38 4	4702.9	41.38	234.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.4374	TRA	.4377	TC3	-6.3747	BAU	.9376	SGT	5027.7	SGR	879.7	SG3	296.5	ST	2517.4	SR	634.8	SS	753.2
RDE	.3596	RRA	-.1546	RC3	.7144	FAU	.05030	RRT	-.9052	RRF	-.9242	RTF	.9547	CRT	-.9981	CRS	.9850	CST	-.9747
FDE	-.7876	FRA	.6616	FC3	-3.9830	BSP	16130	SGB	5104.0	R23	.1302	R13	-.9563	LSA	2698.3	MSA	163.2	SSA	17.8
BDE	1.4817	BRA	.4642	BC3	6.4147	FSP	-983	SG1	5090.7	SG2	369.3	THA	170.95	EL1	2595.9	EL2	38.0	ALF	165.87

LAUNCH DATE SEP 8 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 485.347

RL	150.72	LAL	.00	LOL	344.94	VL	26.582	GAL	-.35	AZL	92.76	HCA	231.83	SMA	125.85	ECC	.19766	INC	2.7591	V1	29.563		
RP	108.15	LAP	2.17	LOP	216.73	VP	37.414	GAP	8.06	AZP	88.29	TAL	181.42	TAP	53.25	RCA	100.98	APO	150.73	V2	35.041		
RC	138.166	GL	-22.95	GP	27.50	ZAL	85.11	ZAP	146.04	ETS	46.96	ZAE	125.07	ETE	160.07	ZAC	127.80	ETC	257.13	CLP	-159.24		

PLANETOCENTRIC CONIC

C3	10.770	VHL	3.282	DLA	-45.95	RAL	257.03	RAD	6567.4	VEL	11.496	PTH	2.00	VHP	6.040	DPA	7.96	RAP	242.96	ECC	1.1772		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.16	7 28 5	1470.52	35.78	17.70	122.81	121.02	7 52 36	870.5	39.58	9.21
127.84	15 15 37	5327.44	35.79	244.39	122.82	121.00	16 44 25	4727.4	39.59	235.90
52.16	7 28 5	1470.52	35.78	17.70	122.81	121.02	7 52 36	870.5	39.58	9.21
127.84	15 15 37	5327.44	35.79	244.39	122.82	121.00	16 44 25	4727.4	39.59	235.90
52.16	7 28 5	1470.52	35.78	17.70	122.81	121.02	7 52 36	870.5	39.58	9.21
127.84	15 15 37	5327.44	35.79	244.39	122.82	121.00	16 44 25	4727.4	39.59	235.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2924	TRA	.5958	TC3	-6.6085	BAU	.9563	SGT	5113.1	SGR	830.3	SG3	290.2	ST	2304.2	SR	583.7	SS	653.1
RDE	.3263	RRA	-.1675	RC3	.6603	FAU	.04835	RRT	-.8939	RRF	-.9077	RTF	.9545	CRT	-.9992	CRS	.9682	CST	-.9635
FDE	-.6386	FRA	.7479	FC3	-3.8865	BSP	16326	SGB	5180.1	R23	.1115	R13	-.9558	LSA	2459.2	MSA	168.7	SSA	19.7
BDE	1.3329	BRA	.6189	BC3	6.6414	FSP	-959	SG1	5167.0	SG2	368.4	THA	171.70	EL1	2376.9	EL2	22.9	ALF	165.80

LAUNCH DATE SEP 8 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 491.218

RL	150.72	LAL	.00	LOL	344.94	VL	26.542	GAL	-.01	AZL	92.46	HCA	235.03	SMA	125.60	ECC	.19998	INC	2.4647	V1	29.563		
RP	108.19	LAP	2.02	LOP	219.94	VP	37.373	GAP	8.37	AZP	88.59	TAL	180.04	TAP	55.07	RCA	100.48	APO	150.72	V2	35.028		
RC	140.364	GL	-20.37	GP	25.81	ZAL	82.34	ZAP	148.00	ETS	47.09	ZAE	125.29	ETE	161.37	ZAC	126.42	ETC	257.79	CLP	-160.40		

PLANETOCENTRIC CONIC

C3	10.750	VHL	3.279	DLA	-43.60	RAL	261.07	RAD	6567.4	VEL	11.495	PTH	2.00	VHP	6.134	DPA	5.86	RAP	244.29	ECC	1.1769		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.34	7 56 21	1438.43	34.14	13.60	125.66	118.97	8 20 19	838.4	37.70	5.16
124.66	15 19 37	5358.78	34.15	246.10	125.67	118.95	16 48 56	4758.8	37.71	237.67
55.34	7 56 21	1438.43	34.14	13.60	125.66	118.97	8 20 19	838.4	37.70	5.16
124.66	15 19 37	5358.78	34.15	246.10	125.67	118.95	16 48 56	4758.8	37.71	237.67
55.34	7 56 21	1438.43	34.14	13.60	125.66	118.97	8 20 19	838.4	37.70	5.16
124.66	15 19 37	5358.78	34.15	246.10	125.67	118.95	16 48 56	4758.8	37.71	237.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.1373	TRA	.7640	TC3	-6.9702	BAU	1.0066	SGT	5314.2	SGR	812.2	SG3	295.7	ST	2067.5	SR	542.5	SS	563.7
RDE	.3017	RRA	-.1761	RC3	.6842	FAU	.05038	RRT	-.8993	RRF	-.8969	RTF	.9641	CRT	-.9986	CRS	.9378	CST	-.9503
FDE	-.5048	FRA	.8135	FC3	-4.0571	BSP	17280	SGB	5375.9	R23	.0594	R13	-.9647	LSA	2203.7	MSA	172.4	SSA	20.8
BDE	1.1766	BRA	.7841	BC3	7.0037	FSP	-1036	SG1	5364.4	SG2	351.9	THA	172.14	EL1	2137.3	EL2	28.2	ALF	165.31

LAUNCH DATE SEP 8 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 497.056

RL	150.72	LAL	.00	LOL	344.94	VL	26.501	GAL	.34	AZL	92.19	HCA	238.22	SMA	125.35	ECC	.20249	INC	2.1925	V1	29.563		
RP	108.23	LAP	1.86	LOP	223.14	VP	37.332	GAP	8.68	AZP	88.84	TAL	178.64	TAP	56.87	RCA	99.97	APO	150.73	V2	35.014		
RC	142.552	GL	-17.92	GP	24.30	ZAL	79.49	ZAP	149.82	ETS	47.33	ZAE	125.43	ETE	162.52	ZAC	125.19	ETC	258.42	CLP	-161.54		

PLANETOCENTRIC CONIC

C3	10.863	VHL	3.296	DLA	-41.29	RAL	264.92	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	6.243	DPA	3.93	RAP	245.73	ECC	1.1788		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.60	8 25 13	1403.78	32.41	9.44	128.60	117.12	8 48 37	803.8	35.75	1.08
121.40	15 21 25	5397.69	32.42	248.43	128.61	117.11	16 51 23	4797.7	35.76	240.06
58.60	8 25 13	1403.78	32.41	9.44	128.60	117.12	8 48 37	803.8	35.75	1.08
121.40	15 21 25	5397.69	32.42	248.43	128.61	117.11	16 51 23	4797.7	35.76	240.06
58.60	8 25 13	1403.78	32.41	9.44	128.60	117.12	8 48 37	803.8	35.75	1.08
121.40	15 21 25	5397.69	32.42	248.43	128.61	117.11	16 51 23	4797.7	35.76	240.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.0037	TRA	.9337	TC3	-6.8134	BAU	.9928	SGT	5280.3	SGR	754.8	SG3	275.6	ST	1866.1	SR	507.4	SS	491.4
RDE	.2816	RRA	-.1921	RC3	.5526	FAU	.04402	RRT	-.8656	RRF	-.8702	RTF	.9535	CRT	-.9947	CRS	.8770	CST	-.9179
FDE	-.3770	FRA	.9063	FC3	-3.5079	BSP	16963	SGB	5334.0	R23	.0812	R13	-.9542	LSA	1985.3	MSA	197.8	SSA	22.7
BDE	1.0424	BRA	.9532	BC3	6.8357	FSP	-926	SG1	5320.8	SG2	375.1	THA	172.91	EL1	1933.2	EL2	50.3	ALF	164.85

LAUNCH DATE SEP 8 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 502.878

RL 150.72 LAL .00 LOL 344.94 VL 26.461 GAL .71 AZL 91.94 HCA 241.42 SMA 125.10 ECC .20519 INC 1.9388 V1 29.563
RP 108.27 LAP 1.70 LOP 226.34 VP 37.291 GAP 9.00 AZP 89.07 TAL 177.23 TAP 58.65 RCA 99.43 APO 150.76 V2 35.001
RC 144.730 GL -15.58 GP 22.95 ZAL 76.61 ZAP 151.51 ETS 47.68 ZAE 125.53 ETE 163.55 ZAC 124.11 ETC 259.03 CLP-162.65

PLANETOCENTRIC CONIC

C3> 11.104 VHL 3.332 DLA -39.02 RAL 268.58 RAD 6567.4 VEL 11.511 PTH 2.00 VHP 6.366 DPA 2.16 RAP 247.28 ECC 1.1827

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.95	8 55 5	1365.29	30.63	5.14	131.63	115.46	9 17 50	765.3	33.78	356.87
118.05	15 20 44	5445.17	30.64	251.42	131.63	115.45	16 51 29	4845.2	33.79	243.15
61.95	8 55 5	1365.29	30.63	5.14	131.63	115.46	9 17 50	765.3	33.78	356.87
118.05	15 20 44	5445.17	30.64	251.42	131.63	115.45	16 51 29	4845.2	33.79	243.15
61.95	8 55 5	1365.29	30.63	5.14	131.63	115.46	9 17 50	765.3	33.78	356.87
118.05	15 20 44	5445.17	30.64	251.42	131.63	115.45	16 51 29	4845.2	33.79	243.15

DIFFERENTIAL CORRECTIONS
TDE -.8547 TRA 1.1167 TC3-6.7697 BAU 1.0077
RDE .2671 RRA -.2037 RC3 .4996 FAU .04163
FDE -.2628 FRA .9761 FC3-3.2462 BSP 17095
BDE .8954 BRA 1.1351 BC3 6.7882 FSP -892

MID-COURSE EXECUTION ACCURACY
SGT 5350.0 SGR 724.6 SG3 267.0
RRT -.8490 RRF -.8492 RTF .9534
SGB 5398.8 R23 .0675 R13 -.9540
SG1 5385.4 SG2 380.3 THA 173.41

ORBIT DETERMINATION ACCURACY
ST 1651.5 SR 478.9 SS 436.0
CRT -.9819 CRS .7792 CST -.8809
LSA 1759.8 MSA 223.0 SSA 23.3
EL1 1717.4 EL2 87.3 ALF 164.06

LAUNCH DATE SEP 8 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 508.674

RL 150.72 LAL .00 LOL 344.94 VL 26.421 GAL 1.10 AZL 91.70 HCA 244.61 SMA 124.85 ECC .20810 INC 1.7002 V1 29.563
RP 108.31 LAP 1.54 LOP 229.54 VP 37.250 GAP 9.32 AZP 89.27 TAL 175.80 TAP 60.41 RCA 98.87 APO 150.83 V2 34.988
RC 146.899 GL -13.38 GP 21.74 ZAL 73.72 ZAP 153.08 ETS 48.15 ZAE 125.59 ETE 164.47 ZAC 123.15 ETC 259.63 CLP-163.72

PLANETOCENTRIC CONIC

C3 11.470 VHL 3.387 DLA -36.81 RAL 272.05 RAD 6567.4 VEL 11.526 PTH 2.01 VHP 6.502 DPA .54 RAP 248.93 ECC 1.1888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.43	9 26 22	1321.33	28.82	.58	134.72	113.97	9 48 23	721.3	31.79	352.39
114.57	15 17 8	5502.58	28.83	255.18	134.72	113.96	16 48 51	4902.6	31.80	246.99
65.43	9 26 22	1321.33	28.82	.58	134.72	113.97	9 48 23	721.3	31.79	352.39
114.57	15 17 8	5502.58	28.83	255.18	134.72	113.96	16 48 51	4902.6	31.80	246.99
65.43	9 26 22	1321.33	28.82	.58	134.72	113.97	9 48 23	721.3	31.79	352.39
114.57	15 17 8	5502.58	28.83	255.18	134.72	113.96	16 48 51	4902.6	31.80	246.99

DIFFERENTIAL CORRECTIONS
TDE -.7057 TRA 1.3064 TC3-6.6520 BAU 1.0224
RDE .2568 RRA -.2151 RC3 .4505 FAU .03929
FDE -.1591 FRA 1.0404 FC3-2.9652 BSP 17319
BDE .7510 BRA 1.3240 BC3 6.6673 FSP -867

MID-COURSE EXECUTION ACCURACY
SGT 5417.4 SGR 698.9 SG3 258.3
RRT -.8316 RRF -.8275 RTF .9532
SGB 5462.3 R23 .0554 R13 -.9537
SG1 5448.7 SG2 386.0 THA 173.85

ORBIT DETERMINATION ACCURACY
ST 1459.3 SR 455.4 SS 401.6
CRT -.9522 CRS .6371 CST -.8394
LSA 1559.3 MSA 257.4 SSA 23.4
EL1 1522.9 EL2 133.2 ALF 163.32

LAUNCH DATE SEP 8 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 514.445

RL 150.72 LAL .00 LOL 344.94 VL 26.381 GAL 1.50 AZL 91.47 HCA 247.80 SMA 124.60 ECC .21123 INC 1.4740 V1 29.563
RP 108.35 LAP 1.36 LOP 232.73 VP 37.210 GAP 9.65 AZP 89.44 TAL 174.37 TAP 62.17 RCA 98.28 APO 150.91 V2 34.975
RC 149.057 GL -11.31 GP 20.65 ZAL 70.86 ZAP 154.54 ETS 48.74 ZAE 125.63 ETE 165.29 ZAC 122.29 ETC 260.22 CLP-164.78

PLANETOCENTRIC CONIC

C3 11.966 VHL 3.459 DLA -34.67 RAL 275.34 RAD 6567.5 VEL 11.548 PTH 2.02 VHP 6.650 DPA -.94 RAP 250.65 ECC 1.1969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.10	9 59 55	1269.07	27.00	355.53	137.87	112.62	10 21 4	669.1	29.82	347.43
110.90	15 9 49	5572.53	27.01	259.87	137.87	112.61	16 42 42	4972.5	29.83	251.77
69.10	9 59 55	1269.07	27.00	355.53	137.87	112.62	10 21 4	669.1	29.82	347.43
110.90	15 9 49	5572.53	27.01	259.87	137.87	112.61	16 42 42	4972.5	29.83	251.77
69.10	9 59 55	1269.07	27.00	355.53	137.87	112.62	10 21 4	669.1	29.82	347.43
110.90	15 9 49	5572.53	27.01	259.87	137.87	112.61	16 42 42	4972.5	29.83	251.77

DIFFERENTIAL CORRECTIONS
TDE -.5567 TRA 1.5045 TC3-6.4665 BAU 1.0365
RDE .2500 RRA -.2267 RC3 .4049 FAU .03697
FDE -.0663 FRA 1.1003 FC3-2.6746 BSP 17537
BDE .6103 BRA 1.5215 BC3 6.4791 FSP -841

MID-COURSE EXECUTION ACCURACY
SGT 5481.3 SGR 677.1 SG3 249.6
RRT -.8133 RRF -.8055 RTF .9531
SGB 5523.0 R23 .0452 R13 -.9535
SG1 5509.1 SG2 391.9 THA 174.23

ORBIT DETERMINATION ACCURACY
ST 1301.8 SR 436.2 SS 388.4
CRT -.8937 CRS .4647 CST -.8102
LSA 1394.9 MSA 299.2 SSA 23.0
EL1 1360.1 EL2 187.4 ALF 163.00

LAUNCH DATE SEP 8 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 520.188

RL 150.72 LAL .00 LOL 344.94 VL 26.340 GAL 1.93 AZL 91.26 HCA 250.99 SMA 124.35 ECC .21460 INC 1.2581 V1 29.563
RP 108.39 LAP 1.19 LOP 235.92 VP 37.169 GAP 9.99 AZP 89.59 TAL 172.92 TAP 63.91 RCA 97.66 APO 151.03 V2 34.962
RC 151.205 GL -9.37 GP 19.67 ZAL 68.04 ZAP 155.91 ETS 49.48 ZAE 125.64 ETE 166.02 ZAC 121.52 ETC 260.80 CLP-165.80

PLANETOCENTRIC CONIC

C3 12.595 VHL 3.549 DLA -32.61 RAL 278.45 RAD 6567.5 VEL 11.575 PTH 2.02 VHP 6.810 DPA -2.31 RAP 252.45 ECC 1.2073

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.12	10 37 7	1203.96	25.20	349.67	141.06	111.41	10 57 11	604.0	27.88	341.66
106.88	14 57 28	5659.37	25.22	265.79	141.06	111.39	16 31 48	5059.4	27.89	257.78
73.12	10 37 7	1203.96	25.20	349.67	141.06	111.41	10 57 11	604.0	27.88	341.66
106.88	14 57 28	5659.37	25.22	265.79	141.06	111.39	16 31 48	5059.4	27.89	257.78
110.00	13 58 33	5841.22	19.18	276.75	138.01	118.85	15 35 55	5241.2	22.88	269.56
110.00	16 35 12	5358.14	31.56	244.84	143.35	103.88	18 4 31	4758.1	33.14	235.97

DIFFERENTIAL CORRECTIONS
TDE -.4063 TRA 1.7125 TC3-6.2204 BAU 1.0492
RDE .2460 RRA -.2387 RC3 .3623 FAU .03465
FDE .0173 FRA 1.1569 FC3-2.3818 BSP 17739
BDE .4750 BRA 1.7290 BC3 6.2310 FSP -815

MID-COURSE EXECUTION ACCURACY
SGT 5540.3 SGR 658.2 SG3 240.9
RRT -.7946 RRF -.7836 RTF .9530
SGB 5579.3 R23 .0369 R13 -.9533
SG1 5565.1 SG2 397.8 THA 174.58

ORBIT DETERMINATION ACCURACY
ST 1190.5 SR 420.3 SS 392.8
CRT -.7928 CRS .2871 CST -.8093
LSA 1276.5 MSA 343.8 SSA 22.3
EL1 1238.2 EL2 246.3 ALF 163.70

LAUNCH DATE SEP 8 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 525.901

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RL  150.72 LAL    .00 LOL 344.94 VL  26.300 GAL   2.37 AZL  91.05 HCA 254.18 SMA 124.10 ECC .21823 INC 1.0505 VI  29.563
RP  108.43 LAP   1.01 LOP 239.11 VP  37.129 GAP  10.34 AZP  89.71 TAL 171.46 TAP  65.63 RCA  97.02 APO 151.19 V2  34.949
RC 153.343 GL   -7.57 GP   18.78 ZAL  65.29 ZAP 157.19 ETS  50.36 ZAE 125.64 ETE 166.68 ZAC 120.82 ETC 261.38 CLP-166.81
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PLANETOCENTRIC CONIC

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C3  13.365 VHL  3.656 DLA -30.63 RAL 281.39 RAD 6567.5 VEL 11.608 PTH   2.03 VHP  6.981 DPA  -3.56 RAP 254.33 ECC 1.2200
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.82	11 21 20	1114.86	23.44	342.19	144.29	110.30	11 39 55	514.9	25.99	334.26
102.18	14 36 45	5774.04	23.45	273.74	144.29	110.28	16 12 59	5174.0	26.00	265.81
77.82	11 21 20	1114.86	23.44	342.19	144.29	110.30	11 39 55	514.9	25.99	334.26
102.18	14 36 45	5774.04	23.45	273.74	144.29	110.28	16 12 59	5174.0	26.00	265.81
110.00	13 31 34	690.82	14.47	306.74	139.71	121.31	13 43 5	90.8	18.51	299.95
110.00	17 25 41	5246.08	33.08	236.46	147.16	99.14	18 53 7	4646.1	33.99	227.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.2553 TRA 1.9294 TC3-5.9305 BAU 1.0612   SGT 5595.6 SGR  641.7 SG3  232.4     ST  1135.0 SR   407.1 SS   409.1
 RDE  .2446 RRA -.2509 RC3  .3238 FAU .03242   RRT -.7758 RRF -.7620 RTF  .9531     CRT -.6466 CRS  .1288 CST -.8379
 FDE  .0922 FRA 1.2098 FC3-2.1001 BSP  17939   SGB 5632.3 R23  .0296 R13 -.9533     LSA 1214.6 MSA  381.8 SSA   21.5
 BDE  .3535 BRA 1.9456 BC3 5.9393 FSP   -789   SG1 5617.8 SG2  403.3 THA 174.89     EL1 1167.4 EL2  301.9 ALF 165.99
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 531.581

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RL  150.72 LAL    .00 LOL 344.94 VL  26.260 GAL   2.83 AZL  90.85 HCA 257.36 SMA 123.86 ECC .22214 INC  .8494 VI  29.563
RP  108.47 LAP    .83 LOP 242.29 VP  37.089 GAP  10.69 AZP  89.81 TAL 169.99 TAP  67.35 RCA  96.35 APO 151.37 V2  34.937
RC 155.470 GL   -5.90 GP   17.97 ZAL  62.63 ZAP 158.39 ETS  51.40 ZAE 125.62 ETE 167.26 ZAC 120.20 ETC 261.97 CLP-167.79
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PLANETOCENTRIC CONIC

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C3  14.287 VHL  3.780 DLA -28.74 RAL 284.17 RAD 6567.6 VEL 11.648 PTH   2.04 VHP  7.165 DPA  -4.70 RAP 256.26 ECC 1.2351
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.89	12 27 28	953.18	21.72	329.54	147.55	109.29	12 43 21	353.2	24.16	321.68
95.11	13 52 48	676.92	21.74	309.31	147.55	109.27	14 4 5	76.9	24.17	301.45
100.00	13 21 46	776.92	16.65	314.47	145.35	115.19	13 34 43	176.9	19.91	307.19
100.00	15 41 11	5616.45	27.00	263.19	149.24	103.35	17 14 47	5016.5	28.57	254.74
110.00	13 15 27	796.74	10.65	312.56	141.94	122.68	13 28 44	196.7	14.88	306.01
110.00	18 3 59	5169.40	33.76	230.58	150.56	95.72	19 30 8	4569.4	34.18	221.36

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1148 TRA 2.1440 TC3-5.6376 BAU 1.0783   SGT 5650.8 SGR  627.4 SG3  223.6     ST  1132.7 SR   397.9 SS   426.9
 RDE  .2467 RRA -.2618 RC3  .2927 FAU .03061   RRT -.7575 RRF -.7412 RTF  .9541     CRT -.4813 CRS  .0093 CST -.8795
 FDE  .1514 FRA 1.2513 FC3-1.8548 BSP  18412   SGB 5685.5 R23  .0224 R13 -.9543     LSA 1208.6 MSA  403.0 SSA   20.4
 BDE  .2721 BRA 2.1599 BC3 5.6452 FSP   -780   SG1 5670.8 SG2  408.. THA 175.17     EL1 1150.4 EL2  343.4 ALF 169.45
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 537.228

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RL  150.72 LAL    .00 LOL 344.94 VL  26.220 GAL   3.31 AZL  90.65 HCA 260.54 SMA 123.62 ECC .22637 INC  .6533 VI  29.563
RP  108.51 LAP    .64 LOP 245.48 VP  37.049 GAP  11.07 AZP  89.89 TAL 168.52 TAP  69.06 RCA  95.64 APO 151.60 V2  34.925
RC 157.587 GL   -4.37 GP   17.24 ZAL  60.06 ZAP 159.51 ETS  52.61 ZAE 125.59 ETE 167.79 ZAC 119.62 ETC 262.56 CLP-168.76
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PLANETOCENTRIC CONIC

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C3  15.375 VHL  3.921 DLA -26.94 RAL 286.80 RAD 6567.6 VEL 11.694 PTH   2.06 VHP  7.361 DPA  -5.75 RAP 258.25 ECC 1.2530
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 3 13	1084.44	14.57	336.09	148.56	114.55	12 21 17	484.4	17.76	328.87
90.00	14 38 0	5866.44	25.78	281.26	152.52	102.14	16 15 46	5266.4	27.20	272.88
100.00	12 50 49	930.65	11.99	323.50	147.27	117.59	13 6 20	330.6	15.59	316.56
100.00	16 33 4	5495.46	28.60	254.56	153.11	99.08	18 4 40	4895.5	29.56	245.89
110.00	13 4 25	887.94	7.26	317.44	144.44	123.50	13 19 13	287.9	11.61	311.06
110.00	18 35 58	5110.93	34.06	226.04	153.79	93.05	20 1 9	4510.9	34.11	216.79

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0493 TRA 2.3917 TC3-5.2589 BAU 1.0823   SGT 5690.6 SGR  613.1 SG3  215.6     ST  1184.8 SR   386.5 SS   456.9
 RDE  .2477 RRA -.2759 RC3  .2563 FAU .02814   RRT -.7383 RRF -.7201 RTF  .9534     CRT -.2932 CRS -.1029 CST -.9196
 FDE  .2192 FRA 1.3056 FC3-1.5846 BSP  18345   SGB 5723.5 R23  .0186 R13 -.9535     LSA 1262.5 MSA  409.4 SSA   19.6
 BDE  .2525 BRA 2.4076 BC3 5.2652 FSP   -740   SG1 5708.7 SG2  412.2 THA 175.43     EL1 1190.8 EL2  367.7 ALF 173.96
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 542.836

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RL  150.72 LAL    .00 LOL 344.94 VL  26.181 GAL   3.82 AZL  90.46 HCA 263.72 SMA 123.38 ECC .23092 INC  .4612 VI  29.563
RP  108.54 LAP    .46 LOP 248.66 VP  37.010 GAP  11.45 AZP  89.95 TAL 167.05 TAP  70.77 RCA  94.89 APO 151.87 V2  34.913
RC 159.692 GL   -2.96 GP   16.58 ZAL  57.59 ZAP 160.57 ETS  54.00 ZAE 125.56 ETE 168.26 ZAC 119.09 ETC 263.15 CLP-169.71
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PLANETOCENTRIC CONIC

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C3  16.644 VHL  4.080 DLA -25.24 RAL 289.28 RAD 6567.7 VEL 11.749 PTH   2.07 VHP  7.570 DPA  -6.70 RAP 260.28 ECC 1.2739
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 34 57	1230.98	10.26	344.69	150.70	116.54	11 55 28	631.0	13.74	337.75
90.00	15 26 0	5755.95	27.13	273.46	156.29	98.45	17 1 56	5155.9	28.02	264.90
100.00	12 32 36	1044.88	8.31	329.99	149.66	118.82	12 50 1	444.9	12.09	323.24
100.00	17 11 3	5417.28	29.31	248.86	156.60	96.16	18 41 20	4817.3	29.85	240.09
110.00	12 56 25	970.17	4.15	321.78	147.11	123.96	13 12 35	370.2	8.58	315.49
110.00	19 3 43	5064.76	34.17	222.44	156.96	90.92	20 28 8	4464.8	33.92	213.20

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .2076 TRA 2.6432 TC3-4.8878 BAU 1.0888   SGT 5730.0 SGR  600.2 SG3  207.7     ST  1270.9 SR   377.7 SS   484.3
 RDE  .2512 RRA -.2893 RC3  .2259 FAU .02599   RRT -.7199 RRF -.7002 RTF  .9534     CRT -.1328 CRS -.1841 CST -.9488
 FDE  .2757 FRA 1.3531 FC3-1.3519 BSP  18449   SGB 5761.4 R23  .0148 R13 -.9535     LSA 1352.9 MSA  402.0 SSA   18.7
 BDE  .3259 BRA 2.6590 BC3 4.8930 FSP   -712   SG1 5746.4 SG2  415.4 THA 175.67     EL1 1272.0 EL2  374.0 ALF 177.53
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 548.401

RL	150.72	LAL	.00	LOL	344.94	VL	26.141	GAL	4.36	AZL	90.27	HCA	266.90	SMA	123.14	ECC	.23585	INC	.2712	V1	29.563
RP	108.58	LAP	.27	LOP	251.84	VP	36.971	GAP	11.86	AZP	89.99	TAL	165.57	TAP	72.47	RCA	94.10	APO	152.19	V2	34.901
RC	161.784	GL	-1.66	GP	15.97	ZAL	55.23	ZAP	161.55	ETS	55.59	ZAE	125.52	ETE	168.69	ZAC	118.60	ETC	263.75	CLP	-170.65

PLANETOCENTRIC CONIC

C3 18.115 VHL 4.256 DLA -23.64 RAL 291.61 RAO 6567.7 VEL 11.811 PTH 2.09 VHP 7.794 DPA -7.57 RAP 262.36 ECC 1.2981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 17 28	1343.43	6.77	351.12	153.20	117.56	11 39 52	743.4	10.41	344.33
90.00	16 2 7	5682.69	27.75	268.19	159.76	95.88	17 36 49	5082.7	28.27	259.56
100.00	12 19 56	1141.81	5.09	335.38	152.29	119.50	12 38 58	541.8	8.98	328.76
100.00	17 42 20	5359.54	29.66	244.60	159.95	93.94	19 11 40	4759.5	29.89	235.80
110.00	12 50 25	1046.19	1.25	325.75	149.90	124.16	13 7 52	446.2	5.72	319.52
110.00	19 28 20	5027.92	34.18	219.56	160.09	89.22	20 52 8	4427.9	33.69	210.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3664	TRA	2.9047	TC3	-4.5152	BAU	1.0946	SGT	5765.0	SGR	587.7	SG3	200.0	ST	1377.1	SR	370.0
RDE	.2563	RRA	-.3027	RC3	.1986	FAU	.02395	RRT	-.7018	RRF	-.6811	RTF	.9536	CRT	-.0025	CRS	-.2466
FDE	.3261	FRA	1.3977	FC3	-1.1446	BSP	18586	SGB	5794.9	R23	.0116	R13	-.9537	LSA	1463.5	MSA	388.7
BDE	.4472	BRA	2.9204	BC3	4.5196	FSP	-687	SG1	5779.8	SG2	417.6	THA	175.89	EL1	1377.1	EL2	369.9

SS	509.8	CST	-.9677	SSA	17.9
ALF	179.96				

LAUNCH DATE SEP 8 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 553.919

RL	150.72	LAL	.00	LOL	344.94	VL	26.102	GAL	4.92	AZL	90.08	HCA	270.07	SMA	122.91	ECC	.24118	INC	.0816	V1	29.563
RP	108.61	LAP	.08	LOP	255.01	VP	36.933	GAP	12.28	AZP	90.00	TAL	164.09	TAP	74.17	RCA	93.27	APO	152.55	V2	34.890
RC	163.865	GL	-.49	GP	15.42	ZAL	52.98	ZAP	162.47	ETS	57.40	ZAE	125.47	ETE	169.08	ZAC	118.15	ETC	264.35	CLP	-171.58

PLANETOCENTRIC CONIC

C3 19.811 VHL 4.451 DLA -22.13 RAL 293.81 RAO 6567.8 VEL 11.882 PTH 2.11 VHP 8.032 DPA -8.35 RAP 264.48 ECC 1.3260

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 5 2	1439.76	3.71	356.54	155.91	118.09	11 29 2	839.8	7.44	349.84
90.00	16 32 5	5628.52	28.06	264.26	163.12	93.93	18 5 54	5028.5	28.31	255.60
100.00	12 10 31	1228.41	2.17	340.15	155.06	119.82	12 31 0	628.4	6.12	333.60
100.00	18 9 17	5315.10	29.82	241.31	163.22	92.21	19 37 52	4715.1	29.81	232.50
110.00	12 45 52	1117.59	-1.48	329.47	152.78	124.15	13 4 30	517.6	3.01	323.27
110.00	19 50 25	4998.69	34.12	217.28	163.23	87.87	21 13 44	4398.7	33.45	208.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5278	TRA	3.1786	TC3	-4.1444	BAU	1.0986	SGT	5795.2	SGR	575.5	SG3	192.6	ST	1493.3	SR	362.8
RDE	.2626	RRA	-.3160	RC3	.1740	FAU	.02200	RRT	-.6842	RRF	-.6627	RTF	.9541	CRT	.1007	CRS	-.2959
FDE	.3718	FRA	1.4409	FC3	-.9612	BSP	18712	SGB	5823.7	R23	.0089	R13	-.9541	LSA	1583.1	MSA	373.6
BDE	.5895	BRA	3.1943	BC3	4.1481	FSP	-663	SG1	5808.6	SG2	418.7	THA	176.09	EL1	1493.8	EL2	360.9

SS	533.3	CST	-.9795	SSA	17.1
ALF	1.49				

LAUNCH DATE SEP 8 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 559.385

RL	150.72	LAL	.00	LOL	344.94	VL	26.063	GAL	5.51	AZL	89.89	HCA	273.25	SMA	122.68	ECC	.24696	INC	.1040	V1	29.563
RP	108.65	LAP	-.11	LOP	258.19	VP	36.895	GAP	12.73	AZP	89.99	TAL	162.62	TAP	75.87	RCA	92.38	APO	152.98	V2	34.880
RC	165.932	GL	.59	GP	14.92	ZAL	50.84	ZAP	163.34	ETS	59.44	ZAE	125.41	ETE	169.43	ZAC	117.72	ETC	264.95	CLP	-172.49

PLANETOCENTRIC CONIC

C3 21.760 VHL 4.665 DLA -20.72 RAL 295.88 RAO 6567.9 VEL 11.964 PTH 2.13 VHP 8.287 DPA -9.06 RAP 266.63 ECC 1.3581

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 55 39	1526.17	.92	1.37	158.75	118.30	11 21 6	926.2	4.70	354.72
90.00	16 57 59	5587.07	28.22	261.23	166.41	92.43	18 31 6	4987.1	28.26	252.57
100.00	12 3 17	1307.93	-.53	344.52	157.94	119.89	12 25 5	707.9	3.45	337.99
100.00	18 33 3	5280.54	29.88	238.74	166.47	90.87	20 1 3	4680.5	29.68	229.94
110.00	12 42 23	1185.35	-4.07	333.02	155.73	123.97	13 2 9	585.4	.42	326.81
110.00	20 10 25	4975.88	34.05	215.50	166.37	86.82	21 33 21	4375.9	33.24	206.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6920	TRA	3.4659	TC3	-3.7811	BAU	1.1008	SGT	5820.8	SGR	563.1	SG3	185.5	ST	1611.8	SR	356.2
RDE	.2700	RRA	-.3294	RC3	.1516	FAU	.02011	RRT	-.6669	RRF	-.6449	RTF	.9546	CRT	.1816	CRS	-.3354
FDE	.4135	FRA	1.4834	FC3	-.7999	BSP	18831	SGB	5848.0	R23	.0067	R13	-.9547	LSA	1704.0	MSA	358.7
BDE	.7428	BRA	3.4815	BC3	3.7842	FSP	-639	SG1	5833.0	SG2	418.8	THA	176.29	EL1	1613.2	EL2	350.0

SS	554.6	CST	-.9868
ALF	16.5	SSA	2.41

LAUNCH DATE SEP 8 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 564.792

RL	150.72	LAL	.00	LOL	344.94	VL	26.025	GAL	6.14	AZL	89.71	HCA	276.42	SMA	122.45	ECC	.25322	INC	.2943	V1	29.563
RP	108.68	LAP	-.29	LOP	261.36	VP	36.858	GAP	13.20	AZP	89.97	TAL	161.16	TAP	77.58	RCA	91.44	APO	153.46	V2	34.869
RC	167.985	GL	1.56	GP	14.46	ZAL	48.82	ZAP	164.14	ETS	61.73	ZAE	125.35	ETE	169.76	ZAC	117.31	ETC	265.56	CLP	-173.41

PLANETOCENTRIC CONIC

C3 23.995 VHL 4.898 DLA -19.40 RAL 297.83 RAO 6568.0 VEL 12.057 PTH 2.16 VHP 8.560 DPA -9.68 RAP 268.81 ECC 1.3949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 48 20	1605.67	-1.64	5.80	161.68	118.27	11 15 6	1005.7	2.15	359.17
90.00	17 20 51	5555.15	28.29	258.90	169.68	91.26	18 53 26	4955.2	28.17	250.24
100.00	11 57 35	1382.21	-3.04	348.60	160.90	119.75	12 20 37	782.2	.94	342.07
100.00	18 54 17	5253.85	29.89	236.76	169.70	89.82	20 21 51	4653.9	29.55	227.97
110.00	12 39 43	1250.15	-6.52	336.43	158.75	123.63	13 0 34	650.2	-2.06	330.19
110.00	20 28 38	4958.67	33.98	214.16	169.52	86.03	21 51 17	4358.7	33.06	205.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8595	TRA	3.7673	TC3	-3.4297	BAU	1.1010	SGT	5841.6	SGR	550.5	SG3	178.7	ST	1727.7	SR	349.7
RDE	.2784	RRA	-.3426	RC3	.1313	FAU	.01829	RRT	-.6497	RRF	-.6277	RTF	.9554	CRT	.2456	CRS	-.3678
FDE	.4521	FRA	1.5256	FC3	-.6598	BSP	18951	SGB	5867.5	R23	.0050	R13	-.9554	LSA	1821.4	MSA	344.6
BDE	.9035	BRA	3.7828	BC3	3.4323	FSP	-617	SG1	5852.6	SG2	417.7	THA	176.48	EL1	1729.9	EL2	338.6

SS	573.9	CST	-.9913	SSA	15.8
ALF	2.96				

LAUNCH DATE SEP 8 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 570.131

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RL  150.72 LAL    .00 LOL 344.94 VL  25.986 GAL   6.80 AZL  89.51 HCA 279.59 SMA 122.23 ECC .26002 INC  .4863 V1  29.563
RP  108.71 LAP   -.48 LOP 264.53 VP  36.822 GAP  13.70 AZP  89.92 TAL 159.70 TAP  79.29 RCA  90.45 APO 154.01 V2  34.859
RC 170.025 GL    2.44 GP   14.04 ZAL  46.91 ZAP 164.87 ETS  64.30 ZAE 125.28 ETE 170.05 ZAC 116.91 ETC 266.16 CLP-174.31
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PLANETOCENTRIC CONIC

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C3  26.558 VHL  5.153 DLA -18.16 RAL 299.66 RAD 6568.1 VEL 12.163 PTH   2.18 VHP  8.853 DPA -10.23 RAP 271.02 ECC 1.4371
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 42 30	1680.00	-4.03	9.95	164.68	118.05	11 10 30	1080.0	-.25	3.32
90.00	17 41 19	5530.87	28.31	257.13	172.93	90.37	19 13 30	4930.9	28.07	248.47
100.00	11 53 2	1452.36	-5.40	352.47	163.93	119.44	12 17 15	852.4	-1.44	345.92
100.00	19 13 28	5233.73	29.88	235.26	172.92	89.03	20 40 41	4633.7	29.42	226.48
110.00	12 37 41	1312.46	-8.86	339.74	161.81	123.15	12 59 34	712.5	-4.43	333.45
110.00	20 45 18	4946.40	33.92	213.21	172.70	85.47	22 7 44	4346.4	32.92	204.11

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0302 TRA 4.0832 TC3-3.0938 BAU 1.0992   SGT 5857.2 SGR  537.4 SG3  172.1     ST  1837.3 SR   343.5 SS   590.8
RDE  .2878 RRA -.3553 RC3  .1131 FAU .01656   RRT -.6327 RRF -.6109 RTF  .9564     CRT  .2970 CRS -.3948 CST -.9942
FDE  .4874 FRA 1.5672 FC3 -.5397 BSP  19087   SGB 5881.8 R23  .0036 R13 -.9564     LSA 1931.9 MSA  331.7 SSA   15.2
BDE 1.0697 BRA 4.0986 BC3 3.0959 FSP   -597   SG1 5867.1 SG2  415.5 THA 176.66     EL1 1840.2 EL2  327.4 ALF   3.28
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 575.394

```
RL  150.72 LAL    .00 LOL 344.94 VL  25.948 GAL   7.51 AZL  89.32 HCA 282.76 SMA 122.01 ECC .26743 INC  .6816 V1  29.563
RP  108.74 LAP   -.66 LOP 267.70 VP  36.786 GAP  14.23 AZP  89.85 TAL 158.26 TAP  81.01 RCA  89.38 APO 154.63 V2  34.850
RC 172.049 GL    3.23 GP   13.65 ZAL  45.11 ZAP 165.55 ETS  67.15 ZAE 125.20 ETE 170.33 ZAC 116.54 ETC 266.77 CLP-175.22
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PLANETOCENTRIC CONIC

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C3  29.495 VHL  5.431 DLA -17.01 RAL 301.38 RAD 6568.2 VEL 12.283 PTH   2.21 VHP  9.168 DPA -10.71 RAP 273.23 ECC 1.4854
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 37 46	1750.21	-6.27	13.90	167.74	117.67	11 6 57	1150.2	-2.51	7.23
90.00	17 59 47	5512.95	28.32	255.81	176.18	89.71	19 31 40	4912.9	27.98	247.17
100.00	11 49 22	1519.17	-7.62	356.18	167.00	118.99	12 14 42	919.2	-3.70	349.59
100.00	19 30 52	5219.22	29.86	234.18	176.15	88.47	20 57 51	4619.2	29.32	225.42
110.00	12 36 9	1372.62	-11.08	342.98	164.92	122.55	12 59 2	772.6	-6.71	336.62
110.00	21 0 35	4938.53	33.87	212.60	175.88	85.11	22 22 53	4338.5	32.83	203.52

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.2046 TRA 4.4148 TC3-2.7758 BAU 1.0952   SGT 5867.7 SGR  523.8 SG3  165.7     ST  1938.7 SR   337.2 SS   605.8
RDE  .2981 RRA -.3675 RC3  .0967 FAU .01490   RRT -.6155 RRF -.5943 RTF  .9576     CRT  .3391 CRS -.4179 CST -.9960
FDE  .5201 FRA 1.6090 FC3 -.4374 BSP  19235   SGB 5891.0 R23  .0025 R13 -.9576     LSA 2033.9 MSA  319.7 SSA   14.7
BDE 1.2409 BRA 4.4301 BC3 2.7775 FSP   -578   SG1 5876.6 SG2  412.2 THA 176.84     EL1 1942.1 EL2  316.7 ALF   3.47
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 580.569

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RL  150.72 LAL    .00 LOL 344.94 VL  25.911 GAL   8.26 AZL  89.12 HCA 285.92 SMA 121.79 ECC .27550 INC  .8818 V1  29.563
RP  108.77 LAP   -.85 LOP 270.86 VP  36.751 GAP  14.80 AZP  89.76 TAL 156.83 TAP  82.76 RCA  88.24 APO 155.34 V2  34.841
RC 174.060 GL    3.95 GP   13.30 ZAL  43.42 ZAP 166.16 ETS  70.32 ZAE 125.10 ETE 170.58 ZAC 116.17 ETC 267.38 CLP-176.13
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PLANETOCENTRIC CONIC

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C3  32.865 VHL  5.733 DLA -15.94 RAL 303.00 RAD 6568.3 VEL 12.419 PTH   2.24 VHP  9.508 DPA -11.13 RAP 275.46 ECC 1.5409
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 33 55	1817.05	-8.36	17.70	170.84	117.15	11 4 12	1217.1	-4.66	10.98
90.00	18 16 33	5500.47	28.31	254.90	179.42	89.25	19 48 13	4900.5	27.90	246.26
100.00	11 46 24	1583.14	-9.72	359.78	170.12	118.41	12 12 48	983.1	-5.85	353.13
100.00	19 46 44	5209.61	29.84	233.47	179.37	88.09	21 13 34	4609.6	29.25	224.71
110.00	12 35 1	1430.89	-13.19	346.17	168.06	121.82	12 58 51	830.9	-8.89	339.72
110.00	21 14 38	4934.63	33.85	212.30	179.09	84.93	22 36 52	4334.6	32.78	203.22

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.3838 TRA 4.7642 TC3-2.4757 BAU 1.0884   SGT 5873.0 SGR  509.4 SG3  159.6     ST  2031.5 SR   331.0 SS   619.4
RDE  .3093 RRA -.3789 RC3  .0819 FAU .01332   RRT -.5981 RRF -.5777 RTF  .9591     CRT  .3745 CRS -.4382 CST -.9973
FDE  .5510 FRA 1.6514 FC3 -.3508 BSP  19392   SGB 5895.1 R23  .0017 R13 -.9591     LSA 2127.2 MSA  308.4 SSA   14.1
BDE 1.4179 BRA 4.7793 BC3 2.4771 FSP   -560   SG1 5881.0 SG2  407.7 THA 177.02     EL1 2035.3 EL2  306.3 ALF   3.57
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 585.643

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RL  150.72 LAL    .00 LOL 344.94 VL  25.874 GAL   9.06 AZL  88.91 HCA 289.09 SMA 121.57 ECC .28433 INC 1.0882 V1  29.563
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.718 GAP  15.41 AZP  89.64 TAL 155.43 TAP  84.52 RCA  87.01 APO 156.14 V2  34.833
RC 176.055 GL    4.59 GP   12.98 ZAL  41.83 ZAP 166.70 ETS  73.81 ZAE 125.00 ETE 170.82 ZAC 115.80 ETC 267.99 CLP-177.05
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PLANETOCENTRIC CONIC

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C3  36.737 VHL  6.061 DLA -14.95 RAL 304.52 RAD 6568.4 VEL 12.574 PTH   2.28 VHP  9.875 DPA -11.47 RAP 277.70 ECC 1.6046
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 30 44	1881.02	-10.33	21.37	173.99	116.51	11 2 5	1281.0	-6.69	14.58
90.00	18 31 49	5492.74	28.30	254.34	182.65	88.97	20 3 22	4892.7	27.86	245.70
100.00	11 43 59	1644.66	-11.69	3.28	173.28	117.71	12 11 24	1044.7	-7.89	356.56
100.00	20 1 15	5204.33	29.82	233.07	182.60	87.89	21 28 0	4604.3	29.21	224.32
110.00	12 34 11	1487.45	-15.20	349.33	171.25	120.99	12 58 58	887.4	-10.98	342.76
110.00	21 27 33	4934.31	33.85	212.27	182.30	84.92	22 49 48	4334.3	32.78	203.20

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.5685 TRA 5.1325 TC3-2.1940 BAU 1.0781   SGT 5872.8 SGR  494.2 SG3  153.7     ST  2115.3 SR   324.6 SS   632.0
RDE  .3214 RRA -.3893 RC3  .0686 FAU .01178   RRT -.5800 RRF -.5607 RTF  .9607     CRT  .4050 CRS -.4567 CST -.9981
FDE  .5804 FRA 1.6949 FC3 -.2776 BSP  19562   SGB 5893.5 R23  .0011 R13 -.9607     LSA 2211.4 MSA  297.6 SSA   13.6
BDE 1.6011 BRA 5.1472 BC3 2.1951 FSP   -543   SG1 5879.8 SG2  402.1 THA 177.19     EL1 2119.4 EL2  296.2 ALF   3.63
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LAUNCH DATE SEP 8 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 590.598

RL	150.72	LAL	.00	LOL	344.94	VL	25.837	GAL	9.92	AZL	88.70	HCA	292.25	SMA	121.37	ECC	.29399	INC	1.3026	V1	29.563
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.685	GAP	16.06	AZP	89.51	TAL	154.05	TAP	86.31	RCA	85.69	APO	157.04	V2	34.825
RC	178.036	GL	5.17	GP	12.68	ZAL	40.34	ZAP	167.16	ETS	77.64	ZAE	124.87	ETE	171.04	ZAC	115.45	ETC	268.59	CLP	-177.97

PLANETOCENTRIC CONIC

C3	41.196	VHL	6.418	DLA	-14.03	RAL	305.94	RAD	6568.6	VEL	12.750	PTH	2.32	VHP	10.274	DPA	-11.76	RAP	279.94	ECC	1.6780

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 28 6	1942.45	-12.17	24.94	177.16	115.77	11 0 29	1342.5	-8.61	18.07
90.00	18 45 46	5489.18	28.30	254.08	185.87	88.84	20 17 15	4889.2	27.83	245.44
100.00	11 42 1	1703.99	-13.54	6.71	176.46	116.91	12 10 25	1104.0	-9.82	359.89
100.00	20 14 33	5202.88	29.82	232.97	185.82	87.83	21 41 16	4602.9	29.20	224.22
110.00	12 33 36	1542.42	-17.10	352.45	174.46	120.06	12 59 18	942.4	-12.98	345.77
110.00	21 39 27	4937.21	33.87	212.50	185.52	85.05	23 1 44	4337.2	32.81	203.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7609	TRA	5.5235	TC3	-1.9299	BAU	1.0633	SGT	5868.4	SGR	478.2	SG3	148.1	ST	2191.2	SR	317.9	SS	644.2
RDE	.3342	RRA	-.3985	RC3	.0566	FAU	.01028	RRT	-.5611	RRF	-.5431	RTF	.9625	CRT	.4321	CRS	-.4739	CST	-.9987
FDE	.6092	FRA	1.7406	FC3	-.2160	BSP	19712	SGB	5887.9	R23	.0007	R13	-.9625	LSA	2287.9	MSA	287.2	SSA	13.1
BDE	1.7923	BRA	5.5379	BC3	1.9307	FSP	-527	SG1	5874.6	SG2	395.5	THA	177.37	EL1	2195.5	EL2	286.2	ALF	3.65

LAUNCH DATE SEP 8 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 595.414

RL	150.72	LAL	.00	LOL	344.94	VL	25.801	GAL	10.84	AZL	88.47	HCA	295.41	SMA	121.16	ECC	.30459	INC	1.5268	V1	29.563
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.653	GAP	16.77	AZP	89.34	TAL	152.72	TAP	88.13	RCA	84.26	APO	158.06	V2	34.818
RC	180.002	GL	5.69	GP	12.40	ZAL	38.96	ZAP	167.55	ETS	81.80	ZAE	124.73	ETE	171.25	ZAC	115.10	ETC	269.19	CLP	-178.91

PLANETOCENTRIC CONIC

C3	46.345	VHL	6.808	DLA	-13.18	RAL	307.26	RAD	6568.7	VEL	12.950	PTH	2.36	VHP	10.709	DPA	-11.99	RAP	282.17	ECC	1.7627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 25 55	2001.60	-13.90	28.43	180.34	114.92	10 59 17	1401.6	-10.42	21.47
90.00	18 58 31	5489.33	28.30	254.09	189.07	88.85	20 30 0	4889.3	27.84	245.45
100.00	11 40 24	1761.29	-15.28	10.08	179.66	116.01	12 9 46	1161.3	-11.66	3.16
100.00	20 26 43	5204.87	29.83	233.12	189.02	87.91	21 53 28	4604.9	29.22	224.36
110.00	12 33 13	1595.88	-18.90	355.56	177.69	119.03	12 59 49	995.9	-14.88	348.74
110.00	21 50 24	4943.05	33.90	212.95	188.74	85.32	23 12 47	4343.0	32.88	203.86

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9624	TRA	5.9394	TC3	-1.6829	BAU	1.0431	SGT	5859.7	SGR	461.4	SG3	142.8	ST	2259.4	SR	311.1	SS	656.6
RDE	.3478	RRA	-.4062	RC3	.0458	FAU	.00879	RRT	-.5409	RRF	-.5245	RTF	.9646	CRT	.4568	CRS	-.4905	CST	-.9991
FDE	.6380	FRA	1.7891	FC3	-.1642	BSP	19839	SGB	5877.8	R23	.0006	R13	-.9646	LSA	2357.1	MSA	276.9	SSA	12.6
BDE	1.9930	BRA	5.9533	BC3	1.6835	FSP	-510	SG1	5865.0	SG2	387.7	THA	177.55	EL1	2263.9	EL2	276.2	ALF	3.65

LAUNCH DATE SEP 8 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 600.066

RL	150.72	LAL	.00	LOL	344.94	VL	25.766	GAL	11.83	AZL	88.24	HCA	298.57	SMA	120.96	ECC	.31626	INC	1.7630	V1	29.563
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.622	GAP	17.55	AZP	89.16	TAL	151.42	TAP	89.99	RCA	82.70	APO	159.21	V2	34.812
RC	181.954	GL	6.16	GP	12.15	ZAL	37.68	ZAP	167.85	ETS	86.29	ZAE	124.57	ETE	171.45	ZAC	114.75	ETC	269.78	CLP	-179.86

PLANETOCENTRIC CONIC

C3	52.313	VHL	7.233	DLA	-12.39	RAL	308.49	RAD	6568.9	VEL	13.179	PTH	2.41	VHP	11.183	DPA	-12.15	RAP	284.38	ECC	1.8609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 24 6	2058.62	-15.50	31.84	183.54	114.00	10 58 24	1458.6	-12.13	24.79
90.00	19 10 9	5492.78	28.30	254.34	192.26	88.97	20 41 42	4892.8	27.86	245.70
100.00	11 39 5	1816.69	-16.90	13.39	182.87	115.03	12 9 21	1216.7	-13.39	6.36
100.00	20 37 51	5209.94	29.84	233.49	192.21	88.10	22 4 41	4609.9	29.26	224.74
110.00	12 32 59	1647.88	-20.59	358.65	180.94	117.91	13 0 27	1047.9	-16.69	351.69
110.00	22 0 26	4951.52	33.94	213.61	191.95	85.70	23 22 58	4351.5	32.98	204.50

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.1740	TRA	6.3837	TC3	-1.4556	BAU	1.0183	SGT	5848.7	SGR	443.6	SG3	137.7	ST	2320.0	SR	304.0	SS	669.6
RDE	.3622	RRA	-.4121	RC3	.0362	FAU	.00729	RRT	-.5191	RRF	-.5044	RTF	.9666	CRT	.4797	CRS	-.5068	CST	-.9993
FDE	.6674	FRA	1.8413	FC3	-.1207	BSP	19980	SGB	5865.5	R23	.0007	R13	-.9666	LSA	2419.1	MSA	266.6	SSA	12.2
BDE	2.2040	BRA	6.3970	BC3	1.4560	FSP	-494	SG1	5853.2	SG2	378.9	THA	177.74	EL1	2324.7	EL2	266.2	ALF	3.64

LAUNCH DATE SEP 8 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 604.522

RL	150.72	LAL	.00	LOL	344.94	VL	25.732	GAL	12.90	AZL	87.99	HCA	301.73	SMA	120.76	ECC	.32914	INC	2.0138	V1	29.563
RP	108.87	LAP	-1.71	LOP	286.68	VP	36.592	GAP	18.40	AZP	88.94	TAL	150.18	TAP	91.91	RCA	81.01	APO	160.51	V2	34.806
RC	183.891	GL	6.57	GP	11.92	ZAL	36.50	ZAP	168.05	ETS	91.08	ZAE	124.37	ETE	171.65	ZAC	114.40	ETC	270.36	CLP	179.16

PLANETOCENTRIC CONIC

C3	59.258	VHL	7.698	DLA	-11.67	RAL	309.62	RAD	6569.1	VEL	13.439	PTH	2.46	VHP	11.704	DPA	-12.27	RAP	286.58	ECC	1.9752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 34	2113.57	-17.00	35.19	186.73	112.99	10 57 47	1513.6	-13.74	28.03
90.00	19 20 45	5499.18	28.31	254.81	195.41	89.21	20 52 24	4899.2	27.90	246.17
100.00	11 37 59	1870.22	-18.42	16.65	186.08	113.97	12 9 10	1270.2	-15.02	9.50
100.00	20 48 1	5217.77	29.85	234.07	195.37	88.41	22 14 58	4617.8	29.31	225.31
110.00	12 32 52	1698.38	-22.16	1.72	184.19	116.72	13 1 10	1098.4	-18.40	354.61
110.00	22 9 38	4962.37	34.00	214.45	195.14	86.20	23 32 20	4362.4	33.10	205.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.4011	TRA	6.8625	TC3	-1.2374	BAU	.9806	SGT	5833.2	SGR	425.1	SG3	133.0	ST	2376.0	SR	296.6	SS	683.9
RDE	.3776	RRA	-.4159	RC3	.0277	FAU	.00574	RRT	-.4951	RRF	-.4823	RTF	.9691	CRT	.5020	CRS	-.5234	CST	-.9995
FDE	.6982	FRA	1.8984	FC3	-.0839	BSP	19925	SGB	5848.6	R23	.0007	R13	-.9691	LSA	2476.9	MSA	256.3	SSA	11.7
BDE	2.4306	BRA	6.8751	BC3	1.2378	FSP	-475	SG1	5837.0	SG2	369.1	THA	177.93	EL1	2380.7	EL2	256.0	ALF	3.63

LAUNCH DATE SEP 8 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 608.744

RL 150.72 LAL .00 LOL 344.94 VL 25.698 GAL 14.07 AZL 87.72 HCA 304.89 SMA 120.57 ECC .34340 INC 2.2822 V1 29.563
RP 108.89 LAP -1.87 LOP 289.85 VP 36.563 GAP 19.33 AZP 88.69 TAL 149.00 TAP 93.89 RCA 79.17 APO 161.98 V2 34.801
RC 185.813 GL 6.95 GP 11.70 ZAL 35.42 ZAP 168.15 ETS 96.13 ZAE 124.14 ETE 171.84 ZAC 114.05 ETC 270.93 CLP 178.15

PLANETOCENTRIC CONIC

C3 67.377 VHL 8.208 DLA -11.01 RAL 310.67 RAD 6569.3 VEL 13.738 PTH 2.51 VHP 12.278 DPA -12.33 RAP 288.75 ECC 2.1088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 21 16	2166.48	-18.37	38.46	189.89	111.93	10 57 22	1566.5	-15.24	31.19
90.00	19 30 22	5508.23	28.31	255.47	198.52	89.54	21 2 10	4908.2	27.95	246.82
100.00	11 37 5	1921.87	-19.81	19.85	189.27	112.85	12 9 7	1321.9	-16.55	12.58
100.00	20 57 14	5228.07	29.87	234.84	198.49	88.81	22 24 22	4628.1	29.39	226.07
110.00	12 32 49	1747.35	-23.63	4.76	187.43	115.45	13 1 56	1147.3	-20.01	357.49
110.00	22 17 59	4975.36	34.05	215.46	198.31	86.80	23 40 55	4375.4	33.23	206.32

DIFFERENTIAL CORRECTIONS
TDE 2.6429 TRA 7.3781 TC3-1.0372 BAU .9345
RDE .3939 RRA -.4168 RC3 .0203 FAU .00414
FDE .7309 FRA 1.9609 FC3 -.0532 BSP 19828
BDE 2.6721 BRA 7.3899 BC3 1.0374 FSP -456

MID-COURSE EXECUTION ACCURACY
SGT 5816.4 SGR 405.7 SG3 128.5
RRT -.4681 RRF -.4573 RTF .9717
SGB 5830.5 R23 .0008 R13 -.9717
SG1 5819.5 SG2 358.3 THA 178.12

ORBIT DETERMINATION ACCURACY
ST 2425.6 SR 289.0 SS 699.9
CRT .5239 CRS -.5406 CST -.9997
LSA 2529.1 MSA 245.8 SSA 11.3
EL1 2430.4 EL2 245.7 ALF 3.61

LAUNCH DATE SEP 8 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 612.680

RL 150.72 LAL .00 LOL 344.94 VL 25.665 GAL 15.34 AZL 87.43 HCA 308.04 SMA 120.39 ECC .35923 INC 2.5719 V1 29.563
RP 108.90 LAP -2.03 LOP 293.01 VP 36.536 GAP 20.36 AZP 88.41 TAL 147.90 TAP 95.94 RCA 77.14 APO 163.64 V2 34.797
RC 187.719 GL 7.28 GP 11.50 ZAL 34.44 ZAP 168.14 ETS 101.39 ZAE 123.87 ETE 172.03 ZAC 113.70 ETC 271.48 CLP 177.10

PLANETOCENTRIC CONIC

C3 76.920 VHL 8.770 DLA -10.42 RAL 311.61 RAD 6569.5 VEL 14.081 PTH 2.57 VHP 12.914 DPA -12.35 RAP 290.88 ECC 2.2659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 20 9	2217.31	-19.63	41.65	193.03	110.82	10 57 7	1617.3	-16.63	34.27
90.00	19 39 1	5519.64	28.32	256.30	201.57	89.96	21 11 1	4919.6	28.01	247.65
100.00	11 36 19	1971.59	-21.10	22.98	192.42	111.68	12 9 11	1371.6	-17.97	15.59
100.00	21 5 32	5240.59	29.89	235.77	201.56	89.30	22 32 53	4640.6	29.47	226.99
110.00	12 32 49	1794.68	-24.98	7.78	190.64	114.13	13 2 43	1194.7	-21.51	.35
110.00	22 25 32	4990.26	34.10	216.62	201.42	87.48	23 48 43	4390.3	33.38	207.45

DIFFERENTIAL CORRECTIONS
TDE 2.9037 TRA 7.9367 TC3 -.8515 BAU .8758
RDE .4116 RRA -.4144 RC3 .0140 FAU .00244
FDE .7661 FRA 2.0302 FC3 -.0275 BSP 19618
BDE 2.9327 BRA 7.9475 BC3 .8516 FSP -434

MID-COURSE EXECUTION ACCURACY
SGT 5798.4 SGR 385.6 SG3 124.3
RRT -.4373 RRF -.4285 RTF .9743
SGB 5811.2 R23 .0010 R13 -.9743
SG1 5800.8 SG2 346.6 THA 178.33

ORBIT DETERMINATION ACCURACY
ST 2470.2 SR 281.3 SS 718.0
CRT .5461 CRS -.5589 CST -.9998
LSA 2577.0 MSA 235.3 SSA 10.8
EL1 2475.0 EL2 235.2 ALF 3.59

LAUNCH DATE SEP 8 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 616.267

RL 150.72 LAL .00 LOL 344.94 VL 25.634 GAL 16.74 AZL 87.11 HCA 311.20 SMA 120.21 ECC .37687 INC 2.8877 V1 29.563
RP 108.92 LAP -2.17 LOP 296.17 VP 36.510 GAP 21.51 AZP 88.10 TAL 146.90 TAP 98.09 RCA 74.91 APO 165.52 V2 34.793
RC 189.610 GL 7.57 GP 11.32 ZAL 33.57 ZAP 168.01 ETS 106.79 ZAE 123.56 ETE 172.22 ZAC 113.36 ETC 272.02 CLP 176.01

PLANETOCENTRIC CONIC

C3 88.205 VHL 9.392 DLA -9.88 RAL 312.46 RAD 6569.7 VEL 14.476 PTH 2.63 VHP 13.620 DPA -12.33 RAP 292.97 ECC 2.4516

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 19 12	2265.94	-20.78	44.76	196.10	109.68	10 56 58	1665.9	-17.91	37.26
90.00	19 46 44	5533.17	28.31	257.29	204.55	90.45	21 18 57	4933.2	28.08	248.64
100.00	11 35 40	2019.25	-22.26	26.04	195.51	110.48	12 9 19	1419.2	-19.28	18.52
100.00	21 12 57	5255.10	29.89	236.85	204.55	89.87	22 40 32	4655.1	29.55	228.06
110.00	12 32 50	1840.25	-26.22	10.74	193.80	112.76	13 3 30	1240.3	-22.90	3.15
110.00	22 32 16	5006.85	34.14	217.92	204.47	88.25	23 55 43	4406.9	33.52	208.73

DIFFERENTIAL CORRECTIONS
TDE 3.1852 TRA 8.5436 TC3 -.6800 BAU .8020
RDE .4308 RRA -.4078 RC3 .0087 FAU .00062
FDE .8043 FRA 2.1074 FC3 -.0061 BSP 19280
BDE 3.2142 BRA 8.5533 BC3 .6801 FSP -412

MID-COURSE EXECUTION ACCURACY
SGT 5779.2 SGR 364.8 SG3 120.5
RRT -.4014 RRF -.3947 RTF .9770
SGB 5790.7 R23 .0013 R13 -.9770
SG1 5781.0 SG2 334.0 THA 178.54

ORBIT DETERMINATION ACCURACY
ST 2509.3 SR 273.5 SS 738.7
CRT .5688 CRS -.5783 CST -.9998
LSA 2620.4 MSA 224.5 SSA 10.3
EL1 2514.2 EL2 224.5 ALF 3.58

LAUNCH DATE SEP 8 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 619.424

RL 150.72 LAL .00 LOL 344.94 VL 25.603 GAL 18.28 AZL 86.76 HCA 314.35 SMA 120.04 ECC .39660 INC 3.2355 V1 29.563
RP 108.93 LAP -2.31 LOP 299.33 VP 36.486 GAP 22.79 AZP 87.74 TAL 146.00 TAP 100.35 RCA 72.43 APO 167.65 V2 34.790
RC 191.483 GL 7.82 GP 11.14 ZAL 32.81 ZAP 167.74 ETS 112.25 ZAE 123.18 ETE 172.42 ZAC 113.01 ETC 272.54 CLP 174.86

PLANETOCENTRIC CONIC

C3 101.641 VHL 10.082 DLA -9.41 RAL 313.20 RAD 6570.0 VEL 14.933 PTH 2.69 VHP 14.411 DPA -12.27 RAP 295.00 ECC 2.6728

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 18 21	2312.22	-21.81	47.76	199.08	108.52	10 56 54	1712.2	-19.08	40.15
90.00	19 53 28	5548.61	28.30	258.42	207.43	91.02	21 25 57	4948.6	28.14	249.76
100.00	11 35 5	2064.69	-23.32	29.01	198.52	109.26	12 9 30	1464.7	-20.47	21.36
100.00	21 19 26	5271.38	29.89	238.06	207.46	90.51	22 47 17	4671.4	29.64	229.26
110.00	12 32 50	1883.87	-27.33	13.64	196.88	111.38	13 4 14	1283.9	-24.18	5.89
110.00	22 38 10	5024.95	34.17	219.33	207.44	89.08	24 1 55	4425.0	33.67	210.12

DIFFERENTIAL CORRECTIONS
TDE 3.4898 TRA 9.2047 TC3 -.5228 BAU .7104
RDE .4520 RRA -.3961 RC3 .0046 FAU -.00136
FDE .8460 FRA 2.1938 FC3 .0116 BSP 18812
BDE 3.5189 BRA 9.2132 BC3 .5228 FSP -388

MID-COURSE EXECUTION ACCURACY
SGT 5758.6 SGR 343.7 SG3 116.8
RRT -.3588 RRF -.3542 RTF .9798
SGB 5768.8 R23 .0017 R13 -.9798
SG1 5759.9 SG2 320.7 THA 178.77

ORBIT DETERMINATION ACCURACY
ST 2542.6 SR 265.8 SS 762.4
CRT .5926 CRS -.5993 CST -.9999
LSA 2659.1 MSA 213.7 SSA 9.9
EL1 2547.5 EL2 213.7 ALF 3.57

LAUNCH DATE SEP 9 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 18 1970

HELIOCENTRIC CONIC DISTANCE 172.791

RL	150.68	LAL	.00	LOL	345.91	VL	24.808	GAL	-4.60	AZL	91.01	HCA	73.89	SMA	115.79	ECC	.31084	INC	1.0112	V1	29.570
RP	107.97	LAP	-.97	LOP	59.80	VP	36.225	GAP	-17.70	AZP	90.28	TAL	190.35	TAP	264.25	RCA	79.80	APO	151.79	V2	35.098
RC	41.209	GL	-4.91	GP	-11.13	ZAL	107.61	ZAP	11.65	ETS	104.08	ZAE	159.18	ETE	339.35	ZAC	90.20	ETC	260.48	CLP	3.47

PLANETOCENTRIC CONIC

C3	26.032	VHL	5.102	DLA	-24.55	RAL	234.78	RAD	6568.1	VEL	12.141	PTH	2.18	VHP	11.018	DPA	-30.81	RAP	238.21	ECC	1.4284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 41 21	1380.27	5.60	353.20	102.25	117.80	8 4 21	780.3	9.28	346.45
90.00	11 56 58	5820.68	26.40	278.05	109.74	100.64	13 33 59	5220.7	27.60	269.59
100.00	8 41 22	1186.52	3.59	337.85	101.14	119.70	9 1 8	586.5	7.51	331.26
100.00	13 39 38	5489.66	28.66	254.14	110.18	98.86	15 11 8	4889.7	29.59	245.46
110.00	9 8 19	1102.00	-.89	328.66	98.35	124.17	9 26 41	502.0	3.60	322.45
110.00	15 29 11	5146.95	33.90	228.84	110.90	94.70	16 54 58	4546.9	34.18	219.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1644	TRA	-.5335	TC3	.2964	BAU	.1102	SGT	747.9	SGR	442.7	SG3	75.6	ST	270.5	SR	425.4	SS	96.9
RDE	-.3786	RRA	-.0392	RC3	-.1113	FAU	.02452	RRT	-.2445	RRF	.2764	RTF	-.6661	CRT	-.6572	CRS	-.5579	CST	.9717
FDE	-.0528	FRA	.2130	FC3	-.8156	BSP	1981	SGB	869.1	R23	-.0379	R13	.6753	LSA	474.1	MSA	196.1	SSA	19.1
BDE	.4127	BRA	.5349	BC3	.3166	FSP	-174	SG1	759.3	SG2	422.8	THA	167.99	EL1	469.0	EL2	185.0	ALF	117.27

LAUNCH DATE SEP 9 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 179.551

RL	150.68	LAL	.00	LOL	345.91	VL	25.091	GAL	-4.63	AZL	90.81	HCA	77.11	SMA	117.24	ECC	.29552	INC	.8078	V1	29.570
RP	107.93	LAP	-.79	LOP	63.01	VP	36.432	GAP	-16.59	AZP	90.18	TAL	191.22	TAP	268.33	RCA	82.59	APO	151.89	V2	35.111
RC	41.891	GL	-4.18	GP	-11.76	ZAL	109.06	ZAP	11.85	ETS	93.76	ZAE	156.79	ETE	338.69	ZAC	89.70	ETC	260.69	CLP	1.46

PLANETOCENTRIC CONIC

C3	23.416	VHL	4.839	DLA	-23.51	RAL	233.45	RAD	6568.0	VEL	12.033	PTH	2.15	VHP	10.404	DPA	-31.73	RAP	239.35	ECC	1.3854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 19 33	1411.77	4.60	354.97	98.68	117.97	7 43 5	811.8	8.31	348.25
90.00	12 8 9	5737.11	27.31	272.11	106.24	97.80	13 43 46	5137.1	28.10	263.53
100.00	8 22 19	1209.16	2.82	339.10	97.70	119.77	8 42 28	609.2	6.76	332.53
100.00	13 48 4	5414.95	29.33	248.69	106.52	96.07	15 18 19	4814.9	29.86	239.92
110.00	8 53 17	1112.07	-1.27	329.19	95.15	124.16	9 11 49	512.1	3.22	322.98
110.00	15 33 36	5084.80	34.14	224.00	106.91	91.85	16 58 20	4484.8	34.02	214.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1610	TRA	-.5142	TC3	.3649	BAU	.1227	SGT	775.8	SGR	449.9	SG3	84.4	ST	275.9	SR	425.3	SS	88.5
RDE	-.3589	RRA	-.0397	RC3	-.1429	FAU	.02620	RRT	-.2747	RRF	.3112	RTF	-.6849	CRT	-.6648	CRS	-.4700	CST	.9459
FDE	-.0413	FRA	.2081	FC3	-.9685	BSP	2098	SGB	896.8	R23	-.0439	R13	.6954	LSA	475.1	MSA	196.8	SSA	20.3
BDE	.3934	BRA	.5158	BC3	.3919	FSP	-199	SG1	789.8	SG2	424.9	THA	167.18	EL1	471.7	EL2	185.9	ALF	118.06

LAUNCH DATE SEP 9 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 186.323

RL	150.68	LAL	.00	LOL	345.91	VL	25.350	GAL	-4.68	AZL	90.61	HCA	80.32	SMA	118.61	ECC	.28154	INC	.6093	V1	29.570
RP	107.89	LAP	-.60	LOP	66.23	VP	36.622	GAP	-15.53	AZP	90.10	TAL	192.15	TAP	272.48	RCA	85.22	APO	152.00	V2	35.123
RC	42.728	GL	-3.35	GP	-12.46	ZAL	110.61	ZAP	12.47	ETS	83.86	ZAE	154.55	ETE	337.90	ZAC	89.12	ETC	260.90	CLP	-.59

PLANETOCENTRIC CONIC

C3	21.213	VHL	4.606	DLA	-22.33	RAL	232.06	RAD	6567.9	VEL	11.941	PTH	2.13	VHP	9.822	DPA	-32.71	RAP	240.44	ECC	1.3491

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 57 23	1446.74	3.48	356.93	95.23	118.12	7 21 30	846.7	7.22	350.24
90.00	12 19 12	5654.24	27.93	266.13	102.69	94.86	13 53 26	5054.2	28.31	257.48
100.00	8 2 31	1236.50	1.90	340.60	94.36	119.84	8 23 8	636.5	5.85	334.05
100.00	13 56 45	5339.72	29.74	243.13	102.83	93.17	15 25 45	4739.7	29.86	234.33
110.00	8 37 18	1127.49	-1.86	329.99	92.01	124.14	8 56 5	527.5	2.63	323.79
110.00	15 38 28	5021.49	34.17	219.06	102.93	88.92	17 2 9	4421.5	33.64	209.85

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1565	TRA	-.4947	TC3	.4412	BAU	.1352	SGT	803.6	SGR	457.7	SG3	94.2	ST	279.1	SR	423.2	SS	79.0
RDE	-.3399	RRA	-.0405	RC3	-.1808	FAU	.02806	RRT	-.3092	RRF	.3498	RTF	-.7031	CRT	-.6698	CRS	-.3144	CST	.8810
FDE	-.0258	FRA	.2020	FC3	-1.1453	BSP	2239	SGB	924.8	R23	-.0493	R13	.7151	LSA	473.2	MSA	196.9	SSA	21.8
BDE	.3742	BRA	.4964	BC3	.4768	FSP	-227	SG1	820.7	SG2	426.2	THA	166.23	EL1	471.6	EL2	185.9	ALF	118.70

LAUNCH DATE SEP 9 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 193.104

RL	150.68	LAL	.00	LOL	345.91	VL	25.586	GAL	-4.73	AZL	90.41	HCA	83.54	SMA	119.90	ECC	.26885	INC	.4145	V1	29.570
RP	107.86	LAP	-.41	LOP	69.45	VP	36.797	GAP	-14.52	AZP	90.05	TAL	193.14	TAP	276.68	RCA	87.66	APO	152.13	V2	35.135
RC	43.711	GL	-2.40	GP	-13.24	ZAL	112.23	ZAP	13.50	ETS	74.95	ZAE	152.46	ETE	336.99	ZAC	88.45	ETC	261.10	CLP	-2.70

PLANETOCENTRIC CONIC

C3	19.364	VHL	4.400	DLA	-21.02	RAL	230.63	RAD	6567.8	VEL	11.864	PTH	2.10	VHP	9.271	DPA	-33.74	RAP	241.46	ECC	1.3187

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 35 1	1485.22	2.24	359.08	91.94	118.24	6 59 46	885.2	6.00	352.42
90.00	12 30 12	5572.24	28.26	260.15	99.12	91.88	14 3 4	4972.2	28.22	251.49
100.00	7 42 14	1268.31	.82	342.34	91.15	119.88	8 3 22	668.3	4.79	335.81
100.00	14 5 40	5264.39	29.89	237.54	99.16	90.23	15 33 25	4664.4	29.60	228.75
110.00	8 20 36	1148.05	-2.65	331.06	88.98	124.09	8 39 44	548.1	1.84	324.86
110.00	15 43 47	4957.41	33.97	214.06	99.00	85.97	17 6 25	4357.4	33.04	204.95

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1493	TRA	-.4756	TC3	.5225	BAU	.1474	SGT	830.3	SGR	466.7	SG3	105.2	ST	278.5	SR	418.7	SS	71.4
RDE	-.3213	RRA	-.0417	RC3	-.2258	FAU	.03016	RRT	-.3460	RRF	.3924	RTF	-.7195	CRT	-.6680	CRS	-.0473	CST	.7281
FDE	-.0055	FRA	.1946	FC3	-1.3483	BSP	2361	SGB	952.5	R23	-.0570	R13	.7334	LSA	467.7	MSA	196.7	SSA	23.5
BDE	.3542	BRA	.4774	BC3	.5692	FSP	-258	SG1	851.3	SG2	427.1	THA	165.19	EL1	467.3	EL2	185.7	ALF	118.95

LAUNCH DATE SEP 9 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 199.890

RL	150.68	LAL	.00	LOL	345.91	VL	25.800	GAL	-4.79	AZL	90.22	HCA	86.76	SMA	121.10	ECC	.25736	INC	.2218	VI	29.570
RP	107.82	LAP	-.22	LOP	72.67	VP	36.957	GAP	-13.55	AZP	90.01	TAL	194.16	TAP	280.92	RCA	89.93	APO	152.27	V2	35.146
RC	44.829	GL	-1.35	GP	-14.10	ZAL	113.91	ZAP	14.90	ETS	67.28	ZAE	150.54	ETE	335.94	ZAC	87.69	ETC	261.29	CLP	-4.87

PLANETOCENTRIC CONIC

C3 17.818 VHL 4.221 DLA -19.58 RAL 229.20 RAD 6567.7 VEL 11.798 PTH 2.09 VHP 8.749 DPA -34.83 RAP 242.40 ECC 1.2932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 12 37	1527.13	.89	1.42	88.84	118.30	6 38 5	927.1	4.67	354.77
90.00	12 41 12	5491.28	28.30	254.23	95.62	88.92	14 12 43	4891.3	27.85	245.59
100.00	7 21 40	1304.32	-.40	344.32	88.12	119.89	7 43 24	704.3	3.58	337.79
100.00	14 14 50	5189.33	29.78	231.96	95.57	87.30	15 41 19	4589.3	29.09	223.23
110.00	8 3 25	1173.47	-3.62	332.39	86.11	124.01	8 22 59	573.5	.87	326.19
110.00	15 49 34	4892.94	33.55	209.08	95.19	83.05	17 11 7	4292.9	32.23	200.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1402	TRA	-.4568	TC3	.6081	BAU	.1593	SGT	856.0	SGR	477.6	SG3	117.5	ST	274.6	SR	411.5	SS	71.0
RDE	-.3028	RRA	-.0432	RC3	-.2785	FAU	.03250	RRT	-.3864	RRF	.4393	RTF	-.7346	CRT	-.6605	CRS	.3263	CST	.4341
FDE	.0204	FRA	.1858	FC3	-1.5791	BSP	2488	SGB	980.2	R23	-.0657	R13	.7508	LSA	459.0	MSA	196.2	SSA	25.5
BDE	.3337	BRA	.4588	BC3	.6688	FSP	-294	SG1	882.1	SG2	427.4	THA	163.98	EL1	458.9	EL2	184.9	ALF	118.91

LAUNCH DATE SEP 9 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 206.675

RL	150.68	LAL	.00	LOL	345.91	VL	25.994	GAL	-4.86	AZL	90.03	HCA	89.98	SMA	122.22	ECC	.24700	INC	.0262	VI	29.570
RP	107.79	LAP	-.03	LOP	75.89	VP	37.103	GAP	-12.62	AZP	90.00	TAL	195.21	TAP	285.19	RCA	92.03	APO	152.41	V2	35.158
RC	46.073	GL	-.20	GP	-15.05	ZAL	115.61	ZAP	16.61	ETS	60.87	ZAE	148.80	ETE	334.73	ZAC	86.83	ETC	261.47	CLP	-7.11

PLANETOCENTRIC CONIC

C3 16.533 VHL 4.066 DLA -18.01 RAL 227.80 RAD 6567.7 VEL 11.744 PTH 2.07 VHP 8.255 DPA -35.99 RAP 243.25 ECC 1.2721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 50 22	1572.30	-.57	3.94	85.97	118.31	6 16 34	972.3	3.22	357.31
90.00	12 52 16	5411.54	28.06	248.41	92.24	86.01	14 22 27	4811.5	27.21	239.85
100.00	7 1 3	1344.20	-1.76	346.51	85.30	119.85	7 23 27	744.2	2.23	339.99
100.00	14 24 16	5114.87	29.42	226.46	92.11	84.43	15 49 30	4514.9	28.33	217.82
110.00	7 45 59	1203.40	-4.75	333.96	83.44	123.89	8 6 3	603.4	-.27	327.75
110.00	15 55 49	4828.44	32.91	204.15	91.56	80.20	17 16 17	4228.4	31.21	195.34

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1289	TRA	-.4385	TC3	.6951	BAU	.1710	SGT	880.2	SGR	490.9	SG3	131.3	ST	267.0	SR	401.0	SS	83.6
RDE	-.2842	RRA	-.0449	RC3	-.3395	FAU	.03511	RRT	-.4295	RRF	.4898	RTF	-.7482	CRT	-.6444	CRS	.6644	CST	.0753
FDE	.0533	FRA	.1757	FC3	-1.8386	BSP	2607	SGB	1007.8	R23	-.0758	R13	.7674	LSA	447.4	MSA	195.4	SSA	27.7
BDE	.3120	BRA	.4408	BC3	.7736	FSP	-334	SG1	912.6	SG2	427.6	THA	162.59	EL1	445.3	EL2	183.9	ALF	118.51

LAUNCH DATE SEP 9 1970 FLIGHT TIME 82.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 213.457

RL	150.68	LAL	.00	LOL	345.91	VL	26.170	GAL	-4.93	AZL	89.84	HCA	93.21	SMA	123.26	ECC	.23771	INC	.1601	VI	29.570
RP	107.76	LAP	.16	LOP	79.12	VP	37.237	GAP	-11.73	AZP	90.01	TAL	196.27	TAP	289.48	RCA	93.96	APO	152.56	V2	35.168
RC	47.431	GL	1.06	GP	-16.11	ZAL	117.30	ZAP	18.61	ETS	55.58	ZAE	147.23	ETE	333.35	ZAC	85.84	ETC	261.62	CLP	-9.44

PLANETOCENTRIC CONIC

C3 15.470 VHL 3.933 DLA -16.34 RAL 226.45 RAD 6567.6 VEL 11.698 PTH 2.06 VHP 7.791 DPA -37.23 RAP 243.98 ECC 1.2546

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 28 24	1620.48	-2.12	6.63	83.35	118.24	5 55 25	1020.5	1.67	360.00
90.00	13 3 27	5333.18	27.56	242.73	89.04	83.21	14 32 20	4733.2	26.33	234.28
100.00	6 40 35	1387.61	-3.22	348.89	82.74	119.73	7 3 42	787.6	.76	342.37
100.00	14 33 58	5041.29	28.81	221.07	88.86	81.66	15 57 59	4441.3	27.35	212.57
110.00	7 28 31	1237.43	-6.04	335.76	80.99	123.71	7 49 8	637.4	-1.57	329.52
110.00	16 2 31	4764.23	32.07	199.34	88.16	77.47	17 21 55	4164.2	30.01	190.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1119	TRA	-.4247	TC3	.7709	BAU	.1804	SGT	899.9	SGR	506.6	SG3	146.3	ST	253.5	SR	386.1	SS	112.5
RDE	-.2646	RRA	-.0464	RC3	-.4083	FAU	.03791	RRT	-.4654	RRF	.5410	RTF	-.7559	CRT	-.6016	CRS	.8550	CST	-.1716
FDE	.0962	FRA	.1665	FC3	-2.1214	BSP	2637	SGB	1032.8	R23	-.0952	R13	.7798	LSA	431.8	MSA	196.6	SSA	30.2
BDE	.2873	BRA	.4272	BC3	.8724	FSP	-375	SG1	939.1	SG2	429.7	THA	161.25	EL1	423.4	EL2	184.7	ALF	117.12

LAUNCH DATE SEP 9 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 220.231

RL	150.68	LAL	.00	LOL	345.91	VL	26.328	GAL	-5.00	AZL	89.65	HCA	96.44	SMA	124.22	ECC	.22940	INC	.3533	VI	29.570
RP	107.72	LAP	.35	LOP	82.34	VP	37.358	GAP	-10.88	AZP	90.04	TAL	197.33	TAP	293.77	RCA	95.72	APO	152.72	V2	35.179
RC	48.893	GL	2.43	GP	-17.29	ZAL	118.95	ZAP	20.87	ETS	51.23	ZAE	145.83	ETE	331.76	ZAC	84.73	ETC	261.76	CLP	-11.86

PLANETOCENTRIC CONIC

C3 14.600 VHL 3.821 DLA -14.57 RAL 225.18 RAD 6567.6 VEL 11.661 PTH 2.05 VHP 7.354 DPA -38.56 RAP 244.57 ECC 1.2403

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 6 52	1671.47	-3.76	9.48	81.02	118.09	5 34 44	1071.5	.03	2.84
90.00	13 14 50	5256.28	26.81	237.23	86.07	80.54	14 42 27	4656.3	25.23	228.92
100.00	6 20 24	1434.23	-4.79	351.46	80.45	119.54	6 44 18	834.2	-.82	344.93
100.00	14 44 0	4968.75	27.98	215.84	85.83	79.02	16 6 48	4368.8	26.18	207.50
110.00	7 11 10	1275.20	-7.47	337.75	78.80	123.46	7 32 25	675.2	-3.01	331.50
110.00	16 9 43	4700.55	31.03	194.66	85.02	74.88	17 28 3	4100.5	28.64	186.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1008	TRA	-.4038	TC3	.8623	BAU	.1935	SGT	921.2	SGR	529.2	SG3	163.8	ST	241.8	SR	368.0	SS	148.8
RDE	-.2448	RRA	-.0489	RC3	-.4889	FAU	.04123	RRT	-.5217	RRF	.5991	RTF	-.7707	CRT	-.5782	CRS	.9321	CST	-.3235
FDE	.1441	FRA	.1518	FC3	-2.4449	BSP	2848	SGB	1062.4	R23	-.1000	R13	.7983	LSA	421.7	MSA	192.5	SSA	33.0
BDE	.2648	BRA	.4068	BC3	.9913	FSP	-431	SG1	972.5	SG2	427.7	THA	159.09	EL1	401.5	EL2	180.8	ALF	116.61

LAUNCH DATE SEP 9 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 226.996

RL	150.68	LAL	.00	LOL	345.91	VL	26.470	GAL	-5.07	AZL	89.45	HCA	99.66	SMA	125.10	ECC	.22201	INC	.5486
RP	107.69	LAP	.54	LOP	85.57	VP	37.468	GAP	-10.06	AZP	90.09	TAL	198.38	TAP	298.05	RCA	97.33	APO	152.87
RC	50.451	GL	3.88	GP	-18.61	ZAL	120.52	ZAP	23.37	ETS	47.62	ZAE	144.59	ETE	329.95	ZAC	83.48	ETC	261.86

V1	29.570	V2	35.188	CLP	-14.40														

PLANETOCENTRIC CONIC

C3	13.896	VHL	3.728	DLA	-12.71	RAL	224.01	RAD	6567.5	VEL	11.631	PTH	2.04	VHP	6.945	DPA	-39.99	RAP	245.00
ECC	1.2287																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 45 54	1724.96	-5.47	12.48	78.99	117.83	5 14 39	1125.0	-1.70	5.83
90.00	13 26 29	5180.94	25.86	231.92	83.37	78.05	14 52 50	4580.9	23.95	223.77
100.00	6 0 41	1483.69	-6.45	354.20	78.45	119.25	6 25 25	883.7	-2.50	347.64
100.00	14 54 23	4897.45	26.95	210.79	83.09	76.55	16 16 1	4297.4	24.83	202.63
110.00	6 54 9	1316.25	-9.00	339.94	76.89	123.12	7 16 5	716.3	-4.58	333.65
110.00	16 17 25	4637.65	29.83	190.16	82.19	72.47	17 34 43	4037.6	27.14	182.00

DIFFERENTIAL CORRECTIONS

TDE	.0839	TRA	-.3881	TC3	.9346	BAU	.2042
RDE	-.2230	RRA	-.0510	RC3	-.5782	FAU	.04475
FDE	.2055	FRA	.1388	FC3	-2.7882	BSP	2957
BDE	.2382	BRA	.3914	BC3	1.0990	FSP	-488

MID-COURSE EXECUTION ACCURACY

SGT	936.0	SGR	556.5	SG3	182.6		
RRT	-.5672	RRF	.6548	RTF	-.7790		
SGB	1088.9	R23	-.1143	R13	.8128		
SG1	1001.1	SG2	428.5	THA	156.89		

ORBIT DETERMINATION ACCURACY

ST	225.2	SR	343.8	SS	197.1		
CRT	-.5172	CRS	.9651	CST	-.3702		
LSA	412.9	MSA	189.9	SSA	35.7		
EL1	369.9	EL2	179.2	ALF	114.95		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 233.747

RL	150.68	LAL	.00	LOL	345.91	VL	26.598	GAL	-5.13	AZL	89.25	HCA	102.89	SMA	125.90	ECC	.21545	INC	.7479
RP	107.67	LAP	.73	LOP	88.80	VP	37.566	GAP	-9.28	AZP	90.17	TAL	199.40	TAP	302.29	RCA	98.78	APO	153.03
RC	52.096	GL	5.43	GP	-20.06	ZAL	121.98	ZAP	26.11	ETS	44.59	ZAE	143.48	ETE	327.87	ZAC	82.07	ETC	261.93

V1	29.570	V2	35.198	CLP	-17.06														

PLANETOCENTRIC CONIC

C3	13.334	VHL	3.652	DLA	-10.78	RAL	222.96	RAD	6567.5	VEL	11.607	PTH	2.03	VHP	6.565	DPA	-41.54	RAP	245.23
ECC	1.2194																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 25 34	1780.75	-7.23	15.63	77.28	117.45	4 55 15	1180.7	-3.49	8.94
90.00	13 38 29	5107.15	24.72	226.82	80.96	75.73	15 3 36	4507.1	22.52	218.84
100.00	5 41 31	1539.70	-8.17	357.11	76.77	118.85	6 7 7	935.7	-4.26	350.50
100.00	15 5 12	4827.43	25.75	205,94	80.66	74.27	16 25 40	4227.4	23.34	197.97
110.00	6 37 33	1360.25	-10.63	342.31	75.28	122.68	7 0 13	760.2	-6.24	335.96
110.00	16 25 40	4575.65	28.48	185.84	79.68	70.24	17 41 56	3975.6	25.52	177.91

DIFFERENTIAL CORRECTIONS

TDE	.0642	TRA	-.3754	TC3	.9906	BAU	.2139
RDE	-.1986	RRA	-.0527	RC3	-.6772	FAU	.04854
FDE	.2806	FRA	.1269	FC3	-3.1516	BSP	3026
BDE	.2087	BRA	.3791	BC3	1.2000	FSP	-549

MID-COURSE EXECUTION ACCURACY

SGT	945.0	SGR	590.6	SG3	203.2		
RRT	-.6069	RRF	.7084	RTF	-.7839		
SGB	1114.4	R23	-.1322	R13	.8262		
SG1	1027.3	SG2	431.8	THA	154.39		

ORBIT DETERMINATION ACCURACY

ST	207.3	SR	313.0	SS	255.1		
CRT	-.4189	CRS	.9782	CST	-.3425		
LSA	411.9	MSA	186.8	SSA	37.9		
EL1	330.3	EL2	178.4	ALF	112.34		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 240.484

RL	150.68	LAL	.00	LOL	345.91	VL	26.711	GAL	-5.19	AZL	89.05	HCA	106.13	SMA	126.63	ECC	.20967	INC	.9526
RP	107.64	LAP	.92	LOP	92.04	VP	37.655	GAP	-8.52	AZP	90.26	TAL	200.38	TAP	306.50	RCA	100.08	APO	153.18
RC	53.818	GL	7.07	GP	-21.68	ZAL	123.30	ZAP	29.08	ETS	41.99	ZAE	142.49	ETE	325.49	ZAC	80.49	ETC	261.96

V1	29.570	V2	35.206	CLP	-19.87														

PLANETOCENTRIC CONIC

C3	12.897	VHL	3.591	DLA	-8.79	RAL	222.06	RAD	6567.5	VEL	11.588	PTH	2.03	VHP	6.214	DPA	-43.20	RAP	245.24
ECC	1.2122																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 5 56	1838.64	-9.03	18.93	75.89	116.95	4 36 35	1238.6	-5.34	12.19
90.00	13 50 54	5034.85	23.42	221.92	78.88	73.61	15 14 49	4434.8	20.95	214.12
100.00	5 23 0	1590.03	-9.94	.17	75.41	118.34	5 49 30	990.0	-6.08	353.51
100.00	15 16 31	4758.69	24.40	201.28	78.55	72.17	16 35 50	4158.7	21.73	193.50
110.00	6 21 29	1406.87	-12.33	344.85	73.99	122.14	6 44 56	806.9	-8.00	338.43
110.00	16 34 31	4514.62	27.00	181.70	77.51	68.19	17 49 46	3914.6	23.80	174.00

DIFFERENTIAL CORRECTIONS

TDE	.0398	TRA	-.3680	TC3	1.0179	BAU	.2215
RDE	-.1702	RRA	-.0534	RC3	-.7842	FAU	.05242
FDE	.3746	FRA	.1199	FC3	-3.5191	BSP	2997
BDE	.1747	BRA	.3718	BC3	1.2849	FSP	-606

MID-COURSE EXECUTION ACCURACY

SGT	944.2	SGR	631.2	SG3	225.0		
RRT	-.6339	RRF	.7571	RTF	-.7828		
SGB	1135.7	R23	-.1552	R13	.8382		
SG1	1046.9	SG2	440.2	THA	151.57		

ORBIT DETERMINATION ACCURACY

ST	190.5	SR	273.2	SS	325.0		
CRT	-.2498	CRS	.9825	CST	-.2251		
LSA	425.7	MSA	183.9	SSA	38.7		
EL1	280.4	EL2	179.7	ALF	107.06		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 247.201

RL	150.68	LAL	.00	LOL	345.91	VL	26.812	GAL	-5.25	AZL	88.84	HCA	109.36	SMA	127.29	ECC	.20459	INC	1.1641
RP	107.61	LAP	1.10	LOP	95.27	VP	37.734	GAP	-7.80	AZP	90.39	TAL	201.30	TAP	310.66	RCA	101.25	APO	153.33
RC	55.612	GL	8.80	GP	-23.47	ZAL	124.46	ZAP	32.29	ETS	39.72	ZAE	141.57	ETE	322.77	ZAC	78.72	ETC	261.95

V1	29.570	V2	35.214	CLP	-22.84														

PLANETOCENTRIC CONIC

C3	12.570	VHL	3.545	DLA	-6.75	RAL	221.30	RAD	6567.5	VEL	11.574	PTH	2.02	VHP	5.892	DPA	-45.00	RAP	244.97
ECC	1.2069																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 46 58	1898.64	-10.86	22.39	74.84	116.31	4 18 36	1298.6	-7.24	15.58
90.00	14 3 50	4963.85	21.98	217.21	77.12	71.68	15 26 34	4363.8	19.27	209.59
100.00	5 5 5	1646.61	-11.75	3.40	74.38	117.69	5 32 32	1046.6	-7.95	356.67
100.00	15 28 24	4691.11	22.92	196.80	76.77	70.26	16 46 35	4091.1	20.02	189.21
110.00	6 5 58	1455.98	-14.09	347.56	73.02	121.47	6 30 14	856.0	-9.82	341.06
110.00	16 44 0	4454.51	25.42	177.75	75.68	66.33	17 58 14	3854.5	22.00	170.27

DIFFERENTIAL CORRECTIONS

TDE	.0297	TRA	-.3481	TC3	1.0709	BAU	.2363
RDE	-.1407	RRA	-.0568	RC3	-.9111	FAU	.05723
FDE	.4697	FRA	.0995	FC3	-3.9416	BSP	3303
BDE	.1438	BRA	.3527	BC3	1.4060	FSP	-700

MID-COURSE EXECUTION ACCURACY

SGT	948.6	SGR	691.1	SG3	250.6		
RRT	-.6852	RRF	.8072	RTF	-.7914		
SGB	1173.6	R23	-.1563	R13	.8569		
SG1	1088.6	SG2	438.6	THA	147.59		

ORBIT DETERMINATION ACCURACY

ST	178.1	SR	229.8	SS	389.5		
CRT	-.1626	CRS	.9796	CST	-.1931		
LSA	452.0	MSA	174.5	SSA	39.5		
EL1	234.0	EL2	172.6	ALF	106.11		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 253.900

RL	150.68	LAL	.00	LOL	345.91	VL	26.901	GAL	-5.29	AZL	88.62	HCA	112.59	SMA	127.87	ECC	.20014	INC	1.3842	V1	29.570
RP	107.59	LAP	1.28	LOP	98.51	VP	37.804	GAP	-7.10	AZP	90.53	TAL	202.16	TAP	314.75	RCA	102.28	APO	153.46	V2	35.222
RC	57.469	GL	10.62	GP	-25.45	ZAL	125.43	ZAP	35.74	ETS	37.65	ZAE	140.70	ETE	319.69	ZAC	76.76	ETC	261.88	CLP	-25.99

PLANETOCENTRIC CONIC

C3	12.341	VHL	3.513	DLA	-4.65	RAL	220.71	RAD	6567.5	VEL	11.564	PTH	2.02	VHP	5.600	DPA	-46.93	RAP	244.38	ECC	1.2031

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 28 41	1960.66	-12.71	26.01	74.14	115.52	4 1 22	1360.7	-9.17	19.12
90.00	14 17 24	4893.98	20.41	212.69	75.70	69.94	15 38 58	4294.0	17.49	205.23
100.00	4 47 51	1705.32	-13.58	6.79	73.70	116.89	5 16 16	1105.3	-9.87	359.97
100.00	15 40 56	4624.56	21.32	192.50	75.33	68.54	16 58 1	4024.6	18.22	185.09
110.00	5 51 4	1507.36	-15.90	350.45	72.39	120.67	6 16 12	907.4	-11.71	343.85
110.00	16 54 12	4395.28	23.74	173.96	74.20	64.66	18 7 27	3795.3	20.13	166.68

DIFFERENTIAL CORRECTIONS

TDE	.0125	TRA	-.3383	TC3	1.0765	BAU	.2474
RDE	-.1044	RRA	-.0579	RC3	-1.0440	FAU	.06185
FDE	.5896	FRA	.0894	FC3	-4.3393	BSP	3424
BDE	.1052	BRA	.3432	BC3	1.4996	FSP	-782

MID-COURSE EXECUTION ACCURACY

SGT	937.5	SGR	759.0	SG3	276.5		
RRT	-.7109	RRF	.8476	RTF	-.7891		
SGB	1206.2	R23	-.1662	R13	.8724		
SG1	1120.5	SG2	446.6	THA	143.33		

ORBIT DETERMINATION ACCURACY

ST	168.8	SR	174.1	SS	467.9
CRT	.0257	CRS	.9685	CST	-.0625
LSA	497.6	MSA	169.2	SSA	38.1
EL1	174.9	EL2	168.0	ALF	70.02

LAUNCH DATE SEP 9 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 260.577

RL	150.68	LAL	.00	LOL	345.91	VL	26.979	GAL	-5.33	AZL	88.38	HCA	115.83	SMA	128.39	ECC	.19626	INC	1.6151	V1	29.570
RP	107.57	LAP	1.45	LOP	101.74	VP	37.866	GAP	-6.43	AZP	90.70	TAL	202.94	TAP	318.77	RCA	103.19	APO	153.59	V2	35.229
RC	59.382	GL	12.52	GP	-27.62	ZAL	126.19	ZAP	39.42	ETS	35.71	ZAE	139.81	ETE	316.21	ZAC	74.59	ETC	261.74	CLP	-29.33

PLANETOCENTRIC CONIC

C3	12.200	VHL	3.493	DLA	-2.52	RAL	220.30	RAD	6567.5	VEL	11.558	PTH	2.02	VHP	5.340	DPA	-49.01	RAP	243.40	ECC	1.2008

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 11 2	2024.88	-14.56	29.81	73.79	114.56	3 44 47	1424.9	-11.13	22.82
90.00	14 31 44	4824.92	18.74	208.31	74.63	68.37	15 52 9	4224.9	15.64	201.01
100.00	4 31 12	1766.27	-15.43	10.37	73.37	115.93	5 0 38	1166.3	-11.82	3.45
100.00	15 54 15	4558.77	19.62	188.35	74.25	66.99	17 10 14	3958.8	16.34	181.10
110.00	5 36 45	1561.05	-17.74	353.53	72.10	119.71	6 2 46	961.1	-13.65	346.80
110.00	17 5 11	4336.74	21.99	170.32	73.07	63.15	18 17 28	3736.7	18.21	163.23

DIFFERENTIAL CORRECTIONS

TDE	-.0029	TRA	-.3307	TC3	1.0563	BAU	.2592
RDE	-.0618	RRA	-.0581	RC3	-1.1871	FAU	.06653
FDE	.7270	FRA	.0831	FC3	-4.7212	BSP	3552
BDE	.0619	BRA	.3358	BC3	1.5890	FSP	-868

MID-COURSE EXECUTION ACCURACY

SGT	916.2	SGR	840.9	SG3	303.2		
RRT	-.7264	RRF	.8814	RTF	-.7816		
SGB	1243.6	R23	-.1709	R13	.8888		
SG1	1156.2	SG2	457.9	THA	138.37		

ORBIT DETERMINATION ACCURACY

ST	164.5	SR	108.2	SS	552.4
CRT	.2578	CRS	.9229	CST	.0737
LSA	561.6	MSA	165.2	SSA	35.4
EL1	168.3	EL2	102.2	ALF	15.45

LAUNCH DATE SEP 9 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 267.232

RL	150.68	LAL	.00	LOL	345.91	VL	27.047	GAL	-5.37	AZL	88.14	HCA	119.06	SMA	128.85	ECC	.19289	INC	1.8590	V1	29.570
RP	107.55	LAP	1.62	LOP	104.98	VP	37.920	GAP	-5.79	AZP	90.90	TAL	203.64	TAP	322.70	RCA	103.99	APO	153.70	V2	35.235
RC	61.346	GL	14.52	GP	-29.99	ZAL	126.73	ZAP	43.35	ETS	33.79	ZAE	138.86	ETE	312.32	ZAC	72.20	ETC	261.53	CLP	-32.90

PLANETOCENTRIC CONIC

C3	12.144	VHL	3.485	DLA	-.33	RAL	220.06	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	5.113	DPA	-51.21	RAP	241.96	ECC	1.1999

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 53 54	2091.57	-16.41	33.84	73.80	113.41	3 28 45	1491.6	-13.10	26.72
90.00	14 46 59	4756.28	16.96	204.06	73.91	66.98	16 6 15	4156.3	13.70	196.90
100.00	4 15 5	1829.68	-17.28	14.18	73.39	114.78	4 45 35	1229.7	-13.79	7.12
100.00	16 8 29	4493.40	17.83	184.32	73.51	65.61	17 23 22	3893.4	14.39	177.22
110.00	5 22 58	1617.18	-19.60	356.82	72.16	118.58	5 49 55	1017.2	-15.63	349.94
110.00	17 17 5	4278.67	20.16	166.81	72.29	61.79	18 28 23	3678.7	16.24	159.89

DIFFERENTIAL CORRECTIONS

TDE	-.0148	TRA	-.3255	TC3	1.0078	BAU	.2721
RDE	-.0114	RRA	-.0568	RC3	-1.3387	FAU	.07108
FDE	.8812	FRA	.0820	FC3	-5.0674	BSP	3694
BDE	.0187	BRA	.3304	BC3	1.6757	FSP	-955

MID-COURSE EXECUTION ACCURACY

SGT	883.3	SGR	937.9	SG3	330.0		
RRT	-.7302	RRF	.9088	RTF	-.7671		
SGB	1288.4	R23	-.1676	R13	.9059		
SG1	1198.7	SG2	472.2	THA	132.65		

ORBIT DETERMINATION ACCURACY

ST	163.7	SR	43.8	SS	642.1
CRT	.6088	CRS	.3962	CST	.1852
LSA	643.1	MSA	162.5	SSA	32.0
EL1	166.0	EL2	34.3	ALF	9.66

LAUNCH DATE SEP 9 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 273.863

RL	150.68	LAL	.00	LOL	345.91	VL	27.105	GAL	-5.39	AZL	87.88	HCA	122.30	SMA	129.24	ECC	.18998	INC	2.1189	V1	29.570
RP	107.53	LAP	1.79	LOP	108.23	VP	37.967	GAP	-5.17	AZP	91.13	TAL	204.25	TAP	326.55	RCA	104.69	APO	153.80	V2	35.240
RC	63.355	GL	16.62	GP	-32.56	ZAL	127.03	ZAP	47.49	ETS	31.83	ZAE	137.78	ETE	308.03	ZAC	69.60	ETC	261.23	CLP	-36.71

PLANETOCENTRIC CONIC

C3	12.170	VHL	3.489	DLA	1.90	RAL	220.01	RAD	6567.5	VEL	11.557	PTH	2.02	VHP	4.922	DPA	-53.53	RAP	239.98	ECC	1.2003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 37 9	2161.17	-18.24	38.13	74.18	112.04	3 13 10	1561.2	-15.09	30.87
90.00	15 3 19	4687.58	15.09	199.89	73.55	65.75	16 21 26	4087.6	11.68	192.86
100.00	3 59 23	1895.95	-19.12	18.23	73.79	113.43	4 30 58	1295.9	-15.79	11.02
100.00	16 23 46	4428.03	15.95	180.38	73.13	64.38	17 37 34	3828.0	12.37	173.42
110.00	5 9 39	1676.00	-21.47	.35	72.60	117.26	5 37 35	1076.0	-17.65	353.31
110.00	17 29 59	4220.75	18.26	163.39	71.87	60.59	18 40 20	3620.7	14.21	156.62

DIFFERENTIAL CORRECTIONS

TDE	-.0220	TRA	-.3230	TC3	.9269	BAU	.2862
RDE	.0487	RRA	-.0532	RC3	-1.4951	FAU	.07522
FDE	1.0513	FRA	.0890	FC3	-5.3510	BSP	3850
BDE	.0534	BRA	.3273	BC3	1.7592	FSP	-1037

MID-COURSE EXECUTION ACCURACY

SGT	837.4	SGR	1049.9	SG3	355.6		
RRT	-.7179	RRF	.9302	RTF	-.7411		
SGB	1342.9	R23	-.1548	R13	.9233		
SG1	1250.6	SG2	489.4	THA	126.19		

ORBIT DETERMINATION ACCURACY

ST	164.4	SR	89.7	SS	736.1
CRT	.0466	CRS	-.9035	CST	.2510
LSA	741.7	MSA	161.1	SSA	28.4
EL1	164.5	EL2	89.6	ALF	2.07

LAUNCH DATE SEP 9 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 280.470

RL	150.68	LAL	.00	LOL	345.91	VL	27.155	GAL	-5.41	AZL	87.60	HCA	125.54	SMA	129.58	ECC	.18748	INC	2.3981	V1	29.570
RP	107.52	LAP	1.95	LOP	111.47	VP	38.007	GAP	-4.57	AZP	91.39	TAL	204.76	TAP	330.30	RCA	105.29	APO	153.88	V2	35.245
RC	65.403	GL	18.83	GP	-35.32	ZAL	127.07	ZAP	51.83	ETS	29.73	ZAE	136.51	ETE	303.37	ZAC	66.79	ETC	260.83	CLP	-40.77

PLANETOCENTRIC CONIC

C3	12.280	VHL	3.504	DLA	4.19	RAL	220.15	RAD	6567.5	VEL	11.561	PTH	2.02	VHP	4.769	DPA	-55.94	RAP	237.36	ECC	1.2021

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 20 38	2234.31	-20.04	42.73	74.95	110.43	2 57 52	1634.3	-17.08	35.31
90.00	15 20 57	4618.25	13.11	195.76	73.55	64.67	16 37 55	4018.2	9.59	188.85
100.00	3 43 56	1965.61	-20.95	22.60	74.58	111.83	4 16 42	1365.6	-17.80	15.22
100.00	16 40 20	4362.18	13.98	176.49	73.12	63.30	17 53 2	3762.2	10.28	169.65
110.00	4 56 41	1737.93	-23.35	4.17	73.43	115.70	5 25 39	1137.9	-19.70	356.93
110.00	17 44 4	4162.62	16.29	160.04	71.81	59.52	18 53 27	3562.6	12.12	153.41

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0237	TRA	-.3246	TC3	.8081	BAU	.3014	SGT	778.1	SGR	1174.5	SG3	378.3	ST	165.2	SR	202.1	SS	835.4
RDE	.1210	RRA	-.0452	RC3	-1.6484	FAU	.07849	RRT	-.6812	RRF	.9466	RTF	-.6959	CRT	-.1413	CRS	-.9840	CST	.2661
FDE	1.2377	FRA	.1100	FC3	-5.5334	BSP	3991	SGB	1408.9	R23	-.1312	R13	.9401	LSA	859.9	MSA	161.3	SSA	24.6
BDE	.1233	BRA	.3278	BC3	1.8358	FSP	-1102	SG1	1313.6	SG2	509.4	THA	119.07	EL1	205.8	EL2	160.7	ALF	107.40

LAUNCH DATE SEP 9 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 287.050

RL	150.68	LAL	.00	LOL	345.91	VL	27.196	GAL	-5.41	AZL	87.30	HCA	128.77	SMA	129.87	ECC	.18533	INC	2.7009	V1	29.570
RP	107.51	LAP	2.11	LOP	114.71	VP	38.040	GAP	-3.99	AZP	91.69	TAL	205.18	TAP	333.95	RCA	105.80	APO	153.94	V2	35.249
RC	67.486	GL	21.17	GP	-38.26	ZAL	126.86	ZAP	56.34	ETS	27.41	ZAE	135.00	ETE	298.38	ZAC	63.79	ETC	260.31	CLP	-45.10

PLANETOCENTRIC CONIC

C3	12.482	VHL	3.533	DLA	6.54	RAL	220.48	RAD	6567.5	VEL	11.570	PTH	2.02	VHP	4.655	DPA	-58.38	RAP	233.97	ECC	1.2054

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 4 5	2311.89	-21.80	47.74	76.13	108.53	2 42 37	1711.9	-19.07	40.13
90.00	15 40 9	4547.59	11.01	191.63	73.94	63.75	16 55 57	3947.6	7.40	184.81
100.00	3 28 32	2039.48	-22.74	27.35	75.78	109.94	4 2 32	1439.5	-19.82	19.78
100.00	16 58 23	4295.23	11.89	172.61	73.48	62.37	18 9 58	3695.2	8.10	165.88
110.00	4 43 54	1803.60	-25.23	8.35	74.69	113.87	5 13 58	1203.6	-21.79	.89
110.00	17 59 30	4103.88	14.23	156.73	72.12	58.59	19 7 54	3503.9	9.97	150.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0084	TRA	-.3213	TC3	.6799	BAU	.3225	SGT	711.4	SGR	1320.9	SG3	398.2	ST	158.6	SR	329.7	SS	923.7
RDE	.2016	RRA	-.0374	RC3	-1.8092	FAU	.08148	RRT	-.6243	RRF	.9595	RTF	-.6274	CRT	-.0411	CRS	-.9945	CST	.1174
FDE	1.4136	FRA	.1253	FC3	-5.6511	BSP	4352	SGB	1500.3	R23	-.1044	R13	.9545	LSA	980.3	MSA	159.4	SSA	21.9
BDE	.2018	BRA	.3235	BC3	1.9327	FSP	-1187	SG1	1406.6	SG2	521.9	THA	111.72	EL1	329.8	EL2	158.4	ALF	91.47

LAUNCH DATE SEP 9 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 293.605

RL	150.68	LAL	.00	LOL	345.91	VL	27.230	GAL	-5.41	AZL	86.97	HCA	132.01	SMA	130.10	ECC	.18351	INC	3.0325	V1	29.570
RP	107.50	LAP	2.25	LOP	117.96	VP	38.068	GAP	-3.43	AZP	92.03	TAL	205.50	TAP	337.51	RCA	106.23	APO	153.98	V2	35.253
RC	69.600	GL	23.64	GP	-41.34	ZAL	126.38	ZAP	60.95	ETS	24.82	ZAE	133.19	ETE	293.15	ZAC	60.62	ETC	259.65	CLP	-49.70

PLANETOCENTRIC CONIC

C3	12.787	VHL	3.576	DLA	8.98	RAL	221.02	RAD	6567.5	VEL	11.583	PTH	2.03	VHP	4.585	DPA	-60.82	RAP	229.70	ECC	1.2104

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 47 14	2395.03	-23.50	53.25	77.76	106.27	2 27 9	1795.0	-21.04	45.43
90.00	16 1 18	4474.78	8.79	187.43	74.74	62.97	17 15 52	3874.8	5.09	180.70
100.00	3 12 57	2118.55	-24.48	32.58	77.43	107.72	3 48 16	1518.6	-21.83	24.79
100.00	17 18 15	4226.49	9.69	168.69	74.26	61.58	18 28 42	3626.5	5.82	162.04
110.00	4 31 10	1873.77	-27.08	12.96	76.40	111.70	5 2 24	1273.8	-23.89	5.25
110.00	18 16 31	4044.03	12.08	153.43	72.84	57.78	19 23 55	3444.0	7.74	147.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0167	TRA	-.3228	TC3	.5091	BAU	.3442	SGT	638.3	SGR	1473.3	SG3	411.3	ST	159.7	SR	479.6	SS	1014.1
RDE	.2981	RRA	-.0221	RC3	-1.9482	FAU	.08277	RRT	-.5059	RRF	.9689	RTF	-.5023	CRT	.1827	CRS	-.9978	CST	-.1340
FDE	1.5951	FRA	.1596	FC3	-5.6042	BSP	4668	SGB	1605.6	R23	-.0723	R13	.9663	LSA	1121.7	MSA	159.5	SSA	19.0
BDE	.2985	BRA	.3235	BC3	2.0136	FSP	-1236	SG1	1513.6	SG2	536.0	THA	104.18	EL1	480.6	EL2	156.7	ALF	86.10

LAUNCH DATE SEP 9 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 300.133

RL	150.68	LAL	.00	LOL	345.91	VL	27.257	GAL	-5.40	AZL	86.60	HCA	135.25	SMA	130.29	ECC	.18197	INC	3.3999	V1	29.570
RP	107.49	LAP	2.39	LOP	121.20	VP	38.089	GAP	-2.90	AZP	92.42	TAL	205.72	TAP	340.97	RCA	106.58	APO	154.00	V2	35.255
RC	71.740	GL	26.27	GP	-44.53	ZAL	125.62	ZAP	65.59	ETS	21.87	ZAE	131.07	ETE	287.76	ZAC	57.32	ETC	258.85	CLP	-54.58

PLANETOCENTRIC CONIC

C3	13.216	VHL	3.635	DLA	11.51	RAL	221.76	RAD	6567.5	VEL	11.602	PTH	2.03	VHP	4.563	DPA	-63.16	RAP	224.43	ECC	1.2175

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 29 40	2485.31	-25.08	59.39	79.88	103.59	2 11 6	1885.3	-22.97	51.35
90.00	16 24 49	4398.73	6.41	183.11	75.99	62.36	17 38 7	3798.7	2.66	176.44
100.00	2 56 50	2204.22	-26.13	38.42	79.58	105.07	3 33 34	1604.2	-23.80	30.39
100.00	17 40 20	4155.05	7.35	164.68	75.48	60.95	18 49 35	3555.1	3.42	158.10
110.00	4 18 14	1949.50	-28.88	18.12	78.63	109.14	4 50 43	1349.5	-26.00	10.12
110.00	18 35 25	3982.54	9.83	150.09	73.98	57.09	19 41 48	3382.5	5.42	143.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0599	TRA	-.3244	TC3	.3131	BAU	.3685	SGT	577.0	SGR	1631.7	SG3	416.8	ST	182.9	SR	646.0	SS	1097.4
RDE	.4089	RRA	.0001	RC3	-2.0618	FAU	.08250	RRT	-.2980	RRF	.9758	RTF	-.2887	CRT	.5119	CRS	-.9990	CST	-.4831
FDE	1.7635	FRA	.2044	FC3	-5.4040	BSP	5049	SGB	1730.7	R23	-.0407	R13	.9750	LSA	1276.3	MSA	160.0	SSA	16.5
BDE	.4132	BRA	.3244	BC3	2.0855	FSP	-1263	SG1	1641.9	SG2	547.3	THA	96.77	EL1	653.1	EL2	155.4	ALF	81.26

LAUNCH DATE SEP 9 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 306.635

RL	150.68	LAL	.00	LOL	345.91	VL	27.278	GAL	-5.37	AZL	86.19	HCA	138.48	SMA	130.44	ECC	.18067	INC	3.8117
RP	107.48	LAP	2.53	LOP	124.45	VP	38.106	GAP	-2.38	AZP	92.86	TAL	205.84	TAP	344.32	RCA	106.87	APO	154.00
RC	73.903	GL	29.08	GP	-47.79	ZAL	124.58	ZAP	70.19	ETS	18.52	ZAE	128.62	ETE	282.28	ZAC	53.92	ETC	257.87

V1	29.570	V2	35.257	CLP	-59.71														

PLANETOCENTRIC CONIC

C3	13.801	VHL	3.715	DLA	14.14	RAL	222.73	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	4.592	DPA	-65.34	RAP	218.06
ECC	1.2271																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 10 51	2584.94	-26.49	66.34	82.53	100.38	1 53 56	1984.9	-24.79	58.08
90.00	16 51 21	4317.98	3.84	178.57	77.77	61.92	18 3 19	3718.0	.05	171.93
100.00	2 39 42	2298.37	-27.62	45.01	82.28	101.91	3 18 1	1698.4	-25.70	36.74
100.00	18 5 11	4079.77	4.85	160.50	77.21	60.47	19 13 11	3479.8	.88	153.96
110.00	4 4 47	2032.16	-30.58	23.95	81.43	106.07	4 38 39	1432.2	-28.08	15.65
110.00	18 56 35	3918.75	7.45	146.68	75.61	56.54	20 1 54	3318.8	3.00	140.42

DIFFERENTIAL CORRECTIONS

TDE	.1255	TRA	-.3248	TC3	.0971	BAU	.3944
RDE	.5350	RRA	.0312	RC3	-2.1354	FAU	.08036
FDE	1.9109	FRA	.2595	FC3	-5.0411	BSP	5471
BDE	.5495	BRA	.3263	BC3	2.1376	FSP	-1259

MID-COURSE EXECUTION ACCURACY

SGT	556.4	SGR	1789.0	SG3	413.3		
RRT	.0197	RRF	.9809	RTF	.0328		
SGB	1873.5	R23	-.0113	R13	.9809		
SG1	1789.0	SG2	556.3	THA	89.61		

ORBIT DETERMINATION ACCURACY

ST	248.0	SR	826.6	SS	1171.1		
CRT	.7674	CRS	-.9995	CST	-.7528		
LSA	1445.7	MSA	161.2	SSA	14.2		
EL1	849.0	EL2	154.8	ALF	76.58		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 313.108

RL	150.68	LAL	.00	LOL	345.91	VL	27.293	GAL	-5.34	AZL	85.72	HCA	141.72	SMA	130.54	ECC	.17960	INC	4.2797
RP	107.48	LAP	2.65	LOP	127.70	VP	38.118	GAP	-1.88	AZP	93.36	TAL	205.87	TAP	347.58	RCA	107.10	APO	153.98
RC	76.087	GL	32.07	GP	-51.10	ZAL	123.24	ZAP	74.66	ETS	14.72	ZAE	125.87	ETE	276.79	ZAC	50.45	ETC	256.70

V1	29.570	V2	35.258	CLP	-65.08														

PLANETOCENTRIC CONIC

C3	14.591	VHL	3.820	DLA	16.91	RAL	223.93	RAD	6567.6	VEL	11.661	PTH	2.05	VHP	4.679	DPA	-67.27	RAP	210.53
ECC	1.2401																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 49 54	2697.11	-27.62	74.35	85.76	96.51	1 34 51	2097.1	-26.43	65.89
90.00	17 21 53	4230.35	1.02	173.67	80.16	61.70	18 32 23	3630.3	-2.77	167.04
100.00	2 20 53	2403.69	-28.87	52.59	85.58	98.11	3 0 57	1803.7	-27.45	44.07
100.00	18 33 34	3999.01	2.12	156.05	79.55	60.18	19 40 13	3399.0	-1.86	149.53
110.00	3 50 25	2123.58	-32.12	30.63	84.90	102.39	4 25 48	1523.6	-30.08	22.01
110.00	19 20 32	3851.88	4.92	143.15	77.80	56.13	20 24 44	3251.9	.44	136.93

DIFFERENTIAL CORRECTIONS

TDE	.2214	TRA	-.3205	TC3	-.1231	BAU	.4226
RDE	.6736	RRA	.0709	RC3	-2.1630	FAU	.07662
FDE	2.0218	FRA	.3164	FC3	-4.5461	BSP	5984
BDE	.7091	BRA	.3282	BC3	2.1665	FSP	-1235

MID-COURSE EXECUTION ACCURACY

SGT	609.5	SGR	1940.1	SG3	400.7		
RRT	.3680	RRF	.9846	RTF	.3837		
SGB	2033.6	R23	.0128	R13	.9848		
SG1	1954.2	SG2	562.7	THA	82.80		

ORBIT DETERMINATION ACCURACY

ST	364.7	SR	1012.2	SS	1228.1		
CRT	.8958	CRS	-.9998	CST	-.8890		
LSA	1624.6	MSA	162.1	SSA	12.2		
EL1	1064.8	EL2	154.1	ALF	71.71		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 319.554

RL	150.68	LAL	.00	LOL	345.91	VL	27.302	GAL	-5.30	AZL	85.18	HCA	144.95	SMA	130.61	ECC	.17871	INC	4.8199
RP	107.48	LAP	2.77	LOP	130.95	VP	38.125	GAP	-1.40	AZP	93.95	TAL	205.80	TAP	350.75	RCA	107.27	APO	153.95
RC	78.289	GL	35.26	GP	-54.43	ZAL	121.61	ZAP	78.89	ETS	10.46	ZAE	122.83	ETE	271.33	ZAC	46.95	ETC	255.31

V1	29.570	V2	35.259	CLP	-70.66														

PLANETOCENTRIC CONIC

C3	15.659	VHL	3.957	DLA	19.80	RAL	225.38	RAD	6567.6	VEL	11.707	PTH	2.06	VHP	4.831	DPA	-68.88	RAP	201.86
ECC	1.2577																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 25 23	2827.03	-28.26	83.80	89.60	91.82	1 12 30	2227.0	-27.71	75.18
90.00	17 57 58	4132.08	-2.15	168.19	83.31	61.76	19 6 50	3532.1	-5.91	161.53
100.00	1 59 17	2524.23	-29.70	61.45	89.53	93.52	2 41 22	1924.2	-28.90	52.73
100.00	19 6 45	3910.12	-.89	151.18	82.61	60.12	20 11 55	3310.1	-4.86	144.64
110.00	3 34 32	2226.27	-33.35	38.39	89.10	97.96	4 11 38	1626.3	-31.89	29.46
110.00	19 48 0	3780.85	2.22	139.43	80.67	55.88	20 51 1	3180.8	-2.27	133.23

DIFFERENTIAL CORRECTIONS

TDE	.3532	TRA	-.3103	TC3	-.3392	BAU	.4505
RDE	.8269	RRA	.1236	RC3	-2.1251	FAU	.07102
FDE	2.0974	FRA	.3789	FC3	-3.9264	BSP	6506
BDE	.8992	BRA	.3340	BC3	2.1520	FSP	-1176

MID-COURSE EXECUTION ACCURACY

SGT	749.4	SGR	2073.2	SG3	378.8		
RRT	.6262	RRF	.9873	RTF	.6419		
SGB	2204.5	R23	.0341	R13	.9871		
SG1	2129.9	SG2	568.7	THA	76.25		

ORBIT DETERMINATION ACCURACY

ST	531.2	SR	1199.7	SS	1270.3		
CRT	.9487	CRS	-.9999	CST	-.9457		
LSA	1818.8	MSA	163.9	SSA	10.5		
EL1	1302.9	EL2	154.6	ALF	66.87		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 325.972

RL	150.68	LAL	.00	LOL	345.91	VL	27.307	GAL	-5.24	AZL	84.55	HCA	148.18	SMA	130.64	ECC	.17800	INC	5.4546
RP	107.48	LAP	2.87	LOP	134.20	VP	38.128	GAP	-.93	AZP	94.64	TAL	205.64	TAP	353.81	RCA	107.38	APO	153.89
RC	80.507	GL	38.66	GP	-57.77	ZAL	119.68	ZAP	82.80	ETS	5.71	ZAE	119.54	ETE	265.94	ZAC	43.42	ETC	253.65

V1	29.570	V2	35.258	CLP	-76.41														

PLANETOCENTRIC CONIC

C3	17.118	VHL	4.137	DLA	22.84	RAL	227.10	RAD	6567.7	VEL	11.769	PTH	2.08	VHP	5.061	DPA	-70.13	RAP	192.14
ECC	1.2817																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 28	2984.66	-28.06	95.32	94.01	86.06	24 40 13	2384.7	-28.31	86.66
90.00	18 42 41	4015.18	-5.89	161.64	87.48	62.25	19 49 36	3415.2	-9.56	154.88
100.00	1 32 54	2667.04	-29.83	72.05	94.12	87.94	2 17 21	2067.0	-29.79	63.25
100.00	19 46 51	3808.03	-4.34	145.56	86.63	60.40	20 50 20	3208.0	-8.25	138.96
110.00	3 16 12	2343.88	-34.09	47.48	94.09	92.63	3 55 16	1743.9	-33.35	38.32
110.00	20 20 3	3703.96	-.72	135.42	84.37	55.82	21 21 47	3104.0	-5.20	129.20

DIFFERENTIAL CORRECTIONS

TDE	.5313	TRA	-.2896	TC3	-.5315	BAU	.4777
RDE	.9905	RRA	.1892	RC3	-2.0186	FAU	.06400
FDE	2.1281	FRA	.4380	FC3	-3.2365	BSP	7071
BDE	1.1240	BRA	.3459	BC3	2.0874	FSP	-1094

MID-COURSE EXECUTION ACCURACY

SGT	961.3	SGR	2180.0	SG3	348.7		
RRT	.7731	RRF	.9891	RTF	.7886		
SGB	2382.5	R23	.0521	R13	.9884		
SG1	2312.1	SG2	574.9	THA	69.88		

ORBIT DETERMINATION ACCURACY

ST	747.3	SR	1375.2	SS	1292.0		
CRT	.9717	CRS	-.9999	CST	-.9707		
LSA	2022.7	MSA	166.0	SSA	9.0		
EL1	1557.4	EL2	155.8	ALF	61.86		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 332.361

```
RL  150.68 LAL    .00 LOL 345.91 VL  27.307 GAL  -5.18 AZL  83.78 HCA 151.40 SMA 130.64 ECC .17744 INC 6.2161 V1  29.570
RP  107.48 LAP   2.97 LOP 137.45 VP  38.127 GAP   -.48 AZP  95.46 TAL 205.39 TAP 356.79 RCA 107.46 APO 153.82 V2  35.257
RC  82.739 GL   42.29 GP  -61.15 ZAL 117.46 ZAP  86.29 ETS    .46 ZAE 116.02 ETE 260.59 ZAC  39.85 ETC 251.67 CLP -82.30
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PLANETOCENTRIC CONIC

```
C3  19.154 VHL  4.376 DLA  26.02 RAL 229.12 RAD 6567.8 VEL 11.855 PTH   2.10 VHP  5.385 DPA -71.00 RAP 181.53 ECC 1.3152
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 4 28	3197.96	-26.12	110.60	98.65	78.65	23 57 46	2598.0	-27.42	102.18
90.00	19 44 48	3854.34	-10.88	152.45	93.20	63.70	20 49 2	3254.3	-14.33	145.47
100.00	0 57 0	2847.83	-28.64	85.35	99.16	81.06	1 44 28	2247.8	-29.58	76.67
100.00	20 38 53	3679.70	-8.61	138.42	91.99	61.26	21 40 12	3079.7	-12.38	131.66
110.00	2 53 49	2482.31	-34.00	58.29	99.86	86.24	3 35 11	1882.3	-34.15	49.04
110.00	20 58 33	3617.98	-4.00	130.93	89.17	56.02	21 58 51	3018.0	-8.44	124.65

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .7687 TRA -.2533 TC3 -.6831 BAU  .5024   SGT 1227.3 SGR 2250.7 SG3  312.4     ST  1012.5 SR  1528.0 SS  1293.6
RDE 1.1630 RRA  .2712 RC3-1.8391 FAU .05584   RRT  .8503 RRF  .9903 RTF  .8664    CRT  .9824 CRS-1.0000 CST -.9825
FDE 2.1167 FRA  .4924 FC3-2.5241 BSP   7637   SGB 2563.6 R23  .0681 R13  .9890    LSA 2237.1 MSA  168.8 SSA     7.7
BDE 1.3941 BRA  .3711 BC3 1.9619 FSP   -989   SG1 2496.6 SG2  582.3 THA  63.58    EL1 1826.2 EL2  158.1 ALF   56.65
```

LAUNCH DATE SEP 9 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 338.719

```
RL  150.68 LAL    .00 LOL 345.91 VL  27.302 GAL  -5.10 AZL  82.85 HCA 154.62 SMA 130.61 ECC .17702 INC 7.1529 V1  29.570
RP  107.49 LAP   3.06 LOP 140.70 VP  38.122 GAP   -.05 AZP  96.47 TAL 205.05 TAP 359.67 RCA 107.49 APO 153.73 V2  35.255
RC  84.985 GL   46.12 GP  -64.59 ZAL 114.95 ZAP  89.28 ETS 354.65 ZAE 112.29 ETE 255.20 ZAC  36.21 ETC 249.22 CLP -88.33
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PLANETOCENTRIC CONIC

```
C3  22.073 VHL  4.698 DLA  29.33 RAL 231.47 RAD 6567.9 VEL 11.977 PTH   2.13 VHP  5.831 DPA -71.45 RAP 170.20 ECC 1.3633
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.02	20 28 26	3771.99	-19.71	150.55	101.89	67.83	21 31 18	3172.0	-22.54	142.95
97.98	22 39 35	3348.16	-19.69	119.44	101.89	67.82	23 35 23	2748.2	-22.53	111.84
100.00	23 44 3	3141.65	-23.81	105.79	103.53	71.37	24 36 24	2541.7	-26.13	97.76
100.00	22 6 39	3453.73	-15.69	125.39	100.02	64.23	23 4 13	2853.7	-19.03	118.19
110.00	2 23 53	2653.29	-32.46	71.38	106.16	78.65	3 8 6	2053.3	-33.69	62.35
110.00	21 47 15	3514.86	-7.90	125.49	95.51	56.63	22 45 49	2914.9	-12.23	119.07

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0840 TRA -.1942 TC3 -.7780 BAU  .5233   SGT 1534.9 SGR 2273.6 SG3  271.9     ST  1324.7 SR  1638.6 SS  1272.8
RDE 1.3371 RRA  .3707 RC3-1.5934 FAU .04706   RRT  .8910 RRF  .9908 RTF  .9090    CRT  .9877 CRS-1.0000 CST -.9886
FDE 2.0629 FRA  .5364 FC3-1.8457 BSP   8226   SGB 2743.2 R23  .0826 R13  .9890    LSA 2455.6 MSA  172.5 SSA     6.5
BDE 1.7213 BRA  .4185 BC3 1.7732 FSP   -872   SG1 2678.7 SG2  591.5 THA  57.17    EL1 2100.9 EL2  161.6 ALF   51.12
```

LAUNCH DATE SEP 9 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 345.044

```
RL  150.68 LAL    .00 LOL 345.91 VL  27.294 GAL  -5.01 AZL  81.66 HCA 157.83 SMA 130.55 ECC .17671 INC 8.3413 V1  29.570
RP  107.50 LAP   3.14 LOP 143.95 VP  38.114 GAP    .37 AZP  97.73 TAL 204.62 TAP   2.46 RCA 107.48 APO 153.62 V2  35.253
RC  87.241 GL   50.12 GP  -68.17 ZAL 112.17 ZAP  91.71 ETS 348.14 ZAE 108.32 ETE 249.58 ZAC  32.43 ETC 246.06 CLP -94.61
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PLANETOCENTRIC CONIC

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C3  26.421 VHL  5.140 DLA  32.72 RAL 234.20 RAD 6568.1 VEL 12.157 PTH   2.18 VHP  6.443 DPA -71.47 RAP 158.28 ECC 1.4348
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.88	19 33 19	4024.75	-20.55	169.94	108.52	63.96	20 40 24	3424.7	-23.88	162.50
107.12	0 0 22	3183.56	-20.54	107.49	108.51	63.95	0 53 25	2583.6	-23.87	100.05
72.88	19 33 19	4024.75	-20.55	169.94	108.52	63.96	20 40 24	3424.7	-23.88	162.50
107.12	0 0 22	3183.56	-20.54	107.49	108.51	63.95	0 53 25	2583.6	-23.87	100.05
110.00	1 33 53	2895.58	-27.87	88.72	111.98	69.36	2 22 8	2295.6	-30.42	80.45
110.00	22 58 59	3360.72	-13.55	117.13	104.49	58.31	23 54 59	2760.7	-17.64	110.41

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.5095 TRA -.0990 TC3 -.8029 BAU  .5364   SGT 1878.7 SGR 2232.3 SG3  229.4     ST  1683.2 SR  1685.4 SS  1232.3
RDE 1.5013 RRA  .4929 RC3-1.2890 FAU .03793   RRT  .9118 RRF  .9905 RTF  .9340    CRT  .9902 CRS -.9999 CST -.9921
FDE 1.9751 FRA  .5708 FC3-1.2430 BSP   8784   SGB 2917.7 R23  .0966 R13  .9886    LSA 2676.0 MSA  177.6 SSA     5.6
BDE 2.1290 BRA  .5028 BC3 1.5186 FSP   -744   SG1 2854.6 SG2  603.3 THA  50.38    EL1 2376.1 EL2  166.8 ALF   45.04
```

LAUNCH DATE SEP 9 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 351.334

```
RL  150.68 LAL    .00 LOL 345.91 VL  27.283 GAL  -4.91 AZL  80.09 HCA 161.03 SMA 130.47 ECC .17650 INC 9.9082 V1  29.570
RP  107.51 LAP   3.21 LOP 147.20 VP  38.102 GAP    .77 AZP  99.38 TAL 204.11 TAP   5.15 RCA 107.44 APO 153.50 V2  35.249
RC  89.506 GL   54.22 GP  -71.99 ZAL 109.15 ZAP  93.51 ETS 340.53 ZAE 104.06 ETE 243.25 ZAC  28.43 ETC 241.65 CLP-101.43
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PLANETOCENTRIC CONIC

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C3  33.237 VHL  5.765 DLA  36.11 RAL 237.34 RAD 6568.3 VEL 12.434 PTH   2.25 VHP  7.299 DPA -70.97 RAP 145.92 ECC 1.5470
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.59	19 8 24	4196.11	-20.57	183.36	116.41	59.64	20 18 21	3596.1	-24.44	176.20
113.41	0 50 22	3127.10	-20.55	103.08	116.40	59.63	1 42 29	2527.1	-24.42	95.92
66.59	19 8 24	4196.11	-20.57	183.36	116.41	59.64	20 18 21	3596.1	-24.44	176.20
113.41	0 50 22	3127.10	-20.55	103.08	116.40	59.63	1 42 29	2527.1	-24.42	95.92
66.59	19 8 24	4196.11	-20.57	183.36	116.41	59.64	20 18 21	3596.1	-24.44	176.20
113.41	0 50 22	3127.10	-20.55	103.08	116.40	59.63	1 42 29	2527.1	-24.42	95.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.0988 TRA  .0553 TC3 -.7534 BAU  .5382   SGT 2260.5 SGR 2098.2 SG3  187.5     ST  2086.1 SR  1626.3 SS  1174.2
RDE 1.6188 RRA  .6394 RC3 -.9482 FAU .02897   RRT  .9190 RRF  .9884 RTF  .9504    CRT  .9908 CRS -.9996 CST -.9942
FDE 1.8604 FRA  .5935 FC3 -.7547 BSP   9324   SGB 3084.2 R23  .1101 R13  .9880    LSA 2888.2 MSA  184.6 SSA     4.7
BDE 2.6506 BRA  .6418 BC3 1.2111 FSP   -615   SG1 3021.5 SG2  618.7 THA  42.68    EL1 2639.4 EL2  174.3 ALF   37.88
```

LAUNCH DATE SEP 9 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 357.581

RL	150.68	LAL	.00	LOL	345.91	VL	27.268	GAL	-4.80	AZL	77.92	HCA	164.21	SMA	130.37	ECC	.17638	INC	12.0812	V1	29.570		
RP	107.52	LAP	3.26	LOP	150.45	VP	38.088	GAP	1.16	AZP	101.64	TAL	203.52	TAP	7.73	RCA	107.37	APO	153.36	V2	35.245		
RC	91.778	GL	58.29	GP	-76.16	ZAL	105.94	ZAP	94.64	ETS	330.76	ZAE	99.40	ETE	235.07	ZAC	24.05	ETC	234.71	CLP	-109.76		

PLANETOCENTRIC CONIC

C3	44.693	VHL	6.685	DLA	39.35	RAL	240.95	RAD	6568.7	VEL	12.886	PTH	2.35	VHP	8.536	DPA	-69.79	RAP	133.30	ECC	1.7355		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.44	18 56 44	4346.87	-19.35	194.87	125.62	55.04	20 9 10	3746.9	-23.79	188.13
118.56	1 30 50	3125.82	-19.33	102.15	125.61	55.03	2 22 56	2525.8	-23.77	95.41
61.44	18 56 44	4346.87	-19.35	194.87	125.62	55.04	20 9 10	3746.9	-23.79	188.13
118.56	1 30 50	3125.82	-19.33	102.15	125.61	55.03	2 22 56	2525.8	-23.77	95.41
61.44	18 56 44	4346.87	-19.35	194.87	125.62	55.04	20 9 10	3746.9	-23.79	188.13
118.56	1 30 50	3125.82	-19.33	102.15	125.61	55.03	2 22 56	2525.8	-23.77	95.41

DIFFERENTIAL CORRECTIONS

TDE	2.9523	TRA	.3214	TC3	-.6315	BAU	.5183
RDE	1.5776	RRA	.8037	RC3	-.5946	FAU	.02043
FDE	1.7338	FRA	.6079	FC3	-.3957	BSP	9828
BDE	3.3474	BRA	.8656	BC3	.8674	FSP	-491

MID-COURSE EXECUTION ACCURACY

SGT	2691.1	SGR	1803.8	SG3	148.2		
RRT	.9084	RRF	.9793	RTF	.9633		
SGB	3239.7	R23	.1232	R13	.9874		
SG1	3176.1	SG2	638.9	THA	32.83		

ORBIT DETERMINATION ACCURACY

ST	2532.7	SR	1378.4	SS	1106.1		
CRT	.9883	CRS	-.9982	CST	-.9957		
LSA	3082.2	MSA	194.5	SSA	3.8		
EL1	2877.5	EL2	185.0	ALF	28.40		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 363.770

RL	150.68	LAL	.00	LOL	345.91	VL	27.250	GAL	-4.67	AZL	74.69	HCA	167.36	SMA	130.24	ECC	.17631	INC	15.3093	V1	29.570		
RP	107.53	LAP	3.31	LOP	153.70	VP	38.071	GAP	1.52	AZP	104.96	TAL	202.82	TAP	10.19	RCA	107.28	APO	153.21	V2	35.240		
RC	94.056	GL	62.03	GP	-80.78	ZAL	102.61	ZAP	95.06	ETS	315.48	ZAE	94.13	ETE	221.57	ZAC	19.04	ETC	221.53	CLP	-123.38		

PLANETOCENTRIC CONIC

C3	65.929	VHL	8.120	DLA	42.16	RAL	245.04	RAD	6569.3	VEL	13.685	PTH	2.50	VHP	10.435	DPA	-67.60	RAP	120.76	ECC	2.0850		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.36	18 54 51	4493.48	-16.46	205.12	136.01	50.62	20 9 44	3893.5	-21.42	198.90
122.64	2 5 21	3170.86	-16.45	103.70	136.00	50.62	2 58 12	2570.9	-21.41	97.48
57.36	18 54 51	4493.48	-16.46	205.12	136.01	50.62	20 9 44	3893.5	-21.42	198.90
122.64	2 5 21	3170.86	-16.45	103.70	136.00	50.62	2 58 12	2570.9	-21.41	97.48
57.36	18 54 51	4493.48	-16.46	205.12	136.01	50.62	20 9 44	3893.5	-21.42	198.90
122.64	2 5 21	3170.86	-16.45	103.70	136.00	50.62	2 58 12	2570.9	-21.41	97.48

DIFFERENTIAL CORRECTIONS

TDE	4.2213	TRA	.8320	TC3	-.4471	BAU	.4559
RDE	.9679	RRA	.9098	RC3	-.2600	FAU	.01248
FDE	1.6194	FRA	.6233	FC3	-.1639	BSP	10295
BDE	4.3309	BRA	1.2329	BC3	.5172	FSP	-379

MID-COURSE EXECUTION ACCURACY

SGT	3166.6	SGR	1181.0	SG3	113.6		
RRT	.8094	RRF	.9059	RTF	.9769		
SGB	3379.7	R23	.1343	R13	.9873		
SG1	3314.1	SG2	662.7	THA	17.52		

ORBIT DETERMINATION ACCURACY

ST	2988.3	SR	730.9	SS	1042.7		
CRT	.9599	CRS	-.9782	CST	-.9972		
LSA	3241.6	MSA	207.9	SSA	3.0		
EL1	3069.9	EL2	199.4	ALF	13.27		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 369.870

RL	150.68	LAL	.00	LOL	345.91	VL	27.230	GAL	-4.51	AZL	69.40	HCA	170.45	SMA	130.10	ECC	.17625	INC	20.6031	V1	29.570		
RP	107.55	LAP	3.35	LOP	156.95	VP	38.051	GAP	1.86	AZP	110.34	TAL	202.01	TAP	12.46	RCA	107.17	APO	153.03	V2	35.235		
RC	96.339	GL	64.82	GP	-85.08	ZAL	99.26	ZAP	94.76	ETS	282.53	ZAE	87.74	ETE	190.48	ZAC	12.91	ETC	189.05	CLP	-165.42		

PLANETOCENTRIC CONIC

C3	111.418	VHL	10.555	DLA	43.93	RAL	249.52	RAD	6570.1	VEL	15.256	PTH	2.74	VHP	13.617	DPA	-63.81	RAP	108.77	ECC	2.8337		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.89	19 2 43	4637.89	-11.69	213.68	147.14	47.34	20 20 0	4037.9	-17.04	207.95
125.11	2 33 15	3261.33	-11.67	107.45	147.13	47.34	3 27 36	2661.3	-17.02	101.73
54.89	19 2 43	4637.89	-11.69	213.68	147.14	47.34	20 20 0	4037.9	-17.04	207.95
125.11	2 33 15	3261.33	-11.67	107.45	147.13	47.34	3 27 36	2661.3	-17.02	101.73
54.89	19 2 43	4637.89	-11.69	213.68	147.14	47.34	20 20 0	4037.9	-17.04	207.95
125.11	2 33 15	3261.33	-11.67	107.45	147.13	47.34	3 27 36	2661.3	-17.02	101.73

DIFFERENTIAL CORRECTIONS

TDE	5.5704	TRA	1.8487	TC3	-.1945	BAU	.2901
RDE	-1.7552	RRA	.3733	RC3	-.0103	FAU	.00465
FDE	1.5680	FRA	.6657	FC3	-.0362	BSP	10589
BDE	5.8403	BRA	1.8860	BC3	.1948	FSP	-284

MID-COURSE EXECUTION ACCURACY

SGT	3354.5	SGR	993.6	SG3	85.6		
RRT	-.7439	RRF	-.6784	RTF	.9939		
SGB	3498.6	R23	-.1340	R13	-.9891		
SG1	3438.1	SG2	647.8	THA	167.11		

ORBIT DETERMINATION ACCURACY

ST	3052.4	SR	956.4	SS	1016.9		
CRT	-.9746	CRS	.9655	CST	-.9993		
LSA	3349.8	MSA	212.1	SSA	2.0		
EL1	3192.2	EL2	204.8	ALF	162.95		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 375.783

RL	150.68	LAL	.00	LOL	345.91	VL	27.207	GAL	-4.32	AZL	59.32	HCA	173.37	SMA	129.94	ECC	.17606	INC	30.6755	V1	29.570		
RP	107.57	LAP	3.37	LOP	160.20	VP	38.029	GAP	2.14	AZP	120.51	TAL	201.01	TAP	14.38	RCA	107.06	APO	152.82	V2	35.229		
RC	98.624	GL	65.06	GP	-81.49	ZAL	96.03	ZAP	93.79	ETS	224.56	ZAE	78.95	ETE	134.29	ZAC	4.45	ETC	121.94	CLP	116.53		

PLANETOCENTRIC CONIC

C3	233.002	VHL	15.264	DLA	43.20	RAL	253.97	RAD	6571.3	VEL	18.823	PTH	3.07	VHP	19.719	DPA	-57.04	RAP	97.84	ECC	4.8346		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.91	19 24 30	4755.26	-5.64	218.53	157.95	47.10	20 43 45	4155.3	-11.04	212.99
124.09	2 46 56	3400.35	-5.62	114.26	157.94	47.10	3 43 36	2800.4	-11.03	108.71
55.91	19 24 30	4755.26	-5.64	218.53	157.95	47.10	20 43 45	4155.3	-11.04	212.99
124.09	2 46 56	3400.35	-5.62	114.26	157.94	47.10	3 43 36	2800.4	-11.03	108.71
55.91	19 24 30	4755.26	-5.64	218.53	157.95	47.10	20 43 45	4155.3	-11.04	212.99
124.09	2 46 56	3400.35	-5.62	114.26	157.94	47.10	3 43 36	2800.4	-11.03	108.71

DIFFERENTIAL CORRECTIONS

TDE	3.3358	TRA	2.2119	TC3	.0005	BAU	.2210
RDE	-7.7028	RRA	-2.3254	RC3	-.0709	FAU	-.00548
FDE	1.6896	FRA	.8078	FC3	.0204	BSP	10682
BDE	8.3941	BRA	3.2093	BC3	.0709	FSP	-213

MID-COURSE EXECUTION ACCURACY

SGT	1692.6	SGR	3136.9	SG3	65.7		
RRT	-.9387	RRF	-.9824	RTF	.9844		
SGB	3564.4	R23	-.1047	R13	-.9933		
SG1	3526.4	SG2	518.9	THA	117.51		

ORBIT DETERMINATION ACCURACY

ST	1297.9	SR	2913.5	SS	1101.2		
CRT	-.9898	CRS	.9975	CST	-.9974		
LSA	3369.7	MSA	176.0	SSA	1.8		
EL1	3185.0	EL2	169.0	ALF	113.87		

LAUNCH DATE SEP 9 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 381.155

RL 150.68 LAL .00 LOL 345.91 VL 27.182 GAL -4.01 AZL 35.90 HCA 175.81 SMA 129.77 ECC .17531 INC54.0986 V1 29.570
RP 107.59 LAP 3.39 LOP 163.45 VP 38.005 GAP 2.27 AZP 144.03 TAL 199.51 TAP 15.32 RCA 107.02 APO 152.52 V2 35.222
RC 100.910 GL 57.96 GP -66.99 ZAL 93.22 ZAP 92.36 ETS 194.12 ZAE 63.71 ETE 105.54 ZAC 10.79 ETC 293.53 CLP 96.04

PLANETOCENTRIC CONIC

C3 671.329 VHL 25.910 DLA 35.43 RAL 257.03 RAD 6572.6 VEL 28.154 PTH 3.42 VHP 33.464 DPA -43.14 RAP 88.56 ECC12.0484

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.76	20 33 26	4698.30	-.62	209.71	166.17	54.58	21 51 44	4098.3	-5.25	203.58
112.24	2 2 23	3668.14	-.61	132.52	166.16	54.58	3 3 31	3068.1	-5.23	126.40
67.76	20 33 26	4698.30	-.62	209.71	166.17	54.58	21 51 44	4098.3	-5.25	203.58
112.24	2 2 23	3668.14	-.61	132.52	166.16	54.58	3 3 31	3068.1	-5.23	126.40
67.76	20 33 26	4698.30	-.62	209.71	166.17	54.58	21 51 44	4098.3	-5.25	203.58
112.24	2 2 23	3668.14	-.61	132.52	166.16	54.58	3 3 31	3068.1	-5.23	126.40

DIFFERENTIAL CORRECTIONS
TDE-1.9234 TRA 1.2493 TC3 -.0439 BAU 1.8965
RD-12.4007 RRA-6.1317 RC3 -.2067 FAU-.03105
FDE 2.2059 FRA 1.3055 FC3 .0400 BSP 10061
BDE12.5490 BRA 6.2577 BC3 .2113 FSP -171

MID-COURSE EXECUTION ACCURACY
SGT 589.6 SGR 3381.7 SG3 55.1
RRT .4243 RRF -.9969 RTF -.3580
SGB 3432.7 R23 -.0836 R13 -.9960
SG1 3391.1 SG2 532.4 THA 85.66

ORBIT DETERMINATION ACCURACY
ST 437.4 SR 2787.5 SS 1443.6
CRT .9152 CRS .9994 CST .9008
LSA 3164.1 MSA 183.1 SSA 1.7
EL1 2816.2 EL2 174.5 ALF 81.80

LAUNCH DATE SEP 9 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 392.056

RL 150.68 LAL .00 LOL 345.91 VL 27.155 GAL -4.78 AZL 166.94 HCA 183.48 SMA 129.58 ECC .18242 INC76.9391 V1 29.570
RP 107.61 LAP 3.39 LOP 166.70 VP 37.978 GAP 3.92 AZP 13.08 TAL 202.42 TAP 25.91 RCA 105.94 APO 153.22 V2 35.215
RC 103.196 GL -48.26 GP 54.06 ZAL 92.95 ZAP 93.09 ETS 181.52 ZAE 57.80 ETE 267.90 ZAC 131.33 ETC 278.76 CLP 95.27

PLANETOCENTRIC CONIC

C31248.161 VHL 35.329 DLA -69.34 RAL 233.16 RAD 6573.1 VEL 37.006 PTH 3.54 VHP 45.589 DPA 76.24 RAP 57.23 ECC21.5416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.63	4 30 23	2444.68	-.98	77.89	143.51	159.34	5 11 8	1844.7	6.51	75.47
156.37	14 54 59	695.43	-.97	288.64	143.53	159.34	15 6 34	95.4	6.51	286.22
23.63	4 30 23	2444.68	-.98	77.89	143.51	159.34	5 11 8	1844.7	6.51	75.47
156.37	14 54 59	695.43	-.97	288.64	143.53	159.34	15 6 34	95.4	6.51	286.22
23.63	4 30 23	2444.68	-.98	77.89	143.51	159.34	5 11 8	1844.7	6.51	75.47
156.37	14 54 59	695.43	-.97	288.64	143.53	159.34	15 6 34	95.4	6.51	286.22

DIFFERENTIAL CORRECTIONS
TDE 6.4988 TRA .9512 TC3 -.1053 BAU 3.9004
RD-14.8567 RRA .6936 RC3 .2087 FAU-.06311
FDE-3.3870 FRA .1569 FC3 .0438 BSP 9187
BDE16.2159 BRA 1.1772 BC3 .2337 FSP -165

MID-COURSE EXECUTION ACCURACY
SGT 1362.1 SGR 2842.8 SG3 54.8
RRT -.9031 RRF .9993 RTF -.8996
SGB 3152.2 R23 -.0838 R13 .9959
SG1 3106.5 SG2 535.3 THA 114.16

ORBIT DETERMINATION ACCURACY
ST 1062.3 SR 2411.7 SS 2165.5
CRT -.9867 CRS-1.0000 CST .9867
LSA 3407.0 MSA 164.4 SSA 2.4
EL1 2630.5 EL2 158.5 ALF 113.58

LAUNCH DATE SEP 9 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 396.700

RL 150.68 LAL .00 LOL 345.91 VL 27.126 GAL -4.32 AZL 130.09 HCA 185.27 SMA 129.39 ECC .18058 INC40.0890 V1 29.570
RP 107.64 LAP 3.39 LOP 169.94 VP 37.950 GAP 3.84 AZP 50.03 TAL 200.33 TAP 25.60 RCA 106.02 APO 152.75 V2 35.207
RC 105.482 GL -62.63 GP 74.63 ZAL 94.67 ZAP 95.42 ETS 172.43 ZAE 79.42 ETE 258.78 ZAC 151.83 ETC 278.48 CLP 110.86

PLANETOCENTRIC CONIC

C3 384.710 VHL 19.614 DLA -78.95 RAL 189.33 RAD 6572.1 VEL 22.495 PTH 3.26 VHP 25.335 DPA 80.85 RAP 272.17 ECC 7.3313

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.58	1 12 53	2391.48	4.06	82.63	98.52	168.92	1 52 44	1791.5	11.91	81.48
167.42	12 22 49	5884.52	4.06	260.12	98.54	168.92	14 0 53	5284.5	11.91	258.97
12.58	1 12 53	2391.48	4.06	82.63	98.52	168.92	1 52 44	1791.5	11.91	81.48
167.42	12 22 49	5884.52	4.06	260.12	98.54	168.92	14 0 53	5284.5	11.91	258.97
12.58	1 12 53	2391.48	4.06	82.63	98.52	168.92	1 52 44	1791.5	11.91	81.48
167.42	12 22 49	5884.52	4.06	260.12	98.54	168.92	14 0 53	5284.5	11.91	258.97

DIFFERENTIAL CORRECTIONS
TDE .9788 TRA .5737 TC3 -.0498 BAU .9152
RDE-8.9698 RRA-1.6051 RC3 .1708 FAU-.01234
FDE-1.9381 FRA -.3111 FC3 .0278 BSP 11515
BDE 9.0230 BRA 1.7046 BC3 .1779 FSP -202

MID-COURSE EXECUTION ACCURACY
SGT 940.4 SGR 3646.6 SG3 64.5
RRT -.8803 RRF .9979 RTF -.8514
SGB 3766.0 R23 -.0835 R13 .9960
SG1 3740.8 SG2 434.9 THA 102.97

ORBIT DETERMINATION ACCURACY
ST 388.1 SR 2721.1 SS 1277.8
CRT -.8919 CRS -.9996 CST .8794
LSA 3025.9 MSA 178.8 SSA 1.5
EL1 2743.1 EL2 174.1 ALF 97.28

LAUNCH DATE SEP 9 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 402.346

RL 150.68 LAL .00 LOL 345.91 VL 27.095 GAL -4.05 AZL 114.94 HCA 188.02 SMA 129.18 ECC .18042 INC24.9416 V1 29.570
RP 107.66 LAP 3.37 LOP 173.18 VP 37.921 GAP 4.04 AZP 65.27 TAL 198.98 TAP 27.00 RCA 105.87 APO 152.48 V2 35.198
RC 107.765 GL -65.19 GP 80.51 ZAL 96.71 ZAP 98.87 ETS 118.56 ZAE 90.74 ETE 204.91 ZAC 160.62 ETC 241.81 CLP 159.26

PLANETOCENTRIC CONIC

C3 157.658 VHL 12.556 DLA -77.68 RAL 172.29 RAD 6570.7 VEL 16.703 PTH 2.89 VHP 16.284 DPA 69.53 RAP 255.24 ECC 3.5946

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.03	0 7 46	2267.24	12.16	80.53	79.58	167.39	0 45 34	1667.2	19.96	79.10
165.97	11 11 59	5764.55	12.16	259.43	79.60	167.39	12 48 3	5164.5	19.96	258.00
14.03	0 7 46	2267.24	12.16	80.53	79.58	167.39	0 45 34	1667.2	19.96	79.10
165.97	11 11 59	5764.55	12.16	259.43	79.60	167.39	12 48 3	5164.5	19.96	258.00
14.03	0 7 46	2267.24	12.16	80.53	79.58	167.39	0 45 34	1667.2	19.96	79.10
165.97	11 11 59	5764.55	12.16	259.43	79.60	167.39	12 48 3	5164.5	19.96	258.00

DIFFERENTIAL CORRECTIONS
TDE-3.3449 TRA-1.0515 TC3 -.0384 BAU .0846
RDE-2.2352 RRA-1.2864 RC3 -.0115 FAU .00531
FDE-1.1314 FRA -.3815 FC3 -.0291 BSP 12515
BDE 4.0230 BRA 1.6614 BC3 .0401 FSP -271

MID-COURSE EXECUTION ACCURACY
SGT 2719.6 SGR 2934.2 SG3 83.7
RRT .9707 RRF .9761 RTF .9987
SGB 4000.7 R23 -.1026 R13 .9938
SG1 3971.5 SG2 482.6 THA 47.24

ORBIT DETERMINATION ACCURACY
ST 1668.8 SR 1312.0 SS 803.9
CRT .9653 CRS -.9719 CST -.9996
LSA 2252.9 MSA 277.0 SSA 1.6
EL1 2105.4 EL2 271.5 ALF 37.94

LAUNCH DATE SEP 9 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 408.255

RL	150.68	LAL	.00	LOL	345.91	VL	27.064	GAL	-3.82	AZL	107.74	HCA	191.03	SMA	128.96	ECC	.18078
RP	107.69	LAP	3.34	LOP	176.43	VP	37.889	GAP	4.31	AZP	72.56	TAL	197.81	TAP	28.84	RCA	105.65
RC	110.046	GL	-63.62	GP	76.64	ZAL	98.50	ZAP	102.87	ETS	66.04	ZAE	98.09	ETE	152.90	ZAC	163.19

INC	17.7449	V1	29.570	APO	152.27	V2	35.189	ETC	212.48	CLP	-164.55						

PLANETOCENTRIC CONIC

C3	84.389	VHL	9.186	DLA	-75.76	RAL	176.12	RAD	6569.7	VEL	14.344	PTH	2.61	VHP	12.017	DPA	61.42

RAP	249.22	ECC	2.3888														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.22	0 27 26	2137.29	20.37	77.26	80.70	164.79	1 3 3	1537.3	28.07	75.31
163.78	11 22 51	5642.00	20.37	258.34	80.72	164.79	12 56 53	5042.0	28.08	256.38
16.22	0 27 26	2137.29	20.37	77.26	80.70	164.79	1 3 3	1537.3	28.07	75.31
163.78	11 22 51	5642.00	20.37	258.34	80.72	164.79	12 56 53	5042.0	28.08	256.38
16.22	0 27 26	2137.29	20.37	77.26	80.70	164.79	1 3 3	1537.3	28.07	75.31
163.78	11 22 51	5642.00	20.37	258.34	80.72	164.79	12 56 53	5042.0	28.08	256.38

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.9664	TRA	-1.3911	TC3	-.3614	BAU	.4128	SGT	4038.5	SGR	784.4	SG3	110.2	ST	2131.6	SR	753.7
RDE	1.2045	RRA	.0788	RC3	.0569	FAU	.01562	RRT	-.6832	RRF	-.7857	RTF	.9860	CRT	-.9048	CRS	.9541
FDE	-1.1866	FRA	-.3926	FC3	-.1602	BSP	12842	SGB	4113.9	R23	.1348	R13	-.9887	LSA	2387.5	MSA	313.6
BDE	3.2017	BRA	1.3933	BC3	.3659	FSP	-358	SGI	4074.6	SG2	567.7	THA	172.29	ELI	2240.2	EL2	305.5

SST	828.7	CST	-.9908	SSA	2.4	ALF	161.91										

LAUNCH DATE SEP 9 1970 FLIGHT TIME 144.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 414.248

RL	150.68	LAL	.00	LOL	345.91	VL	27.030	GAL	-3.60	AZL	103.65	HCA	194.14	SMA	128.74	ECC	.18137
RP	107.72	LAP	3.30	LOP	179.66	VP	37.856	GAP	4.60	AZP	76.75	TAL	196.68	TAP	30.82	RCA	105.39
RC	112.324	GL	-60.65	GP	70.74	ZAL	99.89	ZAP	107.15	ETS	54.49	ZAE	103.68	ETE	142.42	ZAC	161.89

INC	13.6469	V1	29.570	APO	152.08	V2	35.179	ETC	221.60	CLP	-153.38						

PLANETOCENTRIC CONIC

C3	53.318	VHL	7.302	DLA	-73.78	RAL	184.79	RAD	6568.9	VEL	13.217	PTH	2.41	VHP	9.687	DPA	54.59

RAP	245.42	ECC	1.8775														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.50	1 6 40	2023.60	27.25	73.37	86.17	161.69	1 40 23	1423.6	34.81	70.74
161.50	11 52 51	5537.23	27.26	256.72	86.19	161.69	13 25 9	4937.2	34.82	254.09
18.50	1 6 40	2023.60	27.25	73.37	86.17	161.69	1 40 23	1423.6	34.81	70.74
161.50	11 52 51	5537.23	27.26	256.72	86.19	161.69	13 25 9	4937.2	34.82	254.09
18.50	1 6 40	2023.60	27.25	73.37	86.17	161.69	1 40 23	1423.6	34.81	70.74
161.50	11 52 51	5537.23	27.26	256.72	86.19	161.69	13 25 9	4937.2	34.82	254.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6542	TRA	-1.1215	TC3	-.7492	BAU	.5602	SGT	3932.4	SGR	1387.1	SG3	140.0	ST	2287.4	SR	1183.0
RDE	1.4859	RRA	.2373	RC3	.2374	FAU	.02395	RRT	-.8998	RRF	-.9682	RTF	.9742	CRT	-.9674	CRS	.9941
FDE	-1.4013	FRA	-.3724	FC3	-.3889	BSP	12835	SGB	4169.8	R23	.1656	R13	-.9827	LSA	2732.9	MSA	280.9
BDE	3.0419	BRA	1.1463	BC3	.7859	FSP	-447	SGI	4129.8	SG2	576.1	THA	162.03	ELI	2561.3	EL2	267.8

SST	957.1	CST	-.9891	SSA	3.1	ALF	153.10										

LAUNCH DATE SEP 9 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 420.266

RL	150.68	LAL	.00	LOL	345.91	VL	26.996	GAL	-3.39	AZL	101.01	HCA	197.29	SMA	128.50	ECC	.18212
RP	107.75	LAP	3.26	LOP	182.90	VP	37.822	GAP	4.90	AZP	79.47	TAL	195.54	TAP	32.84	RCA	105.10
RC	114.599	GL	-57.18	GP	64.91	ZAL	100.82	ZAP	111.53	ETS	51.06	ZAE	108.21	ETE	140.59	ZAC	158.66

INC	11.0122	V1	29.570	APO	151.91	V2	35.169	ETC	231.95	CLP	-149.92						

PLANETOCENTRIC CONIC

C3	37.520	VHL	6.125	DLA	-71.63	RAL	193.99	RAD	6568.5	VEL	12.605	PTH	2.29	VHP	8.287	DPA	48.46

RAP	242.79	ECC	1.6175														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.98	1 48 30	1929.77	32.50	68.87	91.77	158.06	2 20 40	1329.8	39.86	65.41
159.02	12 24 25	5454.66	32.51	254.76	91.79	158.06	13 55 19	4854.7	39.87	251.29
20.98	1 48 30	1929.77	32.50	68.87	91.77	158.06	2 20 40	1329.8	39.86	65.41
159.02	12 24 25	5454.66	32.51	254.76	91.79	158.06	13 55 19	4854.7	39.87	251.29
20.98	1 48 30	1929.77	32.50	68.87	91.77	158.06	2 20 40	1329.8	39.86	65.41
159.02	12 24 25	5454.66	32.51	254.76	91.79	158.06	13 55 19	4854.7	39.87	251.29

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5942	TRA	-.9424	TC3	-1.2305	BAU	.6528	SGT	3998.2	SGR	1549.2	SG3	174.9	ST	2568.0	SR	1335.2
RDE	1.4135	RRA	.2083	RC3	.4238	FAU	.03203	RRT	-.9236	RRF	-.9826	RTF	.9682	CRT	-.9813	CRS	.9982
FDE	-1.6072	FRA	-.3403	FC3	-.7391	BSP	13420	SGB	4287.8	R23	.1839	R13	-.9781	LSA	3085.8	MSA	247.8
BDE	2.9543	BRA	.9652	BC3	1.3014	FSP	-571	SGI	4251.3	SG2	558.6	THA	159.95	ELI	2885.3	EL2	228.7

SST	1098.3	CST	-.9910	SSA	4.0	ALF	152.78										

LAUNCH DATE SEP 9 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 426.292

RL	150.68	LAL	.00	LOL	345.91	VL	26.961	GAL	-3.16	AZL	99.17	HCA	200.47	SMA	128.27	ECC	.18300
RP	107.79	LAP	3.20	LOP	186.14	VP	37.787	GAP	5.20	AZP	81.40	TAL	194.39	TAP	34.86	RCA	104.79
RC	116.871	GL	-53.56	GP	59.44	ZAL	101.27	ZAP	115.87	ETS	49.71	ZAE	111.94	ETE	141.28	ZAC	154.74

INC	9.1730	V1	29.570	APO	151.74	V2	35.158	ETC	239.15	CLP	-149.11						

PLANETOCENTRIC CONIC

C3	28.455	VHL	5.334	DLA	-69.32	RAL	202.55	RAD	6568.1	VEL	12.240	PTH	2.20	VHP	7.399	DPA	42.82

RAP	240.97	ECC	1.4683														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.65	2 28 20	1853.14	36.27	63.90	96.46	154.03	2 59 13	1253.1	43.37	59.51
156.35	12 52 49	5392.06	36.28	252.58	96.47	154.02	14 22 42	4792.1	43.38	248.19
23.65	2 28 20	1853.14	36.27	63.90	96.46	154.03	2 59 13	1253.1	43.37	59.51
156.35	12 52 49	5392.06	36.28	252.58	96.47	154.02	14 22 42	4792.1	43.38	248.19
23.65	2 28 20	1853.14	36.27	63.90	96.46	154.03	2 59 13	1253.1	43.37	59.51
156.35	12 52 49	5392.06	36.28	252.58	96.47	154.02	14 22 42	4792.1	43.38	248.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.5250	TRA	-.7854	TC3	-1.7675	BAU	.7073	SGT	4076.7	SGR	1538.6	SG3	206.4	ST	2805.8	SR	1349.3
RDE	1.2504	RRA	.1411	RC3	.5771	FAU	.03869	RRT	-.9294	RRF	-.9851	RTF	.9634	CRT	-.9868	CRS	.9993
FDE	-1.7265	FRA	-.2729	FC3	-1.1772	BSP	13619	SGB	4357.3	R23	.2004	R13	-.9732	LSA	3327.8	MSA	223.9
BDE	2.8177	BRA	.7980	BC3	1.8593	FSP	-671	SGI	4324.3	SG2	535.4	THA	160.36	ELI	3107.1	EL2	197.6

SST	1196.3	CST	-.9922	SSA	4.8	ALF	154.50										

LAUNCH DATE SEP 9 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 432.313

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RL  150.68 LAL    .00 LOL 345.91 VL  26.924 GAL  -2.93 AZL  97.81 HCA 203.66 SMA 128.02 ECC .18399 INC 7.8114 V1  29.570
RP  107.82 LAP   3.13 LOP 189.37 VP  37.751 GAP   5.50 AZP  82.84 TAL 193.22 TAP  36.87 RCA 104.47 APO 151.58 V2  35.147
RC 119.138 GL  -49.94 GP   54.41 ZAL 101.26 ZAP 120.06 ETS  49.05 ZAE 115.01 ETE 142.97 ZAC 150.75 ETC 243.97 CLP-149.40
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PLANETOCENTRIC CONIC

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C3  22.797 VHL  4.775 DLA -66.92 RAL 210.25 RAD 6567.9 VEL 12.007 PTH   2.14 VHP  6.818 DPA  37.62 RAP 239.77 ECC 1.3752
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.45	3 5 12	1790.02	38.81	58.65	100.19	149.79	3 35 2	1190.0	45.59	53.33
153.55	13 17 25	5345.79	38.82	250.34	100.21	149.79	14 46 30	4745.8	45.60	245.02
26.45	3 5 12	1790.02	38.81	58.65	100.19	149.79	3 35 2	1190.0	45.59	53.33
153.55	13 17 25	5345.79	38.82	250.34	100.21	149.79	14 46 30	4745.8	45.60	245.02
26.45	3 5 12	1790.02	38.81	58.65	100.19	149.79	3 35 2	1190.0	45.59	53.33
153.55	13 17 25	5345.79	38.82	250.34	100.21	149.79	14 46 30	4745.8	45.60	245.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4334 TRA -.6481 TC3-2.3553 BAU  .7487   SGT 4185.7 SGR 1474.0 SG3  234.6      ST  2980.9 SR  1294.3 SS  1250.5
RDE 1.0768 RRA  .0790 RC3  .6981 FAU .04421   RRT -.9324 RRF -.9846 RTF  .9604     CRT -.9895 CRS  .9997 CST -.9928
FDE-1.7628 FRA -.1863 FC3-1.6790 BSP  13887   SGB 4437.7 R23  .2097 R13 -.9692     LSA 3476.0 MSA  206.0 SSA    5.8
BDE 2.6610 BRA  .6529 BC3 2.4565 FSP   -763   SG1 4408.7 SG2  506.0 THA 161.57     EL1 3245.2 EL2  171.9 ALF 156.68
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 438.325

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RL  150.68 LAL    .00 LOL 345.91 VL  26.887 GAL  -2.69 AZL  96.76 HCA 206.85 SMA 127.78 ECC .18510 INC 6.7580 V1  29.570
RP  107.86 LAP   3.05 LOP 192.60 VP  37.714 GAP   5.80 AZP  83.96 TAL 192.02 TAP  38.87 RCA 104.13 APO 151.43 V2  35.136
RC 121.402 GL  -46.40 GP   49.84 ZAL 100.81 ZAP 124.03 ETS  48.62 ZAE 117.50 ETE 145.09 ZAC 146.94 ETC 247.31 CLP-150.20
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PLANETOCENTRIC CONIC

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C3  19.047 VHL  4.364 DLA -64.46 RAL 217.19 RAD 6567.8 VEL 11.850 PTH   2.10 VHP  6.435 DPA  32.85 RAP 239.06 ECC 1.3135
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.32	3 39 26	1737.03	40.37	53.32	103.21	145.54	4 8 23	1137.0	46.79	47.13
150.68	13 38 33	5312.64	40.38	248.20	103.23	145.53	15 7 6	4712.6	46.80	242.02
29.32	3 39 26	1737.03	40.37	53.32	103.21	145.54	4 8 23	1137.0	46.79	47.13
150.68	13 38 33	5312.64	40.38	248.20	103.23	145.53	15 7 6	4712.6	46.80	242.02
29.32	3 39 26	1737.03	40.37	53.32	103.21	145.54	4 8 23	1137.0	46.79	47.13
150.68	13 38 33	5312.64	40.38	248.20	103.23	145.53	15 7 6	4712.6	46.80	242.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3223 TRA -.5177 TC3-2.9703 BAU  .7822   SGT 4301.4 SGR 1386.1 SG3  257.6      ST  3086.2 SR  1203.8 SS  1261.3
RDE  .9166 RRA  .0261 RC3  .7827 FAU .04839   RRT -.9335 RRF -.9824 RTF  .9585     CRT -.9910 CRS  .9999 CST -.9928
FDE-1.7266 FRA -.0841 FC3-2.1993 BSP  14165   SGB 4519.2 R23  .2135 R13 -.9658     LSA 3539.4 MSA  192.6 SSA    6.9
BDE 2.4966 BRA  .5183 BC3 3.0717 FSP   -839   SG1 4494.1 SG2  475.8 THA 163.06     EL1 3309.2 EL2  150.3 ALF 158.82
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 444.325

```
RL  150.68 LAL    .00 LOL 345.91 VL  26.849 GAL  -2.45 AZL  95.91 HCA 210.05 SMA 127.53 ECC .18633 INC 5.9144 V1  29.570
RP  107.89 LAP   2.96 LOP 195.83 VP  37.676 GAP   6.10 AZP  84.88 TAL 190.79 TAP  40.84 RCA 103.77 APO 151.29 V2  35.124
RC 123.660 GL  -42.95 GP   45.72 ZAL  99.94 ZAP 127.74 ETS  48.28 ZAE 119.49 ETE 147.36 ZAC 143.43 ETC 249.72 CLP-151.25
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PLANETOCENTRIC CONIC

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C3  16.454 VHL  4.056 DLA -62.00 RAL 223.51 RAD 6567.7 VEL 11.740 PTH   2.07 VHP  6.186 DPA  28.49 RAP 238.76 ECC 1.2708
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.23	4 11 35	1691.54	41.16	48.04	105.80	141.42	4 39 46	1091.5	47.19	41.12
147.77	13 56 50	5290.12	41.16	246.30	105.81	141.41	15 25 1	4690.1	47.20	239.38
32.23	4 11 35	1691.54	41.16	48.04	105.80	141.42	4 39 46	1091.5	47.19	41.12
147.77	13 56 50	5290.12	41.16	246.30	105.81	141.41	15 25 1	4690.1	47.20	239.38
32.23	4 11 35	1691.54	41.16	48.04	105.80	141.42	4 39 46	1091.5	47.19	41.12
147.77	13 56 50	5290.12	41.16	246.30	105.81	141.41	15 25 1	4690.1	47.20	239.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1991 TRA -.3895 TC3-3.5914 BAU  .8110   SGT 4417.0 SGR 1291.4 SG3  274.9      ST  3127.2 SR  1099.6 SS  1235.3
RDE  .7783 RRA -.0170 RC3  .8330 FAU .05124   RRT -.9333 RRF -.9786 RTF  .9571     CRT -.9920 CRS  .9999 CST -.9924
FDE-1.6355 FRA  .0269 FC3-2.6957 BSP  14444   SGB 4601.9 R23  .2118 R13 -.9631     LSA 3532.9 MSA  182.2 SSA    8.1
BDE 2.3327 BRA  .3899 BC3 3.6867 FSP   -897   SG1 4580.1 SG2  447.3 THA 164.59     EL1 3312.3 EL2  131.4 ALF 160.74
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 450.310

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RL  150.68 LAL    .00 LOL 345.91 VL  26.811 GAL  -2.19 AZL  95.22 HCA 213.25 SMA 127.28 ECC .18767 INC 5.2200 V1  29.570
RP  107.93 LAP   2.86 LOP 199.05 VP  37.637 GAP   6.39 AZP  85.63 TAL 189.54 TAP  42.79 RCA 103.39 APO 151.16 V2  35.112
RC 125.912 GL  -39.62 GP   42.03 ZAL  98.68 ZAP 131.18 ETS  47.99 ZAE 121.06 ETE 149.63 ZAC 140.25 ETC 251.54 CLP-152.43
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PLANETOCENTRIC CONIC

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C3  14.609 VHL  3.822 DLA -59.53 RAL 229.35 RAD 6567.6 VEL 11.662 PTH   2.05 VHP  6.032 DPA  24.51 RAP 238.79 ECC 1.2404
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.17	4 42 8	1651.64	41.33	42.92	108.17	137.52	5 9 39	1051.6	46.98	35.42
144.83	14 12 51	5276.38	41.34	244.72	108.19	137.52	15 40 47	4676.4	46.99	237.22
35.17	4 42 8	1651.64	41.33	42.92	108.17	137.52	5 9 39	1051.6	46.98	35.42
144.83	14 12 51	5276.38	41.34	244.72	108.19	137.52	15 40 47	4676.4	46.99	237.22
35.17	4 42 8	1651.64	41.33	42.92	108.17	137.52	5 9 39	1051.6	46.98	35.42
144.83	14 12 51	5276.38	41.34	244.72	108.19	137.52	15 40 47	4676.4	46.99	237.22

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0700 TRA -.2608 TC3-4.2026 BAU  .8376   SGT 4532.6 SGR 1198.9 SG3  286.9      ST  3113.1 SR   995.1 SS  1180.3
RDE  .6630 RRA -.0520 RC3  .8539 FAU .05291   RRT -.9316 RRF -.9733 RTF  .9560     CRT -.9927 CRS  .9999 CST -.9916
FDE-1.5078 FRA  .1418 FC3-3.1353 BSP  14733   SGB 4688.5 R23  .2059 R13 -.9609     LSA 3470.5 MSA  174.4 SSA    9.4
BDE 2.1736 BRA  .2660 BC3 4.2885 FSP   -938   SG1 4669.3 SG2  423.0 THA 166.04     EL1 3266.3 EL2  114.7 ALF 162.37
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 456.279
RL 150.68 LAL .00 LOL 345.91 VL 26.772 GAL -1.92 AZL 94.64 HCA 216.46 SMA 127.02 ECC .18913 INC 4.6352 V1 29.570
RP 107.97 LAP 2.75 LOP 202.27 VP 37.598 GAP 6.69 AZP 86.27 TAL 188.27 TAP 44.72 RCA 103.00 APO 151.05 V2 35.099
RC 128.158 GL -36.40 GP 38.74 ZAL 97.09 ZAP 134.35 ETS 47.72 ZAE 122.28 ETE 151.81 ZAC 137.41 ETC 252.97 CLP-153.66
PLANETOCENTRIC CONIC
C3 13.275 VHL 3.643 DLA -57.08 RAL 234.80 RAD 6567.5 VEL 11.604 PTH 2.03 VHP 5.946 DPA 20.90 RAP 239.11 ECC 1.2185

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.12	5 11 36	1615.67	41.03	38.00	110.49	133.91	5 38 31	1015.7	46.29	30.07
141.88	14 26 51	5270.30	41.04	243.55	110.50	133.90	15 54 41	4670.3	46.30	235.62
38.12	5 11 36	1615.67	41.03	38.00	110.49	133.91	5 38 31	1015.7	46.29	30.07
141.88	14 26 51	5270.30	41.04	243.55	110.50	133.90	15 54 41	4670.3	46.30	235.62
38.12	5 11 36	1615.67	41.03	38.00	110.49	133.91	5 38 31	1015.7	46.29	30.07
141.88	14 26 51	5270.30	41.04	243.55	110.50	133.90	15 54 41	4670.3	46.30	235.62

DIFFERENTIAL CORRECTIONS
TDE-1.9373 TRA -.1303 TC3-4.7841 BAU .8624
RDE .5690 RRA -.0797 RC3 .8515 FAU .05359
FDE-1.3590 FRA .2545 FC3-3.4949 BSP 15042
BDE 2.0191 BRA .1528 BC3 4.8593 FSP -966

MID-COURSE EXECUTION ACCURACY
SGT 4645.0 SGR 1113.1 SG3 294.2
RRT -.9288 RRF -.9663 RTF .9554
SGB 4776.5 R23 .1948 R13 -.9592
SG1 4759.5 SG2 402.5 THA 167.36

ORBIT DETERMINATION ACCURACY
ST 3050.3 SR 897.7 SS 1104.4
CRT -.9934 CRS .9996 CST -.9902
LSA 3361.8 MSA 168.1 SSA 10.9
EL1 3178.2 EL2 98.9 ALF 163.69

LAUNCH DATE SEP 9 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 462.232
RL 150.68 LAL .00 LOL 345.91 VL 26.732 GAL -1.63 AZL 94.13 HCA 219.66 SMA 126.77 ECC .19072 INC 4.1331 V1 29.570
RP 108.01 LAP 2.64 LOP 205.49 VP 37.558 GAP 6.99 AZP 86.82 TAL 186.97 TAP 46.63 RCA 102.59 APO 150.94 V2 35.086
RC 130.397 GL -33.30 GP 35.81 ZAL 95.19 ZAP 137.26 ETS 47.50 ZAE 123.22 ETE 153.86 ZAC 134.89 ETC 254.13 CLP-154.91
PLANETOCENTRIC CONIC
C3 12.308 VHL 3.508 DLA -54.64 RAL 239.93 RAD 6567.5 VEL 11.563 PTH 2.02 VHP 5.910 DPA 17.62 RAP 239.67 ECC 1.2026

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.10	5 40 18	1582.46	40.35	33.29	112.84	130.59	6 6 40	982.5	45.25	25.08
138.90	14 39 7	5271.07	40.36	242.82	112.85	130.58	16 6 58	4671.1	45.26	234.60
41.10	5 40 18	1582.46	40.35	33.29	112.84	130.59	6 6 40	982.5	45.25	25.08
138.90	14 39 7	5271.07	40.36	242.82	112.85	130.58	16 6 58	4671.1	45.26	234.60
41.10	5 40 18	1582.46	40.35	33.29	112.84	130.59	6 6 40	982.5	45.25	25.08
138.90	14 39 7	5271.07	40.36	242.82	112.85	130.58	16 6 58	4671.1	45.26	234.60

DIFFERENTIAL CORRECTIONS
TDE-1.8020 TRA .0046 TC3-5.3185 BAU .8857
RDE .4931 RRA -.1026 RC3 .8299 FAU .05341
FDE-1.1996 FRA .3643 FC3-3.7570 BSP 15342
BDE 1.8683 BRA .1027 BC3 5.3829 FSP -979

MID-COURSE EXECUTION ACCURACY
SGT 4752.6 SGR 1035.1 SG3 297.4
RRT -.9242 RRF -.9574 RTF .9548
SGB 4864.0 R23 .1808 R13 -.9578
SG1 4848.6 SG2 387.4 THA 168.54

ORBIT DETERMINATION ACCURACY
ST 2945.1 SR 810.1 SS 1013.6
CRT -.9942 CRS .9986 CST -.9881
LSA 3214.1 MSA 163.8 SSA 12.6
EL1 3053.4 EL2 83.7 ALF 164.69

LAUNCH DATE SEP 9 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 468.167
RL 150.68 LAL .00 LOL 345.91 VL 26.692 GAL -1.34 AZL 93.69 HCA 222.86 SMA 126.51 ECC .19245 INC 3.6948 V1 29.570
RP 108.05 LAP 2.51 LOP 208.71 VP 37.517 GAP 7.29 AZP 87.29 TAL 185.65 TAP 48.51 RCA 102.16 APO 150.85 V2 35.074
RC 132.627 GL -30.30 GP 33.21 ZAL 93.02 ZAP 139.93 ETS 47.33 ZAE 123.93 ETE 155.75 ZAC 132.67 ETC 255.11 CLP-156.15
PLANETOCENTRIC CONIC
C3 11.618 VHL 3.408 DLA -52.21 RAL 244.80 RAD 6567.4 VEL 11.533 PTH 2.01 VHP 5.914 DPA 14.65 RAP 240.45 ECC 1.1912

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.11	6 8 33	1550.93	39.37	28.79	115.28	127.58	6 34 24	950.9	43.93	20.39
135.89	14 49 42	5278.29	39.38	242.58	115.29	127.57	16 17 40	4678.3	43.94	234.18
44.11	6 8 33	1550.93	39.37	28.79	115.28	127.58	6 34 24	950.9	43.93	20.39
135.89	14 49 42	5278.29	39.38	242.58	115.29	127.57	16 17 40	4678.3	43.94	234.18
44.11	6 8 33	1550.93	39.37	28.79	115.28	127.58	6 34 24	950.9	43.93	20.39
135.89	14 49 42	5278.29	39.38	242.58	115.29	127.57	16 17 40	4678.3	43.94	234.18

DIFFERENTIAL CORRECTIONS
TDE-1.6646 TRA .1446 TC3-5.7910 BAU .9079
RDE .4323 RRA -.1217 RC3 .7955 FAU .05261
FDE-1.0384 FRA .4688 FC3-3.9201 BSP 15645
BDE 1.7199 BRA .1890 BC3 5.8454 FSP -984

MID-COURSE EXECUTION ACCURACY
SGT 4855.1 SGR 966.2 SG3 297.3
RRT -.9180 RRF -.9465 RTF .9543
SGB 4950.3 R23 .1641 R13 -.9567
SG1 4935.9 SG2 376.8 THA 169.58

ORBIT DETERMINATION ACCURACY
ST 2803.3 SR 733.7 SS 914.4
CRT -.9953 CRS .9965 CST -.9847
LSA 3034.2 MSA 161.3 SSA 14.5
EL1 2896.9 EL2 68.4 ALF 165.39

LAUNCH DATE SEP 9 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 474.084
RL 150.68 LAL .00 LOL 345.91 VL 26.652 GAL -1.04 AZL 93.31 HCA 226.06 SMA 126.25 ECC .19431 INC 3.3066 V1 29.570
RP 108.09 LAP 2.38 LOP 211.92 VP 37.477 GAP 7.58 AZP 87.70 TAL 184.31 TAP 50.37 RCA 101.72 APO 150.78 V2 35.061
RC 134.850 GL -27.41 GP 30.89 ZAL 90.63 ZAP 142.38 ETS 47.22 ZAE 124.47 ETE 157.47 ZAC 130.71 ETC 255.96 CLP-157.38
PLANETOCENTRIC CONIC
C3 11.146 VHL 3.339 DLA -49.80 RAL 249.43 RAD 6567.4 VEL 11.512 PTH 2.01 VHP 5.948 DPA 11.94 RAP 241.40 ECC 1.1834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.15	6 36 35	1520.22	38.15	24.45	117.84	124.85	7 1 55	920.2	42.39	15.97
132.85	14 58 39	5291.81	38.16	242.84	117.85	124.84	16 26 50	4691.8	42.40	234.36
47.15	6 36 35	1520.22	38.15	24.45	117.84	124.85	7 1 55	920.2	42.39	15.97
132.85	14 58 39	5291.81	38.16	242.84	117.85	124.84	16 26 50	4691.8	42.40	234.36
47.15	6 36 35	1520.22	38.15	24.45	117.84	124.85	7 1 55	920.2	42.39	15.97
132.85	14 58 39	5291.81	38.16	242.84	117.85	124.84	16 26 50	4691.8	42.40	234.36

DIFFERENTIAL CORRECTIONS
TDE-1.5213 TRA .2940 TC3-6.1741 BAU .9267
RDE .3827 RRA -.1390 RC3 .7473 FAU .05108
FDE -.8759 FRA .5707 FC3-3.9675 BSP 15820
BDE 1.5686 BRA .3252 BC3 6.2191 FSP -967

MID-COURSE EXECUTION ACCURACY
SGT 4941.9 SGR 903.8 SG3 294.0
RRT -.9091 RRF -.9331 RTF .9533
SGB 5023.8 R23 .1477 R13 -.9552
SG1 5010.1 SG2 371.3 THA 170.51

ORBIT DETERMINATION ACCURACY
ST 2624.2 SR 666.2 SS 808.3
CRT -.9967 CRS .9916 CST -.9792
LSA 2820.8 MSA 161.7 SSA 16.5
EL1 2706.9 EL2 52.5 ALF 165.80

LAUNCH DATE SEP 9 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 479.982

RL	150.68	LAL	.00	LOL	345.91	VL	26.612	GAL	-.72	AZL	92.96	HCA	229.26	SMA	125.99	ECC	.19632	INC	2.9584	V1	29.570		
RP	108.13	LAP	2.24	LOP	215.13	VP	37.436	GAP	7.88	AZP	88.07	TAL	182.94	TAP	52.20	RCA	101.26	APO	150.73	V2	35.047		
RC	137.063	GL	-24.64	GP	28.84	ZAL	88.05	ZAP	144.63	ETS	47.19	ZAE	124.86	ETE	159.03	ZAC	128.98	ETC	256.72	CLP	-158.58		

PLANETOCENTRIC CONIC

C3	10.855	VHL	3.295	DLA	-47.41	RAL	253.85	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	6.007	DPA	9.47	RAP	242.52	ECC	1.1786		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.24	7 4 35	1489.50	36.74	20.23	120.52	122.39	7 29 25	889.5	40.70	11.73
129.76	15 5 53	5311.65	36.75	243.62	120.53	122.38	16 34 25	4711.6	40.71	235.11
50.24	7 4 35	1489.50	36.74	20.23	120.52	122.39	7 29 25	889.5	40.70	11.73
129.76	15 5 53	5311.65	36.75	243.62	120.53	122.38	16 34 25	4711.6	40.71	235.11
50.24	7 4 35	1489.50	36.74	20.23	120.52	122.39	7 29 25	889.5	40.70	11.73
129.76	15 5 53	5311.65	36.75	243.62	120.53	122.38	16 34 25	4711.6	40.71	235.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.3814	TRA	.4453	TC3	-6.4877	BAU .9469	SGT 5035.4	SGR 852.1	SG3 289.5	ST 2430.1	SR 611.5	SS 708.6
RDE	.3449	RRA	-.1529	RC3	.6984	FAU .04942	RRT -.8992	RRF -.9180	RTF .9532	CRT -.9982	CRS .9816	CST -.9711
FDE	-.7270	FRA	.6611	FC3	-3.9416	BSP 16109	SGB 5107.0	R23 .1286	R13 -.9546	LSA 2598.9	MSA 163.9	SSA 18.5
BDE	1.4238	BRA	.4708	BC3	6.5251	FSP -957	SG1 5093.7	SG2 368.6	THA 171.30	EL1 2505.6	EL2 35.7	ALF 165.90

LAUNCH DATE SEP 9 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 485.859

RL	150.68	LAL	.00	LOL	345.91	VL	26.571	GAL	-.39	AZL	92.64	HCA	232.46	SMA	125.74	ECC	.19850	INC	2.6424	V1	29.570		
RP	108.17	LAP	2.09	LOP	218.34	VP	37.395	GAP	8.19	AZP	88.39	TAL	181.56	TAP	54.02	RCA	100.78	APO	150.69	V2	35.034		
RC	139.266	GL	-21.97	GP	27.00	ZAL	85.34	ZAP	146.71	ETS	47.25	ZAE	125.15	ETE	160.42	ZAC	127.47	ETC	257.42	CLP	-159.75		

PLANETOCENTRIC CONIC

C3	10.719	VHL	3.274	DLA	-45.04	RAL	258.07	RAD	6567.4	VEL	11.494	PTH	2.00	VHP	6.086	DPA	7.23	RAP	243.77	ECC	1.1764		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.38	7 32 49	1457.85	35.18	16.08	123.31	120.18	7 57 7	857.9	38.88	7.61
126.62	15 11 17	5338.16	35.19	244.94	123.32	120.16	16 40 16	4738.2	38.89	236.47
53.38	7 32 49	1457.85	35.18	16.08	123.31	120.18	7 57 7	857.9	38.88	7.61
126.62	15 11 17	5338.16	35.19	244.94	123.32	120.16	16 40 16	4738.2	38.89	236.47
53.38	7 32 49	1457.85	35.18	16.08	123.31	120.18	7 57 7	857.9	38.88	7.61
126.62	15 11 17	5338.16	35.19	244.94	123.32	120.16	16 40 16	4738.2	38.89	236.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.2385	TRA	.6050	TC3	-6.7060	BAU .9654	SGT 5120.9	SGR 807.4	SG3 283.5	ST 2217.4	SR 565.3	SS 614.4
RDE	.3151	RRA	-.1660	RC3	.6456	FAU .04745	RRT -.8871	RRF -.9008	RTF .9529	CRT -.9992	CRS .9614	CST -.9580
FDE	-.5860	FRA	.7464	FC3	-3.8322	BSP 16358	SGB 5184.2	R23 .1107	R13 -.9541	LSA 2363.1	MSA 170.2	SSA 20.5
BDE	1.2779	BRA	.6274	BC3	6.7370	FSP -938	SG1 5171.0	SG2 369.1	THA 172.00	EL1 2288.2	EL2 22.0	ALF 165.71

LAUNCH DATE SEP 9 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 491.716

RL	150.68	LAL	.00	LOL	345.91	VL	26.531	GAL	-.04	AZL	92.35	HCA	235.66	SMA	125.48	ECC	.20084	INC	2.3527	V1	29.570		
RP	108.21	LAP	1.94	LOP	221.54	VP	37.353	GAP	8.49	AZP	88.67	TAL	180.17	TAP	55.82	RCA	100.28	APO	150.68	V2	35.021		
RC	141.459	GL	-19.43	GP	25.37	ZAL	82.52	ZAP	148.63	ETS	47.40	ZAE	125.36	ETE	161.67	ZAC	126.13	ETC	258.08	CLP	-160.89		

PLANETOCENTRIC CONIC

C3	10.723	VHL	3.275	DLA	-42.70	RAL	262.09	RAD	6567.4	VEL	11.494	PTH	2.00	VHP	6.182	DPA	5.18	RAP	245.15	ECC	1.1765		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.60	8 1 32	1424.28	33.51	11.92	126.22	118.18	8 25 17	824.3	36.98	3.51
123.40	15 14 39	5371.91	33.52	246.86	126.22	118.17	16 44 11	4771.9	36.99	238.44
56.60	8 1 32	1424.28	33.51	11.92	126.22	118.18	8 25 17	824.3	36.98	3.51
123.40	15 14 39	5371.91	33.52	246.86	126.22	118.17	16 44 11	4771.9	36.99	238.44
56.60	8 1 32	1424.28	33.51	11.92	126.22	118.18	8 25 17	824.3	36.98	3.51
123.40	15 14 39	5371.91	33.52	246.86	126.22	118.17	16 44 11	4771.9	36.99	238.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-1.1093	TRA	.7537	TC3	-6.9220	BAU .9964	SGT 5247.8	SGR 777.7	SG3 279.9	ST 2018.8	SR 534.3	SS 541.0
RDE	.2972	RRA	-.1711	RC3	.6270	FAU .04715	RRT -.8825	RRF -.8846	RTF .9600	CRT -.9982	CRS .9327	CST -.9476
FDE	-.4776	FRA	.7945	FC3	-3.8070	BSP 16839	SGB 5305.1	R23 .0710	R13 -.9607	LSA 2150.4	MSA 170.6	SSA 21.9
BDE	1.1484	BRA	.7729	BC3	6.9504	FSP -952	SG1 5292.7	SG2 362.7	THA 172.51	EL1 2088.1	EL2 30.8	ALF 165.20

LAUNCH DATE SEP 9 1970 FLIGHT TIME 172.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 497.550

RL	150.68	LAL	.00	LOL	345.91	VL	26.490	GAL	.32	AZL	92.08	HCA	238.85	SMA	125.22	ECC	.20336	INC	2.0844	V1	29.570		
RP	108.25	LAP	1.78	LOP	224.74	VP	37.312	GAP	8.80	AZP	88.92	TAL	178.75	TAP	57.60	RCA	99.76	APO	150.69	V2	35.008		
RC	143.643	GL	-17.00	GP	23.91	ZAL	79.64	ZAP	150.40	ETS	47.67	ZAE	125.50	ETE	162.79	ZAC	124.94	ETC	258.71	CLP	-162.01		

PLANETOCENTRIC CONIC

C3	10.859	VHL	3.295	DLA	-40.40	RAL	265.92	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	6.294	DPA	3.30	RAP	246.65	ECC	1.1787		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.89	8 31 0	1387.73	31.77	7.68	129.21	116.39	8 54 8	787.7	35.03	359.35
120.11	15 15 44	5413.57	31.78	249.41	129.22	116.38	16 45 58	4813.6	35.03	241.07
59.89	8 31 0	1387.73	31.77	7.68	129.21	116.39	8 54 8	787.7	35.03	359.35
120.11	15 15 44	5413.57	31.78	249.41	129.22	116.38	16 45 58	4813.6	35.03	241.07
59.89	8 31 0	1387.73	31.77	7.68	129.21	116.39	8 54 8	787.7	35.03	359.35
120.11	15 15 44	5413.57	31.78	249.41	129.22	116.38	16 45 58	4813.6	35.03	241.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY			ORBIT DETERMINATION ACCURACY		
TDE	-.9511	TRA	.9440	TC3	-6.8809	BAU 1.0020	SGT 5286.3	SGR 738.2	SG3 269.4	ST 1780.9	SR 495.6	SS 464.0
RDE	.2750	RRA	-.1902	RC3	.5427	FAU .04322	RRT -.8580	RRF -.8622	RTF .9524	CRT -.9928	CRS .8544	CST -.9065
FDE	-.3373	FRA	.8994	FC3	-3.4462	BSP 16963	SGB 5337.6	R23 .0796	R13 -.9531	LSA 1895.1	MSA 201.1	SSA 23.4
BDE	.9901	BRA	.9630	BC3	6.9023	FSP -904	SG1 5324.3	SG2 376.5	THA 173.13	EL1 1847.7	EL2 57.1	ALF 164.54

LAUNCH DATE SEP 9 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 503.362

RL 150.68 LAL .00 LOL 345.91 VL 26.449 GAL .69 AZL 91.83 HCA 242.04 SMA 124.97 ECC .20608 INC 1.8339 V1 29.570
RP 108.29 LAP 1.62 LOP 227.94 VP 37.271 GAP 9.12 AZP 89.14 TAL 177.33 TAP 59.37 RCA 99.21 APO 150.72 V2 34.995
RC 145.816 GL -14.70 GP 22.60 ZAL 76.72 ZAP 152.05 ETS 48.04 ZAE 125.60 ETE 163.78 ZAC 123.89 ETC 259.32 CLP-163.09

PLANETOCENTRIC CONIC

C3 11.120 VHL 3.335 DLA -38.15 RAL 269.56 RAD 6567.4 VEL 11.511 PTH 2.01 VHP 6.419 DPA 1.58 RAP 248.24 ECC 1.1830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.30	9 1 38	1346.75	29.98	3.25	132.29	114.78	9 24 4	746.7	33.05	355.00
116.70	15 14 11	5464.34	29.99	252.66	132.29	114.77	16 45 16	4864.3	33.06	244.41
63.30	9 1 38	1346.75	29.98	3.25	132.29	114.78	9 24 4	746.7	33.05	355.00
116.70	15 14 11	5464.34	29.99	252.66	132.29	114.77	16 45 16	4864.3	33.06	244.41
63.30	9 1 38	1346.75	29.98	3.25	132.29	114.78	9 24 4	746.7	33.05	355.00
116.70	15 14 11	5464.34	29.99	252.66	132.29	114.77	16 45 16	4864.3	33.06	244.41

DIFFERENTIAL CORRECTIONS
TDE -.8010 TRA 1.1280 TC3-6.8183 BAU 1.0163
RDE .2613 RRA -.2019 RC3 .4905 FAU .04082
FDE -.2246 FRA .9680 FC3-3.1781 BSP 17100
BDE .8425 BRA 1.1459 BC3 6.8359 FSP -871

MID-COURSE EXECUTION ACCURACY
SGT 5352.2 SGR 709.3 SG3 260.8
RRT -.8409 RRF -.8404 RTF .9519
SGB 5399.0 R23 .0660 R13 -.9525
SG1 5385.5 SG2 381.4 THA 173.61

ORBIT DETERMINATION ACCURACY
ST 1568.2 SR 468.1 SS 413.3
CRT -.9767 CRS .7390 CST -.8631
LSA 1672.1 MSA 229.5 SSA 24.0
EL1 1633.7 EL2 96.4 ALF 163.69

LAUNCH DATE SEP 9 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 509.149

RL 150.68 LAL .00 LOL 345.91 VL 26.408 GAL 1.09 AZL 91.60 HCA 245.24 SMA 124.72 ECC .20901 INC 1.5979 V1 29.570
RP 108.33 LAP 1.45 LOP 231.13 VP 37.229 GAP 9.44 AZP 89.33 TAL 175.88 TAP 61.12 RCA 98.65 APO 150.78 V2 34.982
RC 147.979 GL -12.53 GP 21.42 ZAL 73.81 ZAP 153.58 ETS 48.54 ZAE 125.66 ETE 164.67 ZAC 122.96 ETC 259.92 CLP-164.15

PLANETOCENTRIC CONIC

C3 11.509 VHL 3.392 DLA -35.95 RAL 273.02 RAD 6567.4 VEL 11.528 PTH 2.01 VHP 6.556 DPA .00 RAP 249.92 ECC 1.1894

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.86	9 34 2	1299.17	28.16	358.47	135.43	113.33	9 55 41	699.2	31.06	350.31
113.14	15 9 24	5526.13	28.17	256.75	135.43	113.32	16 41 30	4926.1	31.07	248.58
66.86	9 34 2	1299.17	28.16	358.47	135.43	113.33	9 55 41	699.2	31.06	350.31
113.14	15 9 24	5526.13	28.17	256.75	135.43	113.32	16 41 30	4926.1	31.07	248.58
66.86	9 34 2	1299.17	28.16	358.47	135.43	113.33	9 55 41	699.2	31.06	350.31
113.14	15 9 24	5526.13	28.17	256.75	135.43	113.32	16 41 30	4926.1	31.07	248.58

DIFFERENTIAL CORRECTIONS
TDE -.6519 TRA 1.3196 TC3-6.6832 BAU 1.0305
RDE .2521 RRA -.2138 RC3 .4421 FAU .03846
FDE -.1252 FRA 1.0324 FC3-2.8934 BSP 17322
BDE .6990 BRA 1.3368 BC3 6.6978 FSP -847

MID-COURSE EXECUTION ACCURACY
SGT 5418.0 SGR 685.7 SG3 252.5
RRT -.8229 RRF -.8183 RTF .9516
SGB 5461.2 R23 .0550 R13 -.9520
SG1 5447.4 SG2 387.5 THA 174.02

ORBIT DETERMINATION ACCURACY
ST 1383.1 SR 446.3 SS 386.5
CRT -.9403 CRS .5811 CST -.8205
LSA 1479.8 MSA 266.9 SSA 24.0
EL1 1446.1 EL2 145.3 ALF 162.94

LAUNCH DATE SEP 9 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 514.910

RL 150.68 LAL .00 LOL 345.91 VL 26.368 GAL 1.49 AZL 91.37 HCA 248.42 SMA 124.46 ECC .21217 INC 1.3739 V1 29.570
RP 108.37 LAP 1.28 LOP 234.33 VP 37.188 GAP 9.77 AZP 89.49 TAL 174.43 TAP 62.86 RCA 98.06 APO 150.87 V2 34.969
RC 150.132 GL -10.50 GP 20.36 ZAL 70.92 ZAP 155.01 ETS 49.17 ZAE 125.69 ETE 165.46 ZAC 122.12 ETC 260.51 CLP-165.19

PLANETOCENTRIC CONIC

C3 12.026 VHL 3.468 DLA -33.83 RAL 276.31 RAD 6567.5 VEL 11.550 PTH 2.02 VHP 6.705 DPA -1.44 RAP 251.68 ECC 1.1979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.67	10 9 13	1241.66	26.35	353.09	138.63	112.02	10 29 54	641.7	29.10	345.01
109.33	15 0 24	5602.06	26.36	261.88	138.63	112.01	16 33 47	5002.1	29.11	253.80
70.67	10 9 13	1241.66	26.35	353.09	138.63	112.02	10 29 54	641.7	29.10	345.01
109.33	15 0 24	5602.06	26.36	261.88	138.63	112.01	16 33 47	5002.1	29.11	253.80
110.00	14 27 4	5703.89	23.46	268.40	137.22	115.60	16 2 8	5103.9	26.71	260.74
110.00	15 41 43	5475.87	29.32	253.28	139.86	108.41	17 12 59	4875.9	31.55	244.78

DIFFERENTIAL CORRECTIONS
TDE -.5036 TRA 1.5186 TC3-6.4863 BAU 1.0448
RDE .2464 RRA -.2254 RC3 .3987 FAU .03624
FDE -.0372 FRA 1.0905 FC3-2.6087 BSP 17537
BDE .5606 BRA 1.5352 BC3 6.4985 FSP -822

MID-COURSE EXECUTION ACCURACY
SGT 5482.0 SGR 665.8 SG3 244.1
RRT -.8047 RRF -.7963 RTF .9518
SGB 5522.3 R23 .0445 R13 -.9522
SG1 5508.3 SG2 393.4 THA 174.39

ORBIT DETERMINATION ACCURACY
ST 1237.5 SR 428.9 SS 379.9
CRT -.8700 CRS .4017 CST -.7985
LSA 1327.7 MSA 310.4 SSA 23.4
EL1 1294.0 EL2 202.2 ALF 162.79

LAUNCH DATE SEP 9 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 520.643

RL 150.68 LAL .00 LOL 345.91 VL 26.327 GAL 1.92 AZL 91.16 HCA 251.61 SMA 124.21 ECC .21557 INC 1.1597 V1 29.570
RP 108.41 LAP 1.10 LOP 237.52 VP 37.147 GAP 10.10 AZP 89.63 TAL 172.97 TAP 64.58 RCA 97.44 APO 150.99 V2 34.956
RC 152.275 GL -8.60 GP 19.41 ZAL 68.09 ZAP 156.34 ETS 49.94 ZAE 125.71 ETE 166.16 ZAC 121.37 ETC 261.10 CLP-166.20

PLANETOCENTRIC CONIC

C3 12.678 VHL 3.561 DLA -31.78 RAL 279.41 RAD 6567.5 VEL 11.579 PTH 2.02 VHP 6.867 DPA -2.77 RAP 253.52 ECC 1.2087

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.93	10 49 9	1167.65	24.56	346.63	141.86	110.83	11 8 36	567.6	27.17	338.64
105.07	14 45 17	5698.51	24.57	268.51	141.87	110.82	16 20 15	5098.5	27.18	260.51
74.93	10 49 9	1167.65	24.56	346.63	141.86	110.83	11 8 36	567.6	27.17	338.64
105.07	14 45 17	5698.51	24.57	268.51	141.87	110.82	16 20 15	5098.5	27.18	260.51
110.00	13 40 20	612.39	17.20	302.29	138.12	120.01	13 50 33	12.4	21.06	295.29
110.00	16 53 16	5301.77	32.40	240.66	144.45	101.54	18 21 37	4701.8	33.65	231.65

DIFFERENTIAL CORRECTIONS
TDE -.3529 TRA 1.7274 TC3-6.2272 BAU 1.0572
RDE .2432 RRA -.2375 RC3 .3571 FAU .03396
FDE .0431 FRA 1.1459 FC3-2.3186 BSP 17741
BDE .4286 BRA 1.7436 BC3 6.2374 FSP -797

MID-COURSE EXECUTION ACCURACY
SGT 5538.9 SGR 648.1 SG3 235.6
RRT -.7856 RRF -.7741 RTF .9517
SGB 5576.7 R23 .0363 R13 -.9520
SG1 5562.4 SG2 399.2 THA 174.72

ORBIT DETERMINATION ACCURACY
ST 1141.2 SR 414.0 SS 389.4
CRT -.7525 CRS .2244 CST -.8084
LSA 1224.2 MSA 355.2 SSA 22.6
EL1 1185.3 EL2 262.5 ALF 163.92

LAUNCH DATE SEP 9 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 526.346

RL	150.68	LAL	.00	LOL	345.91	VL	26.287	GAL	2.37	AZL	90.95	HCA	254.80	SMA	123.97	ECC	.21923	INC	.9534	V1	29.570
RP	108.45	LAP	.92	LOP	240.70	VP	37.107	GAP	10.45	AZP	89.75	TAL	171.50	TAP	66.29	RCA	96.79	APO	151.14	V2	34.943
RC	154.408	GL	-6.84	GP	18.54	ZAL	65.32	ZAP	157.59	ETS	50.86	ZAE	125.71	ETE	166.80	ZAC	120.69	ETC	261.69	CLP	-167.19

PLANETOCENTRIC CONIC

C3	13.474	VHL	3.671	DLA	-29.82	RAL	282.35	RAD	6567.5	VEL	11.613	PTH	2.03	VHP	7.040	DPA	-3.98	RAP	255.42	ECC	1.2217

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.24	11 39 20	1059.06	22.81	337.77	145.14	109.75	11 56 59	459.1	25.29	329.86
99.76	14 18 33	5833.37	22.82	277.92	145.14	109.74	15 55 47	5233.4	25.30	270.00
100.00	14 2 53	5883.45	21.54	281.12	144.63	111.24	15 40 56	5283.4	24.23	273.36
100.00	14 37 41	5772.26	24.10	273.85	145.62	108.24	16 13 54	5172.3	26.37	265.79
110.00	13 19 7	733.60	12.95	309.11	140.13	121.92	13 31 21	133.6	17.07	302.43
110.00	17 37 56	5206.82	33.47	233.46	148.05	97.40	19 4 43	4606.8	34.13	224.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2010	TRA	1.9459	TC3	-5.9247	BAU	1.0688	SGT	5592.3	SGR	632.5	SG3	227.3	ST	1103.9	SR	401.5	SS	409.2
RDE	.2423	RRA	-.2499	RC3	.3191	FAU	.03174	RRT	-.7667	RRF	-.7523	RTF	.9518	CRT	-.5893	CRS	.0715	CST	-.8461
FDE	.1156	FRA	1.1981	FC3	-2.0395	BSP	17926	SGB	5627.9	R23	.0292	R13	-.9520	LSA	1180.9	MSA	390.2	SSA	21.6
BDE	.3148	BRA	1.9619	BC3	5.9333	FSP	-771	SG1	5613.4	SG2	404.5	THA	175.02	EL1	1131.2	EL2	316.6	ALF	166.85

LAUNCH DATE SEP 9 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 532.015

RL	150.68	LAL	.00	LOL	345.91	VL	26.246	GAL	2.84	AZL	90.75	HCA	257.98	SMA	123.72	ECC	.22319	INC	.7535	V1	29.570
RP	108.49	LAP	.74	LOP	243.89	VP	37.067	GAP	10.81	AZP	89.84	TAL	170.02	TAP	68.00	RCA	96.11	APO	151.34	V2	34.931
RC	156.530	GL	-5.21	GP	17.76	ZAL	62.64	ZAP	158.76	ETS	51.94	ZAE	125.69	ETE	167.36	ZAC	120.07	ETC	262.28	CLP	-168.16

PLANETOCENTRIC CONIC

C3	14.424	VHL	3.798	DLA	-27.95	RAL	285.13	RAD	6567.6	VEL	11.654	PTH	2.05	VHP	7.225	DPA	-5.09	RAP	257.38	ECC	1.2374

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 30 4	946.98	18.27	327.71	147.32	112.01	12 45 51	347.0	21.10	320.17
90.00	13 49 59	687.32	24.01	310.84	149.41	105.49	14 1 26	87.3	25.90	302.69
100.00	13 1 7	846.57	14.59	318.61	145.59	116.38	13 15 13	246.6	18.01	311.50
100.00	16 1 37	5551.00	27.94	258.56	150.44	101.08	17 34 8	4951.0	29.19	249.97
110.00	13 5 32	832.67	9.32	314.49	142.52	123.04	13 19 25	232.7	13.61	308.02
110.00	18 13 41	5137.67	33.95	228.12	151.38	94.28	19 39 18	4537.7	34.17	218.88

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0586	TRA	2.1639	TC3	-5.6182	BAU	1.0848	SGT	5645.9	SGR	619.1	SG3	218.9	ST	1119.5	SR	392.8	SS	429.8
RDE	.2447	RRA	-.2612	RC3	.2882	FAU	.02993	RRT	-.7483	RRF	-.7316	RTF	.9528	CRT	-.4136	CRS	-.0412	CST	-.8911
FDE	.1732	FRA	1.2406	FC3	-1.7963	BSP	18363	SGB	5679.7	R23	.0223	R13	-.9530	LSA	1194.4	MSA	406.5	SSA	20.5
BDE	.2516	BRA	2.1796	BC3	5.6256	FSP	-761	SG1	5665.0	SG2	409.3	THA	175.28	EL1	1132.6	EL2	353.5	ALF	170.84

LAUNCH DATE SEP 9 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 537.651

RL	150.68	LAL	.00	LOL	345.91	VL	26.206	GAL	3.33	AZL	90.56	HCA	261.16	SMA	123.48	ECC	.22746	INC	.5583	V1	29.570
RP	108.53	LAP	.55	LOP	247.07	VP	37.027	GAP	11.18	AZP	89.91	TAL	168.54	TAP	69.70	RCA	95.39	APO	151.57	V2	34.919
RC	158.641	GL	-3.71	GP	17.05	ZAL	60.06	ZAP	159.86	ETS	53.19	ZAE	125.67	ETE	167.87	ZAC	119.51	ETC	262.88	CLP	-169.11

PLANETOCENTRIC CONIC

C3	15.541	VHL	3.942	DLA	-26.18	RAL	287.76	RAD	6567.6	VEL	11.702	PTH	2.06	VHP	7.422	DPA	-6.11	RAP	259.40	ECC	1.2558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 44 1	1150.71	12.66	340.02	148.94	115.54	12 3 11	550.7	15.99	332.93
90.00	14 56 58	5805.02	26.59	276.95	153.69	100.12	16 33 43	5205.0	27.72	268.46
100.00	12 37 14	978.82	10.45	326.26	147.80	118.16	12 53 33	378.8	14.14	319.41
100.00	16 46 25	5452.14	29.03	251.41	154.11	97.47	18 17 17	4852.1	29.76	242.68
110.00	12 56 0	919.93	6.05	319.13	145.14	123.71	13 11 20	319.9	10.44	312.79
110.00	18 44 9	5083.79	34.14	223.92	154.60	91.80	20 8 52	4483.8	34.01	214.68

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1047	TRA	2.4115	TC3	-5.2359	BAU	1.0892	SGT	5684.8	SGR	605.5	SG3	211.1	ST	1187.9	SR	382.2	SS	460.5
RDE	.2463	RRA	-.2753	RC3	.2529	FAU	.02754	RRT	-.7291	RRF	-.7105	RTF	.9522	CRT	-.2267	CRS	-.1439	CST	-.9300
FDE	.2378	FRA	1.2935	FC3	-1.5343	BSP	18320	SGB	5717.0	R23	.0184	R13	-.9523	LSA	1266.2	MSA	407.0	SSA	19.6
BDE	.2677	BRA	2.4272	BC3	5.2420	FSP	-724	SG1	5702.1	SG2	413.2	THA	175.54	EL1	1191.4	EL2	371.2	ALF	175.38

LAUNCH DATE SEP 9 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 543.248

RL	150.68	LAL	.00	LOL	345.91	VL	26.166	GAL	3.84	AZL	90.37	HCA	264.34	SMA	123.24	ECC	.23206	INC	.3666	V1	29.570
RP	108.56	LAP	.37	LOP	250.25	VP	36.988	GAP	11.57	AZP	89.96	TAL	167.05	TAP	71.39	RCA	94.64	APO	151.84	V2	34.907
RC	160.740	GL	-2.33	GP	16.41	ZAL	57.58	ZAP	160.88	ETS	54.63	ZAE	125.64	ETE	168.33	ZAC	118.99	ETC	263.47	CLP	-170.05

PLANETOCENTRIC CONIC

C3	16.844	VHL	4.104	DLA	-24.50	RAL	290.23	RAD	6567.7	VEL	11.757	PTH	2.08	VHP	7.633	DPA	-7.03	RAP	261.46	ECC	1.2772

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 21 41	1279.02	8.78	347.45	151.31	117.03	11 43 0	679.0	12.34	340.58
90.00	15 39 2	5713.39	27.52	270.40	157.31	96.97	17 14 16	5113.4	28.19	261.80
100.00	12 21 51	1084.76	6.99	332.22	150.35	119.14	12 39 56	484.8	10.82	325.53
100.00	17 21 33	5382.88	29.53	246.32	157.54	94.84	18 51 16	4782.9	29.89	237.54
110.00	12 49 1	999.56	3.03	323.32	147.90	124.07	13 5 40	399.6	7.48	317.06
110.00	19 10 52	5040.85	34.18	220.57	157.77	89.82	20 34 53	4440.9	33.78	211.35

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2638	TRA	2.6645	TC3	-4.8588	BAU	1.0953	SGT	5722.8	SGR	593.0	SG3	203.5	ST	1286.0	SR	373.8	SS	488.4
RDE	.2502	RRA	-.2887	RC3	.2229	FAU	.02543	RRT	-.7106	RRF	-.6906	RTF	.9523	CRT	-.0727	CRS	-.2185	CST	-.9564
FDE	.2925	FRA	1.3404	FC3	-1.3069	BSP	18431	SGB	5753.5	R23	.0146	R13	-.9524	LSA	1369.1	MSA	396.4	SSA	18.7
BDE	.3636	BRA	2.6801	BC3	4.8639	FSP	-697	SG1	5738.4	SG2	416.1	THA	175.77	EL1	1286.3	EL2	372.7	ALF	178.68

LAUNCH DATE SEP 9 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 548.801

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RL  150.68 LAL    .00 LOL 345.91 VL  26.126 GAL   4.39 AZL  90.18 HCA 267.52 SMA 123.00 ECC .23705 INC  .1769 V1  29.570
RP  108.60 LAP    .18 LOP 253.42 VP  36.949 GAP  11.98 AZP  89.99 TAL 165.56 TAP  73.08 RCA  93.84 APO 152.16 V2  34.896
RC 162.826 GL   -1.08 GP   15.82 ZAL  55.22 ZAP 161.85 ETS  56.28 ZAE 125.60 ETE 168.75 ZAC 118.50 ETC 264.08 CLP-170.98
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PLANETOCENTRIC CONIC

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C3  18.353 VHL  4.284 DLA -22.91 RAL 292.56 RAD 6567.7 VEL 11.821 PTH   2.09 VHP  7.858 DPA  -7.86 RAP 263.56 ECC 1.3020
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 6 47	1383.74	5.49	353.39	153.96	117.82	11 29 51	783.7	9.18	346.65
90.00	16 12 32	5648.48	27.96	265.71	160.74	94.65	17 46 41	5048.5	28.31	257.06
100.00	12 10 49	1177.05	3.90	337.33	153.08	119.66	12 30 26	577.1	7.82	330.73
100.00	17 51 11	5330.40	29.77	242.44	160.87	92.81	19 20 2	4730.4	29.84	233.64
110.00	12 43 47	1073.71	.19	327.19	150.77	124.18	13 1 40	473.7	4.68	320.97
110.00	19 34 43	5006.50	34.14	217.89	160.92	88.23	20 58 10	4406.5	33.52	208.70

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .4237 TRA 2.9275 TC3-4.4823 BAU 1.1009   SGT 5756.7 SGR  581.0 SG3  196.0     ST  1400.2 SR   366.4 SS   513.9
RDE  .2556 RRA -.3021 RC3  .1961 FAU .02343   RRT -.6925 RRF -.6715 RTF  .9526     CRT  .0494 CRS -.2758 CST -.9729
FDE  .3412 FRA 1.3848 FC3-1.1054 BSP  18566   SGB 5785.9 R23  .0114 R13 -.9527     LSA 1487.6 MSA  381.6 SSA   17.9
BDE  .4949 BRA 2.9430 BC3 4.4866 FSP   -673   SG1 5770.8 SG2  418.1 THA 175.98     EL1 1400.3 EL2  365.9 ALF    .79
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 554.307

```
RL  150.68 LAL    .00 LOL 345.91 VL  26.087 GAL   4.96 AZL  89.99 HCA 270.69 SMA 122.77 ECC .24244 INC  .0000 V1  29.570
RP  108.63 LAP   -.01 LOP 256.60 VP  36.910 GAP  12.40 AZP  90.00 TAL 164.08 TAP  74.77 RCA  93.00 APO 152.53 V2  34.885
RC 164.900 GL     .06 GP   15.28 ZAL  52.96 ZAP 162.75 ETS  58.14 ZAE 125.56 ETE 169.13 ZAC 118.05 ETC 264.68 CLP-171.89
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PLANETOCENTRIC CONIC

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C3  20.092 VHL  4.482 DLA -21.43 RAL 294.76 RAD 6567.8 VEL 11.894 PTH   2.11 VHP  8.099 DPA  -8.61 RAP 265.70 ECC 1.3307
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 55 54	1475.60	2.55	358.54	156.76	118.21	11 20 29	875.6	6.31	351.87
90.00	16 40 58	5599.38	28.18	262.13	164.08	92.88	18 14 17	4999.4	28.28	253.47
100.00	12 2 30	1260.62	1.08	341.92	155.94	119.87	12 23 31	660.6	5.05	335.38
100.00	18 17 2	5289.59	29.87	239.41	164.15	91.22	19 45 12	4689.6	29.72	230.61
110.00	12 39 49	1143.69	-2.48	330.84	153.72	124.10	12 58 52	543.7	2.01	324.63
110.00	19 56 13	4979.28	34.07	215.77	164.07	86.98	21 19 12	4379.3	33.27	206.62

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .5860 TRA 3.2032 TC3-4.1087 BAU 1.1046   SGT 5785.8 SGR  569.1 SG3  188.9     ST  1521.3 SR   359.6 SS   537.3
RDE  .2623 RRA -.3155 RC3  .1717 FAU .02151   RRT -.6748 RRF -.6531 RTF  .9531     CRT  .1445 CRS -.3209 CST -.9829
FDE  .3855 FRA 1.4282 FC3 -.9269 BSP  18690   SGB 5813.7 R23  .0088 R13 -.9532     LSA 1611.9 MSA  366.2 SSA   17.1
BDE  .6420 BRA 3.2188 BC3 4.1123 FSP   -650   SG1 5798.6 SG2  419.0 THA 176.18     EL1 1522.3 EL2  355.6 ALF   2.07
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 559.759

```
RL  150.68 LAL    .00 LOL 345.91 VL  26.048 GAL   5.56 AZL  89.80 HCA 273.86 SMA 122.54 ECC .24829 INC  .1991 V1  29.570
RP  108.66 LAP   -.20 LOP 259.77 VP  36.873 GAP  12.85 AZP  89.99 TAL 162.59 TAP  76.46 RCA  92.11 APO 152.96 V2  34.874
RC 166.961 GL    1.10 GP   14.79 ZAL  50.82 ZAP 163.58 ETS  60.24 ZAE 125.51 ETE 169.47 ZAC 117.62 ETC 265.29 CLP-172.80
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PLANETOCENTRIC CONIC

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C3  22.089 VHL  4.700 DLA -20.03 RAL 296.83 RAD 6567.9 VEL 11.978 PTH   2.13 VHP  8.356 DPA  -9.28 RAP 267.87 ECC 1.3635
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 47 34	1559.03	-.14	3.20	159.68	118.32	11 13 33	959.0	3.65	356.56
90.00	17 5 48	5561.48	28.28	259.36	167.38	91.49	18 38 29	4961.5	28.19	250.70
100.00	11 56 4	1337.97	-1.55	346.17	158.89	119.86	12 18 22	738.0	2.44	339.64
100.00	18 39 59	5257.77	29.89	237.05	167.41	89.97	20 7 37	4657.8	29.57	228.26
110.00	12 36 48	1210.34	-5.02	334.33	156.73	123.86	12 56 58	610.3	-.54	328.11
110.00	20 15 45	4958.17	33.98	214.12	167.24	86.01	21 38 23	4358.2	33.05	205.01

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .7516 TRA 3.4926 TC3-3.7435 BAU 1.1064   SGT 5810.4 SGR  556.9 SG3  182.0     ST  1642.9 SR   353.1 SS   558.4
RDE  .2699 RRA -.3289 RC3  .1495 FAU .01966   RRT -.6574 RRF -.6353 RTF  .9538     CRT  .2189 CRS -.3573 CST -.9890
FDE  .4262 FRA 1.4709 FC3 -.7704 BSP  18805   SGB 5837.0 R23  .0067 R13 -.9539     LSA 1735.5 MSA  351.4 SSA   16.4
BDE  .7986 BRA 3.5080 BC3 3.7465 FSP   -627   SG1 5822.0 SG2  418.8 THA 176.38     EL1 1644.8 EL2  344.2 ALF   2.82
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 565.151

```
RL  150.68 LAL    .00 LOL 345.91 VL  26.009 GAL   6.20 AZL  89.61 HCA 277.03 SMA 122.31 ECC .25463 INC  .3892 V1  29.570
RP  108.69 LAP   -.39 LOP 262.94 VP  36.836 GAP  13.32 AZP  89.95 TAL 161.12 TAP  78.15 RCA  91.16 APO 153.45 V2  34.864
RC 169.007 GL    2.04 GP   14.34 ZAL  48.80 ZAP 164.36 ETS  62.60 ZAE 125.45 ETE 169.79 ZAC 117.21 ETC 265.90 CLP-173.71
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PLANETOCENTRIC CONIC

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C3  24.381 VHL  4.938 DLA -18.73 RAL 298.78 RAD 6568.0 VEL 12.073 PTH   2.16 VHP  8.631 DPA  -9.88 RAP 270.07 ECC 1.4013
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 41 1	1636.39	-2.63	7.51	162.67	118.20	11 8 18	1036.4	1.16	.89
90.00	17 27 53	5532.27	28.31	257.23	170.66	90.42	19 0 5	4932.3	28.07	248.57
100.00	11 50 59	1410.60	-4.00	350.16	161.92	119.65	12 14 30	810.6	-.02	343.63
100.00	19 0 36	5233.28	29.88	235.23	170.65	89.02	20 27 49	4633.3	29.42	226.45
110.00	12 34 31	1274.23	-7.43	337.70	159.80	123.46	12 55 45	674.2	-2.98	331.44
110.00	20 33 34	4942.43	33.90	212.90	170.42	85.29	21 55 56	4342.4	32.87	203.81

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .9203 TRA 3.7958 TC3-3.3918 BAU 1.1064   SGT 5830.2 SGR  544.5 SG3  175.4     ST  1759.9 SR   346.9 SS   577.3
RDE  .2786 RRA -.3420 RC3  .1295 FAU .01788   RRT -.6401 RRF -.6181 RTF  .9547     CRT  .2776 CRS -.3872 CST -.9928
FDE  .4638 FRA 1.5130 FC3 -.6349 BSP  18931   SGB 5855.5 R23  .0050 R13 -.9547     LSA 1853.8 MSA  337.7 SSA   15.8
BDE  .9615 BRA 3.8112 BC3 3.3943 FSP   -606   SG1 5840.6 SG2  417.5 THA 176.56     EL1 1762.6 EL2  332.7 ALF   3.25
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LAUNCH DATE SEP 9 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 570.474

RL 150.68 LAL .00 LOL 345.91 VL 25.970 GAL 6.87 AZL 89.42 HCA 280.20 SMA 122.08 ECC .26153 INC .5816 V1 29.570
RP 108.72 LAP -.57 LOP 266.11 VP 36.800 GAP 13.83 AZP 89.90 TAL 159.65 TAP 79.86 RCA 90.15 APO 154.01 V2 34.855
RC 171.039 GL 2.89 GP 13.93 ZAL 46.89 ZAP 165.08 ETS 65.23 ZAE 125.38 ETE 170.08 ZAC 116.82 ETC 266.51 CLP-174.61

PLANETOCENTRIC CONIC

C3 27.008 VHL 5.197 DLA -17.52 RAL 300.61 RAD 6568.1 VEL 12.181 PTH 2.19 VHP 8.927 DPA -10.40 RAP 272.28 ECC 1.4445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 35 47	1709.06	-4.96	11.59	165.74	117.91	11 4 16	1109.1	-1.19	4.94
90.00	17 47 44	5510.16	28.31	255.61	173.93	89.61	19 19 35	4910.2	27.96	246.96
100.00	11 46 56	1479.47	-6.31	353.97	165.00	119.28	12 11 36	879.5	-2.36	347.41
100.00	19 19 16	5214.98	29.85	233.87	173.90	88.30	20 46 11	4615.0	29.29	225.11
110.00	12 32 48	1335.77	-9.72	340.99	162.92	122.93	12 55 4	735.8	-5.32	334.67
110.00	20 49 54	4931.44	33.83	212.05	173.61	84.79	22 12 5	4331.4	32.74	202.98

DIFFERENTIAL CORRECTIONS
TOE 1.0927 TRA 4.1140 TC3-3.0554 BAU 1.1039
RDE .2882 RRA -.3546 RC3 .1113 FAU .01617
FDE .4985 FRA 1.5550 FC3 -.5183 BSP 19059
BOE 1.1300 BRA 4.1293 BC3 3.0574 FSP -586

MID-COURSE EXECUTION ACCURACY
SGT 5844.5 SGR 531.4 SG3 169.0
RRT -.6228 RRF -.6011 RTF .9557
SGB 5868.6 R23 .0036 R13 -.9558
SG1 5853.9 SG2 415.1 THA 176.74

ORBIT DETERMINATION ACCURACY
ST 1869.8 SR 340.8 SS 594.1
CRT .3249 CRS -.4125 CST -.9952
LSA 1964.5 MSA 325.2 SSA 15.2
EL1 1873.2 EL2 321.7 ALF 3.49

LAUNCH DATE SEP 9 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 575.719

RL 150.68 LAL .00 LOL 345.91 VL 25.932 GAL 7.58 AZL 89.22 HCA 283.37 SMA 121.86 ECC .26904 INC .7778 V1 29.570
RP 108.75 LAP -.76 LOP 269.28 VP 36.764 GAP 14.36 AZP 89.82 TAL 158.20 TAP 81.57 RCA 89.08 APO 154.64 V2 34.846
RC 173.056 GL 3.65 GP 13.56 ZAL 45.08 ZAP 165.73 ETS 68.16 ZAE 125.30 ETE 170.35 ZAC 116.43 ETC 267.12 CLP-175.51

PLANETOCENTRIC CONIC

C3 30.020 VHL 5.479 DLA -16.39 RAL 302.33 RAD 6568.2 VEL 12.304 PTH 2.22 VHP 9.246 DPA -10.85 RAP 274.52 ECC 1.4941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 31 33	1777.96	-7.14	15.47	168.85	117.47	11 1 11	1178.0	-3.41	8.79
90.00	18 5 43	5494.05	28.30	254.43	177.19	89.02	19 37 17	4894.0	27.87	245.79
100.00	11 43 41	1545.21	-8.48	357.64	168.13	118.77	12 9 26	945.2	-4.58	351.03
100.00	19 36 16	5202.03	29.82	232.90	177.14	87.80	21 2 58	4602.0	29.19	224.16
110.00	12 31 32	1395.28	-11.91	344.22	166.07	122.28	12 54 48	795.3	-7.56	337.82
110.00	21 4 54	4924.73	33.79	211.53	176.82	84.48	22 26 58	4324.7	32.66	202.48

DIFFERENTIAL CORRECTIONS
TOE 1.2687 TRA 4.4482 TC3-2.7374 BAU 1.0993
RDE .2988 RRA -.3666 RC3 .0950 FAU .01454
FDE .5307 FRA 1.5971 FC3 -.4194 BSP 19210
BOE 1.3035 BRA 4.4633 BC3 2.7391 FSP -568

MID-COURSE EXECUTION ACCURACY
SGT 5853.7 SGR 517.8 SG3 162.8
RRT -.6053 RRF -.5843 RTF .9571
SGB 5876.6 R23 .0026 R13 -.9571
SG1 5862.2 SG2 411.6 THA 176.92

ORBIT DETERMINATION ACCURACY
ST 1970.8 SR 334.7 SS 608.8
CRT .3638 CRS -.4342 CST -.9967
LSA 2066.0 MSA 313.6 SSA 14.6
EL1 1974.7 EL2 311.2 ALF 3.63

LAUNCH DATE SEP 9 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 580.874

RL 150.68 LAL .00 LOL 345.91 VL 25.894 GAL 8.35 AZL 89.02 HCA 286.54 SMA 121.64 ECC .27723 INC .9790 V1 29.570
RP 108.78 LAP -.94 LOP 272.45 VP 36.730 GAP 14.93 AZP 89.72 TAL 156.77 TAP 83.31 RCA 87.92 APO 155.36 V2 34.837
RC 175.059 GL 4.34 GP 13.21 ZAL 43.39 ZAP 166.32 ETS 71.39 ZAE 125.21 ETE 170.59 ZAC 116.06 ETC 267.73 CLP-176.41

PLANETOCENTRIC CONIC

C3 33.477 VHL 5.786 DLA -15.33 RAL 303.95 RAD 6568.3 VEL 12.444 PTH 2.25 VHP 9.590 DPA -11.23 RAP 276.76 ECC 1.5510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 28 5	1843.72	-9.19	19.22	172.00	116.90	10 58 49	1243.7	-5.51	12.48
90.00	18 22 4	5483.12	28.29	253.63	180.44	88.62	19 53 27	4883.1	27.79	245.00
100.00	11 41 3	1608.24	-10.53	1.21	171.30	118.14	12 7 51	1008.2	-6.68	354.53
100.00	19 51 47	5193.78	29.80	232.29	180.38	87.47	21 18 21	4593.8	29.13	223.55
110.00	12 30 38	1452.98	-13.98	347.40	169.27	121.51	12 54 51	853.0	-9.71	340.90
110.00	21 18 42	4921.86	33.77	211.31	180.05	84.35	22 40 43	4321.9	32.62	202.26

DIFFERENTIAL CORRECTIONS
TOE 1.4498 TRA 4.7999 TC3-2.4383 BAU 1.0919
RDE .3103 RRA -.3777 RC3 .0803 FAU .01298
FDE .5611 FRA 1.6400 FC3 -.3357 BSP 19367
BOE 1.4827 BRA 4.8147 BC3 2.4396 FSP -551

MID-COURSE EXECUTION ACCURACY
SGT 5857.8 SGR 503.4 SG3 156.8
RRT -.5875 RRF -.5673 RTF .9586
SGB 5879.3 R23 .0018 R13 -.9586
SG1 5865.3 SG2 406.9 THA 177.10

ORBIT DETERMINATION ACCURACY
ST 2062.7 SR 328.6 SS 622.3
CRT .3967 CRS -.4535 CST -.9977
LSA 2158.2 MSA 302.7 SSA 14.1
EL1 2066.9 EL2 301.0 ALF 3.69

LAUNCH DATE SEP 9 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 585.925

RL 150.68 LAL .00 LOL 345.91 VL 25.857 GAL 9.16 AZL 88.81 HCA 289.70 SMA 121.43 ECC .28619 INC 1.1869 V1 29.570
RP 108.80 LAP -1.12 LOP 275.61 VP 36.696 GAP 15.55 AZP 89.60 TAL 155.36 TAP 85.06 RCA 86.68 APO 156.18 V2 34.829
RC 177.047 GL 4.96 GP 12.90 ZAL 41.81 ZAP 166.83 ETS 74.95 ZAE 125.11 ETE 170.83 ZAC 115.70 ETC 268.34 CLP-177.32

PLANETOCENTRIC CONIC

C3 37.452 VHL 6.120 DLA -14.36 RAL 305.46 RAD 6568.5 VEL 12.602 PTH 2.29 VHP 9.962 DPA -11.55 RAP 279.00 ECC 1.6164

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 25 15	1906.77	-11.11	22.86	175.19	116.22	10 57 1	1306.8	-7.50	16.04
90.00	18 37 0	5476.73	28.27	253.17	183.69	88.38	20 8 16	4876.7	27.75	244.54
100.00	11 38 55	1669.04	-12.45	4.69	174.50	117.40	12 6 44	1069.0	-8.69	357.92
100.00	20 6 0	5189.69	29.78	231.99	183.63	87.31	21 32 30	4589.7	29.09	223.25
110.00	12 30 1	1509.02	-15.95	350.55	172.50	120.64	12 55 10	909.0	-11.77	343.94
110.00	21 31 24	4922.48	33.77	211.36	183.29	84.38	22 53 26	4322.5	32.63	202.31

DIFFERENTIAL CORRECTIONS
TOE 1.6366 TRA 5.1712 TC3-2.1580 BAU 1.0810
RDE .3226 RRA -.3878 RC3 .0670 FAU .01148
FDE .5902 FRA 1.6841 FC3 -.2653 BSP 19539
BOE 1.6681 BRA 5.1857 BC3 2.1590 FSP -535

MID-COURSE EXECUTION ACCURACY
SGT 5856.6 SGR 488.3 SG3 151.1
RRT -.5689 RRF -.5499 RTF .9603
SGB 5876.9 R23 .0012 R13 -.9603
SG1 5863.2 SG2 401.1 THA 177.27

ORBIT DETERMINATION ACCURACY
ST 2145.2 SR 322.3 SS 634.7
CRT .4253 CRS -.4712 CST -.9984
LSA 2241.2 MSA 292.2 SSA 13.6
EL1 2149.6 EL2 291.1 ALF 3.72

LAUNCH DATE SEP 9 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 590.854

RL	150.68	LAL	.00	LOL	345.91	VL	25.821	GAL	10.03	AZL	88.60	HCA	292.86	SMA	121.22	ECC	.29600	INC	1.4031
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.663	GAP	16.22	AZP	89.45	TAL	153.99	TAP	86.85	RCA	85.34	APO	157.10
RC	179.021	GL	5.51	GP	12.61	ZAL	40.32	ZAP	167.27	ETS	78.84	ZAE	124.99	ETE	171.05	ZAC	115.33	ETC	268.94

V1	29.570	V2	34.822	CLP	-178.24														

PLANETOCENTRIC CONIC

C3	42.031	VHL	6.483	DLA	-13.45	RAL	306.88	RAD	6568.6	VEL	12.783	PTH	2.33	VHP	10.366	DPA	-11.81	RAP	281.24
ECC	1.6917																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 54	1967.40	-12.91	26.40	178.40	115.42	10 55 41	1367.4	-9.38	19.50
90.00	18 50 38	5474.37	28.27	252.99	186.93	88.30	20 21 53	4874.4	27.73	244.37
100.00	11 37 12	1727.68	-14.27	8.10	177.72	116.55	12 6 0	1127.7	-10.59	1.24
100.00	20 19 1	5189.31	29.78	231.96	186.86	87.30	21 45 31	4589.3	29.09	223.23
110.00	12 29 37	1563.52	-17.82	353.67	175.75	119.67	12 55 40	963.5	-13.74	346.94
110.00	21 43 6	4926.25	33.80	211.65	186.53	84.55	23 5 12	4326.2	32.68	202.59

DIFFERENTIAL CORRECTIONS

TDE	1.8317	TRA	5.5656	TC3	-1.8954	BAU	1.0655
RDE	.3357	RRA	-.3966	RC3	.0551	FAU	.00999
FDE	.6191	FRA	1.7306	FC3	-.2058	BSP	19692
BDE	1.8622	BRA	5.5797	BC3	1.8962	FSP	-519

MID-COURSE EXECUTION ACCURACY

SGT	5851.4	SGR	472.2	SG3	145.7		
RRT	-.5494	RRF	-.5318	RTF	.9623		
SG8	5870.4	R23	.0009	R13	-.9623		
SG1	5857.2	SG2	394.2	THA	177.45		

ORBIT DETERMINATION ACCURACY

ST	2219.9	SR	315.8	SS	647.1
CRT	.4509	CRS	-.4879	CST	-.9989
LSA	2316.6	MSA	282.0	SSA	13.1
EL1	2224.6	EL2	281.3	ALF	3.73

LAUNCH DATE SEP 9 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 595.640

RL	150.68	LAL	.00	LOL	345.91	VL	25.785	GAL	10.97	AZL	88.37	HCA	296.02	SMA	121.01	ECC	.30678	INC	1.6295
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.631	GAP	16.94	AZP	89.28	TAL	152.65	TAP	88.67	RCA	83.89	APO	158.14
RC	180.980	GL	6.01	GP	12.34	ZAL	38.94	ZAP	167.63	ETS	83.07	ZAE	124.84	ETE	171.26	ZAC	114.98	ETC	269.54

V1	29.570	V2	34.815	CLP	-179.18														

PLANETOCENTRIC CONIC

C3	47.323	VHL	6.879	DLA	-12.62	RAL	308.20	RAD	6568.8	VEL	12.988	PTH	2.37	VHP	10.806	DPA	-12.00	RAP	283.48
ECC	1.7788																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 20 58	2025.83	-14.59	29.87	181.63	114.54	10 54 44	1425.8	-11.15	22.88
90.00	19 3 7	5475.57	28.27	253.08	190.15	88.34	20 34 22	4875.6	27.74	244.46
100.00	11 35 48	1784.37	-15.96	11.45	180.96	115.61	12 5 33	1184.4	-12.39	4.49
100.00	20 30 57	5192.27	29.79	232.18	190.08	87.42	21 57 30	4592.3	29.11	223.44
110.00	12 29 23	1616.54	-19.58	356.78	179.02	118.60	12 56 20	1016.5	-15.61	349.91
110.00	21 53 52	4932.86	33.84	212.16	189.76	84.85	23 16 4	4332.9	32.76	203.09

DIFFERENTIAL CORRECTIONS

TDE	2.0358	TRA	5.9853	TC3	-1.6502	BAU	1.0444
RDE	.3497	RRA	-.4038	RC3	.0445	FAU	.00852
FDE	.6479	FRA	1.7799	FC3	-.1559	BSP	19809
BDE	2.0656	BRA	5.9989	BC3	1.6508	FSP	-503

MID-COURSE EXECUTION ACCURACY

SGT	5841.8	SGR	455.3	SG3	140.5		
RRT	-.5285	RRF	-.5125	RTF	.9644		
SG8	5859.5	R23	.0007	R13	-.9644		
SG1	5846.8	SG2	386.2	THA	177.63		

ORBIT DETERMINATION ACCURACY

ST	2286.5	SR	309.0	SS	659.5
CRT	.4744	CRS	-.5041	CST	-.9992
LSA	2384.2	MSA	272.0	SSA	12.6
EL1	2291.3	EL2	271.5	ALF	3.72

LAUNCH DATE SEP 9 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 600.257

RL	150.68	LAL	.00	LOL	345.91	VL	25.749	GAL	11.97	AZL	88.13	HCA	299.18	SMA	120.81	ECC	.31865	INC	1.8683
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.601	GAP	17.72	AZP	89.09	TAL	151.35	TAP	90.53	RCA	82.31	APO	159.31
RC	182.925	GL	6.45	GP	12.09	ZAL	37.66	ZAP	167.91	ETS	87.61	ZAE	124.68	ETE	171.46	ZAC	114.62	ETC	270.13

V1	29.570	V2	34.809	CLP	179.87														

PLANETOCENTRIC CONIC

C3	53.462	VHL	7.312	DLA	-11.85	RAL	309.43	RAD	6568.9	VEL	13.222	PTH	2.42	VHP	11.288	DPA	-12.15	RAP	285.70
ECC	1.8798																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 19 21	2082.18	-16.15	33.27	184.86	113.58	10 54 3	1482.2	-12.83	26.17
90.00	19 14 30	5479.98	28.28	253.40	193.35	88.50	20 45 50	4880.0	27.77	244.78
100.00	11 34 40	1839.18	-17.55	14.75	184.21	114.60	12 5 19	1239.2	-14.08	7.67
100.00	20 41 52	5198.21	29.81	232.62	193.29	87.65	22 8 31	4598.2	29.16	223.88
110.00	12 29 18	1668.10	-21.23	359.87	182.30	117.45	12 57 6	1068.1	-17.38	352.85
110.00	22 3 44	4942.06	33.89	212.87	192.99	85.27	23 26 6	4342.1	32.87	203.79

DIFFERENTIAL CORRECTIONS

TDE	2.2523	TRA	6.4349	TC3	-1.4208	BAU	1.0158
RDE	.3645	RRA	-.4091	RC3	.0350	FAU	.00702
FDE	.6777	FRA	1.8332	FC3	-.1137	BSP	19870
BDE	2.2816	BRA	6.4478	BC3	1.4212	FSP	-486

MID-COURSE EXECUTION ACCURACY

SGT	5829.0	SGR	437.6	SG3	135.6		
RRT	-.5057	RRF	-.4915	RTF	.9667		
SG8	5845.4	R23	.0007	R13	-.9667		
SG1	5833.3	SG2	377.2	THA	177.82		

ORBIT DETERMINATION ACCURACY

ST	2346.9	SR	302.0	SS	672.9
CRT	.4967	CRS	-.5202	CST	-.9994
LSA	2446.1	MSA	261.9	SSA	12.1
EL1	2351.8	EL2	261.6	ALF	3.70

LAUNCH DATE SEP 9 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 604.672

RL	150.68	LAL	.00	LOL	345.91	VL	25.715	GAL	13.07	AZL	87.88	HCA	302.34	SMA	120.62	ECC	.33176	INC	2.1222
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.571	GAP	18.58	AZP	88.86	TAL	150.11	TAP	92.45	RCA	80.60	APO	160.63
RC	184.854	GL	6.84	GP	11.86	ZAL	36.49	ZAP	168.08	ETS	92.43	ZAE	124.48	ETE	171.65	ZAC	114.27	ETC	270.71

V1	29.570	V2	34.804	CLP	178.89		

PLANETOCENTRIC CONIC

C3	60.611	VHL	7.785	DLA	-11.15	RAL	310.56	RAD	6569.1	VEL	13.490	PTH	2.47	VHP	11.817	DPA	-12.23	RAP	287.90
ECC	1.9975																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 18 1	2136.50	-17.60	36.60	188.08	112.55	10 53 37	1536.5	-14.39	29.39
90.00	19 24 53	5487.25	28.29	253.94	196.51	88.77	20 56 20	4887.2	27.82	245.30
100.00	11 33 45	1892.15	-19.02	18.00	187.45	113.51	12 5 17	1292.1	-15.68	10.80
100.00	20 51 50	5206.84	29.83	233.26	196.46	87.98	22 18 36	4606.8	29.23	224.51
110.00	12 29 19	1718.17	-22.76	2.94	185.59	116.22	12 57 57	1118.2	-19.06	355.77
110.00	22 12 46	4953.58	33.96	213.77	196.19	85.80	23 35 19	4353.6	33.00	204.66

DIFFERENTIAL CORRECTIONS

TDE	2.4825	TRA	6.9183	TC3	-1.2070	BAU	.9783
RDE	.3802	RRA	-.4120	RC3	.0266	FAU	.00548
FDE	.7090	FRA	1.8915	FC3	-.0783	BSP	19863
BDE	2.5114	BRA	6.9306	BC3	1.2073	FSP	-468

MID-COURSE EXECUTION ACCURACY

SGT	5813.8	SGR	419.0	SG3	131.0		
RRT	-.4805	RRF	-.4683	RTF	.9691		
SG8	5828.9	R23	.0008	R13	-.9692		
SG1	5817.3	SG2	367.2	THA	178.01		

ORBIT DETERMINATION ACCURACY

ST	2401.0	SR	294.8	SS	687.6
CRT	.5182	CRS	-.5367	CST	-.9996
LSA	2502.2	MSA	251.8	SSA	11.7
EL1	2405.9	EL2	251.6	ALF	3.68

LAUNCH DATE SEP 9 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 608.843

RL	150.68	LAL	.00	LOL	345.91	VL	25.681	GAL	14.25	AZL	87.61	HCA	305.50	SMA	120.43	ECC	.34629	INC	2.3945
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.543	GAP	19.53	AZP	88.61	TAL	148.93	TAP	94.43	RCA	78.72	APO	162.13
RC	186.768	GL	7.19	GP	11.65	ZAL	35.41	ZAP	168.16	ETS	97.51	ZAE	124.25	ETE	171.84	ZAC	113.91	ETC	271.27

V1	29.570	V2	34.799	CLP	177.88														

PLANETOCENTRIC CONIC

C3	68.978	VHL	8.305	DLA	-10.51	RAL	311.60	RAD	6569.3	VEL	13.796	PTH	2.52	VHP	12.401	DPA	-12.27	RAP	290.07

ECC	2.1352	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	10 16 53	2188.80	-18.93	39.86	191.27	111.46	10 53 22	1588.8	-15.85	32.53							
		90.00	19 34 17	5497.08	28.30	254.65	199.63	89.13	21 5 54	4897.1	27.88	246.01							
		100.00	11 33 0	1943.24	-20.37	21.19	190.66	112.36	12 5 23	1343.2	-17.16	13.86							
		100.00	21 0 51	5217.87	29.85	234.08	199.59	88.41	22 27 49	4617.9	29.31	225.32							
		110.00	12 29 23	1766.70	-24.19	5.99	188.85	114.92	12 58 50	1166.7	-20.63	358.65							
		110.00	22 20 58	4967.18	34.02	214.82	199.37	86.42	23 43 45	4367.2	33.15	205.69							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.7287	TRA	7.4402	TC3	-1.0087	BAU	.9304	SGT	5796.8	SGR	399.6	SG3	126.7	ST	2449.3	SR	287.3	SS	703.9
RDE	.3971	RRA	-.4121	RC3	.0193	FAU	.00388	RRT	-.4522	RRF	-.4419	RTF	.9717	CRT	.5396	CRS	-.5540	CST	-.9997
FDE	.7423	FRA	1.9553	FC3	-.0487	BSP	19752	SGB	5810.5	R23	.0009	R13	-.9717	LSA	2553.1	MSA	241.5	SSA	11.2
BDE	2.7575	BRA	7.4516	BC3	1.0089	FSP	-448	SG1	5799.6	SG2	356.2	THA	178.21	EL1	2454.2	EL2	241.4	ALF	3.66

LAUNCH DATE SEP 9 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 612.720

RL	150.68	LAL	.00	LOL	345.91	VL	25.648	GAL	15.55	AZL	87.31	HCA	308.65	SMA	120.24	ECC	.36243	INC	2.6889
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.516	GAP	20.58	AZP	88.32	TAL	147.84	TAP	96.49	RCA	76.66	APO	163.82
RC	188.667	GL	7.50	GP	11.46	ZAL	34.44	ZAP	168.12	ETS	102.77	ZAE	123.98	ETE	172.03	ZAC	113.56	ETC	271.82

V1	29.570	V2	34.795	CLP	176.83														

PLANETOCENTRIC CONIC

C3	78.824	VHL	8.878	DLA	-9.93	RAL	312.54	RAD	6569.5	VEL	14.148	PTH	2.58	VHP	13.048	DPA	-12.27	RAP	292.19

ECC	2.2972	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	10 15 57	2239.01	-20.15	43.03	194.43	110.32	10 53 16	1639.0	-17.21	35.60							
		90.00	19 42 44	5509.21	28.31	255.54	202.68	89.57	21 14 33	4909.2	27.96	246.89							
		100.00	11 32 23	1992.40	-21.61	24.31	193.83	111.17	12 5 35	1392.4	-18.54	16.86							
		100.00	21 8 59	5231.06	29.88	235.06	202.66	88.93	22 36 10	4631.1	29.41	226.29							
		110.00	12 29 29	1813.58	-25.50	9.00	192.09	113.57	12 59 43	1213.6	-22.09	1.50							
		110.00	22 28 22	4982.64	34.08	216.03	202.49	87.13	23 51 24	4382.6	33.30	206.87							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.9945	TRA	8.0056	TC3	-.8247	BAU	.8692	SGT	5778.3	SGR	379.5	SG3	122.7	ST	2492.5	SR	279.8	SS	722.6
RDE	.4153	RRA	-.4086	RC3	.0132	FAU	.00218	RRT	-.4197	RRF	-.4115	RTF	.9745	CRT	.5615	CRS	-.5722	CST	-.9998
FDE	.7782	FRA	2.0262	FC3	-.0239	BSP	19526	SGB	5790.7	R23	.0012	R13	-.9745	LSA	2599.9	MSA	231.1	SSA	10.7
BDE	3.0232	BRA	8.0160	BC3	.8248	FSP	-427	SG1	5780.5	SG2	344.3	THA	178.42	EL1	2497.4	EL2	231.1	ALF	3.64

LAUNCH DATE SEP 9 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 616.234

RL	150.68	LAL	.00	LOL	345.91	VL	25.616	GAL	16.98	AZL	86.99	HCA	311.80	SMA	120.07	ECC	.38043	INC	3.0104
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.490	GAP	21.75	AZP	87.99	TAL	146.85	TAP	98.65	RCA	74.39	APO	165.74
RC	190.549	GL	7.77	GP	11.28	ZAL	33.58	ZAP	167.95	ETS	108.15	ZAE	123.65	ETE	172.23	ZAC	113.21	ETC	272.36

V1	29.570	V2	34.791	CLP	175.73														

PLANETOCENTRIC CONIC

C3	90.482	VHL	9.512	DLA	-9.41	RAL	313.37	RAD	6569.8	VEL	14.554	PTH	2.64	VHP	13.769	DPA	-12.23	RAP	294.27

ECC	2.4891	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	10 15 8	2287.00	-21.26	46.12	197.51	109.16	10 53 15	1687.0	-18.45	38.57							
		90.00	19 50 14	5523.41	28.32	256.58	205.66	90.10	21 22 18	4923.4	28.03	247.93							
		100.00	11 31 51	2039.47	-22.74	27.35	196.94	109.94	12 5 51	1439.5	-19.82	19.78							
		100.00	21 16 12	5246.18	29.89	236.18	205.65	89.52	22 43 38	4646.2	29.50	227.40							
		110.00	12 29 36	1858.66	-26.70	11.96	195.26	112.19	13 0 35	1258.7	-23.45	4.30							
		110.00	22 34 56	4999.75	34.13	217.36	205.54	87.92	23 58 16	4399.8	33.46	208.18							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.2815	TRA	8.6200	TC3	-.6553	BAU	.7928	SGT	5758.5	SGR	358.9	SG3	118.9	ST	2530.1	SR	272.2	SS	743.9
RDE	.4352	RRA	-.4007	RC3	.0081	FAU	.00035	RRT	-.3816	RRF	-.3755	RTF	.9772	CRT	.5840	CRS	-.5919	CST	-.9998
FDE	.8173	FRA	2.1051	FC3	-.0033	BSP	19174	SGB	5769.7	R23	.0015	R13	-.9772	LSA	2642.0	MSA	220.5	SSA	10.3
BDE	3.3102	BRA	8.6293	BC3	.6554	FSP	-405	SG1	5760.1	SG2	331.6	THA	178.63	EL1	2535.1	EL2	220.5	ALF	3.62

LAUNCH DATE SEP 9 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 619.301

RL	150.68	LAL	.00	LOL	345.91	VL	25.586	GAL	18.55	AZL	86.63	HCA	314.96	SMA	119.90	ECC	.40056	INC	3.3652
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.467	GAP	23.06	AZP	87.62	TAL	145.97	TAP	100.93	RCA	71.87	APO	167.92
RC	192.414	GL	8.01	GP	11.11	ZAL	32.83	ZAP	167.65	ETS	113.58	ZAE	123.27	ETE	172.42	ZAC	112.85	ETC	272.87

V1	29.570	V2	34.789	CLP	174.57														

PLANETOCENTRIC CONIC

C3	104.382	VHL	10.217	DLA	-8.96	RAL	314.10	RAD	6570.0	VEL	15.024	PTH	2.71	VHP	14.576	DPA	-12.15	RAP	296.29

ECC	2.7179	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	10 14 25	2332.61	-22.25	49.10	200.50	107.98	10 53 18	1732.6	-19.58	41.44							
		90.00	19 56 46	5539.47	28.31	257.76	208.54	90.68	21 29 6	4939.5	28.10	249.10							
		100.00	11 31 23	2084.29	-23.75	30.30	199.96	108.71	12 6 8	1484.3	-20.97	22.60							
		100.00	21 22 29	5263.03	29.89	237.44	208.55	90.18	22 50 12	4663.0	29.60	228.65							
		110.00	12 29 41	1901.75	-27.77	14.85	198.36	110.78	13 1 23	1301.7	-24.69	7.03							
		110.00	22 40 41	5018.33	34.16	218.81	208.51	88.78	24 4 19	4418.3	33.62	209.61							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.5924	TRA	9.2897	TC3	-.5000	BAU	.6978	SGT	5737.4	SGR	337.9	SG3	115.4	ST	2561.9	SR	264.8	SS	768.3
RDE	.4572	RRA	-.3874	RC3	.0041	FAU	-.00165	RRT	-.3362	RRF	-.3323	RTF	.9801	CRT	.6077	CRS	-.6130	CST	-.9999
FDE	.8600	FRA	2.1934	FC3	.0137	BSP	18688	SGB	5747.3	R23	.0018	R13	-.9801	LSA	2679.4	MSA	209.9	SSA	9.8
BDE	3.6214	BRA	9.2978	BC3	.5000	FSP	-381	SG1	5738.5	SG2	318.2	THA	178.86	EL1	2566.9	EL2	209.9	ALF	3.62